PROGRAM PRESENTATION FOR THE COMMITTEE ON ACCREDITATION OF THE AMERICAN LIBRARY ASSOCIATION

Master of Science in Library Science
Master of Science in Information Science
University of North Carolina at Chapel Hill
February 2022

FINAL

12/28/2021

Manning Hall

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DECLARATION TO ACCOMPANY FINAL SELF-STUDY

The chief academic officer of the institution and the chief academic officer of the master's program(s) in library and information studies declare that:

1. To the best of our knowledge, the institution and the academic unit offering the ALA-accredited programs: **Master of Science in Library Science and the Master of Science in Information Science**, do not discriminate in recruitment, admissions, or financial aid of students or in the appointment, promotion, or pay of faculty and support staff because of age, ancestry, color, creed, disability, gender, individual lifestyle, marital status, national origin, race, religion, sexual orientation, or veteran status.

2. We acknowledge and agree that a review of the ALA-accredited programs offered by the **University of North Carolina at Chapel Hill** are scheduled for a visit in spring 2022; and we are familiar with and hereby agree to proceed according to the procedures established by the Committee on Accreditation and described in the document *Accreditation Process, Policies and Procedures (AP3)* <https://www.ala.org/accreditedprograms/standards/AP3>.

3. To the best of our knowledge, the information contained in the accompanying Self-Study is accurate and reliable with respect to the program for which accreditation is being sought and with respect to the institution that offers that program.

Chief academic officer of the institution:

Print name: Robert Blouin Title: EVCP

Signed: Robert A. Blouin Dated: 10-13-2021

Chief academic officer of the program:

Print name: Gary Marchionini Title: Dean

Signed: Dated: 10/12/2021

PROGRAM PRESENTATION FOR THE COMMITTEE ON ACCREDITATION OF THE AMERICAN LIBRARY ASSOCIATION

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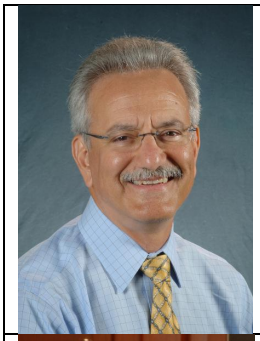
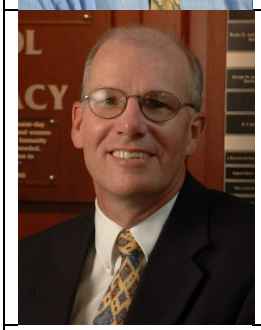
Introduction

	**Unit and Chief Administrative Officer** School of Information and Library Science Gary Marchionini Cary C. Boshamer Distinguished Professor and Dean
	**Parent Institution, Chief Academic Officer** Robert A. Blouin (2017-present) Executive Vice-Chancellor and Provost
	**Parent Institution, Chief Executive Officer** Kevin M. Guskiewicz, Chancellor (2019-present)

Accrediting Agency for the Parent Institution

Commission on Colleges, Southern Association of Colleges and Schools (SACS).

The University of North Carolina at Chapel Hill accreditation was reaffirmed by SACS in 2017 for a period of ten years. The list of accredited SACS institutions is available online.

Names and Brief Descriptions of Programs for which Reaccreditation is Sought

A. Master of Science in Library Science (MSLS)

The Master of Science in Library Science Program is a 48-unit, two-year program. The MSLS curriculum (and the new curriculum) prepares students for prestigious careers in library and information science. The program guides students toward expertise in collecting, organizing, storing, and retrieving the world's recorded knowledge, with an emphasis on developing superior, evidence-based practices for the dynamic and changing arena of information management.

By combining theoretical and service learning approaches to coursework, practical experience in the field, and experience with research design, implementation, and evaluation, MSLS students gain an evidence-based perspective on evolving library services and develop competencies in the fundamental aspects of contemporary library science, including:

- Human information interactions (information seeking behaviors, user needs, information life cycles)
- Information service provision (such as reference and reader's advisory)
- Information organization and preservation
- Management of collections, people, and institutions
- Impact of technology on information life cycles

MSLS graduates typically enter careers focused on the provision of library and information services, such as:

- Library administration
- Community engagement
- Archives and digital curation
- Records management

- Cataloging
- Public and reference services
- Acquisitions and collection management
- Librarianship with special populations (youth and their caregivers, people with different abilities, diverse audiences)
- Special collections

MSLS Graduates are ready to practice within various settings:

- Public libraries
- Academic (college or university) libraries
- Special (corporate, non-profit, or governmental) libraries
- Information centers
- Music libraries
- Health science libraries
- School libraries
- Law libraries
- Art libraries
- Digital libraries
- Digital archives
- Museums

B. Master of Science in Information Science (MSIS)

The Master of Science in Information Science Program is a 48-unit, two-year program. The MSIS curriculum (and the new curriculum) prepares students to become leaders in the design, implementation, evaluation, and administration of information systems. The program guides students toward expertise in analyzing, organizing, representing, and retrieving information, with an emphasis on developing information systems and processes to meet the information needs of the future.

By combining theoretical and service learning approaches to coursework, practical experience in the field, and experience with research design, implementation, and evaluation, MSIS students gain an evidence-based perspective on evolving information services and develop competencies in the fundamental aspects of contemporary information science, including:

- Human information interactions (information seeking behaviors, user needs, information life cycles)
- Information system design and evaluation
- Information organization and retrieval
- Management of digital collections, people, and institutions

- Impact of technology on information life cycles

MSIS graduates typically enter careers focused on the design, implementation, evaluation, and administration of information systems, such as:

- Database design and management
- Social media
- Digital libraries
- Multimedia
- User experience design
- The Internet
- Instructional technologies
- Digital curation
- Emerging technologies

MSIS graduates are ready to practice in many positions, including:

- IT or policy analyst
- Data scientist
- Web services librarian
- Web developer
- Systems analyst
- Usability analyst
- Applications analyst
- Database administrator

Brief History of the School

The School of Library Science opened at Chapel Hill in the fall of 1931, with a class of 29 full-time and 8 part-time students and five faculty members, including Dr. Louis Round Wilson, its first Dean. The Carnegie Corporation offered a grant of $100,000 to enable the school to operate for three years and make permanent its conditional accreditation from the American Library Association. The MSLS program has maintained its ALA accreditation since 1934, and the MSIS program has maintained it since it was first accredited in 2000. During its 90 years of existence, the School has:

- Benefited from the leadership of thirteen deans or directors
- Grown our original five faculty to 30 full-time faculty, 69 adjunct faculty, and an ongoing series of visiting, international scholars
- Increased our course offerings from the original 12 courses to a vibrant and diverse curriculum of 143 undergraduate, master's, and doctoral level courses.
- Expanded from several rooms on the top floor of Wilson Library with "essential shelving, desks, and chairs for individual students, office equipment, classroom and laboratory

material, lantern for use in instruction, and other equipment essential to carrying on the work of the school were installed"[1] to occupy the entirety of Manning Hall

- Built a library collection from Dr. Wilson's personal collection, supplemented by a few children's literature and cataloging titles, to its current status of over 112,000 volumes.
- Grown our student body from the foundational cohort of 37 undergraduate students to an annual enrollment of about 215 master's students (MSLS and MSIS), 100 undergraduates, and 30 PhD students. The School has graduated over 6,500 trained librarians and information professionals over that time.

The School in Context

The University of North Carolina at Chapel Hill is one of 16 constituent institutions of the University of North Carolina (UNC) system. The university at Chapel Hill was chartered by the North Carolina General Assembly in 1779 and was the first public university (1795) in the United States to open its doors to students. This commitment to public education is still evident today, with the Carolina Covenant, the UNC-Chapel Hill's promise to provide low-income, qualified students with an affordable education. In 1931, additional state supported institutions of higher education were included in the redefined University of North Carolina. Other campuses became a part of the UNC system in 1969 and again in 1971 creating the current 16 campus system of public higher education in North Carolina.

The UNC Board of Governors is the policy-making body for the UNC system. The Board elects a chair (Randal C. Ramsey, appointment runs July 1, 2020-2022), who administers the university system. Each of the 16 constituent institutions of the university system is headed by a chancellor, chosen by the university president and ratified by the Board of Governors. Each constituent institution of the system has its own Board of Trustees, in part appointed by the governor and in part elected by the Board of Governors. The University of North Carolina at Chapel Hill's College of Arts and Sciences and 13 professional schools provide instruction in more than 100 fields including bachelor's, master's and doctoral degrees as well as professional degrees in a variety of fields.

UNC-Chapel Hill is part of the "Triangle," consisting of the Town of Chapel Hill, the City of Durham, and the North Carolina Capitol, Raleigh. The area is home of the Research Triangle Park, a collection of more than 170 global research and development companies founded in 1959, as well as hosting vibrant startup communities in Chapel Hill, Durham, and Raleigh. Duke University is ten miles to the north of UNC-Chapel Hill, North Carolina Central is fourteen miles northeast of campus, North Carolina State University is twenty-five miles to the southeast, and the Environmental Protection Agency (EPA) Library is fourteen miles east. All are strong collaborative partners with the University and the School of Information and Library Science (SILS). Amazon is planning to build a new distribution center in Smithfield, NC by 2022, Apple

[1] University of North Carolina at Chapel Hill, School of Library Science. (1931). *Annual Report.* Chapel Hill, NC, p. 4.

announced in April that it will build a new East Coast Hub in the Research Triangle Park, and Google is planning to build a new cloud engineering hub in Durham, according to a recent US News report.

UNC-Chapel Hill ranks among the world's leading research universities. A member of the prestigious Association of American Universities, UNC-Chapel Hill is regularly ranked as the best value in American public higher education. SILS is also nationally renowned as a leading iSchool and is determined to meet the challenge of defining what it means to be a global, public research university in the 21st century.

Additional information is available at the following sites:

The University of North Carolina System

The University of North Carolina at Chapel Hill

Planning and Review Process

This program presentation is the result of ongoing review and strategic planning by the faculty and the constituents of our School. It will emphasize changes to the personnel (faculty, students, and staff), curriculum, and facilities of the School since its last accreditation review in 2014. Dr. Brian Sturm, Associate Dean for Academics, has served as the overall coordinator of this self-study.

Committees of the faculty and staff have provided input on various aspects of the report:

I. Mission & Goals
Gary Marchionini (co-Chair)
Brian Sturm (co-Chair)

II. Curriculum
Brian Sturm (Chair)
Master's Committee
Brad Hemminger (MSIS Coordinator)
Casey Rawson (MSLS Coordinator)
Lara Bailey (Graduate Student Services Manager)
Shayna Flint (Undergraduate Student Services Manager)

III. Faculty
Brian Sturm (co-Chair)
Gary Marchionini (co-Chair)

IV. Students
Brian Sturm (Chair)

Master's Committee
Brad Hemminger (MSIS Coordinator)
Casey Rawson (MSLS Coordinator)
Lara Bailey (Graduate Student Services Manager)
Shayna Flint (Undergraduate Student Services Manager)
Lori Haight (Career Services Coordinator)

V. Administration & Financial Support
Gary Marchionini (Dean & Chair)
Tammy Cox (Executive Associate Dean)
Brian Sturm (Assoc. Dean for Academic Affairs)
Susan Sylvester (Executive Assistant)

VI. Physical Resources & Facilities
Brian Sturm (Chair)
Susan Sylvester (Executive Assistant)
Rebecca Vargha (SILS Librarian)
Aaron Brubaker (Director of Information Technology)

CHAPTER 1: SYSTEMATIC PLANNING

STANDARD I: Systematic Planning

I.1 *The program's mission and goals, both administrative and educational, are pursued, and its program objectives achieved, through implementation of an ongoing, broad-based, systematic planning process that involves the constituencies that the program seeks to serve.*

The School of Information and Library Science (SILS) at the University of North Carolina at Chapel Hill has three different kinds of statements related to our goals and objectives. We see our mission as the broadest statement of what we do as a School, encompassing all of our endeavors and constituents. The Program Goals are more specific, focusing on our master's degrees and the contributions students should be able to make to the profession after graduation. Our Learning Outcomes are most specific still and address the skills and knowledge we wish our students to develop during their studies at SILS.

Our mission and goals are integral to our strategic plan and to our planning process. We are updating our strategic plan during the 2021-2022 academic year to align it with the Carolina Next initiative; it was put on hold when the COVID pandemic struck last year, and we have been awaiting clarity regarding the new School of Data, Information, and Society that is proposed for the UNC-Chapel Hill campus. How this new school develops and SILS's role in it will dramatically impact the strategic planning, policies, administrative processes, staffing, faculty, and curriculum at SILS in the coming years.

Overview of the SILS Mission

The mission of the School of Information and Library Science (SILS) at the University of North Carolina at Chapel Hill (revisited each fall at an early faculty meeting) is to:

> **educate** innovative and responsible thinkers who will lead the information professions; **discover** principles and impacts of information; **create** systems, techniques, and policies to advance information processes and services; and **advance** information creation, access, use, management, and stewardship to improve the quality of life for diverse local, national, and global communities.

This mission addresses the three main aspects of academic life (teaching, research, and service); it addresses the entire information life cycle; and it focuses everything we do on people interacting with information to improve our communities. At SILS we firmly believe that research (theory), teaching (instruction) and service (practice) should be interwoven into a

unified academic experience, with each benefiting from and augmenting the others. Examples of this synergistic approach include:

- The Carolina Health Informatics Program (CHIP): CHIP was founded a decade ago as a collaboration among the five health affairs schools (Medicine, Public Health, Nursing, Pharmacy, and Dentistry), the College of Arts and Sciences (Computer Science Department), the Graduate School, and SILS as the administrative home. CHIP offers graduate degrees (PhD, Masters, Certificates) and shares students and faculty with SILS.
- The Center for Technology, Information and Public Life (CITAP): While CITAP is predominantly a research center, the work of the involved scholars crosses disciplinary boundaries and has been integral in the development of a new SILS course, INLS 690-290 Misinformation and Society as well as INLS 890-289 Networks of Racial Capitalism.
- The Community Equity, Data, and Information Lab (CEDI): Led by Dr. Amelia Gibson, "works with community members, not-for-profit organizations, and other researchers to understand and support the information, data, and technology needs and use of people, communities, and individuals who are traditionally marginalized." The lab actively involves master's and doctoral students in research and discovery (and subsequent publications) and its work ties directly into the INLS 690-230 Community Data Lab course, the INLS 690-230 Disability Informatics Course, and the INLS 584 Information Ethics class. CEDI is also an integral part of the annual (pre-COVID) Symposium on Information for Social Good.
- Project READY: Reimagining Equity and Access for Diverse Youth): Led by Drs. Sandra Hughes-Hassell and Casey Rawson, this IMLS-funded project provides a free, open-access, professional development curriculum for school and public youth services librarians, library administrators, and others interested in improving their knowledge about race and racism, racial equity, and culturally sustaining pedagogy. The primary focus of the Project READY curriculum is on improving relationships with, services to, and resources for youth of color and Native youth. These resources are being used by SILS faculty, staff, and students for professional development. The modular approach to the curriculum facilitates time-limited interactions with the content to broaden its usability. The curriculum has directly impacted the teaching of all the youth services courses at SILS with an increased awareness and focus on equity and inclusion of marginalized voices in INLS 530 Young Adult Literature, INLS 732 Children's Literature, INLS 558 Storytelling, and the offering in the spring of 2020 of INLS 737 Inclusive Information Services for Diverse Populations.
- Story Squad: Led by Dr. Brian Sturm, this community outreach project brings world folklore into schools, public libraries, day care centers, senior centers, and other cultural institutions. Dr. Sturm and his students form the basis of the storytelling troupe and offer in-person performances around the community and online performances in the growing Folktale Storytelling Digital Library. This effort has led to several publications with

others in progress, and the endeavor is an active component in the teaching of INLS 558 Principles and Techniques of Storytelling.

I.1. Continuous review and revision of the program's vision, mission, goals, objectives, and student learning outcomes.

The SILS mission is presented on our website landing page; it is also included in the School's Bylaws. The Bylaws are reviewed each year by the Dean to ensure the document accurately reflects changes in the faculty, the School, the University, the state of North Carolina, and the field (SILS Bylaws: 1.4). This Bylaws review occurs while composing the various policy documents expected of the Dean, such as the annual State of the School document for the SILS Board of Visitors and the Dean's annual report to the UNC Provost. The Dean brings suggested changes to the Bylaws to the faculty during the annual fall strategic planning retreat or a fall School Meeting. At that meeting, the faculty also reviews the mission statement and the Statement of Faculty Purpose. Since the environment of the School is constantly in flux (i.e., arrival of new personnel both in the School and in senior university administration, changes in state funding, changes in the curriculum, new strategic directions at the University), regular review of the mission and goals ensure they remain in focus and relevant.

The Program Goals are part of the University Catalog and are updated annually to maintain that publication; the request for changes comes to our Graduate Student Services Coordinator, and she and the Associate Dean for Academic Affairs make needed updates. The SILS Learning Outcomes are reviewed annually by the Associate Dean for Academics as part of the planning and reporting for the university's accreditation by the Southern Association of Colleges and Schools. Trends over time are assessed and brought to a faculty meeting for discussion and review (bachelor's, master's, and doctoral student representatives attend these meetings, which are also open to anyone wishing to attend).

SILS Program Goals

The goals of the two accredited master's programs are listed in the UNC Catalog. In designing the educational goals for our two master's programs, the faculty decided that, despite the differences in career path, and thus curriculum, the two degrees should have similar goals and identical Learning Outcomes that encompass the full scope of opportunities in the LIS field.

The Program Goals of the MSLS are to enable students to:

1. Contribute to the design, development, and management of libraries, archives, and other information institutions, and their collections and services

2. Lead the development of new services and technologies to improve access to information for users
3. Demonstrate a theoretical knowledge of library and archival science, including the theory of information organization, effective communication, and social, political, cultural, and ethical issues.

The Program Goals of the MSIS are to enable students to:

1. Contribute to the design, development, and maintenance of information systems and networks
2. Lead the development of new technologies and new applications relating to the delivery of information
3. Demonstrate a theoretical knowledge of information science, including the theory of information storage and retrieval, systems science, and social, political, and ethical implications of information systems.

These educational goals are pursued through regular curriculum review and redesign and exposure to course content presented in different formats (face-to-face, online, and hybrid) to fit into students' increasingly complex lives and to practice the technologies we teach and develop.

One of the reasons we urge all of our students to complete at least one Professional Field Experience (FE) (INLS 795 for the first FE, INLS 797 for a second FE, or INLS 796 for the school media FE) or acquire equivalent experience is so they have the opportunity to embed the theory they have learned in the classroom in a professional context of their own choosing (goal #1). We have chosen not to *require* field experience, as many of our students come to SILS with strong backgrounds in information-related fields. Still, many of our students take advantage of this opportunity each year, though fewer have been able to do so during the pandemic years.

Special Topics courses are available at all levels (INLS 490 Selected Topics, INLS 690 Intermediate Selected Topics, and INLS 890 Advanced Selected Topics) to address innovative and cutting-edge concepts (Goal #2). Ideas for these courses can be suggested by any of our constituents, though new topics are typically proposed by the faculty in response to changes in the field. The rise of interest in Data Science has led to a series of recent experimental courses, including: Human-Centered Data Science Policies and Applications (Marchionini), Real-time Data Science in the Makerspace (Melo and Rajasekar), and Big Data and NoSQL for Data Science (Rajasekar). The growing attention to the social impacts of information is manifest in several experimental courses as well, including: Social Informatics (Jarrahi), Community Data Lab (Gibson), and Misinformation and Society (Tripodi). Diversity, equity and inclusion issues are also being included across the curriculum and in specific courses such as: Networks of Racial Capitalism (Cottom), Diversity, Equity, and Inclusion in Open Access (Solomon), Disability

Informatics and Information (Gibson), and Information Services in a Diverse Society (Melo). Experimental courses can become permanent additions to the curriculum if the faculty believe they contribute significantly to the education of our students.

Our current and proposed new curriculum – both explained in more detail in Chapter 2 – are designed to merge theory with practice and to educate students for eventual leadership positions in the field (Goal #3). To this end, many of our courses emphasize theory over particular skills or technologies, as the latter change rapidly and are inconsistently needed or deployed in the various careers our students follow. We phrase this as "preparing students for the n^{th} job, not just for their first job."

I.1.2. *Assessment of attainment of program goals, program objectives, and student learning outcomes*

The assessment or our Program Goals is intricately bound to areas of our curriculum. Please see Table 2.1 for an overview of the reflection of these goals in the curriculum, and Section I.1.4 and Table 1.1 for Program Goal #3, where we address theory and it place in the curriculum.

SILS Learning Outcomes

SILS has developed a set of Learning Outcomes that we expect our students to be able to demonstrate by the time they finish either of our master's degrees. We use these outcomes to assess our compliance with the Southern Association of Colleges and Schools accreditation standards (SACS). The SILS comprehensive exam, taken by all students in both accredited master's degree programs in their final semester, serves as the basis for evaluating their achievement of these outcomes. The Master's Committee is charged with writing these exams each semester – the faculty provide input and have final approval power – and its members work diligently to devise questions that enable students to demonstrate these five Learning Outcomes:

1. Apply critical thinking to a particular challenge that might be experienced in a professional setting. They will be able to evaluate the strengths and weaknesses of particular solutions and use concrete examples to clarify the challenge and its possible solutions.
2. Apply standard professional tools to problem definition and solution. They will be aware of the classic and current tools and technologies available to information professionals and will be able to select and apply those tools and technologies to information problems.
3. Apply ideas, theories, and empirical evidence to solve problems that information professionals might face in the workplace.
4. Demonstrate a nuanced understanding of a particular information setting/context, including the needs of the users; the types of materials being collected; the realities of

budget, management, and organizational structure; the types of challenges faced and ways to address those challenges; new/current professional and research developments pertinent to the setting/context; the influences of social and political milieu on the setting/context; and how quality may be defined and assessed within that setting/context.

5. Express their ideas clearly. They will be able to describe problems/challenges, situations, and solutions in an understandable way; synthesize ideas from multiple sources and engage with those ideas in depth; and develop an argument in a coherent and logical manner.

Each student's examination is evaluated on these outcomes by one or more faculty members to assess the individual student's accomplishments. The Program Coordinators, members of the Master's Committee, and the faculty as a whole also examine the aggregate results to identify any systematic weaknesses that should be addressed in individual courses or the curriculum as a whole (See: Section II.7 for a review of the assessment of learning outcomes, and the Teams Site: SILS COA Document Archive: II. Curriculum: Learning Outcome Assessment Reports for the data).

I.1.3. *Improvements to the program based on analysis of assessment data*

We have made many changes at SILS based on input from our various constituents, including:

- Diversity, Equity, and Inclusion has been foregrounded in public consciousness in the past several years, with the BlackLivesMatter movement, an increasing awareness of racial violence against people of color, the ongoing struggles of the LGBTQIA+ community, and the continued gender inequities inherent in American society. SILS strives to create a community that is respectful of everyone and representative of American society at large. We have been attentive to the diversity of our faculty for many years, and the five of the last six tenure-track faculty hires have been people of color. In 2020, we instituted a requirement to report DEI initiatives, learning, and involvement in faculty annual reports, and staff must include at least one DEI annual goal in their professional strategic planning. SILS is still searching for the best way to initiate a diversity coordinator position, given recent budget cuts. When SILS students first expressed their concern over the lack of a gender-neutral bathroom in Manning Hall (see Town Hall Meeting notes from Spring 2017), SILS was unable to comply with the request due to renovation requirements. The concern remained, however, and in 2020, SILS created an ad hoc committee to explore options once again, a novel solution that entailed retrofitting existing infrastructure without violating new construction restrictions, and allocated funds to create a new gender-neutral bathroom on the second floor (completed in the fall of 2021).
- The new curriculum for the Masters of Science degrees, to be implemented in the spring of 2022, is a direct outgrowth of student and alumni suggestions and concerns about the

number of required courses that hampered their ability to personalize their degrees to maximize their marketability and individuality after graduation (see 2020 Alumni Survey, Question 14; 2017 Spring ILSSA Town Hall Meeting notes, "Coursework," page 4). The number of required courses in the new curriculum has been reduced to two (INLS 776 Ethics, Values, and Society and INLS 777 Perspectives on Information, Technology, and People) with the accompanying requirement to take several courses from four clusters or "bins" grouped into themes: Information, Services & Organizations, Technology, and People & Communities. This structure is anticipated to dramatically increase student flexibility, and it should also increase the number of specialized electives that can be taught by the full-time faculty. The full proposal is available in the COA Documents Archive available to the External Review Panel (ERP) members and discussed more fully in Chapter 2: Curriculum.

- The Board of Visitors has expressed their desire for SILS to continue to examine distance education, online learning, and a variety of funding models to ensure an adequate return on the investment (See: BOV meeting minutes from 2017 Fall in the COA Documents Archive). While SILS was entirely online over the past year of the COVID pandemic, the university is strongly in favor of in-person education and is anticipating a healthy return to campus education in the fall of 2021. We do have a variety of approaches to online education, including synchronous and asynchronous delivery modes as part of our normal course offerings, supervision of the WISE consortium (Web-based Information Science Education) and the courses it makes available, as well as an entirely remote-asynchronous Professional Science Master's degree (PSM) in Digital Curation. We also had a Post-Master's Certificate fully online program, but that has been discontinued as of fall 2021. At the fall 2019 meeting, the Board of Visitors explored the implications of the proposed new School of Data Science on the UNC campus. Their suggestion that the hard skills of math, statistics, and computer science were necessary components helped craft the initial vision for the school. As the implementation discussions continued and emphasis was placed on a merger between three campus units (SILS, computer science, and statistics), the Board of Visitors, the SILS faculty, staff, and students became increasing concerned about the potential negative impact a merger would have on SILS's identity (BOV minutes, 2020 Spring and 2020 Fall). In order to preserve the School's individuality and structure, these concerns eventually led the School to withdraw from the proposed merger implementation and encourage units across the campus to build curricular and research synergies before forcing administrative integration. We remain committed to being involved in the process if/when it develops across campus.
- The External Review Panel of the 2020 Graduate School Review recommended moving our standing committee structure from an annual turnover to a 2-year commitment in order to provide more continuity to the committee membership and to decrease the learning curve for new faculty committee appointees. SILS modified this approach so that we now have a committee chair and a vice-chair who will each be on the committee

for two years, and the rest of the membership will change annually (to give faculty the broadest understanding of SILS administration).

I.1.4. *Communication of planning policies and processes to program constituents. The program has a written mission statement and a written strategic or long-range plan that provides vision and direction for its future, identifies needs and resources for its mission and goals, and is supported by university administration. The program's goals and objectives are consistent with the values of the parent institution and the culture and mission of the program and foster quality education.*

Consistency of SILS mission and goals with Parent Institution

The mission of the University of North Carolina at Chapel Hill, approved in 2014, states:

> The University of North Carolina at Chapel Hill, the nation's first public university, serves North Carolina, the United States and the world through teaching, research and public service. We embrace an unwavering commitment to excellence as one of the world's great research universities.
>
> Our mission is to serve as a center for research, scholarship and creativity and to teach a diverse community of undergraduate, graduate and professional students to become the next generation of leaders. Through the efforts of our exceptional faculty and staff, and with generous support from North Carolina's citizens, we invest our knowledge and resources to enhance access to learning and to foster the success and prosperity of each rising generation. We also extend knowledge-based services and other resources of the University to the citizens of North Carolina and their institutions to enhance the quality of life for all people in the State.
>
> With *lux, libertas* — light and liberty — as its founding principles, the University has charted a bold course of leading change to improve society and to help solve the world's greatest problems.

SILS designed its mission statement to reflect this institutional mission. The primary concepts in the university's mission also appear in that of SILS, though our mission focuses more specifically on the role of information in teaching, research, and service to develop the next generation of leaders and to improve the quality of life for our communities. The School's commitment to research and knowledge discovery (for both faculty and students), to ethical practice, and to freedom of access to information in all of its forms, mirrors the fundamental principles of light and liberty upon which UNC was founded.

The UNC Strategic Plan for the entire system lists five principle goals:

- Access: providing educational opportunity to all, particularly the underserved
- Student Success: providing all useful learning to become responsible and productive citizens and developing student competencies and skills for the 21st century workforce.
- Affordability and Efficiency: provide education and services at the least possible cost.
- Economic Impact and Community Engagement: serving community needs through education, research, and development.
- Excellent and Diverse Institutions: increase diversity in all its aspects at all levels of the university.

The main themes evident in this plan are educational excellence, diversity, affordability, and service. These themes resonate with the SILS mission as we strive for innovation, responsibility and stewardship in service to diverse communities.

The UNC-Chapel Hill strategic plan, Carolina Next: Innovations for Public Good, proposes eight strategic initiatives:

- Build Our Community Together
- Strengthen Student Success
- Enable Career Development
- Discover
- Promote Democracy
- Serve to Benefit Society
- Globalize
- Optimize Operations

The Chapel Hill Strategic Plan reiterates some of the themes found in the UNC System Strategic Plan document: the university's emphasis on community (local to global) engagement and service, and its commitment to student success, excellence in education, and affordability. What this document adds is an emphasis on promoting democratic ideals through listening, respect, and civil discussion. As Chancellor Kevin M. Guskiewicz stated in his address at the spring 2021 commencement ceremony, "If there is anything you have learned here at Carolina, I hope it's that there is still so much that you don't yet know. Keep learning and growing. Keep asking questions, especially of the people who have different experiences, who are unique, who see the world differently than you do." The SILS mission includes these concepts as they relate to all aspects of information and its use. We recognize the increasing pluralism of the nation and the world in which our graduates will work and strive to build a community that is diverse both intellectually and culturally. We strive to help our students build solid career trajectories from the moment they arrive, and we take pride in strong Student Outcomes rates for both the MSIS

and the MSLS degrees, while we work to improve ourselves. We encourage community engagement in our projects, class assignments, student organizations, student fellowships and assistantships, and special projects such as the student-run Community Workshop Series. We also abide by our Statement of Diversity (and ask our students to consider *their* relation to it at our fall Orientation session) that reiterates our commitment to "promote and nurture an environment in which diverse perspectives and experiences are respected and valued."

Quality Education

There are many ways to define a "quality" graduate education in information and library science.

Does student learning address higher order thinking skills?

- Anderson's (2000) revision of Benjamin Bloom's taxonomy of the cognitive domain suggests a hierarchy of intellectual abilities ranging from the simplest to the most complex: remembering, understanding, applying, analyzing, evaluating, and creating.[2] All of our courses address these various abilities to different degrees, but a sampling of fundamental experiences that all of our students encounter will serve as exemplars. The comprehensive exam – a closed book, 7-hour exam taken during a student's final semester – presents students with two questions (they must answer one) designed to challenge them to recall information learned in their various classes, extract and summarize the essential information, apply it to their chosen problem/question within a particular context of their choice, distinguish the relevant concepts needed to answer the question, evaluate the benefits and weaknesses of their solution, and compose a theoretically strong and practically efficient response.

- The Master's Paper or Project also incorporates these various levels of thought, requiring students to compile a literature review and compose a research question, select a relevant research setting and methodology, collect, analyze, and evaluate results, and synthesize a final research report.

- Assignments in our common core classes also address this taxonomy. Two assignments for INLS 500 Human Information Interactions require students to conduct an analysis of an information seeking event and to create a bibliographic analysis. One of the assignments for INLS 585 Management for Information Professionals involves creating an organizational portfolio, including an organizational analysis, a SWOT analysis, a stakeholder analysis, and a managerial philosophy. INLS 513 asks students to evaluate a

[2] Anderson, L. W., Krathwohl, D. R., Airasian, P. W., Cruikshank, K. A., Mayer, R. E., Pintrich, P. R., Raths, J., Wittrock, M. C. (2000). *A Taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. New York: Pearson, Allyn & Bacon.

banned library resource and create a professional statement for why the resource should remain in the collection. One assignment in INLS 520 requires students to create a taxonomy of categories and assess its strengths and weaknesses with actual items, while another asks students to examine real world classification systems and evaluate their structure.

Are students prepared both to think about the field and practice in it?

- Our students sometimes complain about there being "too much theory" in our courses, but we believe that an understanding of theory and its application to specific contexts best serves our students as future leaders in the field. One of the respondents to the 2016 Alumni Survey (a survey of the prior four years of graduates) stated, *"More practical exercises (less focus on theory) would be helpful,"* while an alum on the 2020 Alumni Survey responded, *"The courses were, on the whole, heavily theory based."* In both surveys, however, the alumni responded positively to the statement "The faculty integrate theory and practice effectively in their courses" with "strongly agree" or "agree": 76.32% in 2020 (n=39/325, 12% response rate) and 68.94% in 2016 (n=108/318, 34% response rate).

- Our core curriculum (including degree-specific required classes) introduces students to a variety of theories relevant to information and library science. An analysis of the syllabi for these courses shows the following kinds of theoretical approaches (Table 1.1):

Table 1.1: Theoretical approaches in core classes

Course	Theoretical Approach
INLS 500	information behaviors, particularly information seeking, and information sharing
INLS 501	question negotiation, function of reference and its role in library services, information seeking behavior
INLS 509	IR systems, techniques, and their evaluation
INLS 513	collection and community assessment, censorship vs. selection, needs assessment, readers advisory theory, open access publishing, digital vs. print collections
INLS 520	organization of information
INLS 523	conceptual modeling, relational database theory, SQL
INLS 560	role of open-source code libraries, problem analysis, collaborative programming and problem solving
INLS 581	understanding of common research methods and interpretation of evidence for practice
INLS 582	user centered design

INLS 585	management theory, organizational theory
INLS 781	functions and design of research

- We recognize, however, that concepts are best learned when grounded in practical experience, so we highly recommend that our students take INLS 795 Professional Field Experience, and the majority of our students take at least one field experience (see Table 2.4). Many of our students also find part-time jobs (paid and volunteer) during their studies, and we try to help them find experiences that are relevant to their areas of interest, either on campus or within the community. We also offer several service-based assistantships to engage students in practice, including the Carolina Academic Library Associates (CALA) program in collaboration with the University Libraries, the Carolina Technology Associates (CaTA) program through SILS Information Technology, and the Environmental Protection Agency (EPA) Library Internship program.

Do students have a broad and an in-depth knowledge of the field?

- Our curriculum is structured to ensure that they get a foundation in ILS concepts relevant to their chosen career (the common core and the degree-specific required classes), and the elective options combined with academic advising help students gain the deeper knowledge of a particular area of interest. The new curriculum (to be initiated in spring 2022) has only two required classes (INLS 777: Perspectives on Information, Technology, and People and INLS 776: Ethics, Values and Society), and then a series of requirements to take courses from four thematic "bins": Information, Services & Organizations, Technology, and People and Communities. These bins provide students with more flexibility to select electives and to tailor their educations, while ensuring that they have a well-rounded education.

- The UNC-SILS master's degrees require 48 credits (normally two years of full-time study) allowing students more time to explore both broadly and in-depth.

- One of the Learning Outcomes for both degrees is that students should be able to "demonstrate a nuanced understanding of a particular information setting/context." Analysis of the students' comprehensive exams shows that overall our master's students are strong in this area (79% of exams rated as "excellent" or "good" on this learning outcome), though there are degree-specific discrepancies (92% of MSLS exams were rated "excellent" or "good" in 2020-21, while 64% of MSIS exams were rated "excellent" or "good" in 2020-21). These results and a longitudinal analysis of the learning outcome grading was brought to the faculty for reaction on September 17, 2021. Faculty were asked to send comments individually to the Associate Dean for Academics if they felt actions were needed, and the issue was remanded to the Master's Committee for consideration.

- SILS has selected several areas of the field to offer Graduate Certificates (a designation that appears on a student's transcript) and provide Specializations (a series of courses leading to specialized knowledge but no official transcript designation) based on faculty expertise. These are enumerated on our webpage for Certificate Programs, MSLS Specializations, and MSIS Specializations and in Section II.4.

Does their education qualify students to get excellent jobs?

- As a professional school, SILS is dedicated to helping educate the next generation of librarians and information scientists so that they are highly recruited and prepared for leadership positions in the field.

- According to SILS Career Services student achievement data, the percentage of MSIS students who had positions within twelve months of completion was: 84% (2020, 94% response rate), 89% (2019, 96% response rate), 83% (2018, 97% response rate), and 95% (2017, 100% response rate). For MSLS students: 82% (2020, 85% response rate), 80% (2019, 89% response rate), 71% (2018, 94% response rate), and 89% (2017, 98% response rate).

- Our graduates go on to have distinguished careers in all aspects of Information and Library Science. Our Alumni Profiles of master's graduates highlight some of these exceptional alumni.

- One of the questions on the site supervisor's evaluation form for INLS 795 Supervised Field Experience asks: "If an appropriate position were available, would you seriously consider this student as a candidate?" An examination of the most recent evaluations for fall 2020 and spring 2021 show that 100% of supervisors (n=22) would seriously consider hiring these students.

Can they contribute to the knowledge base of the field?

- The emphasis on research at SILS encourages students to deeply understand the process of knowledge creation and dissemination. The Master's Paper or Project ensures that all students have contributed to the professional literature before they graduate as these papers are indexed in *Library Literature and Information Science* and publicly available through the Carolina Digital Repository. Some of the students' class assignments are also of a quality worthy of publication in professional journals. Of the 155 responses to Question #11 on the 2016 Alumni Survey ("Did you publish an article or give a public presentation based on any of your coursework at SILS – including your master's paper?"), 37% responded affirmatively, and Question #12 on the 2020 Alumni Survey asked the same question with 31% responding affirmatively.

- Some of our master's students decide to pursue doctoral degrees and commit to academic careers of research and publishing, but most of our master's graduates take jobs in the information industry where they continue to advance the field (see our Alumni Profiles and the Alumni News sections of the SILS Newsletters for examples of the impact our students have on the field and the awards they receive).

Are they collaborative and socially integrated with strong professional networks?

- The faculty recognize the importance of collaboration in the ILS field, and we help our students learn how to work in groups and communicate effectively with small group assignments, oral presentations, field experiences, internships, service learning projects, collaborative research with faculty, and participation in student organizations and SILS administrative committees. Alumni are generous in giving back to SILS students, participating in speed networking events and providing field experience sites, among other activities. We have many student organizations and chapters of national organizations (ALA, ASIS&T, SLA, SAA) that help students network and share knowledge. At Commencement each year, new graduates are automatically admitted to the SILS Alumni Association (SILSAA).

- Our hiring of a Career Services Coordinator in 2012 and a new Associate Dean of Development in 2020 has greatly enhanced our connections with employers and alumni and helped grow the professional network available to our students. The 2016 and 2020 Alumni Surveys provide evidence that students believe SILS provided a wide array of opportunities for engagement:

    - In 2016, 85% of 102 respondents rated their opportunities for interaction with working information professionals *acceptable, good, or excellent* (Question 19.5). In 2020, that number was 89% of 37 respondents (Question 20.5)

    - In 2016, 95% of 100 respondents rated their opportunities for participation in student chapters of professional organizations *acceptable, good, or excellent* (Question 19.6). In 2020, that number was 95% of 37 respondents (Question 20.6).

    - In 2016, 92% of 97 respondents rated their opportunities to participate in SILS governance *acceptable, good, or excellent* (Question 19.7). In 2020, that number was 86% of 35 respondents (Question 20.7).

At SILS, we believe we can answer "yes" to all of these questions, and we are constantly trying to find new approaches to educating our students, so that their years at SILS are interesting,

dynamic, and challenging, and the students leave our School prepared and excited about their future careers.

I.2. *Clearly defined student learning outcomes are a critical part of the program's goals. These outcomes describe what students are expected to know and be able to do by the time of graduation. They enable a faculty to arrive at a common understanding of the expectations for student learning and to achieve consistency across the curriculum. Student learning outcomes reflect the entirety of the learning experience to which students have been exposed. Student learning outcomes address:*
I.2.1. The essential character of the field of library and information studies.

The information life cycle is evident at all three levels of program definition. The mission statement addresses "information creation, access, use, management, and stewardship," and Program Goal #1 emphasizes "design, development, and maintenance" of information. The Learning Outcomes as a whole mirror the information life cycle as students must identify/define problems, collect information to assess the problem, conduct research, manage and synthesize the results, and present them in a coherent fashion. These outcomes manifest in the comprehensive exams (for evidence, please see the Teams COA Document Archive/2. Curriculum/Outcome_Assess_Reports folder) and in the research stream culminating in the Master's Paper or Project (for examples, please see the Carolina Digital Repository).

I.2.2. The philosophy, principles, and ethics of the field.
I.2.3. Appropriate principles of specialization identified in applicable policy statements and documents of relevant professional organizations

The mission, goals, and Learning Outcomes of SILS align well with the standards, competencies, and guidelines of many of the national organizations relevant to the field of information and library science. In particular, we examined the Competency Statements, Guidelines, Codes of Ethics, Statements of Standards or Strategic Directions, Mission and Vision Statements, or Core Values Statements from the following organizations to determine the common principles and values of the ILS field (see: SILS COA Document Archive: ILS Organizations' Principles Reflected in SILS Policy Statements for a more detailed mapping of our policy statements to these organizations' standards and values):

- American Library Association Core Competencies 2021 Draft (ALA)
    - American Association of School Librarians (AASL)
    - Association of Library Service to Children (ALSC)
    - Association of College and Research Libraries (ACRL)
    - Young Adult Library Services Association (YALSA)
- Special Libraries Association (SLA)
- American Association of Law Libraries (AALL)

- Association for Information Science and Technology (ASIS&T)
- American Medical Informatics Association (AMIA)
- International Federation of Library Associations (2021 Draft) (IFLA)
- Medical Library Association (MLA)
- Society of American Archivists (SAA)
- Association for Library and Information Science Educators (ALISE)
- Association of Computing Machinery (ACM)
- Computing Research Association (CRA)

The analysis of these documents yields a wide range of core values and principles that may be synthesized into the following broad categories:

- **Professional ethics:** intellectual freedom, privacy & confidentiality, integrity, leadership, quality

  Our commitment to professional ethics is evident in our mission to create responsible thinkers who will become leading information stewards in the profession. Learning Outcome #4 addresses the "social and political milieu" relative to information settings, and this content is covered in several of our core courses, it is the focus of INLS 584 Information Ethics, and it will be part of our new required course: INLS 776 Ethics, Values, and Society.

- **Knowledge of and service to the user community**

  Everything SILS does has a user-centered focus (it is one of the ways we distinguish the ILS field from computer science), and our mission emphasizes this with terms such as "educate, stewardship, information use, community, impacts, policies, and services." The MSLS Program Goal #1 addresses "the needs of communities that are becoming more diverse"; Learning Outcome #4 includes "the needs of users" and the "social and political milieu" of information settings (see also Sections II.3 and II.4).

- **Advocacy, promotion, outreach, and programming**

  The word "promote" is one of the four key concepts in our mission statement. Effective advocacy and outreach require superior communication skills, and Learning Outcomes #1 and #5 address the issues of critical thinking, clarity of expression, and logical and coherent argumentation (see also Section II.3).

- **Life-long learning:** professional development and user education

  Life-long learning manifests in our mission and goals and in our belief that leadership (mission and Program Goal #2) includes ongoing knowledge discovery and self-improvement. Our five Learning Outcomes and their commitment to

research, evidence-based practice, and information stewardship grounds our students in the ethos of professional development (see also Section II.3).

I.2.4. The importance of research to the advancement of the field's knowledge base

Our Learning Outcomes address the value of research in a variety of ways. Outcome #1 addresses the role of critical thinking and the importance of the analysis of strengths and weaknesses of any solution, all part of the research process. Learning Outcome #3 is the most relevant, as it addresses the students' ability to "apply ideas, theories, and empirical evidence to solve problems." Learning Outcome #4 mentions that all problems, and indeed all research, takes place in a particular "social and political milieu" that impacts both process and results. Finally, Learning Outcome #5 states that students should be able to "synthesize ideas from multiple sources" a skill fundamental to research and writing literature reviews. (please see also the Research Methods syllabus and the master's papers in the Carolina Digital Repository).

I.2.5. The symbiotic relationship of library and information studies with other fields

The symbiotic relationship between information and library science and other disciplines is reflected in our Learning Outcomes through use of generic terms such as "professional setting," "information problems," "the workplace", and "the setting/context." We wish to show students that their learning is applicable across disciplines since information and its associated challenges are ubiquitous and not field dependent. Our inclusion of the "influences of social and political milieu" also points to the pervasive nature of information issues with which our student should be ready to wrestle.

I.2.6. The role of library and information services in a diverse global society, including the role of serving the needs of underserved groups

Learning Outcome #4 is the most relevant to this Standard, as it requires of students an ability to demonstrate a "nuanced understanding" of their chosen context of study, including "the needs of the users" and the "social and political milieu" in which their context is embedded. This understanding develops with the guidance of the SILS mission of "improving the quality of life for diverse local, national, and global communities" and MSLS Program Goal #3 that addresses "effective communication across differing ethical, cultural, political, social, and emotional perspectives," and MSIS Program Goal #3 that includes the "social, political, and ethical implications of information systems."

I.2.7. The role of library and information services in a rapidly changing technological society

Learning Outcome #2 states that "Students are prepared to apply standard professional tools to problem definition and solution. They will be aware of the classic and current tools and technologies available to information professionals and will be able to select and apply those tools and technologies to information problems." Learning Outcome #5 describes the need for students to be clear communicators and be able to construct logical arguments; both of these skills are increasingly relevant as technologies change and people's ability to stay abreast of those changes falters. We need students who are technologically adept and well as adaptive, and we feel that the best way to prepare them is to give them the theoretical foundations, more specific examples, and then time to experience and practice what they have learned.

I.2.8. The needs of the constituencies that a program seeks to serve

Our constituencies are broadly construed in our Learning Outcomes as "information professionals" and "information professions." We have chosen not to label them more specifically, as information students can work in any professional context as their skills are versatile and broadly applicable; however, we do include "users" (#4), employers ("workplace" #3), organizations ("organizational structure" #4), and research colleagues ("research developments" #4).

I.3. Program goals and objectives incorporate the value of teaching and service to the field.

The importance of teaching and service are manifest in both our mission and our program goals. The missing statement begins with "SILS educates innovative and responsible thinkers who will lead the information professions." That teaching is informed by the research and "discovery" of our community with the intent of "creating" systems and services that serve or "advance" the field and "improve" our varied and diverse communities. Similarly, our Program Goals are to teach students so that they have the necessary knowledge to "contribute to the design, development, and maintenance of information systems" (MSIS) and "address the needs of communities that are becoming more diverse" to combat "knowledge barriers and [improve] access" (MSLS). Implicit in the "leadership" mentioned for both degrees, is the idea that students will continue to share their knowledge so that they become teachers in their own right to keep the flow of knowledge accessible. Our mission's use of the term "stewardship" foregrounds this sense of guardianship in the service of others.

I.4. Within the context of these Standards each program is judged on the extent to which it attains its objectives. In accord with the mission of the program, clearly defined, publicly stated, and regularly reviewed program goals and objectives form the essential frame of reference for meaningful external and internal evaluation.
1.4.1. The evaluation of program goals and objectives involves those served: students, faculty, employers, alumni, and other constituents.

Our mission is the result of an ongoing formal and informal planning process that involves the school and its constituents in dialog and negotiation. We try to offer as many opportunities as possible to hear the unique "voice" of each constituent group, and we seek to open new avenues of conversation. Table 1.2 below provides an overview of the established venues for groups to contribute their perspectives and influence SILS strategy, as well as its policies and procedures.

Table 1.2: Constituent Opportunities to Engage with SILS Policies and Procedures

Constituent	Venue	Frequency
Administrative voice	Staff meetings	Monthly
	SILS Administrative Board	1/semester
	School Meetings	Every 3 weeks (minutes available in COA Document Archive)
	Program Coordinators' meetings	Monthly (informal)
	Dean and Associate Dean meetings	Weekly
	Senior Associate Deans' meetings	Monthly
	Dean's Council	Monthly
	Chancellor's Retreat for Deans and Cabinet	Annual
	Graduate School Review (fall 2020)	Every 10 years (available in COA Document Archive)
Faculty voice	Strategic planning retreat	Beginning of each academic year
	School Meetings	Every 3 weeks
	Faculty Breakfasts	Monthly (informal)
	Standing and ad hoc committees	3-5/semester (reports available in COA Document Archive)
Student voice	Town Hall meetings	1/semester (reports available in COA Document Archive)
	Standing committees	3-6/semester
	School Meetings	Every 3 weeks
	Current student survey	Every 3-4 years (available in COA Document Archive)
	Campus level graduating student exit interviews	End of each semester
	SILS exit survey	End of each semester (available in COA Document Archive)
	Course evaluations	End of each semester
Alumni voice	SILS Alumni Association Board Meetings	6-8/year
	SILS Alumni Inclusion and	1/semester

	Diversity Committee	
	Alumni survey	Every 3-4 years (available in COA Document Archive)
	Social media sites	Ongoing
	Alumni reunions at professional conferences (e.g., ALA, SLA, ASIS&T)	Ongoing
	Board of Visitors	Semi-annual
Practitioner voice	Field Experience supervisors	Ongoing
	Career Fair	Annual each spring
	Internship supervisors	Ongoing
	Information Trends Advisory Roundtable	1/semester
	SILS Board of Visitors	Semi-annual (available in COA Document Archive)
	UNC Board of Trustees	At least semi-annual

The knowledge gleaned from these interactions, and the perspectives they bring are part of the total assessment process that is ongoing and incremental. While some are formal and structured, many are less structured, with open-ended agendas and informal perspective-mining. We are particularly delighted about having an assigned liaison to the UNC Board of Trustees, Trustee Patel, and hope that he will facilitate communication and awareness between the Board and SILS. Decisions at SILS are often made, not on a particular datum, but on the compilation of myriad data points across "voices" and across time. Section I.1.3 addresses a few of the major changes and the sources of data used in making those decisions.

I.5. The program has explicit, documented evidence of its ongoing decision-making processes and the data to substantiate the evaluation of the program's success in achieving its mission, goals and objectives

As noted in the sections above, SILS uses a uses a variety of approaches to data collection and reflection to assess our journey to achieve our mission, goals, and objectives. The evidence of our ongoing decision-making process is documented in several ways. Minutes are taken at school meetings and records of votes and our discussions on curriculum and other matters are included in those minutes (available in the COA Document Archive). Our standing committees report in writing and verbally to the entire school at the end of each semester, including charts and tables of data on enrollments, teaching loads, course offerings, etc. (for example, the Masters Committee analyzes the enrollments in experimental courses to determine whether they should recommend the course be given a permanent number in the curriculum). These are also available in the COA Document Archive. The SILS website includes updates on metrics such as research awards, development goals and achievements, student placements, and new initiatives that

advance mission, goals, and objectives. The annual state of the school (available in the COA Document Archive>1. Strategic Planning and Overview Data>State of the School Reports) provides data on enrollments, graduation rates, placement data, finance (expenditures and revenues), grants and contracts. Additionally, our annual printed newsletter (30-40 pages) reports school actions for the year and is sent to all alumni and stakeholders as well as to all other ALA accredited schools.

I.6. The program demonstrates how the results of the evaluation are systematically used to improve the program and to plan for the future

There are several different formal mechanisms to demonstrate how we systematically apply our data streams and evaluations to improving the program and planning. These are both external and internal mechanisms. The campus requires recurring reports such as how our plans align with the campus strategic plan, what progress we have made on diversity, equity, and inclusion, and what steps we are taking to maintain financial stability. These reports require that we provide data, reflection, and subsequent action plans. Our annual reports to ALISE, ALA, and CRA report data on enrollments, salaries, recruitment, and retention and what these imply for coming years (these data are available in the COA Document Archive>1. Strategic Planning and Overview Data>Past Reports on Teams). The most intensive external demonstrations are the periodic accreditation documents (ALA and SACS, the latter of which is in the COA Document Archive>2.0 Curriculum>Outcome_Assess_Reports) and the UNC graduate program review that each require extensive data analysis, evaluation, and planning components. Internally, each academic year begins with a faculty planning day where the reports and discussions from the end-of-year faculty meeting seed plans for the new academic year.

CHAPTER 2: THE CURRICULUM

STANDARD II: Curriculum

II.1. The curriculum is based on goals and objectives and evolves in response to an ongoing systematic planning process involving representation from all constituencies. Within this general framework, the curriculum provides, through a variety of educational experiences, for the study of theory, principles, practice, and legal and ethical issues and values necessary for the provision of service in libraries and information agencies and in other contexts. The curriculum is revised regularly to keep it current.

The MSIS and MSLS curricula are grounded in our mission to "educate innovative and responsible thinkers who will lead the information professions." We believe there are certain theories and practices to which all ILS students should be exposed, forming a "common core." This belief stems from our perception that information professions, regardless of context, must all address basic issues of information organization, management, and the interaction between people and the information with which they work. All of our courses include theoretical and practical concerns (though some lean more toward one of these elements than others), and increasingly our courses delve into issues of equity, ethics, diversity, and inclusion. To address the "responsible thinkers" mentioned in the mission, the curriculum increasingly has "ethics" and diversity as linchpins in its structure. We are striving to include more under-represented voices in our course content and to provide more coursework specifically devoted to the issue of ethical information practices. We initiated INLS 384 Information and Computer Ethics so that our undergraduates who decided to pursue our master's degrees would have preliminary exposure to these concepts. INLS 584 Information Ethics is our graduate-level class, though upper-level undergraduates may also take it. In the spring of 2021, we created a graduate-student-only version of this course as an experimental course (INLS 890 Information, Values, Ethics, and Action) due to feedback from students and the instructor that mixing undergraduates and graduate students was not working in INLS 584. Our new curriculum will have a graduate-level course (INLS 776 Ethics, Values and Society) as one of two foundational classes that all our master's students will be required to take.

The curriculum also reflects the Program Goals, as Table 2.1 below makes clear. Many of these courses could fit into several of these categories, and some of our experimental courses (INLS 490, 690, 890) also address these program goals (like INLS 490-276 Real-time Data Science in the Makerspace, or INLS 490-278 Programming for Data Analysis, or INLS 690-222 Social Informatics, or INLS 690-230 Community Data Lab). Many of these experiment classes will become part of the permanent curriculum once they have been offered three times to good enrollment and positive student success and reviews.

Table 2.1: Program Goals as Reflected in the Curriculum

MSIS Program Goals	Relevant Courses
1. Contribute to the design, development, and maintenance of information systems and networks	INLS 500 Human Information Interactions (MSIS/MSLS required) INLS 509 Information Retrieval (MSIS required) INLS 523 Introduction to Database Concepts and Applications (MSIS required) INLS 560 Programming for Information Professionals (MSIS required) INLS 570 Fundamentals of Programming Information Applications INLS 578 Protocols and Network Management INLS 620 Web Information Organization INLS 623 Database Systems II INLS 626 Introduction to Big Data and NoSQL INLS 641 Visual Analytics INLS 701 Information Retrieval Search Strategies INLS 718 User Interface Design INLS 719 Usability Evaluation and Testing INLS 723 Database Systems III INLS 737 Inclusive Information Services for Diverse Populations INLS 740 Digital Libraries INLS 760 Web Databases INLS 765 Information Technology Foundations for Managing Digital Collections INLS 767 Information Assurance INLS 773 Database for Data Science
2. Lead the development of new technologies and new applications relating to the delivery of information	INLS 541 Information Visualization INLS 572 Web Development INLS 573 Mobile Web Development INLS 576 Distributed Systems and Administration INLS 609 Experimental Information Retrieval INLS 672 Web Development II INLS 728 Seminar in Knowledge Organization INLS 761 Data Analysis INLS 789 Big Data, Algorithms, and Society INLS 792 Applied Data Science Practicum
3. Demonstrate a theoretical knowledge of information science, including the theory of information storage and retrieval, systems science, and social, political, and ethical	INLS 512 Applications of Natural Language Processing INLS 525 Electronic Records Management INLS 539 Going the Last Mile: Information

implications of information systems.	Access for Underserved Populations INLS 561 Digital Forensics for Curation of Digital Collections INLS 582 Systems Analysis (MSIS required) INLS 613 Text Mining INLS 624 Policy-Based Data Management INLS 625 Information Analytics INLS 685 Project Management INLS 750 Introduction to Digital Curation INLS 772 Applied Statistics, Machine Learning, and Data Communication INLS 774 Applied Data Ethics INLS 818 Seminar in Human-Computer Interaction
MSLS Program Goals	**Relevant Courses**
1. Address the needs of communities that are becoming more diverse	INLS 501 Information Resources and Services (MSLS required) INLS 515 Consumer Health Information INLS 530 Young Adult Literature and Related Materials INLS 539 Going the Last Mile: Information Access for Underserved Populations INLS 551 History of Libraries and Other Information-Related Cultural Institutions INLS 554 Cultural Institutions INLS 584 Information Ethics INLS 700 Scholarly Communication INLS 721 Cataloging Theory and Practice INLS 732 Children's Literature and Related Materials INLS 733 Administration of Public Library Work with Children and Youth Adults INLS 735 Youth Services in a Diverse Society INLS 737 Inclusive Information Services for Diverse Populations INLS 746 Music Librarianship INLS 748 Health Science Environment INLS 782 Library Assessment INLS 783 Library Instruction and Pedagogy INLS 785 Human Resources Management INLS 795 Professional Field Experience INLS 796 Field Experience in School Library Media INLS 841 Seminar in Academic Libraries INLS 843 Seminar in Public Libraries

2. Address an increasing multiplicity of information formats and technologies	INLS 513 Resource Selection and Evaluation (MSLS required) INLS 534 Youth and Technology in Libraries INLS 550 History of the Book and Other Information Formats INLS 561 Digital Forensics for Curation of Digital Collections INLS 703 Science Information INLS 704 Humanities and Social Science Information INLS 705 Health Sciences Information INLS 706 Biomedical Informatics Research Review INLS 707 Government Information ILS 708 Law Libraries and Legal Information INLS 709 Business Information INLS 724 Introduction to Electronic Records Management INLS 757 Principles and Practices of Archival Description INLS 857 Seminar in Rare Book Collections
3. Address global perspective toward knowledge barriers and access.	INLS 539 Going the Last Mile: Information Access for Underserved Populations INLS 585 Management for Information Professionals (MSIS/MSLS required) INLS 660 Social Media and Society INLS 711 Disaster Planning for Libraries INLS 754 Access, Outreach, and Public Service in Cultural Heritage Repositories INLS 758 International and Cross-Cultural Perspectives for Information Management

The SILS curriculum reflects the Learning Objectives of our school, which are identical for both the MSIS and the MSLS programs. Students should be able to:

1. *Think critically to solve ILS challenges.* Our student research stream (581 Research Methods Overview, 781 Proposal Development, 992 Master's Paper) culminates in a Master's Paper or Project and requires students to identify an ILS question or problem, develop a methodology to answer/address the problem, and offer evidence-based solutions to it. Class assignments challenge students to analyze and synthesize knowledge, moving beyond rote memorization and recall.
2. *Acquire and apply knowledge of professional tools and technologies*. Students entering SILS are expected to have basic technology competencies and learn not just what is available, but also how to judge what is appropriate to use in various situations. In

addition, they gain practical experience in classroom and real-world settings. We interpret "tools" broadly to include "resources" (including people, organizations, corporations, print and digital materials, etc.) that could be employed to solve information problems. As such, all of our courses fulfill this learning outcome, as they all address resources or technologies available to information professionals.

3. *Apply theories and evidence to solve information problems*. Evidence-based practice must be based on a sound theoretical basis; both required and elective courses emphasize the theories that underlie sound practice.
4. *Demonstrate a nuanced understanding of a particular information setting/context*. Students may elect to follow guidelines for a particular specialization, complete a dual degree, or select an individual set of courses in consultation with their faculty advisors. Regardless of their curricular path, students focus on context as well as the information itself.
5. *Express ideas clearly.* Students are challenged to express their ideas in multiple formats: writing (research papers, classroom assignments, professional philosophies, etc.), speech (in-class discussions, oral performances, mock interviews, conference posters, debates, etc.), and multimedia (blogs, wikis, webpages, book trailers, functional databases, etc.).

Additional details are provided in the course syllabi which are available from the Course Website links on the Schedule of Classes for each semester (for example, fall 2021).

All SILS students are subject to the UNC Honor Code that demands a commitment to honesty, integrity, and respect. These are also values of the information professions – the foundation of ethical practice in the field.

Individual courses are updated every time they are taught to keep them current. The master's curriculum as a whole is under immediate jurisdiction of the Master's Committee (one of the five standing committees), who bring recommendations to the faculty for discussion and approval. Each curriculum revision we have undertaken has typically involved 3-4 years of effort and has been led by the two master's degree Coordinators. In 2013, we adopted a "common core" for all master's students (INLS 500 Human Information Interactions, INLS 520 Organization of Information, INLS 585 Management) and specific required classes particular to each degree. All students were also required to take the "research stream" of INLS 581 Research Methods, INLS 781 Proposal Development, and INLS 992 Master's Paper (Figure 2.1 below).

Figure 2.1: 2013 Curriculum

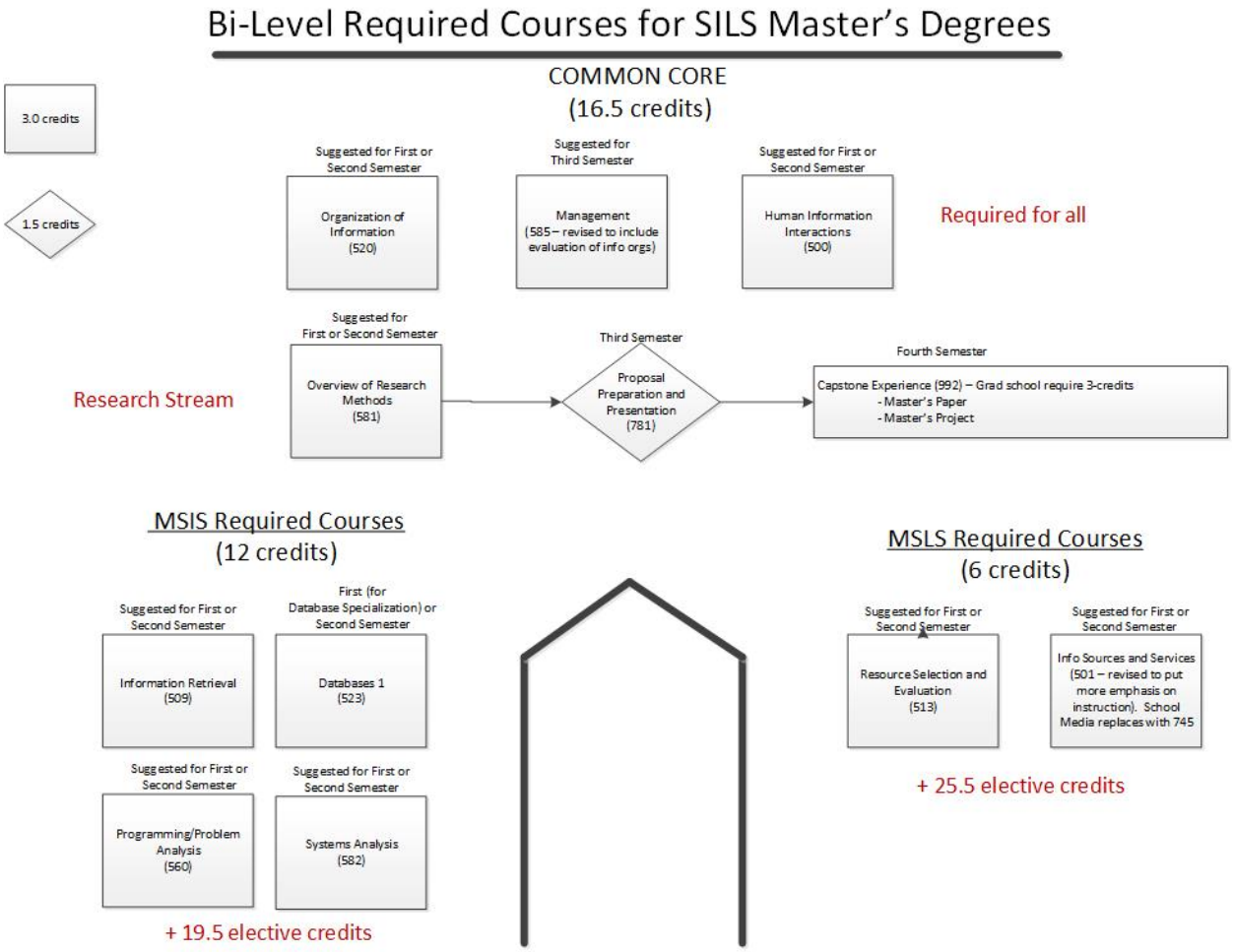


Table 2.2 below summarizes the required courses and credit hours for the MSIS and the MSLS degrees.

Table 2.2: Current Master's Degree Requirements

MSIS Required Courses (28.5 credits)
INLS 500 Human Information Interactions INLS 509 Information Retrieval INLS 520 Organization of Information INLS 523 Database Systems I INLS 560 Programming/Problem Analysis INLS 581 Research Methods Overview INLS 582 Systems Analysis INLS 585 Management

INLS 781 Proposal Preparation and Presentation (1.5 credits) INLS 992 Master's Paper
MSLS Required Courses (22.5 credits)
INLS 500 Human Information Interactions INLS 501 Information Resources and Services INLS 513 Resource Selection and Evaluation INLS 520 Organization of Information INLS 581 Research Methods Overview INLS 585 Management INLS 781 Proposal Preparation and Presentation (1.5 credits) INLS 992 Master's Paper

This curriculum has remained in place since 2013. After five years of this curriculum and given the rapid pace of change in the field, the faculty decided it was time to revisit the overall design to explore new approaches. While we may not begin an extensive curriculum revision *every* five years after we initiate a new curriculum, part of our systematic planning is formally to review the entire curriculum every five years to assess whether it needs an overhaul or whether smaller tweaks are all that is required. As we began the review, faculty voiced their perceptions that the curriculum was outdated and too heavily reliant on required coursework; students agreed and expressed their concern about the concomitant reduction in the number of electives they could take in their 48-credit-hour, 2-year degree programs.

The Master's committee conducted a listening session with students to explore how they would characterize our MSLS and MSIS programs and how they would envision their ideal program during the fall of 2018 (SILS COA Document Archive: II Curriculum: Oct_1_student_discussion_notes). Students' ideal curricula included such suggestions as: 1) "More options for a synthesizing experience than the master's paper"; 2) "There are too many required classes"; 3) "Classes should enable students to pursue their own interests"; 4) "There should be more specific, advanced coursework in targeted areas of personal interest"; and 5) "There should be specific, fundamental coursework in areas of personal interest."

In the spring of 2019, the Master's Committee formed a Curriculum Subcommittee, which helped the faculty explore a competency-based curriculum model that eventually transformed into the concept bin approach. They also considered a curriculum designed around specialized tracks, the option of a reduced core, and offered a proposed set of changes (SILS COA Document Archive: II Curriculum: 20190410 meeting). During the fall of 2019, we surveyed students about the capstone offerings we were considering (COA Documents Archive: II Curriculum capstone_survey.docx). The main take-away from that survey was that "MANY

students envision this capstone not as an "emerging issues" or seminar-type class (similar to what undergrads do), but rather as a chance to complete a practical project addressing a real-world issue or problem in the context of an existing information organization." They also were strongly in favor of "presenting on their capstone experience at a symposium-style event rather than writing a paper."

SILS Student Exit Interview notes corroborated many of these findings (SILS COA Document Archive: II. Students & Alumni: SILS Exit Interview Notes). In the fall of 2020, students explained that for our research emphasis (INLS 581 Research Methods, INLS 781 Proposal Development, INLS 992 Master's Paper, "the 7.5 credit hours required for the research paper, is a fair number for student who are not going into research. During the job search most of the interactions were focused on practicality. Job got was more a result of professional internships." Also noted was that "more internships toward the MSIS are needed. Internships that appeal to a wider range of students." From the Spring 2021 exit interview notes, students mentioned they "would enjoy semester long periods which allowed involvement in the community and integrated with the real world." This datum supported the implementation of the capstone practicum option. Another note suggested students were "disappointed with the number of elective courses offered [in the public library track]," which has been mentioned many times in many different venues and supported our decision to require only two courses.

The student "voice" had a direct impact on the faculty's eventual decision to adopt a capstone practicum option.

In 2020, the MSLS and MSIS Coordinators (in close collaboration with the Master's Committee (including its student representatives), the Graduate Student Services Coordinator, and the Associate Dean for Academics) continued work on the curriculum design, talking with representatives from across campus (the School of Government, for example, was particularly helpful in convincing us NOT to pursue a portfolio option for the capstone experience), listening to alumni (one alum on the 2020 survey said, "The program would greatly benefit from having a required practicum in a local business or library for every student"), and gathering input from students in a March 2021 survey. From this survey we learned that students were very supportive of the proposed design (they felt positive about the practicum option in particular (86%, N=22)). One student noted, *"I like this idea a lot! It gives students an opportunity to work with colleagues that they've built trust with during the course of the program and probably develop a more interconnected alumni network over time. Plus, the community engagement with local organizations is really empowering for folks outside of the academic bubble, the awareness of social issues among students and SILS's overall brand."* We also requested input from the Vice Provost for University Libraries (as a possible site for student practicums), and from the Graduate School Associate Dean for Academics in order to prepare a new proposal for the faculty, which, after extensive discussion and revision, received approval at the end of spring

2021, to be implemented in the spring of 2022. It was also reviewed and approved by the SILS Administrative Advisory Board, composed of 4 SILS faculty and 3 faculty from outside the School (received in spring 2021) and by the Graduate School Academic Policy Committee (received in fall 2021). The new curriculum proposal is explained in full in: SILS COA Document Archive: II. Curriculum: 2021_SILS_New_Curriculum_Proposal.pdf; it is also included as Appendix B.

Briefly, the number of required courses has been reduced to two new courses under development by teams of faculty (INLS 776 Ethics, Values and Society and INLS 777 Perspectives on Information, Technology and People). We intend these to give students an overview and foundation in the field as well as a strong, and early, introduction to ethical practice in the information professions. We have decided on four "bins" (collections of courses) from which students will be required to select one or two courses as part of their degree progress. These four bins are: 1) Information, 2) Services & Organizations, 3) Technology, and 4) Communities & People. These bins are a direct outgrowth of the competencies work of the 2019 subcommittee, which included the possible competencies of: 1) Information, 2) Communication & Interactions, 3) Professional Practice, 4) Design Thinking, 5) Social & Ethical Responsibilities, and 6) Research, Assessment, and Evaluation. All students will be required to take 2 courses in the Information bin, and 1 course from the People and Communities bin. MSIS students will take 1 course from the Services and Organizations bin (MSLS take 2), and MSIS students will take 2 courses from the Technology bin (MSLS students take 1). The capstone experience (INLS 992) will have two options: an independent research study with a final paper, or a group practicum with a final poster presentation or demonstration session.

All other courses will be electives of the students' choice, in consultation with their faculty advisor. Pedagogically, this allows for more customization and individuation of coursework to maximize flexibility and increase career readiness and focus for each student. It also enables faculty to be more variable in the courses they offer with the goal of having a much more responsive and agile curriculum, since faculty will not be tied to specific, required courses.

Variety of Educational Experiences

The concept of "educational experiences" encompasses a multitude of dimensions by which one experience can be described: form of instruction (if any), level of planning or formality, degree of immersion, balance between novelty and reinforcement, purpose of the experience, and so on. We seek to provide students and teachers alike with the opportunity to explore different forms of learning and teaching, practice and guidance, and exploration and discovery.

As a student proceeds through the program, they will encounter lectures, case studies, practice exercises, group projects, research literature, design challenges, experiential learning, work with

clients, patrons, or colleagues, and of course, the Master's paper or Project. Some examples illustrating the variety of learning experiences, and the courses in which they are found, are given below.

Writing is an important professional skill; student assignments include a variety of genres:

- Literature review of a topic of interest (INLS 509 Information Retrieval)
- Constructive article critique, or response (INLS 509 Information Retrieval, INLS 520 Organization of Information)
- Project proposal (INLS 582 Systems Analysis, INLS 780 Research Methods/781 Proposal Development)
- Evidence review memo and summary for evidence-based practice (INLS 500 Human Information Interactions)
- Annotated collection development policies, group presentations (INLS 513 Resource Selection and Evaluation)
- Managerial portfolio, (INLS 585 Management)
- Reflective journaling after a service learning experience (INLS 735 Youth Services in a Diverse Society)

Some of these writing assignments are individual; others are collaborative, allowing students to gain experience with writing in teams.

Presentation, the ability to communicate one's ideas to a group in a clear, well-organized, and professional manner, is another important professional skill, and provides a rich learning experience in planning and preparing the presentation as well as in its delivery. Student presentations in courses include:

- Presentation of article summaries (INLS 500 Human Information Interactions)
- Final projects or papers (most classes with projects)
- Current events and their implications for the field or new discoveries or technologies that students' colleagues should know about (INLS 512 Applications of Natural Language Processing, INLS 623 Database Systems II, INLS 818 Seminar in Computer-Human Interaction)
- Demonstrations of tools and technologies (INLS 512 Applications of Natural Language Processing, INLS 582 Systems Analysis, INLS 500 Human Information Interactions, INLS 585 Management, INLS 513 Resource Selection and Evaluation, INLS 818 Seminar in Human-Computer Interaction)
- Live and recorded storytelling (INLS 558 Principles and Techniques of Storytelling)

- Workshop sessions focused on technology use among children or teens, which students present to local public and school librarians (INLS 534 Youth and Technology in Libraries)

Discussing ideas, issues, or problems requires the students to present their own ideas and the evidence that supports them, as well as listen to those of others, and respond in a respectful, professional manner. Leading a discussion adds the additional responsibility of planning questions or probes that will engage other students, elicit contributions from others, and summarize or synthesize the conversation. Again, these are skills needed in the professional world. Virtually all courses include class discussions that are focused on a particular article or arise as part of an exercise. Some also conduct discussions online, e.g., on forums or blogs. Examples include:

- Leading classroom discussions (INLS 500 Human Information Interactions, 520 Organization of Information, INLS 582 Systems Analysis, INLS 781 Seminar in Knowledge Organization, INLS 800 Seminar Series in Digital Curation, INLS 818 Seminar in Human-Computer Interaction, INLS 841 Seminar in Academic Libraries, INLS 842 Seminar in Popular Materials in Libraries, INLS 843 Seminar in Public Libraries, INLS 857 Seminar in Rare Book Collections)
- Online discussions (INLS 520 Organization of Information, 560 Programming and Problem Analysis)
- Formal debate (INLS 623 Database Systems II)

Class readings include research articles, case studies, descriptions of best practices, technical documentation and standards. "Reading" also includes videos such as TED talks, demonstrations, participation in social media, and other online resources. A selected list of journals in Table 2.8 illustrates the range of literature students read.

Projects, both individual and group, allow students to work on larger-scale or more intricate problems. Many SILS courses incorporate projects to augment smaller, more focused assignments, as well as pursuing a topic or problem of interest to individual students or teams of students. Projects help students develop project management skills. Group projects also provide a platform for learning how to collaborate: distributing and accepting responsibilities and interacting with others in a respectful and professional manner (including negotiating disagreement and criticism). Examples include:

- Systems analysis group project working with real clients (INLS 582 Systems Analysis)
- Design and development of information technology or tool, including gathering requirements, writing specifications, and testing (INLS 523 Database Systems I, INLS 623 Database Systems II)

- Budget creation for specific organization, including presentation to the funding agency (INLS 585 Management)
- Implementation of a personal digital library (INLS 540 Building a Personal Digital Library)
- Giving book talks (INLS 842 Seminar in Popular Materials in Libraries)

During their studies at SILS, students will learn from outstanding researchers and practitioners. Instructors regularly invite guests to speak to their classes, either face-to-face or by online venues. SILS also hosts visiting scholars for more extended interactions. Table 2.3 shows the visiting scholars at SILS before COVID-19 struck.

Table 2.3: Internationally Renowned Scholars Visiting SILS (2010-2019)

Year	Scholars	Country of Origin
2019	Han Lu Yao Cai Ok Nam Park	China China South Korea
2018	Cory Doctorow Dan Russell Dan Wu Xuemin Guo	USA USA China China
2017	Kyungjae Bae Kun Huang	South Korea China
2016	Jianhua Xu Ali Al-Aufi	China Oman
2015	Maliheh Farrokhnia Yurdagül Ünal Pianran Wang Ping Wang Houqiang Yu Peng Zhu	Norway Turkey China China China China
2014	Furong Li	China
2013	-	-
2012	David Nichols Jong Sung Kim Falk Scholer	New Zealand China Australia
2011	Kun Huang Fenglin Li Huabing Qiu Xiaojie Zong	China South Korea China China
2010	Özgür Külcü Hande Uzun Külcü	Turkey Turkey

Until 2017, we had a series of Friday talks hosted by the Center for Research and Development of Digital Libraries (CRADLE); this series has included scholars in our field (e.g., Heather O'Brien, Assistant Professor, iSchool, University of British Columbia; Wade Bishop, Assistant Professor, School of Information Sciences, University of Tennessee), industry leaders (e.g., Tarandeep Anand & Kate Chattiya, Co-founders and project directors for Adam's Love and TemanTeman.org;), and international visitors (e.g., Ali Al-Aufi, Associate Professor, Department of Information Studies, Sultan Qaboos University, Oman; Col. Muktar Muhammad Bunza, College Librarian, National Defense College Nigeria; Mrs. Maimuna Izah, Academy Librarian, Nigerian Defense Academy, Kaduna, Nigeria). We are planning to resume the CRADLE talks once the pandemic begins to wane.

Our sponsored lecture series (the Lucile Kelling Henderson Lectures, the OCLC/Frederick G. Kilgour Lectures, and the Steinfirst Lectures, and our annual Commencement ceremony) also bring high-profile speakers to SILS.

Experiential Learning

We strongly encourage all students to gain professional experience, through assistantships, internships, the Field Experience courses (INLS 795 Professional Field Experience, INLS 796 Field Experience in School Library Media, INLS 797 2nd Professional Field Experience), part-time jobs, and/or volunteer work such as the Community Workshop Series. The Field Experience course is not required, in part because so many students gain similar experience through venues other than their coursework. Table 2.4 shows the number of students each semester who registered for the Field Experience course. It is important to note that these data only include students who registered for the FE course; it does not include those who gained experience through assistantships or other part time jobs.

Table 2.4: Number of students who take a field experience

Year	Semester	Enrollment in INLS 795 or INLS 797	Academic Year Totals
2014	Fall	12	
2015	Spring	10	
2015	Summer	0	22
2015	Fall	10	
2016	Spring	12	
2016	Summer	15	37
2016	Fall	10	
2017	Spring	11	
2017	Summer	14	35
2017	Fall	14	

2018	Spring	14	
2018	Summer	15	43
2018	Fall	16	
2019	Spring	29	
2019	Summer	18	63
2019	Fall	21	
2020	Spring	16	
2020	Summer	6	43
2020	Fall	6	
2021	Spring	10	
2021	Summer	0	16
2021	Fall	7	

Students and alumni alike judge the Field Experience course to be one of the most valuable learning experiences they can have, as well as making them more attractive to prospective employers. In addition to gaining professional experience, students expand their professional network and observe the myriad activities in which their site supervisor and other colleagues are involved on a daily basis. The sites at which students work span the spectrum of work places, from public libraries to university libraries to large businesses.

Designing my own field experience has enabled me to learn about qualitative IS research methods and to develop ways of thinking about specific content and problems early on. I am applying what I learned in some of the early required courses in this field experience, helping to cement some of those skills/ideas. (2020 Current Student Survey)

My internships, field experience, and employment have been the most useful. I prefer hands-on, practical classes in general that give met the skills to do my job. (2016 Current Student Survey)

I really liked the field experience option and took advantage of that. I learned my most important skills through internships, and I'm glad I was able to take those for credit. Having so many community partners through the field experience program was great. (2020 Alumni Survey)

There was a heavy theoretical bent to the program which has served me very little in my current job. The more hands-on, practice-based courses (461, collection development, field experiences, etc.) have proved the most beneficial. (2016 Alumni Survey)

In 2020, seventy-five percent of alumni responded that the quality of field experience and internship opportunities were either “good” or “excellent.” That number was seventy percent in 2016. (SILS COA Document Archive: III Students & Alumni)

Students also create their own learning experiences, such as the Community Workshop Series, participation in student organizations and their sponsored events, and after-hours discussions with their colleagues. A look at the SILS events archive illustrates the variety of learning experiences outside of classes and work that are available to SILS students.

In addition to providing students with a wealth of learning experiences, assignments and activities support student achievement on the programs' Learning Outcomes (described in Section 1) as shown in Table 2.5 by these examples drawn from the required courses.

Table 2.5: Examples of activities in required courses that support learning outcomes

MSIS Learning Outcome	Course	Activity
Apply critical thinking to particular challenge		
	INLS 509 Information Retrieval	Constructive critique of articles
	INLS 520 Organization of Information	Reflective response to readings
	INLS 560 Programming for Information Professionals	Problem analysis for program design
	INLS 781 Proposal Development (new curriculum)	Research proposal
Apply standard professional tools to problems and be aware of info tools available to information professionals		
	INLS 501 Information Resources and Services	Horizon Report (research effort identifying emerging technologies that will have impact on higher education)
	INLS 513 Resource Selection and Evaluation	Analysis and evaluation of collection development policies
	INLS 520 Organization of Information	facet analysis, taxonomy development, application of standards for organizational scheme development
	INLS 523 Database Systems I	Entity-Relationship models and database management system in database design and development
	INLS 560 Programming for Information Professionals	Information analysis and tool development using programming languages (Python or Java), code libraries
	INLS 582 Systems Analysis	Process, context, and information models and analysis; project management
Apply ideas, theories, and empirical evidence		
	INLS 500 Human Information Interactions	Evidence review memo, evidence summary
	INLS 523 Database Systems I	Design a database based on relational database theory
	INLS 582 Systems Analysis	Contextual inquiry, user-centered design in analysis projects
	INLS 585 Management for Information Professionals	Managerial portfolio (managerial philosophy)
	INLS 781 Proposal Development	Research proposal
Demonstrate nuanced understanding of particular context		
	INLS 501 Information Resources and Services	Information service evaluation
	INLS 523 Database Systems I	Requirements specification for database design

		and development
	INLS 582 Systems Analysis	User-centered analysis and for design of information system for actual client
	INLS 585 Management for Information Professionals	Organizational analysis and stakeholder analysis for management portfolio
Express ideas clearly, synthesize multiple sources, develop coherent argument		
	INLS 500 Human Information Interactions	Scholarly communication analysis
	INLS 523 Database Systems I	Specify requirements, justify design decisions for database design
	INLS 582 Systems Analysis	Project proposal for actual client, group presentation
	INLS 585 Management for Information Professionals	Managerial portfolio, group presentation
	INLS 781 Proposal Development	Research proposal
	INLS 992 Master's Paper/Project	Master's paper or Project
MSLS Learning Outcome	**Course**	**Activity**
Apply critical thinking to particular challenge		
	INLS 513 Resource Selection and Evaluation	Reading reflections, annotated collection development policies
	INLS 520 Organization of Information	Reflective response to readings
	INLS 781 Proposal Development (new curriculum)	Research proposal
Apply standard professional tools to problems and be aware of info tools available to information professionals		
	INLS 501 Information Resources and Services	Horizon Report (research effort identifying emerging technologies that will have impact on higher education)
	INLS 513 Resource Selection and Evaluation	Analysis and evaluation of collection development policies
	INLS 520 Organization of Information	facet analysis, taxonomy development, application of standards for organizational scheme development
	INLS 585 Management for Information Professionals	Managerial portfolio (managerial philosophy)
	INLS 781 Proposal Development	Research proposal
Apply ideas, theories, and empirical evidence		
	INLS 500 Human Information Interactions	Evidence review memo, evidence summary
	INLS 585 Management for Information Professionals	Managerial portfolio (managerial philosophy)
	INLS 781 Proposal Development	Research proposal
Demonstrate nuanced understanding of particular context		
	INLS 501 Information Resources and Services	Information service evaluation
	INLS 513 Resource Selection and Evaluation	Community-based resource collection (design collection for real institution)
	INLS 585 Management for Information Professionals	Managerial portfolio, group presentation
	INLS 781 Proposal Development	Research proposal
	INLS 992 Master's Paper/Project	Master's paper or Project
Express ideas clearly, synthesize multiple sources, develop coherent argument		
	INLS 500 Human Information	Scholarly communication analysis

	Interactions	
	INLS 585 Management for Information Professionals	Managerial portfolio, group presentation
	INLS 781 Proposal Development	Research proposal
	INLS 992 Master's Paper/Project	Master's paper or Project

The remainder of this chapter describes the blend of theory (please see Table 1.1 for some specific courses and their theoretical approaches) and practice in the classroom and in the real world, and the interactions with talented and successful instructors, researchers, and practitioners that make up the educational environment at SILS. On the 2020 Alumni Survey, 76.3% (N=38) of respondents *agreed* or *strongly agreed* that the faculty "integrated theory and practice effectively in their courses." For the 2016 Alumni Survey that number was 68.9% (N=103).

II.2. The curriculum is concerned with information resources and the services and technologies to facilitate their management and use. Within this overarching concept, the curriculum of library and information studies encompasses information and knowledge creation, communication, identification, selection, acquisition, organization and description, storage and retrieval, preservation and curation, analysis, interpretation, evaluation, synthesis, dissemination, use and users, and management of human and information resources.

All SILS courses deal with one or more elements of this information life cycle. A listing of specific courses that relate to these content areas is included in Table 2.6 below; this is a thorough but not exhaustive list.

Table 2.6: Mapping of SILS Courses to Content Areas

Content Area	SILS Courses
Knowledge Creation	INLS 540, 720, 750, 752, 756, 774, 787
Communication & Dissemination	INLS 500 (MSLS/MSIS required), 525, 558, 700, 703, 711, 772
Selection	INLS 513 (MSLS required), 530, 550, 703, 704, 705, 706, 707, 708, 709, 733, 750, 842
Acquisition	INLS 556, 561, 733, 857
Organization and Description	INLS 520 (MSIS/MSLS required), 540, 620, 621, 624, 705, 721, 722, 728, 733, 757, 857,
Storage and Retrieval	INLS 509 (MSIS required), 512, 561, 609, 701, 750, 751, 761, 775
Preservation & Curation	INLS 525, 561, 621, 724, 749, 750, 751, 752, 753, 755, 756, 766, 774, 775, 794, 800, 842
Analysis	INLS 501, 515, 570, 578, 581, 582, 625, 641, 701, 714, 721, 757, 761, 772, 775, 785, 787
Interpretation	INLS 581 (MSIS/MSLS required)
Evaluation	INLS 418, 465, 501 (MSIS/MSLS required), 509 (MSIS required), 513 (MSLS required), 572, 573, 585 (MSIS/MSLS required), 609, 672, 701, 712, 718, 719, 739, 740, 760, 765, 782, 794, 818

Use and Users	INLS 418, 501 (MSIS/MSLS required), 513 (MSLS required), 530, 534, 551, 558, 584, 585 (MSIS/MSLS required), 701, 718, 732, 733, 735, 739, 747, 754, 773, 783, 786, 795, 796, 818, 842, 843
Management	INLS 465, 525, 540, 556, 578, 585 (MSIS/MSLS required), 621, 624, 685, 707, 724, 725, 740, 747, 749, 751, 752, 756, 758, 765, 773, 775, 785, 843

II.2.1 Fosters development of library and information professionals who will assume a leadership role in providing services and collections appropriate for the communities that are served.

The curriculum encourages students to develop qualities necessary to leadership positions. Visitors to SILS serve as mentors and leadership role models for our students. Requiring that students take INLS 585 Management for Information Professionals, assumes that SILS students will be responsible for planning, decision-making, and innovation within their workplaces and beyond. Students in INLS 735 Youth Services in a Diverse Society are required to complete 30 hours of service learning, developing community service projects related to literacy and information access in a school or public library. Until COVID-19, students in INLS 782 Library Assessment worked with local university libraries on assessment projects: developing the project plan, identifying appropriate metrics and methodologies, and presenting results to the library. Since COVID-19, these have become more hypothetical, though they remain based on actual library needs. A review of our Alumni Profiles shows that our students do assume leadership positions after graduation. A few examples include: Technical Advisor to Amazon CEO Jeff Bezos; Director of Strategic Initiatives, National Information Standards Organization; State Librarian of North Carolina; Chief Information Security Officer, University of North Carolina System; Lead Archivist, Kennedy Center for the Performing Arts; Assistant Director, Catawba County Library; Director of Program Planning & Outreach, North Carolina State University Libraries.

II.2.2 Emphasizes an evolving body of knowledge that reflects the findings of basic and applied research from relevant fields.

Our curriculum is designed to be responsive to new developments in the field. Faculty update their individual courses each time they are offered to keep them aligned with contemporary thought. Our experimental courses (INLS 490, 690, and 890) provide the faculty the opportunity to explore ideas within and tangential to the field that are often on the cutting edge of research and discovery. The curriculum also changes as new colleagues join the faculty and bring new areas of expertise. New adjunct professors and doctoral students also help broaden and deepen the curriculum. SILS is adding new classes (and a new Certificate program) in data science as

that area gains attention, and we have added two courses on makerspaces with the addition of Maggie Melo to the faculty, who has expertise in that area.

Our courses also include many journal articles and books prominent in the field to ensure students are exposed to new ideas. A review of the core course syllabi shows that assigned readings include texts from a wide range of publication dates (1980-2021). An analysis of syllabi within the core curriculum for the MSIS and the MSLS shows assigned or recommended readings that fall into the following publication ranges (Table 2.7). Note some of these are textbooks, particularly for MSIS classes:

Table 2.7: Readings in INLS Core Classes by Publication Date

Decade	MSIS/MSLS Required	MSLS only Required	MSIS only Required	Total
1980s	4	8	0	12
1990s	18	25	2	45
2000s	43	186	3	232
2010s	68	41	3	112
2020s	10	8	0	18

On both Alumni Surveys, respondents said that the curriculum's coverage of "Core concepts of the field" was *very good* or *outstanding*: 72% in 2020 (N=39), 75% in 2016 (N=104); respondents said coverage of "Philosophy, principles, ethics of the field" was *very good* or *outstanding*: 77% in 2020 (N=39), 75% in 2016 (N=105). In 2020, 79% (N=38) *agreed* or *strongly agreed* that the faculty "integrated current thinking into courses" (78% in 2016, N=103).

On both Current Student Surveys, a majority of respondents rated as either *outstanding* or *very good* the quality of the full-time faculty on "integrating current thinking into courses" (79% in 2020, N=24; 70% in 2016, N=40).

II.2.3 Integrates technology and the theories that underpin its design, application, and use.

SILS courses incorporate basic information technology as part of the infrastructure of the course, such as use of Sakai, Social Media Classroom, e-reserves, Basecamp, SILS Lifetime Library, meeting and collaboration tools (e.g., Blackboard Connect, Skype) and other resources from the web for content, development and communication (see Section V.11 for information about SILS instructional technology resources). In addition, instructors experiment with course technologies, such as wikis, blogs, social media, student-created video, and other forms of assignments and deliverables. Although our programs are predominantly residential, online courses maintain a strong presence in the SILS curriculum. COVID-19, of course, forced all our courses into remote delivery modes in 2020 and spring 2021, and we are continuing a larger proportion of remotely delivered classes for the fall of 2021 and spring of 2022, as we wait for development in the

pandemic. In the fall of 2019, for example, SILS offered 18 online classes (not including those provided by the WISE consortium); in the fall of 2021, SILS offered 43 courses in either remote-synchronous or remote-asynchronous format. We have not seen a degree bias in this shift to remote teaching. In fall 2019 (pre-COVID), we offered 10 sections required for both the MSIS and the MSLS in-person and 3 remotely; in fall 2021, we offered 4 in-person and 8 remotely. In fall 2019, we offered 2 required MSLS sections in-person and one remotely; in fall 2021 we offered 1 in-person and 2 remotely. In fall 2019, we offered 10 MSIS required sections in-person and 2 remotely; in fall 2021, we offered 5 sections in-person and 4 remotely (see the COA Document Archive>2. Curriculum for the data). Comparing those two years, we see roughly half as many in-person sections of required classes for both degrees, as well as twice as many remote sections for both degrees.

In addition, Dr. Helen Tibbo has offered a short course on Research Data Management and Sharing as a MOOC through Coursera.

Other courses cover particular types of technology, such as statistics packages (JMP), database tools (MS Access, SQLite, MySQL, Oracle, Hadoop, cloud-based NoSQL databases), development tools (GitHub, Cloud9), data grids (iRODS), and digital forensics technology, including the BitCurator environment.

In all courses, the focus is not just on the mechanics and skills, but also on the underlying theory, interactions between users and the technology, and the context in which the technology is or could be used. Example elective courses that focus on theory, application, and use of technology are listed below:

- **INLS 465 Understanding Information Technology for Managing Digital Collections.** The nature of IT, its main components and their inter-dependencies, with strong emphasis on the characteristics that are most relevant to managing digital collections over time.
- **INLS 512 Applications of Natural Language Processing.** Applications of natural language processing techniques and the representations and processes needed to support them. Topics include interfaces, text retrieval, machine translation, speech processing, and text generation.
- **INLS 523 Introduction to Database Concepts and Applications.** Design and implementation of basic database systems. Semantic modeling, relational database theory, including normalization, indexing, and query construction, SQL.
- **INLS 534 Youth and Technology in Libraries.** This course will prepare students to utilize emerging technologies with youth in public and school libraries, identify issues surrounding their use, and potential impacts on learning and development.
- **INLS 541 Information Visualization.** This course introduces the field of Information Visualization through readings of current literature and studying exemplars. A

comprehensive review is given of the different types of information visualization techniques. The course provides students a framework for identifying the information visualization need and determining the appropriate choice of data mappings and visualization techniques. A strong emphasis is placed on interactive electronic visualizations using freely available tools.

- **INLS 613 Text Mining.** This course will allow the student to develop a general understanding of knowledge discovery and gain a specific understanding of text mining. Students will become familiar with both the theoretical and practical aspects of text mining and develop a proficiency with data modeling text.
- **INLS 624 Policy-Based Data Management.** Students will develop policies for managing digital repositories and persistent archives. The rules will be implemented in the integrated Rule-Oriented Data System (iRODS), which organizes distributed data into shareable collections.
- **INLS 641 Visual Analytics.** This course will provide an overview of Visual Analytics, a topic that combines information visualization and data analysis to support analytical reasoning via highly interactive visual interfaces. The course will review foundational concepts, recent results, and commonly used technologies. The course is project-oriented and will require that students program their own web-based visualization systems using HTML and JavaScript. While no specific courses are considered pre-requisites, students should be competent programmers. Prior experience with web programming (e.g., HTML and JavaScript) is strongly recommended.
- **INLS 740 Digital Libraries: Principles and Applications**. Research and development issues in digital libraries, including collection development and digitization; mixed mode holdings; access strategies and interfaces; metadata and interoperability; economic and social policies; and management and evaluation.

Several recent experimental courses (INLS 490, INLS 690, INLS 890) have also focused on theory, application, and the use of technology:

- **INLS 490-089: Human-Centered Data Science Applications.** This course aims to ground students in principles and practices for socially responsible data science. Students will work in teams to define and address a data-intensive problem in a domain interest.
- **INLS 490-278: Programming for Data Analysis.** In a world that is increasingly driven by software and data, developing fluency with the basics of programming and data analysis is a crucial skill. This course will introduce basic programming and data science tools to give students the skills to use data to answer questions about local and online communities. In particular, the class will cover the basics of the Python programming language, an introduction to web APIs including APIs from Wikipedia and Twitter and will teach basic tools and techniques for data analysis and visualization. As part of the class, students will learn to write software in Python to collect data from public datasets

and web APIs and process that data to produce numbers, tables, and graphical visualizations toward answering questions that they come up with.

- **INLS 690-230: Community Data Lab.** Working with and in local communities often requires knowledge of community-facing and community-related datasets, and how to use supporting technology to conduct community assessments, understand community needs, and to support the community in crafting narratives. Students in the course will read about and discuss community production and use of data, and the tools that support open access and use of data in local communities.
- **INLS 690-270 Data Mining: Methods and Applications.** This course provides an overview of recent research topics in the field of data mining. It takes a data-centric approach by surveying the state-of-the-art methods to analyze (or mine) different genres of data: item sets, matrices, sequences, texts, images, networks, and more. The course materials will focus on how the information in different real-world problems can be formulated as particular genres, and how the basic mining tasks of each genre of data can be accomplished. To this end, the course is suitable not only for students who are doing research in data mining related fields, but also for students who are consumers of data mining techniques in their own disciplines, such as natural language processing, information retrieval, human computer interaction, social computing, health informatics, digital humanities, economics, and business intelligence.

II.2.4 Responds to the needs of a diverse and global society, including the needs of underserved groups.

The SILS mission and diversity statements declare our commitment to understanding and serving the needs of all people. The underlying theme of user-centered services and systems evident in all SILS courses is based on this commitment, and instructors are encouraged to include reference to this commitment in course syllabi. In the curriculum, this commitment is expressed in courses that specifically address the needs of diverse populations and people, as well as the inclusion of topics focused on these needs in required and elective courses.

Courses specifically focused on diversity issues include INLS 530 Young Adult Literature and Related Materials, INLS 534 Youth and Technology in Libraries, INLS 539 Going the Last Mile: Information Access for Underserved Populations, INLS 690-230 Community Data Lab, INLS 690-279 Diversity, Equity, and Inclusion in Open Access, INLS 732 Children's Literature and Related Materials, INLS 735 Youth Services in a Diverse Society, INLS 737 Inclusive Information Services for Diverse Populations, INLS 890-289 Networks of Racial Capitalism, and those focused on specific types of information needs, such as INLS 515 Consumer Health Information.

Ethical practices for information professionals are also relevant here. Students must develop their own code of ethics and also understand and follow those of their professional organizations. Three courses, INLS 566 Information Assurance, INLS 584 Information Ethics, and INLS 787 Legal issues for Librarians, focus specifically on topics directly involved in ethical reasoning and practice, including intellectual property, privacy, data integrity and legal issues. Other courses, such as INLS 513 Resource Selection and Evaluation, focus on ethical practices within the scope of the course topics. Our new curriculum required course INLS 776 Ethics, Values and Society, will bring this topic to all of our master's students. Table 2.8 highlights topics related to diversity and ethics in the required courses, drawn from recent syllabi.

Table 2.8: Inclusion of topics related to diversity and ethics in required courses

Course	Topics
INLS 500 Information Interactions 9MSLS/MSIS)	Individual information needs in everyday life; information poverty
INLS 501 Information Resources and Services (MSLS)	Ethical aspects of reference service, reference services for specific populations (e.g., homeless)
INLS 513 Resource Selection and Evaluation (MSLS)	Understanding community information needs; ethical considerations associated with selection, evaluation, and management, legal issues
INLS 520 Organization of Information (MSLS/MSIS)	Respecting world, cultural and disciplinary perspectives in development of terminologies and ontologies
INLS 581 Research Methods Overview (MSLS/MSIS)	Research ethics, including human subjects, ethnography
INLS 585 Management (MSLS/MSIS)	Leadership and gender, diversity in the workplace, values and ethics
INLS 781 Proposal Development (MSLS/MSIS)	Research ethics, IRB procedures

Fifty-nine percent (N=39) of respondents to the 2020 Alumni Survey considered the way the curriculum covered the "role of Information and Library Science in a diverse, multi-cultural, multiethnic, multilingual society" to be *very good* or *outstanding* (63% (N=105) in 2016), and 59% (N=39) considered coverage of the "role of Information and Library Science in helping the underserved" to be *very good* or *outstanding* (48.6% (N=105) in 2016). Alumni recognize the need for a greater focus on diversity, equity, and inclusion. When responding to both the 2016 and the 2020 Alumni survey question "Are there other required courses or instruction in particular knowledge, skills, or abilities that you think should be required for SILS students," several students answered:

- *A diversity in libraries course like the one taught by Dr. Hughes-Hassell.*
- *Equity and diversity courses. I was required for my focus [school media] but not for all of them.*
- *A course exposing students to issues of diversity should be required.*

Students also address diversity in their Master's papers; examples from 2019-2020 include:

- Walking on Eggshells: Experiences of Students of Color within Library and Information Science Master's Programs. Karina Soni.
- Representing the Romance: Diversity and Inclusion in the Romance Collections of Public Libraries. Holly Roper.
- Dispatches from the 200's: A case study in religious representation in the Wake County Public Library System. Alexandra Helms.
- Effects of Historical Contextualization of Confederate Monuments in North Carolina. Csuka, Brooke.
- A Makerspace of One's Own? An Exploratory Study of Women and Gender Non-Conforming Individuals Experiences of an Academic Makerspace. McMahon, Megan.
- How Well Do North Carolina Public Library Websites Facilitate Access for Spanish-Speaking Users? Link, Sophi.
- Check Yourself Before You Wreck Yourself: Evaluating for Inclusive and Equitable Themes in Online Resources for Information Technology Competency Tests. Mandani, Samantha.
- Liminal Space: Identifying Bisexual Materials in Public Library Catalogs. Morris, Rachel.
- From Concept to Practice: Themes of Diversity Within the Strategic Planning of Academic Libraries. Margaret McGuire.[3]

II.2.5 Provides direction for future development of a rapidly changing field.

The information professions have always encountered change along multiple dimensions: the people they serve and the people who provide services, the society within which they operate, and the nature of information and information tools themselves. SILS' curriculum seeks to prepare students not just for their first job, but for their second and third jobs as well.

The core courses cover fundamental theories, functions, and concepts – these will be present in some form in the future. Individual courses can change to adopt new technologies, incorporate new theories, or try new instructional approaches, as the faculty and students see the need.

New courses are created on a regular basis. The "Selected Topics" course numbers (INLS 490, INLS 690, INLS 890) provide a home for experimental courses without the need of formal approval. They may be offered up to three times in response to a particular issue or current event, and thus represent the flexibility and rapid response that is available to students and faculty. Eventually, with the approval of the SILS faculty, some will become regular course offerings.

[3] For a complete list of Master's papers focused on diversity since 2014, see SILS COA Document Archive: II Curriculum: Masters_Papers_DEI_Themes_2014-2020.docx.

Course titles reflect how students and faculty alike seek to shape and engage with the future. Examples include:

- Human-Centered Data Science Applications
- Real-time Data Science in the Makerspace
- Big Data and NoSQL for Data Science
- Community Data Lab
- Misinformation and Society
- US Healthcare System: An Overview
- Financial Information and Literacy
- Networks of Racial Capitalism

Permanent changes, including the addition or removal of a course, require approval by the Master's Committee, voting members of School Meetings (faculty and student representatives), and the SILS Administrative Board. Course change request forms describe the reason for, and nature of, the change. The Master's Committee, in consultation with the Associate Dean is charged with conducting a review of existing courses each year to purge courses that have not been offered recently (SILS COA Document Archive: I. Strategic Planning & Overview Data: Committee Charges 2021-22).

The Master's Paper/Project is another venue in which students can envision the future. Some identify best practices, others develop new information tools. SILS Master's Papers are available in the SILS library stacks, or in electronic form in the Carolina Digital Repository.

Students' ability to consider questions related to change and the future is assessed through the comprehensive exams. Recent exams have included questions on data dignity (one's ability to control one's own data), managing data for organizations, remote work strategies, development of partnerships, expanding organizational functionality, and issues of race and gender in specific contexts. All of these are both immediate and future professional concerns.

II.2.6 Promotes commitment to continuous professional development and lifelong learning, including the skills and competencies that are needed for the practitioner of the future.

Professional growth encompasses many dimensions, including individual life-long learning, involvement in discussions of issues relevant to the profession and society at large, participation in professional organizations, and networking with and mentoring colleagues and students.

Examples of professional growth and development are seen in classes; for example, course readings include those authored by practitioners (including SILS alumni) and guest speakers are often asked to discuss their own career paths.

INLS 795 Professional Field Experience allows students to work side-by-side with outstanding mentors in a variety of sites. Site supervisors both demonstrate and promote the importance of continual learning as part of professional careers. Students report being mentored by faculty, staff, peers, internship supervisors, employers, and alumni. One hundred percent of respondents (N =11) on the 2020 Current Student Survey described the usefulness to career planning of mentoring they had received as *useful* or *very useful* (90% in 2016, N=10). On the 2020 Alumni Survey, 54% (N=37) *agreed* or *strongly agreed* that the "quality of mentoring given by the faculty was high." For the 2016 Alumni Survey, that number was 61% (N=103).

The emphasis in the curriculum on student involvement with research, both as a consumer and a creator, is intended to instill in students the view that contributing to the body of knowledge in ILS is an integral part of their professional growth and development. Students are encouraged to both attend and submit their work to local, national, and international conferences. Students who are presenting a paper or poster at a conference are eligible for up to $200 of financial support from SILS in order to attend the conference.
The new curriculum will offer students another opportunity to practice their professional skills, as we add the practicum option for their capstone experience in INLS 992. This practicum will pair groups of students with organizations and individuals who have real-world problems for which they seek solutions. The groups will collaborate with these organizations to develop ideas and propose solutions to resolve the organizations' needs.

II.3 The curriculum provides the opportunity for students to construct coherent programs of study that allow individual needs, goals, and aspirations to be met within the context of program requirements established by the school and that will foster the attainment of student learning outcomes. The curriculum includes as appropriate cooperative degree programs, interdisciplinary coursework and research, experiential opportunities, and other similar activities. Course content and sequence relationships within the curriculum are evident.

Coherent programs of study

The 48-credit hour MSIS and MSLS degrees provide time for students to acquire a foundation of theory and basic knowledge via the required core courses as well as the more specific knowledge and skills needed for their chosen careers. Thus, students can study the breadth of topics in ILS, and also select a more focused area for study in depth. In 2013, when the current curriculum was adopted, we believed the proportion of required and elective credits (22.5 required/25.5 elective

for the MSLS; 28.5/19.5 for the MSIS) struck an appropriate balance. The required courses ensured that all students had been exposed to the central concepts of the field, were prepared to practice the skills outlined in the MSLS or MSIS Program Goals and could demonstrate competency in the SILS Learning Outcomes. The number of electives allowed students to develop a personalized program of study that would prepare them for their chosen information profession.

With the 2021 curriculum revision, we have increased the flexibility of the curriculum by reducing the number of required credits to six and then providing a "bin" structure to ensure that students get a varied grounding in the fundamental themes of information and library science, but without the need to specify precise courses for students. Many of our courses address similar concepts but with differing areas of emphasis. We believe that students can gain the requisite knowledge of these fundamentals from a variety of courses and that they should be empowered to make these decisions for themselves in conversation with their academic advisors (please see the COA Document Archive>2. Curriculum>2021_SILS_New_Curriculum_Proposal.pdf for details on this design).

Students also consult with other faculty, the Career Services Coordinator, employers, alumni, and other mentors to decide how best to prepare for their chosen career. Faculty often allow students in both required and elective courses to select topics of interest to them or focus existing assignments on contexts relevant to their individual interests. Independent studies (INLS 696 Study in Information and Library Science), the Field Experience (INLS 795), and the Master's Paper or Practicum (INLS 992) similarly allow students to pursue their interests through practical or scholarly activities. Those with interdisciplinary interests may take coursework from other departments at UNC or at nearby universities such as Duke University, North Carolina Central University, and North Carolina State University through inter-institutional registration. SILS is also the director of the Web-based Information Science Education (WISE) consortium, enabling students to take on-line courses from other consortium members.

SILS offers several Graduate Certificate programs that allow currently enrolled master's students to develop strength in specific areas in information and library science by taking a few extra courses. Completion of the requirements for a certificate results in an endorsement on the student's transcript. Graduate Certificates are available in:

- Bioinformatics
- Biomedical Imaging Science
- Applied Data Science (currently open only to undergraduate students, but eventually to include master's and PhD students)
- Digital Curation
- Digital Humanities

- Public Health Informatics

Cooperative and interdisciplinary opportunities

As noted above, SILS students may, with their advisor's approval, incorporate non-SILS courses in their program of study. Additionally, in partnership with other schools and programs, SILS also allows students to pursue two related master's degrees simultaneously. These dual degree programs are designed to be completed in three academic years; procedural details vary by degree.

Table 2.9 shows the number of students who are currently enrolled in each Dual Degree Program. The number of students interested in the Dual Degree in Public History is bolstered by the strength of SILS' Archives and Records Management research and instructional programs.

Table 2.9: Students Enrolled in Dual Master's Degree Programs (fall 2021)

Program	# Students
Art History (UNC Art Department)	0
Government (UNC School of Government)	1
Health Policy (UNC Gillings School of Global Public Health	1
Law (UNC Law School)	2
Public History (with NC State University Department of Public History)	5

Table 2.10 shows the number of students who have completed Dual Masters degrees during the last five years.

Table 2.10: Number of Dual Masters Graduates (2016-2021)

Graduation Year	# Students
2017	3
2018	2
2019	11
2020	5
Currently enrolled	9

SILS also offers two dual degrees to fast-track undergraduates through our master's degrees by allowing students to count some of the credits taken during their undergraduate time toward their master's degrees (BSIS to MSIS/MSLS and BS in Environment, Ecology, and Energy/MSIS). These students had to overload their coursework to enable this to happen. Recent changes in university policy enable these students to "double-count" up to 12 credit hours of coursework (i.e., the same course will count toward both their undergraduate degree and their graduate degree; this was previously against university regulations). We anticipate that this will increase the interest of UNC undergraduates in our dual bachelor's/master's degree programs.

Course sequencing

The SILS website lists course descriptions, including any prerequisites, for all regularly-offered courses. Recommendations for when a student should take required courses are given on the MSLS and MSIS curriculum pages. Courses are numbered according to the university Standard Course and Section Numbering Systems, with the first digit of the course number indicating its level. SILS offers several course sequences, such as our database sequence (INLS 523, 623, 723), web development (INLS 572, 672, 760), programming (INLS 560, 570), information retrieval (INLS 509, 609, 701), management (INLS 585, 747, 785), the research stream (INLS 581, 781, 992), and human-computer interaction (INLS 718, 818). These sequences are typically indicated by changing on the first digit of the course number (i.e., INLS 523, 623, 723). We also have courses with identified knowledge pre-requisites that don't form a larger series of classes, such as the higher-level special library information courses (law, business, health, etc.) that rely on INLS 501 Information Sources and Services.

Faculty coordinators are assigned to oversee courses that have multiple sections and instructors. Coordinators meet with other instructors to review their sections and teaching approaches to ensure that sections of core courses cover required content, and that related courses articulate smoothly. These groups may also create and review Specializations for their areas. For example, the Database Group coordinator is Dr. Hemminger. The group meets annually, or more often if needed, to discuss content and articulation of Database I, Database II, Database III, and related courses such as Web Databases. The group also meets with related groups, such as the Information Retrieval Group, the Information Organization Group, or the Information Interaction Group.

II.4 Design of general and specialized curricula takes into account the statements of knowledge and competencies developed by relevant professional organizations.

Students are encouraged to work with their advisors, instructors, and other mentors to plan a course of study that best meets their individual needs and career goals. In addition, SILS faculty, in consultation with their practitioner colleagues, have designed several areas of specialization for each degree. Statements of knowledge and competencies produced by relevant professional organizations are also consulted, including:

- ACM Curricula Recommendations, for the systems analysis, database, and information retrieval areas.
- North Carolina Library Media Coordinator licensure requirements, for school library media
- Society of American Archivists Guidelines for a Graduate Program in Archival Studies

- YALSA and ASLC Competencies for children and youth services areas.

Specializations are created based on several factors, including faculty expertise, availability of courses and instructors, student interest, and career opportunities. Faculty have prepared a list of courses for each Specialization, indicating required and recommended courses for each. The Master's Committee's annual charge includes the periodic review of specializations, in consultation with associated faculty. Specializations currently defined for the MSLS degree include:

- Academic Libraries
- Adult Services in Public Libraries
- Archives and Records Management*
- Children and Youth Services
- Digital Libraries *
- Organization of Information & Materials*
- Reference
- School Library Media
- Special Libraries and Knowledge Management*

Specializations currently defined for the MSIS degree include:

- Archives and Records Management*
- Data Analysis
- Database Design and Development
- Digital Humanities
- Digital Libraries *
- Environmental Informatics
- Human-Computer Interaction
- Information Retrieval
- Information System Design and Development
- Organization of Information and Materials*
- Special Libraries and Knowledge Management*

Specializations listed under both degrees (marked with *) focus on the same area, but from the perspective of the relevant degree.

II.5 Procedures for the continual evaluation of the curriculum are established with input not only from faculty but also representatives from those served. The curriculum is continually evaluated with input not only from faculty, but also representatives from those served including students,

employers, alumni, and other constituents. Curricular evaluation is used for ongoing appraisal and to make improvements. Evaluation of the curriculum includes assessment of students' achievements.

The curriculum is the responsibility of the faculty as a whole (who must vote on any permanent changes). The Master's Committee is specifically responsible for its ongoing appraisal and suggestions for change and improvement. The Master's Committee is composed of

> "at least three faculty members, an IS master's student, and an LS master's student. The Coordinators of the two programs and the Graduate Student Services Manager are *ex officio* members of the committee." (*Bylaws, 2.9.2)*

Each year the Master's Committee receives a formal "charge" from the Dean and the Associate Dean for Academic Affairs (SILS COA Document Archive: I Strategic Planning & Overview Data: Committee Charges 2020-2021. While some components of the charge may change due to immediate needs, the curriculum is a permanent part of this document, which states that the primary responsibility of the Master's Committee is

> "to monitor the two master's programs, the dual degree programs, the graduate certificates offered by SILS, the Post-Master's Certificate (PMC) program, and the Professional Science Master's Degree Programs to ensure that the courses and experiences offered within these programs are appropriate." (*Bylaws, 2.9.2)*

In this way, the curriculum is reviewed annually. Since the composition of the committee changes each year (though the Chair and Vice-Chair positions ensure continuity and committee memory), fresh perspectives are constantly being brought to the analysis and evaluation of the curriculum.

Some elements of the curriculum are in constant flux to keep abreast of changes in the field. Each semester we offer between 7 and 15 Special Topics classes numbered 490, 690, or 890 (intended for undergraduates, graduates, and doctoral students respectively, though master's students may take any of these for graduate credit). These courses can be offered three times and then must be considered for inclusion in the curriculum before being offered a fourth time. Those deemed valuable and stable enough for inclusion are given a permanent number and added to the ongoing class rotation with a particular faculty member assigned to each one. These experimental classes allow faculty and students to explore emerging areas (or micro- and macro-perspectives) of the field and build flexibility into the curriculum development process.

Appraisal of particular courses is received each semester from students (the Carolina Course Evaluations (CCEs)) and given to the faculty member in charge of the course to use in making

improvements. In addition to open-ended comments, one question directly addresses course design: “The course assignments helped me better understand the subject matter.” An analysis of the spring 2021 responses to this question demonstrate that 90% of students *agree* or *strongly agree* that this is the case.

They are reviewed by the Associate Dean to ensure faculty teaching performance meets the standards of the school. These evaluations are included in faculty annual reviews with the Dean of the school and in the official review for promotion and tenure decisions as well as post-tenure reviews every five years.

As mentioned above, faculty members are also engaged each semester in peer teaching observations that serve as conversation starters on particular areas of mutual interest as well as evaluative tools for assessing course content and teaching performance. At least one of these peer evaluations must be included in promotion and tenure decisions.

Assessment of Student Achievements

The Graduate School requires that master's students pass a comprehensive examination as part of the Master's Degree Requirements. SILS offers the comprehensive examination in the fall and spring semesters, and students take the examination in their final semester. Students who plan to graduate in August take the examination in the preceding spring semester. In addition to satisfying the Graduate School requirement, the comprehensive exam also allows us to assess students' achievement based on the Learning Outcomes (see Section I.1.2) as required by the university's Office of Institutional Research and Assessment.

The comprehensive examination requires students to synthesize what they have learned throughout their program, from courses, projects, field experiences, and other experiences, by discussing a significant question or issue. The examination contains two questions; a student chooses one question to answer. A question contains instructions similar to this:

> “Select a specific type of setting such as a public library, corporation, archive, government agency, or other information organization and a specific type of information work within that setting such as instruction, administration, systems analysis, data management, children’s services, or reference”.

Each student selects the specific setting and type of work to form the context within which they will answer the question, thus demonstrating an understanding of the issues in a familiar context – usually the one in which they will work.

The Master's Committee is charged with writing the examination. Each year, the committee solicits questions from SILS faculty and creates questions of their own. The Committee selects two questions to refine so that faculty can assess students' responses based on the Learning Outcomes.

Shortly before each semester's examination, the Graduate Student Services Manager and the Associate Dean for Academics conduct information sessions for students. These sessions cover the purpose of the exam, a review of the Learning Outcomes, question structure, student preparation for the exams, and faculty assessment of them. Students are encouraged to think about the setting and function they will write about and to look at past examinations, which are available in the SILS library. Sample questions are also distributed during the session. The sessions also cover the logistics of the examination process.

Students have seven hours for the closed-book examination. On the day of the examination, the Graduate Student Services Manager distributes the exam questions by email at 8:30 a.m.; students must return their answers no later than 3:30 p.m. along with a signed Honor Statement. The Graduate Student Services Manager and the Associate Dean distribute exam answers among faculty, trying to match the setting selected by the student with faculty expertise. Student exams are anonymized so that faculty do not know whose examinations they are grading. After reading the exam, the faculty reader will rate the answer as Excellent, Good, Fair, or Poor, in relation to each of the programs' five Learning Outcomes:

1. Students are prepared to apply critical thinking to a particular challenge that might be experienced in a professional setting. They will be able to evaluate the strengths and weaknesses of particular solutions and use concrete examples to clarify the challenge and its possible solutions.
2. Students are prepared to apply standard professional tools to problem definition and solution. They will be aware of the classic and current tools and technologies available to information professionals and will be able to select and apply those tools and technologies to information problems.
3. Students are prepared to apply ideas, theories, and empirical evidence to solve problems that information professionals might face in the workplace.
4. Students are prepared to demonstrate a nuanced understanding of a particular information setting/context, including the needs of the users; the types of materials being collected; the realities of budget, management, and organizational structure; the types of challenges faced and ways to address those challenges; new/current professional and research developments pertinent to the setting/context; the influences of social and political milieu on the setting/context; and how quality may be defined and assessed within that setting/context.

5. Students are prepared to express their ideas clearly. They will be able to describe problems/challenges, situations, and solutions in an understandable way; synthesize ideas from multiple sources and engage with those ideas in depth; and develop an argument in a coherent and logical manner.

In addition to assessing student performance for each Learning Outcome, the faculty reader assigns an overall examination grade, using the standard graduate grading scheme of H, P, L, or F (see Section IV.4 for explanation of the scheme).

- If the faculty reader assigns a P or H grade, the student has passed the comprehensive examination.
- If the reader assigns an L or F grade, the examination is read by a second reader. If the second reader assigns a P or H, the student has passed the comprehensive examination.
- If the second reader assigns an L or F, the student takes an oral examination from a committee consisting of the Associate Dean, the student's advisor, and one of the exam readers.
- If the committee determines the student has passed the oral portion, the student has passed the comprehensive examination.
- Otherwise, the exam committee will decide whether the student should do additional work to satisfy the examination requirement or must re-take the examination in the next semester.

The intent of this process is to provide students with a fair judgment of their examination without over-burdening the faculty; in fall 2020 and spring 2021, 96 students took the comprehensive exam. Typically, students who must take an oral examination have neglected to answer one part of the question or did not express themselves clearly. The latter is sometimes a problem for non-native speakers/writers of English.

The Master's Committee compiles the results of the examination and reports them to the faculty. Results are broken out by degree and by Learning Outcome and compared with previous years' results. The Master's Committee and the faculty can then use these findings in evaluating the curriculum as a whole, as well as individual course planning (See: SILS COA Document Archive: Curriculum: Outcome_Assess_Reports).

The following trends are evident from the data. MSLS student exams receive a higher percentage of "excellent" or "good" ratings from faculty than do MSIS student exams, particularly in the past two years (Table 2.11):

Table 2.11: Percent Comprehensive Exams Rated "Excellent" or "Good" by Learning Outcome and Degree

MSLS	2016-17	2017-18	2018-19	2019-20	2020-21
Outcome 1: Apply critical thinking	50%	76%	85%	90%	88%
Outcome 2: Apply standard professional tools	46%	78%	71%	74%	71%
Outcome 3: Apply ideas, theories, and empirical evidence	48%	76%	80%	82%	77%
Outcome 4: Demonstrate a nuanced understanding	52%	72%	80%	94%	92%
Outcome 5: Express ideas clearly	52%	70%	89%	96%	98%
MSIS	**2016-17**	**2017-18**	**2018-19**	**2019-20**	**2020-21**
Outcome 1: Apply critical thinking	54%	78%	84%	65%	68%
Outcome 2: Apply standard professional tools	47%	78%	63%	66%	66%
Outcome 3: Apply ideas, theories, and empirical evidence	54%	76%	73%	68%	68%
Outcome 4: Demonstrate a nuanced understanding	60%	72%	80%	76%	64%
Outcome 5: Express ideas clearly	53%	68%	78%	81%	70%

Possible explanations include:

1. The large international cohort in the MSIS degree may lower their scores due to language difficulties and/or cultural differences; this may, in particular, account for the lower MSIS scores on Outcomes #4 and #5.
2. While we try to design one question that leans more toward information science and one that leans more toward library science, there may be bias in the wording or content of the questions that favors library science students.
3. Because the contexts in which information science students work are more recent and, arguably, more varied, the "nuance" of those contexts may be more difficult for faculty to assess.
4. Recent changes in faculty (retiring of senior faculty and the arrival of many new faculty) might account for this and suggest the need for stronger community understanding and more consistent interpretation across faculty graders.

Figure 2.2: Percent of MSLS Exams Rated "Excellent" or "Good" by Learning Outcome

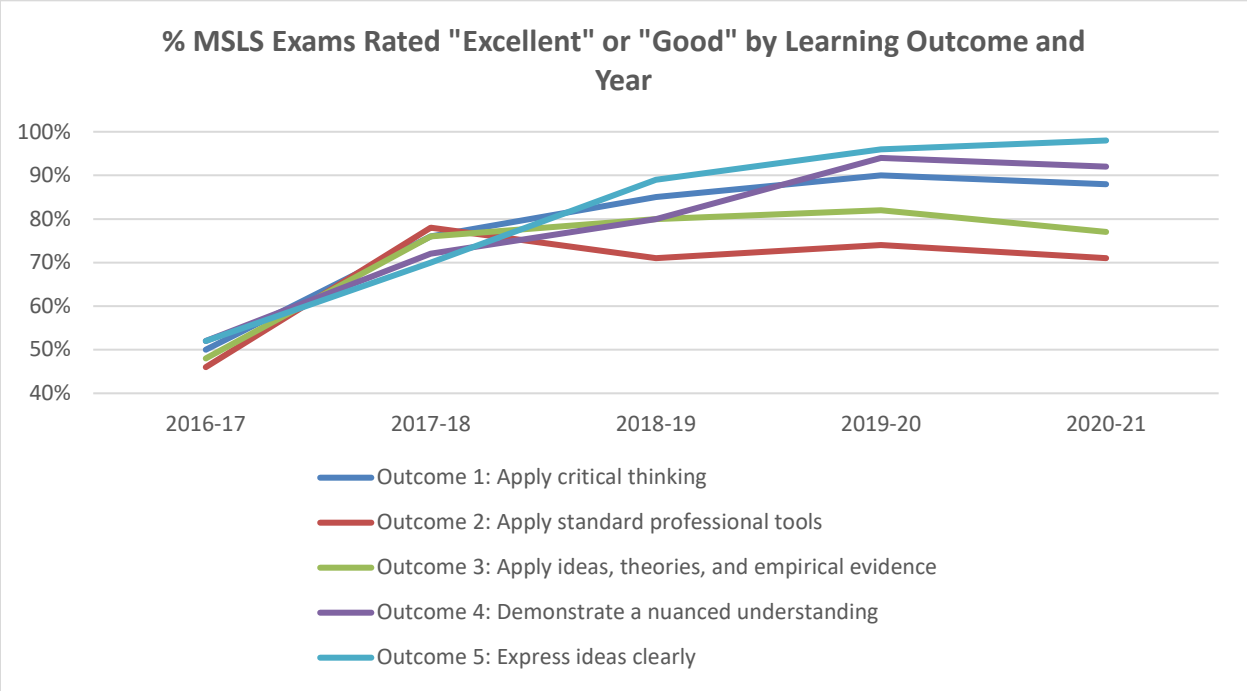
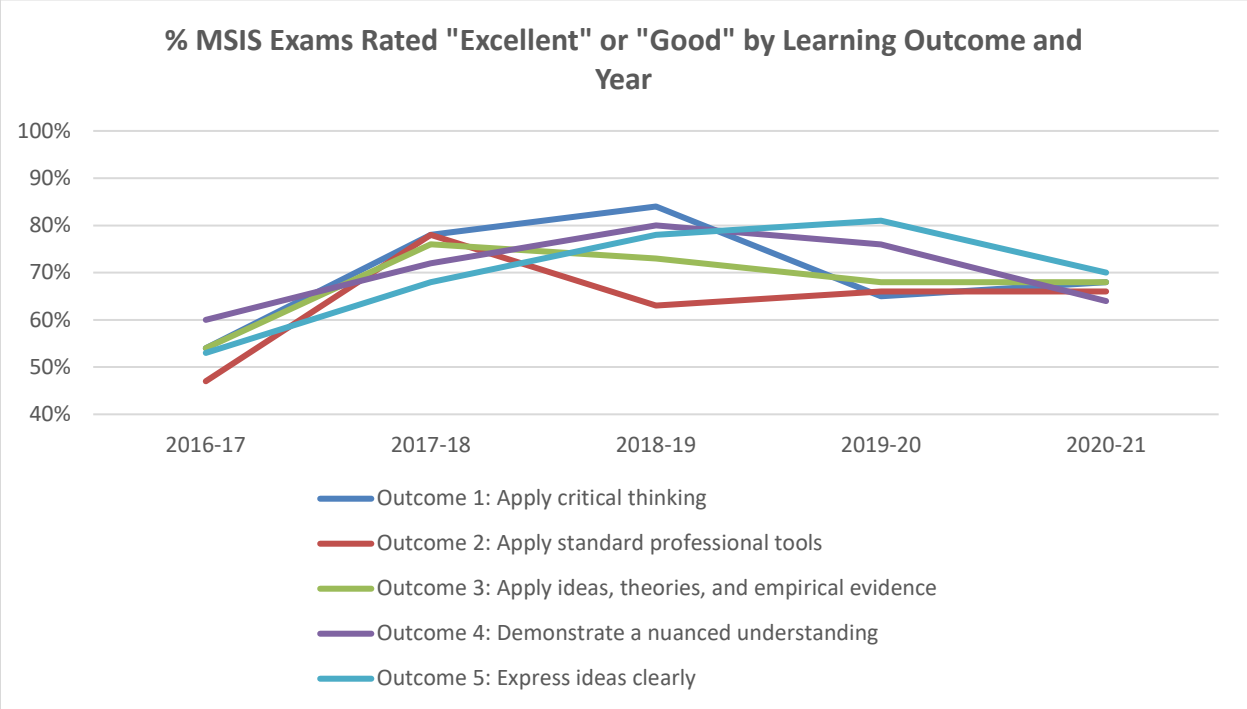


Figure 2.3: Percent of MSIS Exams Rated "Excellent" or "Good" by Learning Outcome



As shown above in Figures 2.2 and 2.3, grades have risen for both MSLS and MSIS exams since 2016. This could be due to admitting better educated and prepared students, a stronger alignment between the learning outcomes and the wording of exam questions making them easier to grade,

or less stringent faculty grading. Also of note is the increasing percentage of MSLS students receiving "excellent" or "good" ratings on their critical thinking skills (Outcome #1), nuanced understanding of their chosen context (Outcome #4), and clarity of their expression (Outcome #5).

Over the years, MSLS and MSIS scores have diverged on every outcome measure (Figures 2.4-2.8):

Figure 2.4: Learning Outcome 1 Ratings Across Time by Degree

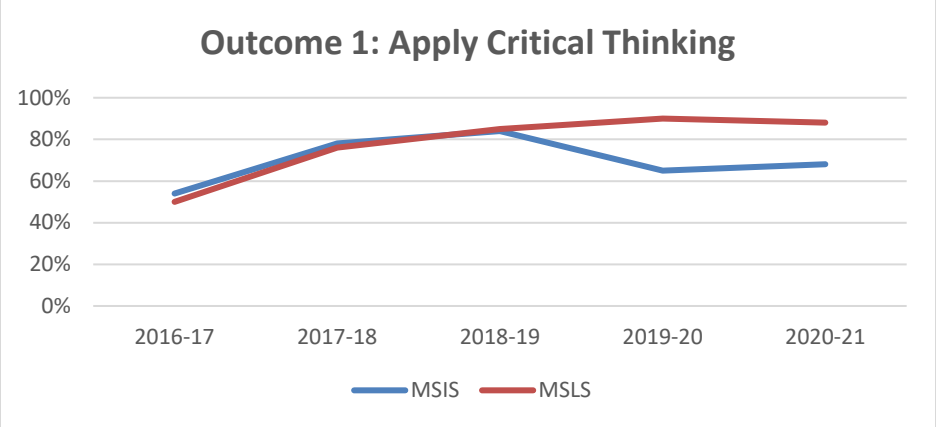


Figure 2.5: Learning Outcome 2 Ratings Across Time by Degree

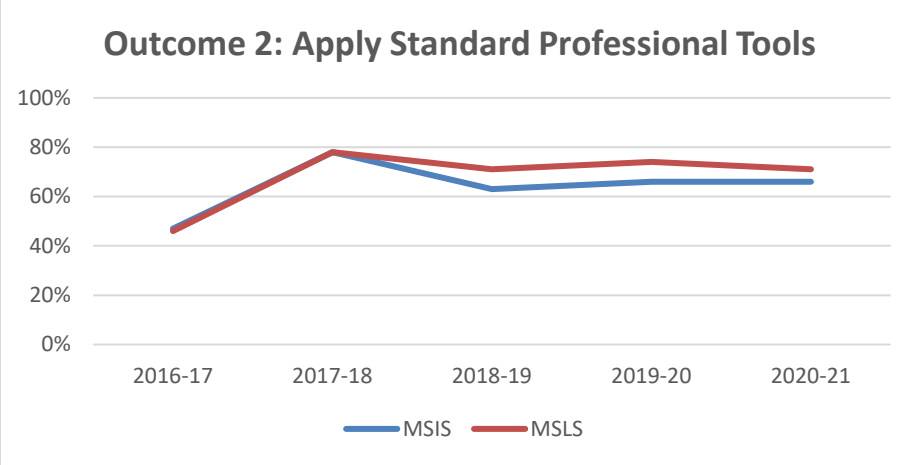


Figure 2.6: Learning Outcome 3 Ratings Across Time by Degree

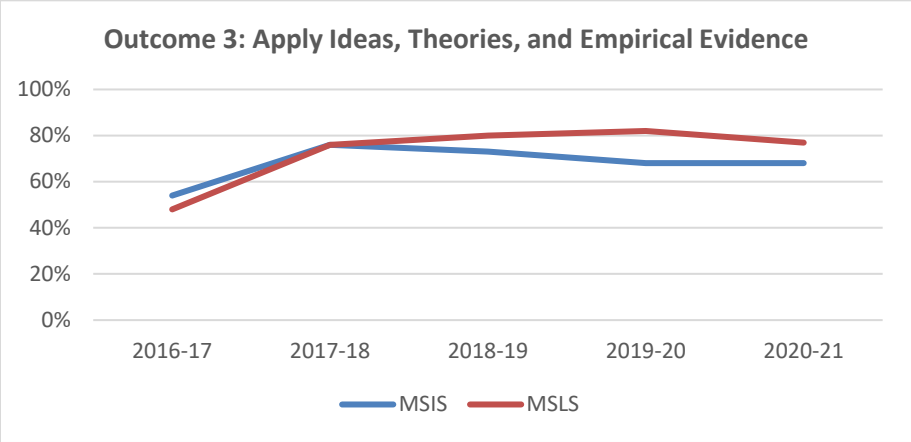


Figure 2.7: Learning Outcome 4 Ratings Across Time by Degree

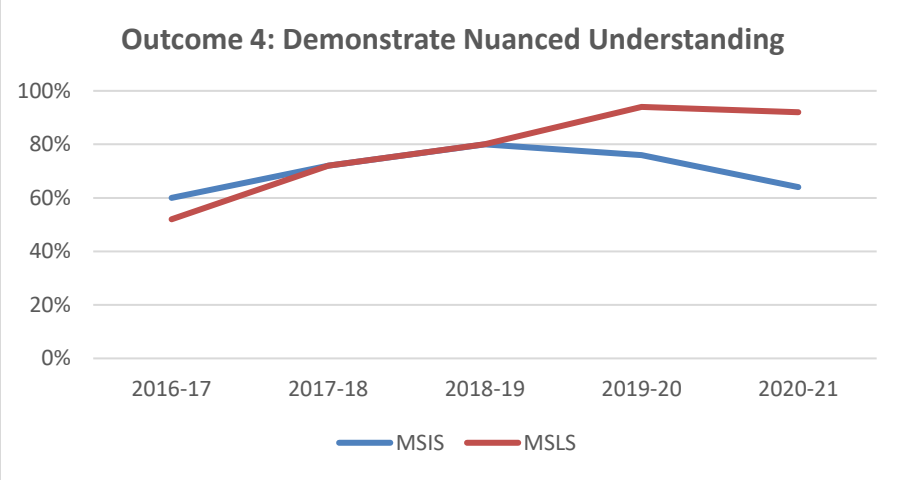
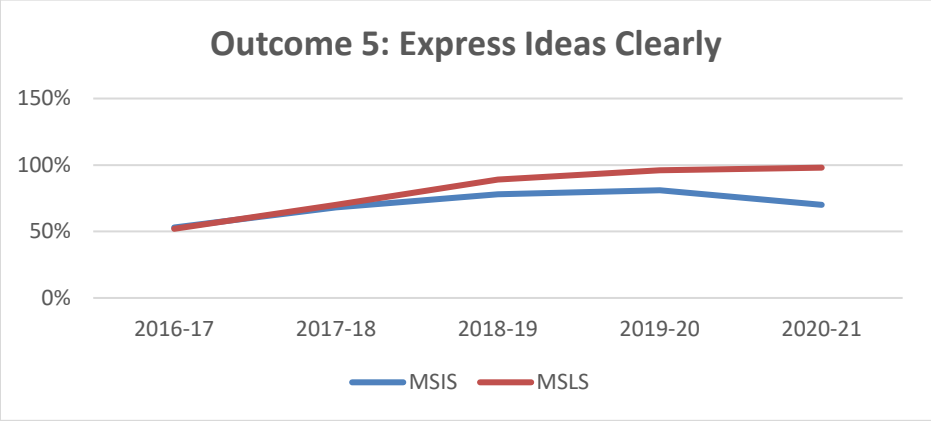


Figure 2.8: Learning Outcome 5 Ratings Across Time by Degree



This is a trend to observe over the next few years to determine whether it continues (and necessitates attention) or whether it disappears as a temporary anomaly. Particular attention will

be paid to the divergence in the critical thinking scores (Outcome #1), as this is truly fundamental to student success.

The faculty discussed these trends, and the Master's Program Coordinators and the 2021-2022 Master's Committee have been tasked with exploring various interpretations to determine whether these data expose an issue related to the exam questions, the students' education, the student composition, or the learning outcomes themselves. They will be recommending future actions to the faculty.

Constituent Involvement

Faculty are in regular contact with practitioners in the field through their own professional networks, collaborative research and service endeavors, active involvement in professional associations, invited speakers in their classrooms, and supervision of the student Field Experience course. These liaisons provide strong connections with professional practice that keep us abreast of changes in the field and employers' needs. The Director of Development has placed increased emphasis on dialog with our alumni, and our Career Services Coordinator has fostered strong alliances and clearer communication with employers. The SILS Administrative Board also approves all major curriculum changes. Students also have input into the curriculum, from individual course feedback to suggestions during student-sponsored Town Hall meetings and on the Current Student survey (every four years). Alumni provide feedback on curriculum predominantly on the Alumni Survey (every four years), though the Alumni Association also serves as a feedback mechanism, as do several of our advisory boards, such as the SILS Alumni Inclusion and Diversity Committee (SAID), and the Information Trends Advisory Roundtable (ITAR).

The design and content of the SILS curriculum are products of conversations, feedback, and assessment that involve many of the "voices" of SILS' constituents (see Table 1.2). Evaluation and feedback from students, alumni and practitioners are taken seriously, and, we believe, contribute to the strength of the SILS curriculum.

II.6 The program has explicit, documented evidence of its ongoing decision-making processes and the data to substantiate the evaluation of the curriculum.
II.7 The program demonstrates how the results of the evaluation of the curriculum are systematically used to improve the program and to plan for the future.

The evidence for our curriculum decisions is provided throughout this Chapter, including the curriculum revision as a whole and the student learning outcomes in the prior section (II.5). We also develop the course schedule each semester based on enrollment data, application data, financial forecasting data, and student input in the Town Halls. The SILS COA Document

Archive contains the data used in making many of these strategic decisions. Further information will be made available as requested by the External Review Panel.

CHAPTER 3: FACULTY

STANDARD III: Faculty

III.1 The program has a faculty capable of accomplishing program objectives. Full-time faculty members (tenured/tenure-track and non-tenure-track) are qualified for appointment to the graduate faculty within the parent institution. The full-time faculty are sufficient in number and in diversity of specialties to carry out the major share of the teaching, research, and service activities required for the program, wherever and however delivered. Part-time faculty, when appointed, balance and complement the competencies of the full-time tenured/tenure-track and non-tenure-track faculty and are integral to the program. Particularly in the teaching of specialties that are not represented in the expertise of the full-time faculty, part-time faculty enrich the quality and diversity of the program.

Since the last accreditation visit in 2014 the full-time faculty at SILS has shrunk from 32 to 28, members, due to retirements combined with a financial budget crunch that has not enabled us to replace those faculty, yet. As stated in the Bylaws of the School, "The term "faculty," as used in this document, usually refers to all full-time tenure-track faculties holding the rank of professor, associate professor, and assistant professor, and full-time persons holding any academic rank, including lecturer and instructor." The full-time faculty is comprised of tenure-track faculty:

- **Dean and Professor:** Gary Marchionini (Cary C. Boshamer Distinguished Professor)
- **Eight Professors:** David Gotz, Stephanie Haas, Sandra Hughes-Hassell, Christopher (Cal) Lee, Javed Mostafa, Arcot Rajasekar, Brian Sturm, Helen Tibbo (Alumni Distinguished Professor)
- **Ten Associate Professors:** Jaime Arguello, Rob Capra, Tressie Cottom, Melanie Feinberg, Amelia Gibson, Brad Hemminger, Mohammad Jarrahi, Lukasz Mazur, Ryan Shaw, Zeynep Tufekci
- **Five Assistant Professors:** Sayamindu Dasgupta, Marijel (Maggie) Melo, Francesca Tripodi, Yue (Ray) Wang, Fei Yu
- **Four Fixed-term Faculty:** Denise Anthony (Teaching Assistant Professor), Ron Bergquist (Teaching Associate Professor), Casey Rawson (Teaching Assistant Professor), Megan Winget (Teaching Assistant Professor),

All of the full-time, tenure-track faculty listed above are automatically appointed as members of the Graduate Faculty of the University of North Carolina at Chapel Hill. Fixed-term appointments may be appointed to the Fixed-term Graduate Faculty by recommendation of SILS with approval of the Graduate School; our three fixed-term faculty have all been so appointed. Short, two-page vitae and complete versions of faculty vitae are available in the SILS COA Document Archive: III. Faculty. Links from the SILS faculty website provide further information on each faculty member, homepages for those who have them, and contact information.

Full-time Faculty

The qualifications and areas of interest of the full-time faculty are listed in Table 3.1 below.

Table 3.1: Full-time faculty

Name	Faculty Rank	Research, Teaching, and Advising Specializations	Doctoral Degree Field	Doctoral Institution
Anthony, Denise	Teaching Asst Professor	Archives and historical collections	Information Science	University of Michigan
Arguello, Jaime	Assoc Professor	Information retrieval, aggregated search systems and evaluation, search behavior, text data mining, machine learning, task-based search, search assistance	Language Technologies	Carnegie Mellon University
Bergquist, Ronald	Teaching Assoc Professor	Public libraries in North Carolina, visual language, user-centered design, public library policy	Information and Library Science	University of North Carolina-Chapel Hill
Capra, Robert	Assoc Professor	Human-computer interaction, personal information management, digital information seeking behaviors, tools, and interfaces	Computer Science	Virginia Tech
Cottom, Tressie	Assoc Professor	Technology, higher education, class, race, and gender	Sociology	Emory University
Dasgupta, Sayamindu	Asst Professor	Human-computer interaction, human-centered data science, learning technologies, digital media and learning	Computer Science and Engineering	Massachusetts Institute of Technology
Feinberg, Melanie	Assoc Professor	Information organization and description, design of information collections	Information Science	University of Washington
Gibson, Amelia	Assoc Professor	Health information behavior, information access and poverty, place-based communities and information practices, information worlds, information needs and practices of individuals with disabilities	Information Studies	Florida State University
Gotz, David	Professor	Visualization and visual analytics, data analysis, data science, health informatics, machine learning	Computer Science	University of North Carolina at Chapel Hill

Haas, Stephanie	Professor	Natural language processing, health informatics, sublanguage and terminology, information representation	Information Science	University of Pittsburgh
Hemminger, Bradley	Assoc Professor	Scholarly communications, medical and bio-informatics, computer-human interfaces, digital libraries and open access/publishing/data, information visualization, augmented/virtual reality, interactive information searching, databases	Computer Science	University of Utrecht (Netherlands)
Hughes-Hassell, Sandra	Professor	Multi-cultural children's literature, children's services, school library media, social justice issues in youth library services, role of school librarians in education reform	Information and Library Science	University of North Carolina-Chapel Hill
Jarrahi, Mohammad	Assoc Professor	Organizational informatics, organizational implications of ICT, future of work, flexible work, mobile knowledge work, gig work, digital labor platforms, and implication of artificial intelligence for work	Information Studies	Syracuse University
Lee, Christopher (Cal)	Assoc Professor	Archives, digital preservation, digital forensics, electronic records management	Information	University of Michigan
Marchionini, Gary	Cary C. Boshamer Distinguished Professor	Information interaction, human-computer interaction, human-centered computing, information retrieval, digital libraries, information architecture, digital government, cyberspace identity, information policy	Curriculum Development Mathematics	Wayne State University
Mazur, Lukasz	Assoc Professor	Healthcare engineering management, continuous quality improvement, patient safety, workload, human performance, human factors, simulation-based training	Industrial and Management Engineering	Montana State University
Melo, Marijel (Maggie)	Asst Professor	Innovation, critical maker culture, and the development of equitable and inclusive collaborative learning spaces (e.g. makerspaces) in academic libraries	English	University of Arizona

Mostafa, Javed	Professor	Multimedia information retrieval, personalization and user modeling, cyberinfrastructure for research and learning	Information Science	University of Texas-Austin
Rajasekar, Arcot	Professor	Data grids, digital libraries, persistent archives and artificial intelligence	Computer Science	University of Maryland-College Park
Rawson, Casey	Teaching Asst Professor	Teacher-librarian collaboration in STEM content areas, LIS education, and equity and inclusion in youth services librarianship	Information and Library Science	University of North Carolina-Chapel Hill
Shaw, Ryan	Assoc Professor	Information organization, digital humanities / humanities computing, philosophy of information, sociology of texts, hermeneutics, knowledge representation, public history, memory institutions, new media, digitization, the Web	Information Management and Systems	University of California-Berkeley
Sturm, Brian	Professor	Storytelling and folklore, children's and young adults' literature and public library services, immersion and engagement in information environment, bibliotherapy	Library and Information Science	Indiana University
Tibbo, Helen	Alumni Distinguished Professor	Archives and records management, information services for the humanities, electronic information retrieval, reference service	Library and Information Science	University of Maryland
Tripodi, Francesca	Asst Professor	Social media, political partisanship, and democratic participation, particularly how Google and Wikipedia are manipulated for political gains. Patterns of gender inequality on Wikipedia	Sociology	University of Virginia
Tufekci, Zeynep	Asst Professor	Social impacts of technology, privacy and surveillance, inequality, research methods and complex systems	Sociology and Anthropology	University of Texas-Austin

Wang, Yue (Ray)	Asst Professor	Text data mining, including related areas such as machine learning, information retrieval, natural language processing, social and information network mining, and health informatics	Computer Science and Engineering	University of Michigan
Winget, Megan	Teaching Asst Professor	Digital preservation, digital repositories and collecting institutions, representation of non-textual materials, collaborative technologies	Information and Library Science	University of North Carolina-Chapel Hill
Yu, Fei	Asst Professor	Health informatics and analytics, electronic health records, clinical care research, and research impact metrics	Library and Information Science	University of Pittsburgh

Part-time Faculty

The full-time faculty are complemented by a superb group of part-time faculty (adjunct and visiting faculty). Part-time faculty members who teach in the master's curriculum are listed in Table 3.2 below. An examination of the relationship between their roles at SILS and their professional responsibilities demonstrates the ways in which their expertise complements that of the full-time faculty. More information can be found on our Adjunct Faculty webpage.

Table 3.2: Part-time Adjunct Faculty

Name	SILS courses taught	Professional background
Bailey, Earl	INLS 500 Human Information Interactions; INLS 697 Emerging Topics in Information Science	Networking and technology consultant.
Bardeen, Angela	INLS 704 Humanities & Social Sciences Information; INLS 841 Seminar in Academic Libraries	Head of the Humanities and Social Section in Research & Instructional Services; Behavioral and Social Sciences Librarian at the University of North Carolina at Chapel Hill
Barlow, Todd	INLS 490 Human Factors in System Design	Manager, Solutions Usability Department, SAS Institute, Inc.
Bauer, Jennifer (JJ)	INLS 585 Management for Information Professionals; INLS 749 Art & Visual Information Management	Visual Resources Curator, Art Department, UNC-CH
Bhansali, Div	INLS 890 Information System Organizational Leadership and Management	Fifteen years of experience as a marketing and strategy leader; adjunct for University of Maryland Baltimore County and Seattle University
Bhattacharya, Reema	INLS 520 Organization of Information	Director, Instructional Services, UNC-SILS
Bhattacharya, Sambit	INLS 560 Programming for Information Professionals; INLS 767 Information Assurance	Professor in Computer Science at Fayetteville State University

Bodenheimer, Todd	INLS 523 Database Systems I; INLS 560 Programming for Information Professionals	UNC Lineberger Comprehensive Cancer Center, clinical and research data management applications and databases
Boone, Joan	INLS 523 Database Systems I; INLS 560 Programming; INLS 572 Web Development I; INLS 573 Mobile Web Development; INLS 672 Web Development II	IT Specialist, Business Partner Technical Enablement, IBM, Research Triangle Park (retired)
Brown, Stephanie	INLS 501 Information Sources and Services	Director of the Park Library at the UNC Hussman School of Journalism and Media
Brown, Susan	INLS 585 Management for Information Professionals	Director of the Chapel Hill Public Library and the Executive Director for Chapel Hill Community Arts & Culture
Campbell, Jeffrey	INLS 582 Systems Analysis; INLS 712 Introduction to Text Mining; INLS 714 Introduction to Information Analytics; INLS 722 Introduction to Metadata Architectures and Applications	Head of Infrastructure Management Services at the University Library, UNC-CH
Cantrell, Sarah	INLS 710 Evidence-Based Medicine	Associate Director for Research and Education at the Duke University Medical Center Library & Archives
Carroll, Evan	INLS 697 Emerging Topics in Information Science	Technology speaker and author who helps companies innovate with the right blend of tech-driven and human-to-human interactions
Carter, Jason	INLS 560 Programming for Information Professionals; INLS 623 Database Systems II	IT Engineer with Cisco Systems
Chamarty, Ramana	INLS 623 Database Systems II	Technology practitioner and a faculty teaching intermediate and advanced database management systems and emerging technologies for over 20+ years
Chassanoff, Alexandra	INLS 525 Electronic Records Management	Research Program Officer at the Educopia Institute
Chernoff, Eric	INLS 523 Database Systems I	Principal Software Developer at BetterHelp.com
Clemens, Rachael	INLS 581 Research Methods	Qualitative researcher in the area of information behavior and decision making in crisis contexts
Cox, Tammy	INLS 585 Management for Information Professionals; INLS 685 Project Management: Strategy and Applications	Executive Associate Dean, UNC-SILS
Cross, Will	INLS 787 Legal Issues for Librarians	Director of the Copyright & Digital Scholarship Center in the NCSU Libraries
Ernsthausen, David	INLS 709 Business Information	Faculty Teaching and Research Support Librarian, Kenan-Flagler Business School, UNC-CH
Haefele, Chad	INLS 992 Master's Paper	Head of User Experience and Assessment, University Library, UNC-CH
Haight, Lori	INLS 585 Management for Information Professionals; INLS 795 Field Experience	Career Services Coordinator, UNC-SILS
Hart, Andrews	INLS 753 Preservation of Library and Archival Materials	Head of the Preservation Department of the University Libraries, UNC-CH

Hassell, Lew	INLS 572 Web Development I; INLS 690 Issues in Cloud Computing; INLS 767 Information Assurance	Associate Professor, Drexel University, College of Information Science and Technology (retired)
Hayes, Barrie	INLS 690 Data Services and Management	Bioinformatics & Research Data Librarian at the UNC-Chapel Hill Health Sciences Library
Hayslett, Michele	INLS 690 Data Services and Management; INLS 707 Government Documents	Librarian for Numeric Data Services and Data Management in the University Libraries' Digital Research Services Department, UNC-CH
Hodges, Patrick	INLS 490 Introduction to Information Security; INLS 767 Information Assurance	Works in the Research Triangle helping secure financial services and users from a variety of threats
Jack, Emily	INLS 754 Access, Outreach, and Public Service in Cultural Heritage Repositories	Community Engagement Librarian in the University Libraries, UNC-CH
Kaplan, Sami	INLS 520 Organize of Information; INLS 581 Research Methods; INLS 690 Misinformation; ILNS 781 Proposal Development	Research and Education Liaison Librarian to the School of Medicine, Duke University
Keizer, Caroline	INLS 721 Cataloging Theory & Practice	Humanities Cataloger and a Special Collections cataloger, UNC-CH
Larson, Gerry	INLS 796 Field Experience in School Library Media	Media Coordinator, Durham (NC) Public Schools (retired)
Lee, Adam	INLS 523 Database Systems I	Research Informatics Specialist for UNC's NC TraCS Institute
Martin, C. Dianne	INLS 584 Information Ethics	Retired professor emeritus of computer science from the George Washington University School of Engineering and Applied Science
Mosaly, Prithima	INLS 418 Human Factors	Research assistant professor in the Department of Radiation Oncology
Moynihan, Brian	CHIP 770 Health Informatics	Head of Health Technology and Informatics at the UNC Health Sciences Library
Ndoh, Uduak	INLS 582 Systems Analysis	Associate Dean for Information Technology and Chief Information Officer at the UNC School of Medicine
Orphanides, Andreas	INLS 582 Systems Analysis	Librarian for Digital Technologies and Learning Research and Information Services, North Carolina State University
Owens, Irene	INLS 888 Seminar in Teaching and Academic Life	Former Dean of the North Carolina Central University School of Library and Information Sciences
Peterson, Annie	INLS 753 Preservation of Library and Archival Material	Preservation and Digitization Librarian at LYRASIS
Pfaff, Emily	INLS 523 Database Systems I	Administrative Director for Informatics and Data Science for the NC TraCS institute
Purvis, Joseph	INLS 690 Information Security	Lead architect on the Cryptographic Services team at Cisco Systems
Robasky, Kimberly	INLS 890 Applied Bioinformatics for Organizations and Operations	Leads Translational Science efforts and contributes to Data Science and Analytics at the Renaissance Computing Institute, RENCI
Ross, Rob	INLS 585 Management for Information Professionals	Executive Director of NC LIVE, North Carolina's statewide library cooperative

Schardt, Connie	710 Evidence-Based Medicine	Associate Director for Research & Education at the Medical Center Library at Duke University, retired
Scott, Erik	INLS 576 Distributed Systems and Administration; INLS 626 Introduction to Big Data and NoSQL; INLS 690 Database Systems III	Systems architect at UNC's Renaissance Computing Institute
Shin, Grace	INLS 725 Electronic Health Records; INLS 720 Metadata Architectures and Applications; INLS 740 Digital Libraries: Principles and Applications	PhD, UNC SILS with focus in Everyday Life Information Seeking (ELIS) and Health Informatics
Solis, Jacqueline	INLS 501 Information Resources & Services; INLS 841 Seminar in Academic Libraries	Director of Research and Instructional Services in the University Libraries, UNC-CH
Solomon, Jennifer	INLS 490 Diversity, Equity and Inclusion in Open Access; INLS 690 Open Access for Library and Information Professionals	Coeditor-in-chief of the *Journal of Librarianship and Scholarly Communication*
Tyndall Watson, Camille	INLS 525 Electronic Records Management	Head of the Digital Services Section at the State Archives of NC
Urquhart, Ryan	INLS 582 Systems Analysis; INLS 890 HIC Issues and Social Networks	Sr. User Experience Designer, BCBSNC
Vargha, Rebecca	INLS 513 Resource Selection & Evaluation	Librarian, School of Information and Library Science, UNC-CH
Von Isenberg, Megan	INLS 710 Evidence-Based Medicine	Associate Dean for Library Services & Archives at the Duke University School of Medicine

According to the 2020 and 2016 Current Student and Alumni Surveys, the adjunct faculty bring strength and practical focus to the curriculum.

- *"The adjunct faculty seem to be the most engaging because they bring the experiences from their relevant full-time jobs."*
- *"The classes I found most useful were the ones taught by adjuncts working in the field."*
- *"The adjuncts are excellent. They are well aware of the trends in the field, and they make the courses as practical as possible."*
- *"Some of the best classes I have taken from SILS were taught by adjuncts."*

The 2020 and 2016 Current Student Surveys asked specifically about the quality of adjunct/visiting faculty. For 2020, 82% rated the "overall quality of classroom teaching" as *outstanding* or *very good* (79% in 2016), 82% for "integrating current thinking into courses" (87% in 2016), and 83% for "professors as leaders in their field" (79% in 2016).

SILS also has honorary and affiliated appointments. Table 3.3 below summarizes those people.

Table 3.3: Honorary and Affiliated Appointments

Name	Professional Background
Balsamo, Deborah	National Program Manager, Environmental Protection Agency National Library Network
Barker, J. Michael	Vice Chancellor for Information Technology and Chief Information Officer, University of North Carolina at Chapel Hill
Chin, Andrew	Paul B. Eaton Distinguished Professor of Law, UNC School of Law
Doctorow, Cory	Science fiction author, activist, jour-nalist, and blogger, and co-editor of Boing
Freelon, Deen	Associate Professor, UNC Hussman School of Journalism and Media
Flaherty, Mary Grace	Professor Emeritus, UNC School of Information and Library Science
Kahle, Brewster	Founder & Digital Librarian, Internet Archive
Klinefelter, Anne	Professor of Law and Director of the Law Library, UNC School of Law
Kreiss, Daniel	Professor, UNC Hussman School of Journalism and Media
Marshall, Joanne Gard	Alumni Distinguished Research Professor, UNC School of Information and Library Science
Marwick, Alice	Associate Professor, Department of Communications, College of Arts & Sciences
Robertson, Dav	Chief, Library and Information Services Branch, National Institute of Environmental Health Sciences/National Institutes of Health, Research Triangle Park, NC (retired)
Taylor, Arlene	Professor Emerita, School of Information Sciences, University of Pittsburgh; Distinguished Adjunct Professor, UNC School of Information and Library Science
Vision, Todd	Associate Professor of Biology, University of North Carolina at Chapel Hill
Westbrooks, Elaine	Vice Provost of University Libraries & University Librarian

The teaching faculty also include graduate teaching fellows, SILS doctoral students of advanced standing who have taken a pedagogy course at the university or received formal teacher training and instruction. Their teaching covers several of the foundational classes (primarily INLS 200 Retrieving and Analyzing Information for undergraduates and INLS 500 Human Information Interactions for graduates) and some of the specialty electives. Teaching fellows from the last five academic years (not including summer sessions) are listed in Table 3.4 below.

Table 3.4: Doctoral Teaching Fellows from 2016-2021

Fellow	Course Taught
Avula, Sandeep	INLS 613 Text Mining
	INLS 760 Web Databases
Barnes, Heather	INLS 501 Information Resources and Services INLS 525 Electronic Records Management
Crescenzi, Anita	INLS 500 Human Information Interactions
Exner, Nina	INLS 585 Management for Information Professionals
Finley, Charlene	INLS 201 Foundations of Information Science INLS 202 Retrieval & Org Systems
Golden, Patrick	INLS 201 Foundations of Information Science INLS 620 Web Information Organization INLS 740 Digital Libraries: Principles and Applications
Hauser, Elliott	INLS 161 Retrieving and Analyzing Information INLS 520 Organization of Information
Kaplan, Sami	INLS 690 Misinformation
Kim, Heejun	INLS 560 Programming for Info Professionals
Kinder, Eliscia	INLS 201 Foundations of Information Science
Maron, Deb	INLS 202 Retrieval & Org Systems
Martin, John	INLS 500 Human Information Interactions INLS 718 User Interface Design
Nelson, Sarah Beth	INLS 490 Telling Your Story Representing Yourself in Business Settings INLS 501 Information Resources and Services INLS 690 Oral Culture in Modern Times INLS 732 Children's Literature and Related Materials
Nguyen, Danny	INLS 690 Project Management
Post, Colin	INLS 201 Foundations of Information Science INLS 465 Understanding IT for Digital Collections
Roscoe, Emily	INLS 151 Retrieving and Analyzing Information
Shin, Grace	INLS 520 Organization of Information INLS 523 Database Systems I: Intro to Databases CHIP 725 Electronic Health Records INLS 740 Digital Libraries: Principles and Applications
Suresh, Anusha	INLS 161 Retrieving and Analyzing Information
Thomson, Leslie	INLS 690 Everyday Life Information Practices INLS 690 Emotions in Information Interactions INLS 781 Proposal Prep & Presentation (1.5)
Threats, Megan	INLS 203 Human Information Behavior
Vardell, Emily	INLS 203 Human Information Behavior INLS 501 Information Resources and Services
Xu, Shenmeng	INLS 523 Database Systems I: Intro to Databases

The university categorizes its employees as either SHRA (subject to the State Human Resources Act) – primarily staff employees, and EHRA (Exempt from the Human Resources Act) primarily

full-time faculty and some non-faculty appointments. EHRA non-faculty may have instructional, administrative, and/or research responsibilities. The school currently has sixteen EHRA non-faculty employees (Table 3.5), thirteen of whom are engaged in teaching or research activities.

Table 3.5: EHRA Non-Faculty Employees at SILS

Name	Primary Job Title	Teaching or Research Activities	Role
Beeker, Jonathan Travis	Librarian	no	Librarian at EPA Library in RTP
Bhattacharya, Progyamita (Reema)	Instructional Design Specialist	yes	Previously listed
Brubaker, Aaron T.	Director	yes	Academic / Research IT Management for the School of Information and Library Science
Cox, Tammy L	Associate Dean	yes	Adjunct and Summer School Administrator
Crist, Andrew William	IT Analyst & Programmer - 1	yes	Research programmer for CITAP reporting to Deen Freelon
De Torcy, Antoine-Cecil L	IT Analyst & Programmer - 2	yes	Research programmer for SILS reporting to Cal Lee
Haight, Lori	Career Services Professional	yes	Previously listed, plus adjunct
Holderied, Anthony C	Director	yes	EPA Library director - Internship manager
Johnson, Taylor Gray	Assistant Director	yes	EPA Library asst director - Internship manager
Marchionini, Gary J	Dean	yes	Administration, research, and teaching
Parker, Shirley	Student Services Professional	yes	Student recruitment, PSM coordinator
Peters, Kathryn Elise	Director	yes	CITAP Executive Director
Vorhies, Emily Joyce	Librarian	no	Librarian at EPA Library in RTP
Webb, Anne A	Associate Dean	no	Development Associate Dean
White, Douglas F	IT Analyst/Programmer - 1	yes	Academic / Research IT Management for CHIP
Woods, Kam Antero	Research Associate	yes	Previously listed, plus adjunct

Finally, SILS welcomes short-term visiting scholars whose interests align with those of our faculty and whose research furthers the mission and goals of the School. Table 2.3 lists the visiting scholars for the last ten years. These scholars' contributions to the academic and social

environment include public lectures, and research and teaching collaborations, and they bring an additional global perspective to the School.

Full-time Faculty Coverage of the Teaching Responsibilities

The teaching expertise of the full-time faculty is diverse and covers a broad span of the information and library science field as seen in Table 3.1 above.

An analysis summarizing the graduate level courses designed for master's students and taught by full-time and part-time faculty from fall 2018 to fall 2021 (excluding INLS 691 and 602 Undergraduate Honors, INLS 696 Independent Study, INLS 992 Master's Paper, INLS 994 Doctoral Research, and the WISE courses taught by other universities) is available in the SILS COA Document Archive: Faculty: Courses Taught by Fulltime Status. Of the 487 course sections offered during this time period, 308 (63%) were offered by full-time faculty and 180 (37%) were taught by part-time faculty (adjuncts, staff, and doctoral teaching fellows). Of the 177 sections offered of core, required MSIS or MSLS classes, 110 were taught by full-time faculty (62%) and 67 were taught by part-time faculty (38%). These data show that full-time faculty do the bulk of the teaching at SILS, and part-time faculty enrich the curriculum by bringing their diverse perspectives to the core curriculum as well as by extending the specializations with higher level electives.

On a more specific level, for the 110 sections of MSLS and MSIS classes taught by full-time faculty, 17 (16%) were taught by full professors, 38 (34%) were taught by associate professors, 33 (30%) were taught by assistant professors, and 22 (20%) were taught by fixed-term faculty. The teaching of the required classes is well distributed across ranks.

III.2 The program demonstrates the high priority it attaches to teaching, research, and service by its appointments and promotions; by encouragement of excellence in teaching, research, and service; and through provision of a stimulating learning and research environment.

The standard teaching load for tenure track faculty is typically two courses per semester, though School policy does allow a release of one course per semester due to grant subsidies or administrative appointments, unless specific arrangements are negotiated with the Dean. This policy encourages our tenure track faculty to be visible and active participants in the learning and culture of our School. Faculty are also students' primary academic advisors, as well as supervisors on their Master's Papers, field experiences, and independent studies. Fixed-term teaching faculty have a standard teaching load of three courses per semester, again with administrative reductions possible. There is no "typical" teaching load for tenure-track faculty each semester due to the changing nature of grant course buyouts, but Table 3.6 below shows the faculty loads for the last three semesters and projections for spring 2022.

Table 3.6: Faculty Actual Teaching Load, fall 2020 - spring 2022 (projected)

Name	Normal Teaching Load (barring grant buyouts)	Annual Credit Hour Total (without buyouts)	Spring 2022	Fall 2021	Spring 2021	Fall 2020
Anthony, Denise (3/4 time)	2 and 2.5	13.5	6 556 Intro to Archives (3) 757 Archival Description (3)	7.5 781 Prop Dev (1.5) 754 Archival Access (3) 556 Intro to Archives (3)	6 757 Archival Description (3) 556 Intro to Archives (3)	3 556 Intro to Archives (3)
Arguello, Jaime	2 and 2	12	6 509 Info Ret (2 sections) (3)	6 509 Info Ret (3) 613 Text Mining (3)	leave approved	6 613 Text Mining (3) 509 Info Ret (3)
Bergquist, Ron	3 and 3	18	12 161 Info Tools (3) 161-recitation (2 sections) (3) 385 Info Use for Org Effect (3) 843 Sem in Pub Libs (3) (overload)	9 161 Info Tools (3) 161-recitation (2 sections) (3) 385 Info Use for Org Effect (3)	12 161 Info Tools (3) 385 Info Use for Org Effect (3) 161 recitation (2 sections) (3) 843 Pub Lib Seminar (3) (overload)	9 161 Info Tools (3) 385 Info Use for Org Effect (3) 161 recitation (2 sections) (3)
Capra, Rob	2 and 2	12	7.5 570 Fund of Program (3) 523 Intro to Database (3) 761 Data Analysis (1.5 CADS) overload	6 523 Intro to Database (3) 719 Usability Testing (3)	6 570 Fund of Program (3) 523 Intro to Database (3)	6 719 Usability Testing (3) 523 Intro to Database (3)
Cottom, Tressie McMillan	2 and 2	12	Leave approved	3 + 3-credit MacArthur buyout 500 Human Info Interact (3)	6 890 Networks of Racial Capitalism (3) 500 Human Info Inter (3)	0 (reduced 1st semester)
Crescenzi, Anita	1 course/year	3	3 581 Res Methods (3)	0	3 581 Res Methods (3)	0
Dasgupta, Sayamindu			Left for UW	6 490 Prog for Data Analysis (3) 560 Prog for Info Prof (3)	6 490 Prog for Data Analysis (3) 560 Prog for Info Prof (3)	6 490 Prog for Data Analysis (3) 560 Prog for Info Prof (3)
Feinberg, Melanie	2 and 2	12	6 690 Data Criticism (3) 776 Ethics (3)	6 520 Info Org (3) 720 Metadata Architect (3)	6 520 Info Org (3) 520 Info Org (3)	leave approved
Flaherty, Mary Grace			1.5 711 Disaster Planning (as adjunct)	Retired	leave approved	leave approved
Gibson, Amelia	2 and 2	12	6 776 Ethics (3) 500 Human Info Int (3)	3 + 3-credit foundation buyout 690 Community Data Lab (3)	6 500 Human Info Int (3) 890 Info Values Ethics Action (3)	4.5 500 Human Info Int (3) 690 Comm Data Lab (1.5)
Gotz, David	2 and 2	12	6 McColl term prof 560 Prog for Info Prof (3) 641 Visual Analytics (3)	6 McColl term prof 560 Prog for Info Prof (3) 641 Visual Analytics (3)	3 560 Prog for Info Prof (3) 560 Prog for Info Prof (3)	6 560 Prog for Info Prof (3) 641 Visual Analytics (3)
Haas, Stephanie	2 and 2	12	6 (final semester) 523 Intro to Database (3) 512 Nat Lang	6 202 Retrieval and Org Sys (3) 523 Intro to Database	6 523 Intro to Database (3) 512 Nat Lang	6 523 Intro to Database (3) 202 Ret & Org

			Process (3)	(3)	Process (3)	Systems (30
Hemminger, Brad	1 course/year (normally 1-and-1, but one course admin buyout for MSIS Coordinator role)	3	3 541 Info Visualization (3)	1.5 700 Schol Comm (1.5)	0	1.5 700 Schol Comm (1.5)
Hughes-Hassell, Sandra	2 and 2	12	6 732 Child Lit (3) 796 FE for School Media (3)	Approved leave	6 732 Child Lit (3) 534 Youth and Tech (3)	6 530 YA Lit (3) 513 Res Sel & Eval (3)
Jarrahi, Mohammad	2 and 2	12	6 385 Info Use for Org Effect (3) 697 Capstone (3)	6 385 Info Use for Org Effect (3) 690 Social Informatics (3)	6 385 Info Use for Org Effect (3) 697 Capstone (3)	6 691H Research Methods (3) 385 Info Use for Org Effect (3)
Lee, Cal	2 and 2 (normally one buyout/ semester)	12	3 + 3-credit grant buyout 776 Ethics (3)	3 + 3-credit grant buyout 513 Res Selection & Eval (3)	4.5 525 Elec Records Manage (3) 765 Info Tech Found for Dig Coll (1.5)	3 + grant buyout 881 Research Issues (3)
Mazur, Lukasz	1 and 1	6	3 582 Sys Analysis (3)	3 582 Systems Analysis (3)	3 582 Sys Analysis (3)	3 582 Sys Analysis (3)
Melo, Maggie	2 and 2	12	Pre-tenure leave approved	6 490 Real time Makerspace (3) 501 Info Res & Serv (3)	6 737 Inclusive Info Serv (3) 501 Info Res and Services (3)	6 501 Info Res & Serv (3) 690 Makerspace (3)
Missen, Cliff			Retiring 1/1/2022	Approved leave	Approved leave	3 720 Metadata Arch (3)
Mostafa, Javed	1 and 1 (typically buys out one/both)	6	3-credit grant buyout approved	3-credit grant buyout approved	1.5 690 Methods of Medical Informatics	0
Rajasekar, Arcot	2 and 2	12	6 073 Smart Cities (3) 773 Database for Data Sci (1.5) 714 Intro to Analytics (1.5)	6 625 Info Analytics (3) 690 Big Data &NoSQL (1.5) 714 Intro to Analytics (1.5)	6 625 Info Analytics (3) 073 Smart Cities (3)	6 523 Intro to Database (3) 625 Info Analytics (3)
Rawson, Casey	3 and 2 (one course admin buyout for MSLS Coordinator role)	15	7.5 + 1.5 admin buyout 783 Library Inst & Pedagog (3) 781 Proposal Development (1.5) 581 Research Methods (3)	7.5 + 1.5 admin buyout 782 Lib Assess (3) 781 Prop Dev (1.5) 581 Research Methods (3)	6 + admin buyout (extra 1st year coordinator negotiated) 783 Lib Inst & Pedagogy (3) 796 FE in Sch Media (3)	6 + admin buyout (1st year coordinator) 782 Lib Assess (3) 781 Prop Dev (1.5) 781 Prop Dev (1.5)

Shaw, Ryan	1 and 2 (one course admin buyout for Undergrad Coordinator role)	9	6 201 Foundations (3) 490 Digital Gazetteer (3)	3 + admin buyout 201 Foundations (3)	6 201 Foundations (3) 490 Digital Gazetteer (3)	3 + admin buyout 201 Foundations (3)
Sturm, Brian	1 and 1 (two course admin buyout for Associate Dean for Academics role)	6	3 + admin buyout 733 Admin of Youth Services	3 + admin buyout 558 Storytelling (3) 881 Doc Res Issues (3 overload)	1.5 (underload) 781 Prop Dev (1.5)	3 + 1.5 (overload) 558 Storytelling (3) 781 Prop Dev (1.5)
Tibbo, Helen	2 and 2	12	6 755 Archival Appraisal (3) 766 Audit Cert (1.5) - PSM 800 Sem in Dig Cur (1.5) - PSM	6 750 Intro to Dig Cur (3) - PSM overload 751 Adv Dig Cur (3) 752 Dig Pres & Access (3)	6 755 Archival Appraisal (3) 751 Adv. Digital Curation (3)	750 Intro to Dig Cur (3) 766 Audit Cert (1.5) - PSM overload 752 Dig Pres & Access (3) 800 Sem in Dig Cur (1.5) - PSM overload
Tripodi, Francesca	2 and 2	12	3 + 3-credit grant buyout 776 Ethics (3)	6 581 Res Methods (3) 690 Misinformation (3)	6 581 Res Methods (3) 697 Capstone (3)	3 (reduced first year) 581 Res Methods (3)
Tufekci, Zeynep	2 and 2	12	Approved leave (McColl pauses)	Approved leave (McColl pauses)	0 (retention agreement + 3-credit grant buyout)	3 + 3-credit grant buyout 789 Big Data Algor & Soc (3)
Wang, Ray	2 and 2	12	Pre-tenure leave approved	6 690 Data Mining (3) 509 Info Ret (3)	6 509 Info Ret (3) 509 Info Ret (3)	6 509 Info Ret (3) 690 Data Mining (3)
Winget, Megan	3 and 3	18	9 520 Info Org (3) 697 Capstone (2 sections) (3)	9 520 Info Org (3) 520 Info Org (3) 697 Capstone (3)	6 520 Info Org (3) - double size section 697 Capstone (3)	9 754 Access to Cult Her Repos (3) 697 Capstone (3) 520 Info Org (3)
Yu, Fei	2 courses/year	6	3 718 User Interface Design (3)	3 718 User Int Design (3)	3 718 User Int Design (3)	3 718 User Int Design (3)

Faculty assignments are made in negotiation with the Associate Dean for Academics. Faculty submit their requests for classes each semester, and the Associate Dean is responsible for ensuring that enough sections of required courses are offered and that both degrees have as wide a variety of electives for students to select as possible. We use adjuncts to fill in gaps or offer extra sections of required courses when needed based on enrollment numbers.

Appointment, Promotion, and Tenure Process

While the School follows the standards for academic tenure approved by the University Trustees, it has its own personnel policies, Criteria and Procedures for Faculty Appointments, Reappointments, Promotion and Tenure, Revised April 2018 that are available on the SILS

website in the faculty handbook. An updated version of this document (2021) that aligns with the UNC Task Force on Future Promotion and Tenure Policies and Practices is awaiting approval by the university legal and administrative teams. This document begins with the mission of the school, including faculty's responsibility to all three areas of faculty involvement in academic life: teaching, research, and service:

> *"Faculty members further these goals by teaching and advisory work; by research and scholarly publication; and by service to the school, the University, and the profession, and by engagement with local, state, and global communities." (SILS AP&T Document)*

Our policies are congruent with those of the University. As the document states:

> *All the procedures and policies relating to decisions affecting faculty in the School of Information and Library Science conform to statements regarding these matters set forth in the following University publications. In cases of conflict, the most recent edition of each document takes precedence.*
>
> 1. The Code, Board of Governors, UNC, as amended through October 2009. (See https://www.northcarolina.edu/apps/policy/index.php?tab=policy_manual).
>
> 2. Trustee Policies and Regulations Governing Academic Tenure in the University of North Carolina at Chapel Hill, April 9, 1976 (as amended through October 20, 2009). (See https://academicpersonnel.unc.edu/wp-content/uploads/sites/1069/2020/02/UNC-Chapel-Hill-Tenure-Policies-and-Procedures.pdf).
>
> 3. Equal Opportunity Plan, UNC-CH, annual state and federal revisions. (See https://eoc.unc.edu/resources/office-reports/)
>
> 4. Guidelines for the Preparation of EPA Personnel Actions, Division of Academic Affairs, UNC-CH (See: http://academicpersonnel.unc.edu/faculty-policies-procedures-guidelines/faculty-appointments/tenuretenure-track-appointments/ and http://academicpersonnel.unc.edu/faculty-policies-procedures-guidelines/faculty-appointments/fixed-term-appointments/).

For **appointments**, the Dean appoints an ad hoc Search Committee to supervise the process. The committee develops a position description in consultation with the faculty, and a recruitment plan is filed with and approved by the Equal Opportunity/ADA Office before a search may commence. The committee requests input from all of its constituents regarding potential candidates to recruit and uses every means available to reach the widest and most diverse target audience (electronic lists, social networks, job services, SILS webpage, UNC Human Resources, and conference interviews at ALISE and ASIST and others depending on the target area and timing of the hire).

Candidates must submit a letter of application and a curriculum vitae. Letters of recommendation are solicited for finalists from their indicated references outside of SILS. The search committee reviews all submissions and selects a limited number of applicants (typically 3-4) for on-campus or virtual interviews in collaboration with the faculty and the Dean.

Candidates whom we invite to campus make a public presentation regarding their research during the interview process. They meet with the Dean, faculty, students, and members of other schools, departments, and units as appropriate. Candidates are evaluated on their record of teaching, research, and service, and on their experience and plans. The search committee solicits both written and verbal feedback from all faculty and students and makes a recommendation to the Dean based on this feedback. Faculty members then assemble and provide additional advice to the Dean regarding the appointment and vote on the appointment.

For **promotions** and the granting of **tenure**, the Personnel Committee, including faculty and student representatives, guides the process and thoroughly examines the documentation provided by the candidate for the personnel action (outlined in the SILS AP&T document). We solicit outside reviewers to provide written letters discussing the quality of the candidate's scholarly work and impact on the field, and faculty, students and alumni are also invited to provide written input for the Personnel Committee's consideration. The Personnel Committee analyzes all materials assembled by the candidate, with the external letters and letters from faculty, students and alumni. In a letter to the Dean, the Personnel Committee addresses the qualities of a candidate's teaching, research and service, and summarizes its recommendation. The Dean prepares a recommendation that accompanies the candidate's portfolio as it passes through the administrative hierarchy of the university.

The Office of the Provost offers several information and discussion sessions for junior faculty on the promotion and tenure process at the University of North Carolina at Chapel Hill each year; Executive Vice Provost Ron Strauss presents these Understanding Tenure and Promotion workshops in collaboration with the UNC Center for Faculty Excellence and the TEAM ADVANCE equity in faculty mentoring initiative.

Finally, junior faculty meet with the Dean every six weeks as part of our mentoring program. SILS has also provided informal, cohort-based mentoring sessions for new and untenured colleagues. These sessions have been arranged based on the interests and availability of junior faculty. For instance, when five new faculty joined SILS in the 2018-2019 academic year, some of that year's program included:

- Two panels where senior colleagues discussed their perspectives on iSchools and the field of information studies.
- An introduction to grant writing at SILS, presented by the staff grants coordinator.

- A panel where senior colleagues provided tips for supervising graduate student research assistants—and a complementary panel of students who discussed their experiences with supervisors.
- A panel where senior colleagues shared approaches to advising master's and undergraduate students.
- A panel to share experiences with professional rejection and setbacks.

As junior faculty have progressed in their career trajectories, more recent topics have included preparation for, and debriefing of, third-year reviews (for tenure-track faculty) and contract renewals (for fixed-term teaching faculty). The group has also shared online teaching experiences and tips for dealing with COVID-related stressors.

Success and the Changing Face of the Faculty

SILS has seen a marked change in its faculty since the last accreditation visit in 2014, due, in part, to success in recruiting talented new scholars, but also due to retirement, death, and job changes.

SILS has been able to hire superb scholars to the School over the past seven years, and these personnel decisions have been the result of ongoing strategic assessment of the faculty's existing strengths, issues of faculty diversity, emerging curriculum and research areas we need to address, areas we need to augment due to loss of faculty or changing emphases, and input from employers and other constituents about the knowledge and skill set they desire in their new employees. This assessment happens formally in School Meetings and strategic planning retreats and informally in the hallways, Faculty Breakfasts, and other impromptu gatherings. Since 2014, we have hired two fixed-term Teaching Assistant Professors (Rawson and Winget) to bolster our teaching strengths in research methods, youth services, and digital repositories; five assistant professors (Dasgupta, Gibson, Melo, Tripodi, Wang) whose areas of expertise include HCI, health information behavior, inclusive collaborative learning spaces, social media and democratic participation, and text mining and natural language processing; and two associate professors (Cottom, Feinberg) whose areas of expertise include higher education, race, class, and gender issues, and information organization and description.

As shown in Table 3.7, SILS has also lost several faculty members since 2014.

Table 3.7: Faculty Who Have Left SILS, 2014-2022

Name	Rank	Reason
Dasgupta, Sayamindu	Assistant Professor	Transfer to Univ. of Washington
Flaherty, Mary Grace	Associate Professor	Retirement
Gollop, Claudia	Associate Professor	Retirement
Greenberg, Jane	Associate Professor	Transfer to Drexel Univ.
Jones, Paul	Clinical Professor	Retirement
Kelly, Diane	Professor	Transfer to Univ. of Tennessee
Losee, Robert	Professor	Retirement
Missen, Cliff	Clinical Associate Professor	Retirement
Moore, Reagan	Professor	Retirement
Moran, Barbara	Professor	Retirement
Patillo, Ericka	Lecturer	Transfer to Appalachian State Univ.
Wildemuth, Barbara	Professor	Retirement

SILS has also been successful in obtaining tenure for its junior faculty and promoting its middle faculty; all of our junior faculty who have been put forward for tenure in the past seven years have received it, and all of the associate professors who have sought promotion to full professor have received it. Since the last COA review in 2014, eight assistant professors have been promoted to associate professor with tenure (Arguello, Capra, Flaherty, Gibson, Jarrahi, Mazur, Shaw, Tufekci), and two associate professors have been promoted to full professor (Gotz, Sturm).

Recognition of Excellence in Teaching, Research, and Service

SILS recognizes excellence in teaching with the annual Deborah Barreau Award for Teaching Excellence, given each year at graduation to the instructors whose teaching during the prior year has been considered the most outstanding. Students can recommend faculty for the award via the Carolina Course Evaluations, and a general call for nominations is released each spring semester. The award is adjudicated by a committee composed of the Dean, the award winners from the previous year, and the ILSSA co-presidents (or student representatives appointed by the ILSSA co-presidents). The winners of this award are typically also nominated for the UNC Distinguished Teaching Award for Post-Baccalaureate Instruction.

Research at SILS is supported by an ongoing culture of inquiry at the School and in the University that expects faculty and students to be productive and exploratory scholars. SILS will often provide new faculty with start-up money to help them establish their research agendas. The School also provides the Eleanor M. and Frederick G. Kilgour research grant to support faculty research projects; recent recipients have included: Mohammad Jarrahi for work on mobile knowledge professionals and digital infrastructure; Amelia Gibson to investigate social interactions among understudied populations; Mary Grace Flaherty for preliminary data

collection on alpha gal disease; Ray Wang for understanding machine learning outputs; Sayamindu Dasgupta for visual programming research; and Maggie Melo for makerspace inclusiveness. The Frances Carroll McColl Term Professorship was established to support faculty research excellence. The current holders of this professorship are David Gotz and Zeynep Tufekci. Student research is recognized with the Elfreda Chatman student research award for the best Master's Paper proposal (one award each year), and the Dean's Achievement award for the best Master's Paper (two awards each year). SILS also provides research/lab space in Manning Hall in a competitive bid every three years. These lab spaces are currently inhabited by: The Community, Equity, Data and Information Lab, the Equity in Making Lab, the Interactive Information Systems Lab, the Visual Analysis and Communication Lab, and the Center for Information, Technology and Public Life.

SILS is also interested in faculty engagement through service to the community and the profession. SILS supports individual faculty with $2000/year in travel funds in connection with professional service. It continues to support several faculty-led community engagement projects, including Project READY, Story Squad, the Community Data Lab, and the student-run Community Workshop Series (SILS provides an assistantship for the student director and assigns a faculty supervisor for the project). SILS also tries to mentor students in a service-minded philosophy with its annual Service to the School award, presented at the spring commencement ceremony to the "student who has contributed outstanding service to the school and their fellow students."

As we try new ideas and as students push us to explore, there is a culture at SILS of sharing results and conclusions informally at Faculty Breakfasts or School meetings, and innovations are celebrated on the SILS website, newsletter, listserv, Twitter, Facebook, Vimeo, and other communication channels.

Stimulating Learning and Research Environment

SILS prides itself on providing a challenging and exciting learning environment. Embedded as it is in a stellar research and teaching university, SILS sets high expectations of its faculty, staff, and students and strives to be creative in its spaces and collaborations so that students:

- Are exposed to cross-disciplinary and global perspectives
- Have opportunities to participate in and conduct their own research
- Are confronted with questions that require creative and unconventional thinking
- Learn to apply general ideas and theories to specific contexts

The 2020 and 2016 Current Student Surveys posed the question: "How satisfied are you with the overall learning environment at SILS?" Table 3.8 below shows the survey results.

Table 3.8: Overall current student satisfaction with learning environment

How satisfied are you with the overall learning environment at SILS?				
Satisfaction	**2020 Survey (N=28)**		**2016 Survey (N=42)**	
	Number of Students	**Percent**	**Number of Students**	**Percent**
Very Satisfied	7	25%	4	10%
Satisfied	15	54%	26	62%
Neutral	4	14%	4	10%
Slightly Dissatisfied	2	7%	7	16%
Very Dissatisfied	0	0%	1	2%
Total Responses	28	100%	42	100%

In 2020, seventy-nine percent were *satisfied* or *very satisfied* with the learning environment (72% in 2016).

Table 3.9 shows that the alumni agree with this overall assessment in reflecting on their studies while at SILS. On the 2020 Alumni Survey, 66% of recent alumni (graduated since 2016) *strongly agreed* or *agreed* that the quality of teaching by the faculty was high (62% in 2016). The 2020 MSIS alumni were more positive (79%) than the MSLS alumni (58%), though the sample sizes were different (and both were very low due to COVID-19).

Table 3.9: Quality of faculty teaching (2020)

The quality of teaching by the faculty was high						
	MSLS		**MSIS**		**All**	
	#	**%**	**#**	**%**	**#**	**%**
Strongly Agree	7	29%	4	29%	11	29%
Agree	7	29%	7	50%	14	37%
Neutral	8	33%	3	21%	11	29%
Disagree	2	8%	0	0%	2	5%
Strongly Disagree	0	0%	0	0%	0	0%
Total	24	100%	14	100%	38	100%

III.3 The program has policies to recruit and retain faculty from diverse backgrounds. Explicit and equitable faculty personnel policies and procedures are published, accessible, and implemented.

SILS embraces diversity in all its aspects, and we strive to create an academic environment that welcomes novel ideas and differences of opinion and perspective, whether these differences spring from "ability, age, ethnicity, gender, gender identity, gender expression, immigration status, national origin, race, religion, sexual orientation, and socioeconomic status." (SILS Diversity Statement) The diversity of our faculty reflects this commitment.

The SILS "Criteria and Procedures for Faculty Appointments, Reappointments, Promotion, and Tenure" policy document states:

> *The School of Information and Library Science is committed to equality of opportunity. Concomitant with this is the tradition of fairness to each individual without prejudice to race, color, gender, age, religion, creed, genetic information, disability, veteran's status, sexual orientation, gender identity or gender expression, or national origin. The official policy of the School of Information and Library Science regarding equal opportunity is stated in the most recent revision of the Equal Opportunity Plan of the University of North Carolina at Chapel Hill.*

Faculty searches are required to be reviewed by the Equal Opportunity and Compliance Office, and search committee chairs are required to complete training in conducting a fair and diverse search. UNC Human Resources follows published advertising requirements and provides a list of Diversity Recruiting Resources that may assist search committees in increasing the diversity of their applicant pools. SILS has also successfully recruited under-represented faculty through the UNC Valuing Inclusion to Attain Excellence (VITAE) hiring program, which seeks to "attract accomplished and talented new faculty members from underrepresented and other groups for tenure track or tenured appointments at the University of North Carolina at Chapel Hill. This may include individuals who grew up in economically disadvantaged circumstances, individuals with substantial professional experience working with minority and economically disadvantaged populations; individuals doing significant research on issues that disproportionately affect minority and disadvantaged populations; and individuals whose teaching or research specialty is in a field that is currently underrepresented in the University faculty."

The SILS policies and procedures regarding appointments, reappointment, promotion, and tenure are accessible on the open web in the faculty handbook. University policies are also available on the open web on the Provost's website.

The UNC Equal Opportunity and Compliance office offers a variety of training sessions, some of which are required of all faculty, and some of which are required for search committees, like the Conducting a Fair and Diverse Search training.

III.4 The qualifications of each faculty member include competence in designated teaching areas, technological skills and knowledge as appropriate, effectiveness in teaching, and active participation in relevant organizations.

Teaching assignments are made each semester based on a combination of curricular needs and teaching competencies of the individual faculty members. Table 3.10 below lists the full-time faculty, their teaching assignments for fall 2014-fall 2021, their research interests, and the professional organizations in which they are members.

Table 3.10: Faculty teaching, research, and professional affiliations (2014-2021)

FACULTY	COURSES	Research, Teaching, and Advising Specializations	Affiliations
Anthony, Denise	384 Information & Computer Ethics 520 Organization of Information 556 Introduction to Archives and Records Management 690 Community Archiving 690 Copyright & Intellectual Property Issues in Archives 754 Access, Outreach, and Public Service in Cultural Heritage Repositories 757 Principles and Practices of Archival Description 781 Proposal Prep & Presentation	Archives and historical collections	SAA; Archival Educators Research Institute
Arguello, Jaime	509 Information Retrieval 609 Experimental IR 613 Text Mining 509 Information Retrieval 613 Text Mining	Information retrieval, aggregated search systems and evaluation, search behavior, text data mining, and machine learning	ACM-SIGIR
Bergquist, Ron	161 Tools for Information Literacy 201 Foundations of Information Science 385 Information Use for Organizational Effectiveness 396 Independent Study in Information Systems 718 User Interface Design 758 International and Cross-Cultural Perspectives for Info Management 843 Seminar in Public Libraries	Public libraries in North Carolina, information visualization, visual language, user-centered design, and public library policy	ACM
Capra, Rob	523 Database Systems I: Intro to Databases 760 Web Databases 490 Selected topics: Fundamentals of Programming Information Apps 570 Fundamentals of Programming Information Applications 690 Usability Testing & Evaluation 760 Web Databases 719 Usability Testing & Evaluation 818 Seminar in Human-Computer Interaction	Human-computer interaction, personal information management, and digital information seeking behaviors, tools, and interfaces.	ASIS&T; ACM-SIGCHI; IEEE

Cottom, Tressie	500 Human Information Interactions 890 Networks of Racial Capitalism	Technology, higher education, class, race, and gender	SocArXiv, ASA, ESA, HASTAC, AERA, ASHE
Crescenzi, Anita	581 Research Methods Overview	Information-seeking and information retrieval, human computer interaction, decision-making, human-centered data science	ACM, ASIS&T, ALISE, AACP
Dasgupta, Sayamindu	201 Foundations of Information Science 490 Special Topics: Programming for data analysis 560 Programming for Info Professionals 690 Designing for creative learning	Human-computer interaction, human-centered data science, learning technologies, digital media and learning	ACM, IC2S2
Feinberg, Melanie	201 Foundations of Information Science 520 Organization of Information 720 Metadata Architectures and Applications 722 Introduction to Metadata Architectures and Applications 728 Seminar in Knowledge Organization 890 Intro to Metadata Arch & Apps	Information organization and description, design of information collections	ACM, ASIS&T, CoLIS, NASKO
Flaherty, Mary Grace	513 Resource Selection and Evaluation 690 Disaster Planning for Libraries 690 Mgmt Issues for Small Libraries 705 Health Sciences Information 781 Proposal Prep & Presentation 842 Seminar in Popular Materials in Libraries 843 Seminar in Public Libraries	Role of public libraries in society, health information, and health literacy	AHIP; ARSL; CAPHIS; MLA; ALA, PLA; ASIS&T; ALISE
Gibson, Amelia	500 Human Information Interactions 581 Research Methods Overview 584 Information Ethics 690 Community Data Lab 690 Disability Informatics and Information 690 Info Exchange/Seeking in Local/Place-Based Comm 781 Proposal Prep & Presentation 890 Information, Values, Ethics and Action	Health information behavior, information access and poverty, place-based communities and information practices, information worlds, information needs and practices of individuals with disabilities	ASIS&T, ACM, ALISE, HICSS, ALA

Gollop, Claudia	501 Information Resources and Services 515 Consumer Health Information 739 Information Services for Specific Populations	Information and reference services, consumer health information, health sciences librarianship, information and diverse user groups.	ALA; ALISE; Beta Phi Mu; NCLA; MAC-MLA
Gotz, David	560 Programming for Info Professionals 582 Systems Analysis 641 Visual Analytics 690 Visual Analytics (Gotz, David)	Visualization and medical informatics	ACM-SIGHIT; ACM-Multimedia; IEEE; Society for Industrial and Applied Mathematics (SIAM)
Haas, Stephanie	202 Retrieval & Org Systems 512 Applications of Natural Language Processing 523 Database Systems 1: Intro to Databases 582 Systems Analysis	Natural language processing, information retrieval, sublanguage and terminology, genre and discourse structure.	ASIS&T; ACL; ACM
Hemminger, Brad	396 Independent Study in Information Systems 541 Information Visualization 623 Database Systems II: Intermediate Databases 700 Scholarly Communication 706 Biomedical Informatics Research Review 781 Proposal Prep & Presentation	Medical and bioinformatics, computer-human interfaces, digital libraries and open archives and information visualization.	AMIA; AAPM; ACM; ACR; ASIS&T; IEEE; MIPS; SPIE
Hughes-Hassell, Sandra	502 User Education 513 Resource Selection and Evaluation 530 Young Adult Literature and Related Materials 534 Youth and Technology in Libraries 690 Information Services in a Diverse Society 690 The Library as Literacy Classroom 732 Children's Literature and Related Materials 735 Youth Services in a Diverse Society 745 Curriculum Issues and the School Librarian 796 Field Experience in School Library Media	School library media, young adult literature, diversity in youth services.	ALA; AASL; ALSC; YALSA; LRRT; IFRT; ALISE; ASCD; IASL

Jarrahi, Mohammad	385 Information Use for Organizational Effectiveness 396 Independent Study in Information Systems 585 Management for Information Professionals 690 Social Informatics 697 Emerging Topics in Information Science	Social and organizational changes resulting from information use and communication technologies.	ACM
Jones, Paul	690 Information Science @ Work 697 Emerging Topics in Information Science	Internet issues and applications, digital libraries, electronic publishing, online news, virtual communities, legal and social issues relating to networked information and access	American Open Technology Consortium (AOTC); ACM; UNC Open Source Research Team (OSRT)
Kelly, Diane	509 Information Retrieval 581 Research Methods Overview	User modeling, relevance feedback, personalization, information-seeking behavior, experimental design and analysis, research methods.	ACM-SIGIR; ACM-SIGCHI; ASIS&T
Lee, Cal	465 Understanding IT for Digital Collections 490 Datafication of Everything 513 Resource Selection and Evaluation 525 Electronic Records Management 765 Information Technology Foundations for Managing Digital Collections 781 Proposal Prep & Presentation	Archives, digital preservation, electronic records management.	SAA; SNCA; National Digital Stewardship Alliance-Infrastructure Working Group; Open Planets Foundation
Losee, Bob	520 Organization of Information 581 Research Methods Overview	Information retrieval, information, reasoning systems, organizing information, decision making.	ACM, ASIS&T
Marchionini, Gary	490 Human-Centered Data Science Applications 490 Information for a Sustainable World, Part 1 & 2	Information seeking in electronic environments, human-computer interaction, digital libraries, information design, information policy.	ACM; AERA; ALA; ALISE; ASIS&T; IEEE
Mazur, Lukasz	582 Systems Analysis	Healthcare engineering management, continuous quality improvement, patient safety, workload, human performance, human factors, simulation-based training	IIE, IHI, SEMS

Melo, Maggie	490 Special Topics: Real time Data Science in the Makerspace 501 Information Resources and Services 584 Information Ethics 690 Information Professionals in the Makerspace 737 Inclusive Information Services for Diverse Populations	Innovation, critical maker culture, and the development of equitable and inclusive collaborative learning spaces (e.g. makerspaces) in academic libraries	ALA, AAUW, NCWIT, HASTAC, Code for America
Missen, Cliff	396 Independent Study in Information Systems 490 Selected topics: Going the last mile: Info access for underserved populations 523 Database Systems I: Intro to Databases 539 Going the Last Mile: Information Access for Underserved Populations 720 Metadata Architectures and Applications	Off-line information access and appropriate IT for underserved populations. The eGranary Digital Library. Libraries in the developing world. Digital libraries, user group-centric information services, asynchronous and distance education. Information classification, retrieval, and interfaces. Information services for incarcerated populations.	ALA; African Studies Association; Engineers Without Borders; Fulbright Association and Fulbright Academy; Iowa Library Association
Moore, Reagan	540 Building a Personal Digital Library 624 Policy-Based Data Management	Rule-based data management, data grids, digital libraries, persistent archives, genealogy	ACM; IEEE; SAA
Moran, Barbara	585 Management for Information Professionals 841 Seminar in Academic Libraries 890 Readings on Library and Information Science in the Middle East and North Africa	Academic librarianship, management of information agencies, human resources management, popular materials, organizational design and leadership.	ACRL; ALA; ALISE: LRRT; SHARP; Beta Phi Mu; NCLA
Mostafa, Javed	523 Database Systems I: Intro to Databases 690 Methods in Medical Informatics 725 Electronic Health Records 793 Health Informatics Practicum	Multimedia information retrieval, personalization and user modeling, cyberinfrastructure for research and learning	ACM; AMIA; IEEE
Patillo, Ericka	151 Retrieving and Analyzing Information 513 Resource Selection and Evaluation 585 Management for Information Professionals 746 Music Librarianship	Organizational behavior, academic libraries, professionalism in librarianship, middle management and “incidental outreach,” a phenomenon that explores the benefits of librarians participating in performing arts groups	ALA; MLA (Music)
Pomerantz, Jeff	720 Metadata Architectures and Applications	Digital libraries and other forms of digital cultural	ACM; ALA; ASIS&T;

		heritage, Metadata, Human-mediated information services, Evaluation of information services, Online teaching and learning	ALISE; LRRT
Rajasekar, Arcot	89 FYS: Smart Cities 523 Database Systems I: Intro to Databases 624 Policy-Based Data Management 625 Information Analytics 626 Intro to Big Data and NoSQL 690 Advanced Databases II 690 Big Data and NoSQL for Data Science 690 Database Systems III 690 Info Analytics 714 Introduction to Information Analytics 890 Introduction to Data Analytics	Data grids, digital libraries, persistent archives and artificial intelligence	AAAI; AGU; IEEE
Rawson, Casey	581 Research Methods Overview 745 Curriculum Issues and the School Librarian 781 Proposal Prep & Presentation 782 Library Assessment 783 Library Instruction and Pedagogy 796 Field Experience in School Library Media	Teacher-librarian collaboration in STEM content areas, LIS education, and equity and inclusion in youth services librarianship	ALA, YALSA, ALSC, AASL
Shaw, Ryan	201 Foundations of Information Science 396 Independent Study in Information Systems 490 A Digital Gazetteer of NC 520 Organization of Information 550 History of the Book and Other Information Formats 620 Web Information Organization 690 Web info org	Information organization, digital humanities / humanities computing, philosophy of information, sociology of texts, hermeneutics, knowledge representation, public history, memory institutions, new media, digitization, the Web	ACH; ASIS&T; ACL

Sturm, Brian	89 FYS: Storytelling - Hidden Voices and Social Justice 558 Principles and Techniques of Storytelling 690 Child and Adolescent Development for Librarians 690 Narrative and Social Justice 732 Children's Literature and Related Materials 733 Administration of Public Library Work with Children and Young Adults 781 Proposal Prep & Presentation	Storytelling and folklore, children's and young adults' literature and public library services, children and technology, bibliotherapy.	ALA; ALISE: ALSC; Beta Phi Mu
Tibbo, Helen	554 Cultural Institutions 750 Introduction to Digital Curation 751 Advanced Digital Curation 752 Digital Preservation and Access 755 Archival Appraisal 756 Data Curation & Mgmt 766 Audit and Certification of Trustworthy Digital Repositories 800 Webinar/MOOC/Seminar Series 890 Advanced Digital Curation 890 Seminar in Digital Curation	Archives and records management, information services for the humanities, electronic information retrieval, reference service.	AAUP; ALA; ALISE; ASIS&T; ARMA; ACH; ACM; Beta Phi Mu; LRRT; MARAC; RBMS; SAA; SIST; SNCA; SLA; ACRL;
Tripodi, Francesca	581 Research Methods Overview 690 Misinformation and Society 697 Emerging Topics in Information Science	Social media, political partisanship, and democratic participation, particularly how Google and Wikipedia are manipulated for political gains. Patterns of gender inequality on Wikipedia	ASA, AoIR
Tufekçi, Zeynep	690 Social Media & Society 697 Emerging Topics in Information Science 789 Big Data, Algorithms, & Society 89 FYS: Social movements & new media	Social impacts of technology, privacy and surveillance, inequality, research methods and complex systems.	ICWSM; ASA; ICA
Wang, Ray	509 Information Retrieval 690 Data Mining: Methods and Applications	Text data mining, including related areas such as machine learning, information retrieval, natural language processing, social and information network mining, and health informatics	ACM, AMIA
Wildemuth,	781 Proposal Prep & Presentation	Social impacts of technology,	ICWSM; ASA;

Barbara		privacy and surveillance, inequality, research methods and complex systems.	ICA
Winget, Megan	201 Foundations of Information Science 500 Human Information Interactions 520 Organization of Information 697 Emerging Topics in Information Science 754 Access, Outreach, and Public Service in Cultural Heritage Repositories	Information-seeking behaviors and information use, design and evaluation of information systems, adoption and use of information.	ACM; ALISE; ASIS&T; CPSR; CSLA; SLA
Yu, Fei	523 Database Systems I: Intro to Databases 718 User Interface Design	Health informatics and analytics, electronic health records, clinical care research, and research impact metrics	ACM, MLA, ACRL

Technological Awareness

The faculty use myriad technologies in their teaching and research. Most instructors make course materials available to students either on the open web or in the content management system, Sakai. Faculty use a variety of means to communicate with students or promote discussion in the class, including blogs, wikis, web conferencing, text messaging, discussion forums, and email. Class readings are often hyperlinked in class syllabi or made available in the University Library Electronic Reserves. Faculty also use a wide array of hardware and software for their work, including tablets, smartphones, servers, laptops, and desktop computers, and their knowledge of relevant software and mobile apps continues to expand as the market grows. Manning Hall has excellent wireless connectivity and provides faculty and students with excellent support services.

Effectiveness in Teaching

The faculty are accomplished and award-winning teachers. Since 2014, eight different faculty members have been awarded the School's Deborah Barreau Award for Teaching Excellence, and two have won university teaching awards (Arguello, 2017, Distinguished Teaching Award for Post-Baccalaureate Instruction; Jarrahi, 2017, Tanner Award for Excellence in Undergraduate Teaching).

The Deborah Barreau Award for Teaching Excellence is given annually to the best teacher of the year. Faculty conduct peer teaching observations of each other and of adjuncts and teaching fellows to offer suggestions for improving instruction, and students provide faculty with feedback on course evaluations and in student Town Hall meetings. Table 3.11 depicts the analysis of the Carolina Course Evaluations for the last two years (2019-21) and shows that students *agree* that overall their instructors were effective teachers (simple mean of the section means=1.61). Students are positive (though more *neutral*) about the teaching of our doctoral

student teaching fellows, but these data represent only four doctoral students and, therefore, are not truly representative of doctoral student teaching.

Table 3.11: Overall Effectiveness of Teaching

Course Evaluations Analyzed (N=339)	**Overall, this instructor was an effective teacher.**
Full-time Faculty (N=205)	1.52
Adjunct (N=121)	1.67
Doctoral Teaching Fellows (N=14)	2.37
All Faculty	**1.61**
1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree	

Analysis of the course evaluations for just the required MSLS and MSIS classes (N=103), which often get lower scores due to their *required* nature, shows, again, that our instructors are effective teachers (mean=1.64).

On the 2020 Current Student Survey, 79% of the respondents (N=24) felt the overall quality of classroom teaching by full-time faculty was *very good* or *outstanding,* and 82% (N=22) felt similarly about adjuncts and visiting faculty. The majority of students rated the quality of interactions with students *very good* or *outstanding* (92% (N=24) for full-time faculty, 77% for adjuncts (N=22)).

On the 2016 Current Student Survey, 56% (N=41 felt the overall quality of classroom teaching by full-time faculty was *very good* or *outstanding,* and 79% (N=39) felt similarly about adjuncts and visiting faculty. The majority of students rated the quality of interactions with students *very good* or *outstanding* (85% (N=41) for full-time faculty, 80% for adjuncts (N=39)).

On the 2020 Alumni Survey, 79% a*greed* or *strongly agreed* that the quality of their interaction with faculty was high (N=38), and 66% answered similarly that the "quality of teaching by the faculty was high" (N=38). The 2016 Alumni Survey showed similar numbers (76% for interaction with faculty, 62% for quality of teaching).

Master's Paper or Project as Teaching

At SILS, the capstone project – referred to as the Master's Paper or Project – is an independent student research project conducted under the auspices of a faculty advisor. The UNC Graduate School stipulates that:

> For the master's degree, a thesis *or* an approved substitute is required. A minimum of three credit hours of thesis substitute (992) or thesis (993) registration is required. A maximum of six such credit hours may be counted as part of the required 30 credit hour minimum for the degree.

Guidelines are publicly available regarding the necessary requirement for an approved thesis substitute, and SILS' Master's Paper has been formally approved by the Graduate School (the new curriculum INLS 992 Practicum option has also just received Graduate School approval). Since the 2013 curriculum revision, these papers and projects have involved extensive interaction between faculty and students over the course of two semesters (INLS 781 Proposal Preparation & Presentation and INLS 992 Master's Paper or Project).

The 2020 Alumni Survey asked several questions related to the Master's Paper and students' perceptions of the quality of their faculty advisor's guidance. Seventy-nine percent of respondents (N=39) *agreed* or *strongly agreed* that their Master's Paper advisor "provided assistance in shaping a sound research question"; seventy-seven percent (N=39) responded similarly that their Master's Paper advisor "provided assistance in choosing an appropriate research method"; seventy-seven percent (N=39) responded that their advisor "provided timely and appropriate feedback" on their paper; and sixty-two percent (N=39) replied that their "Master's Paper was relevant to their career in terms of topic studies or methods used." The 2016 Alumni Survey asked the same questions with the following results: 83% (shaping research question), 73% (appropriate research method), 74% (timely feedback), 81% (relevant to career).

III.5 For each full-time faculty member, the qualifications include a sustained record of accomplishment in research or other appropriate scholarship (such as creative and professional activities) that contribute to the knowledge base of the field and to their professional development.

The faculty disseminate their scholarship in a variety of venues, including: refereed journals and conference proceedings, monographs, popular journals, newspaper articles, social media, and public performances. What follows is an overview of some of our faculty scholarship productivity, though certain faculty's scholarship may not be captured here (for a full accounting of faculty productivity, please see their full CVs in the SILS COA Document Archive: III Faculty: Faculty CVs).

Refereed Articles and Conference Papers

Table 3.12: Tenure-Track Faculty Refereed Journal Articles or Conference Papers (2017-2021)

Faculty	Number of refereed journal articles
Arguello	7
Capra	7
Crescenzi	6
Cottom	5
Dasgupta	6
Feinberg	11
Flaherty	4

Gibson	10
Gotz	23
Haas	1
Hemminger	1
Hughes-Hassell	1
Jarrahi	24
Lee	4
Marchionini (SILS Dean)	1
Mazur	10
Melo	6
Mostafa	3
Rajasekar	6
Sturm	4
Tripodi	1
Wang	8
Yu	13

Monograph Publications

Several faculty members have written books in the last five years:

- Arguello, J. (2017). *Aggregated Search. Foundations and Trends in Information Retrieval* (FN-TIR). Now Publishers.
- Cottom, T. M. (2019). *Thick: And Other Essays.* The New Press.
- Cottom, T.M. (2017). *Lower Ed: The Troubling Rise of For-Profit Colleges in the New Economy.* The New Press.
- Flaherty, M.G. (2018). *Promoting Individual and Community Health at the Library*. Chicago, IL: American Library Association.
- Flaherty, M.G. (2017). *The Library Staff Development Handbook: How to Maximize Your Library's Most Important Resource.* Medical Library Association Handbook Series. Lanham, MD: Rowman & Littlefield.
- Hughes-Hassell, S. (2020). *Collection Management for Youth: Equity, Diversity and Inclusion, 2nd ed.* Chicago: IL: American Library Association.
- Hughes-Hassell, S., Bracy, P.B., & Rawson, C.H. (Eds.) (2016). *Libraries, Literacy, and African American Youth: Research & Practice.* Libraries Unlimited.
- Melo, M. & Nichols, J. (2020). *Re-making the Library Makerspace*. Library Juice Press.
- Press, A. & Tripodi, F. (2021). *Media Ready Feminism and Everyday Sexism*. State University of New York Press.
- Tufekci, Zeynep. (2017). *Twitter and Tear Gas: The Power and Fragility of Networked Protest.* Yale University Press.

Impact of Faculty Scholarship

Faculty impact is an ongoing source of conversation among higher academics, and the metrics used to assess it are under continual scrutiny and revision. The University of North Carolina at Chapel Hill – in line with its interest in community engagement, service to the state, and engaged scholarship – has required all units to include a broader definition of faculty impact and engagement and to be more inclusive of scholarly endeavors.

To this end, SILS has revised its promotion and tenure policy (approved April 2018) to include:

Additional publications/presentations describing or discussing one's research, including papers presented at workshops or institutes for which no proceedings are published; panel presentations; posters at conferences; other informal publications such as newspaper or newsletter columns; and radio, and television or web-based interviews or profiles.

Many SILS faculty adopt new forms of expression in all aspects of their work ranging from teaching via novel online and hybrid forms to collecting data and sharing results of research via websites, social media, and face-to-face or virtual performance. SILS thus recognizes that such forms of expression may not be peer-reviewed in traditional ways and that mastering new tools and methods requires significant time and effort. SILS will welcome inclusion of new forms of scholarly work and communication as part of the faculty record. Faculty must decide which work to include for promotion and tenure decisions and explain why it is included and how it impacts the field and intended audiences. Factors that may be explained include: target community(ies), frequency and reach if the activity is ongoing, tangible impact(s), derivatives in other forms, any collaborations, and any software, data sets, websites that persist.

Traditional metrics of faculty research focus on publication counts to show scholarly output, and the faculty curriculum vitae show a sustained record of publication across years in journals and conference proceedings in each faculty member's area of specialty (see SILS COA Document Archive: III Faculty: Faculty CVs, for two-page and full faculty vitae).

Research Impact

Table 3.13 below presents a selective list of the recognition received by the faculty from organizations outside the university for their research and scholarship since 2017.

Table 3.13: Faculty recognition for research and scholarship, 2017-2021

Arguello, Jaime
2021 Distinguished Associate Editor Award for ACM TOIS
2019 Dagstuhl Seminar on Conversational Search, Invitee
2017 Best Paper Award, ECIR
Capra, Rob
2021 Virginia Tech Department of Computer Science Distinguished Early Career Alumni Award
2017 Best Paper Award – 2017 European Conference on Information Retrieval (ECIR 2017)

Cottom, Tressie
2020 MacArthur Foundation Fellowship
2020 Non-Fiction Award, Library of Virginia Literary Award
2020 Public Understanding of Sociology Award, American Sociological Association
2019 National Book Award, Non-fiction Finalist for Thick: And Other Essays
2019 Doris Entwisle Early Career Award, Sociology of Education Section of the American Sociological Association
Dasgupta, Sayamindu
2017 ACM CHI Conference Honorable Mention
Flaherty, Mary Grace
2019 Donald A.B. Lindberg Research Fellowship Award, Medical Library Association
2017 Fulbright Scholar Award, U.S. Dept. of State, Bureau of Educational & Cultural Affairs, for study in Mzuzu, Malawi
Gibson, Amelia
2018 NYU Center for Critical Race and Digital Studies (Nominated Affiliate)
Gotz, David
2020 Named Senior Member of the ACM
2019 RTI University Scholar
2019 IEEE VIS Best Paper Award
2018 ACM CHI Honorable Mention Award
2017 ACM Computing Reviews “Best of Computing” honoree
Jarrahi, Mohammad
2019 Best Paper Nominee, iConference
2018 Winner of the Best Article Award for 2018, Journal of Business Horizon
Lee, Cal
2019 Institute for the Arts and Humanities Academic Leadership Program (ALP) Fellow
2017 Fellow, Society of American Archivists
Marchionini, Gary
2018 ACM/IEEE JCDL Annual Conference Best Reviewer Award
Tibbo, Helen
2020 Society of American Archivists. Council Exemplary Service Award in recognition of pioneering work on Archival Metrics research project
Tripodi, Francesca
2020 James Madison University Liberal Arts Legacy Award – Excellence in Teaching & Scholarship

Citation counts are frequently used as one measure of the impact of scholarly work. Data can be gathered from Scopus, Web of Science, Google Scholar, or other bibliometric analysis tools, but no tool exists that is both comprehensive and completely accurate. Factors that can influence citation counts include: publishing in highly defined areas of the ILS field, publishing in emerging areas, publishing in open access journals, or making research results available on the

open web. The journals with the highest number of SILS faculty-authored articles since 2017 are: the proceedings of the Association of Computing Machinery (24), IEEE Transactions on Visualization and Computer Graphics (8), and ASIS&T publications (7). What is more relevant is the wide diversity of journals in which SILS faculty published between 2017 and 2021: 109 different journals or conference proceedings. This range reflects the growing number of specialty journals and the increasing complexity and "reach" of information and library science as a discipline.

Table 3.14 shows the h-index and lists the most-cited paper for each of our faculty.

Table 3.14: Research Impact

Faculty Member	h-index: Google Scholar (or other)	Most cited paper [citations] from Google Scholar (or other)
Jaime Arguello	26	J. Arguello, B. S. Butler, L. Joyce, R. Kraut, K. S. Ling, and X. Wang. Talk to me: foundations for successful individual-group interactions in online communities. In CHI'06, pages 959--968, 2006. [444]
Rob Capra	25	Stutzman F., Capra R., Thompson J. (2011). Factors mediating disclosure in social network sites. Computers in Human Behavior, 27 (1), 590-598. [335]
Tressie McMillan Cottom	6 (Semantic Scholar)	Cottom, T.M. (2017). *Lower Ed: The Troubling Rise of For-Profit Colleges in the New Economy.* The New Press. [60]
Anita Crescenzi	6	Crescenzi, A., Capra, R. & Arguello, J (2013). Time pressure, user satisfaction and task difficulty. *Proceedings of the Association for Information Science and Technology (ASIS&T).* Article 122. Montreal, Canada. https://doi.org/10.1002/meet.14505001121. [51]
Sayamindu Dasgupta	12	Dasgupta, S. Hale, W., Monroy-Hernandez, A., Hill, B.M. (2016). Remixing as a pathway to computational thinking. ACM Conference on Computer-Supported Cooperative Work and Social Computing, ACM Press, 1438-1449. [128]
Melanie Feinberg	14	Feinberg, M. (2009). Information needs of people with spinal cord injuries. *Journal of Spinal Cord Medicine,* 32 (5), 545-554. [83]
Mary Grace Flaherty	11	Flaherty, M. G. (2013). Consumer health information provision in rural public libraries: A comparison of two library systems. *The Library Quarterly, 83* (2), 155-165. [31]
Amelia Gibson	11	Gibson, A.N., Bertot, J.C., McClure, C.R. (2009). Emerging role of public librarians as E-government providers. *42nd Hawaii International Conference on Systems Sciences*, 1-10. [54]
David Gotz	33	Rothbaum, B.O., Hodges, L., Alarcon, R. Ready, D. Sharar, F.,

		Graap, K., Pair, J., Hebert, P., Gotz, D., Wills, B., Baltzell, D. (1999). Virtual reality exposure therapy for PTSD Vietnam veterans. *Journal of Traumatic Stress, 12* (2), 263-271. [391]
Stephanie Haas	20	Haas, S., Grams, E.S., (2000). Readers, authors, and page structure: A discussion of four questions arising from a content analysis of web pages. *JASIS&T, 51* (2), 181. [181]
Bradley Hemminger	33	Priem, J., Hemminger, B.H. (2010). Scientometrics 2.0: New metrics of scholarly impact on the social web. *First Monday.* [578]
Sandra Hughes-Hassell	22	Hughes-Hassell, S., Rodge, P. (2007). The leisure reading habits of urban adolescents. *Journal of Adolescent and Adult Literacy 51* (1), 22-33. [397]
Mohammad Hossein Jarrahi	22	Jarrahi, M.H. (2018). Artificial intelligence and the future of work: Human-AI symbiosis in organizational decision making. *Business Horizons 61* (4). [462]
Christopher (Cal) Lee	8 (Scopus)	Lee, C.A., (2011). A framework for contextual information in digital collections. *Journal of Documentation 67 (1).* [38]
Gary Marchionini	53	Marchionini, G. (1997). *Information seeking in electronic environments.* Cambridge University Press. [3085]
Lukasz Mazur	18	Mazur, L., McCreery, J., Rothenberg, L. (2012). Facilitating lean learning and behaviors in hospitals during the early stages of lean implementation. *Engineering Management Journal 24* (1), 11-22. [101]
Marijel (Maggie) Melo	3	Nichols, J., Melo, M.M., Dewland, J. (2017). Unifying space and service for makers, entrepreneurs, and digital scholars. *Libraries and the Academy 17* (2), 363-374. [26]
Javed Mostafa	26	Mostafa, J. Mukhopadhyay, S., Palakal, M., Lam, W. (1997). A multilevel approach to intelligent information filtering: model, system, and evaluation. *ACM Transactions on Information Systems 15* (4), 368-399. [273]
Arcot Rajasekar	30	Baru, C. Moore, R., Rajasekar, A., Wan, M. (2010). The SDSC storage resource broker. *CASCON First Decade High Impact Papers,* 189-200. [824]
Casey Rawson	9	Rawson, C.H., McCool, M.A. (2014). Just like all the other humans? Analyzing images of scientists in children's trade books. *School Science and Mathematics 114* (1), 10-18. [44]
Ryan Shaw	15	Shay, R., Troncy, R. Hardman, L. (2009). Lode: Linking open descriptions of events. *The Semantic Web,* 153-167. [292]
Brian Sturm	12	Anderson, T., Sturm, B. (2007). Cyberbullying: From playground to computer. *Young Adult Library Services 5* (2), 24. [149]
Helen Tibbo	13 (Scopus)	Meho, L.I., Tibbo, H.R. (2003). Modeling the information-seeking behavior of social scientists. *JASIS&T 54* (6), 570-587. [178]
Francesca Tripodi	4	Tripodi, F. (2018). Searching for alternative facts. *Data & Society Research Institute.* [44]

Zeynep Tufekci	36	Tufekci, Z., Wilson, C. (2012). Social media and the decision to participate in political protest: Observations from Tahrir Square. *Journal of Communication 62* (2), 363-379. [1770]
Yue (Ray) Wang	11	Wang, Y., Yin, D., Luo, J., Wang, P., Yamada, M., Chang, Y., Mei, Q. (2016). Beyond Ranking: Optimizing Whole-Page Presentation. *Ninth ACM International Conference on Web Search and Data Mining.* [66]
Megan Winget	12	Efron, M., Winget, M. (2010). Questions are content: A taxonomy of questions in a microblogging environment. *Proceedings of ASIS&T 47* (1), 1-10. [125]
Fei Yu	6	Shin, G., Jarrahi, M. H., Yu, F., Karami, A., Gafinowitz, N., Byun, A., Lu, X. (2019). Wearable activity trackers, accuracy, adoption, acceptance, and health impact: a systematic literature review. *Journal of Biomedical Informatics (93)*, 103153. [95]

According to the students, faculty at SILS are active and engaged leaders in the field of information and library science. On the 2020 and 2016 Current Student Surveys, respondents were asked to assess the quality of their professors "as leaders in the field," and respondents to the 2020 and 2016 Alumni Surveys were asked the level of their agreement to the statement, "faculty were leaders in the field" (Table 3.15). The number and percent of current student who rated this question *outstanding* or *very good* was 91% (2020) and 80% (2016). The number and percent of alumni who *strongly agreed* or *agreed* with this statement was 79% (2020) and 75% (2016).

Table 3.15: Survey Question: Faculty as leaders in the field

The faculty were leaders in their field									
	Current Students					**Alumni**			
	2020 (N=22)		**2016 (N=41)**			**2020 (N=38)**		**2016 (N=103)**	
	Number	**Percent**	**Number**	**Percent**		**Number**	**Percent**	**Number**	**Percent**
Outstanding	12	55%	14	34%	Strongly Agree	16	42%	32	31%
Very Good	8	36%	19	46%	Agree	14	37%	45	44%
Neutral	2	9%	6	15%	Neutral	6	16%	25	24%
Fair	0	0	2	5%	Disagree	1	3%	1	1%
Poor	0	0	0	0	Strongly Disagree	1	3%	0	0

Funded Research

Another indicator of the faculty's scholarly endeavors is its record of funded research. The SILS faculty have maintained high standards for securing funding for their research and scholarly work. Grants awarded in 2015 totaled $3,587,522, and in 2020 that total was $3,375,431. As in past years, the primary sources of funding were government agencies like the National Science

Foundation (NSF), the National Institutes of Health, the Department of Defense, and the Institute for Museum and Library Services (IMLS), but several large grants were also from private foundations, like the Knight Foundation, the Andrew W. Mellon Foundation, the Luminate Foundation, and the United Health Foundation. Table 3.16 below summarizes the major (≥ $100,000) research grants on which SILS faculty have been involved since 2015. There were also many smaller grants.

Table 3.16: Major Research Grants Involving SILS Faculty, 2015-2020

Award Title	Sponsor	Total Award Amount	PI and/or Personnel
An Interdisciplinary Program for Advanced Training in Health Data Analytics	National Institutes of Health	$3,100,000	Mostafa (PI)
Atherosclerosis Risk in Communities (ARIC) Study – Renewal for Coordinating Center	National Institutes of Health	$13,183,731	Haas (Co-Inv)
Bias Tracking and Reduction Methods for High-Dimensional Exploratory Visual Analysis and Selection	National Science Foundation	$1,081,598	Gotz (PI)
Big Data to Knowledge (BD2K) Training	National Institutes of Health	$316,018	Gotz (Deputy Director)
BitCurator NLP	Institute of Museum and Library Services	$750,000	Lee (PI), Kam Woods (co-PI)
BitCuratorEdu	Institute of Museum and Library Services	$499,664	Lee (PI)
CAREER: Equity in the Making: Investigating Spatial Arrangements of Makerspaces and Its Impact on Diverse User Populations	National Science Foundation	$715,023	Melo (PI)
Center for Information, Technology, and Public Life	Hewlett Foundation	$600,000	Marchionini (co-PI), Tufekci (co-PI)
Center for Information, Technology, and Public Life	Knight Foundation	$5,000,000	Marchionini (PI), Tufekci (co-PI)
Center for Information,	Luminate	$755,000	Marchionini

Technology, and Public Life	Foundation		(PI), Tufekci (co-PI)
CRCNS Neurobridge: Connecting Big Data for Reproducibility Research in Clinical Neuroscience	NIH National Institute on Drug Abuse (subaward from The Ohio State University)	$119,920	Rajasekar (Co-PI)
Cyber Carpentry: Data Life-Cycle Training using the Datanet Federation Consortium Platform	National Science Foundation	$499,641	Rajasekar (co-PI), Feinberg, Jarrahi
CyberTraining: DSE: Data Life-Cycle	National Science Foundation	$492,842	Rajasekar (PI)
Data Management Training Curriculum for OSC	Open Source Enterprise (OSE)	$1,453,676	Marchionini (PI), Tibbo (co-PI)
Data Commons Pilot Phase	National Institutes of Health	$2,984,806	Gotz (Co-Inv)
Deconstructing Information Poverty: Identifying, Supporting, and Leveraging Local Expertise in Marginalized Communities	Institute of Museum and Library Services	$336,649	Gibson (PI)
Developing Youth Data Literacies through a Visual Programming Environment	National Science Foundation	$175,000	Dasgupta (PI)
DNI DIBBS: Give Your Data the Edge: A Scalable Data Delivery Platform	National Science Foundation	$206,921	Rajasekar (co-PI)
EAGER: Baseline Library of Undergraduate Metrics on Education and Research (BLUMER)	National Science Foundation	$299,968	Mostafa (PI)
Efficient Statistical Learning Methods for Personalized Medicine Using Large Scale Biomedical Data	National Institutes of Health	$1,010,526	Gotz (co-Inv)

Enhancing Providers' Ability to Follow-up on Abnormal Test Results	Agency for Health Care Research & Quality (AHRQ)	$298,382	Mazur (PI), Mostafa (co-Inv)
Enhancing Tradecraft Document Utility	North Carolina State University	$271,441	Capra (co-PI), Arguello (co-PI)
EPA Library Funding	EPA Library	$12,276,634	Marchionini (PI)
Future of Youth Public Librarian Education	Institute of Museum and Library Sciences	$149,781	Sturm (PI)
I4G: iSchools' Identity, Interactions, and Impact	Mellon Foundation	$178,500	Marchionini (PI)
iCare: Intelligent Clinical-Decision-Support based on Adaptable, Rule-Based and Extensible Platform	Optum	$150,000	Mostafa (PI)
Impact and Consequences of Encrypted Chat Applications	Omidyar Foundation	$274,841	Tufekci (PI)
Knowledge Representation and Re-Use for Exploratory and Collaborative Search	National Science Foundation	$546,159	Capra (PI)
Modeling Cross-Component Effects in Aggregated Search Prediction and Evaluation	National Science Foundation	$518,700	Arguello (PI)
New Models and Visualization Methods for Scholarly Communications and Annotations	Ochiltree Foundation	$120,000	Hemminger (PI)
OSS ArcFlow	Institute of Museum and Library Services	$382,371	Lee (co-PI), Rajasekar
Periods, Organized (PeriodO) 2: Linking, Discovering, and Reconciling Information about the Past	Institute of Museum and Library Services (subaward from the University of Texas at Austin)	$104,896	Shaw (co-PI)

Polyfluoroalkyl Substance Testing of (PFAST) Network	State of North Carolina	$5,013,000	Rajasekar (co-PI)
Project ENABLE: Extensible Network-Accessible Biomedical & Health Informatics Long-term Learning Environment	United Health Foundation	$1,648,888	Mostafa (PI)
Project Ready: Reimagining Equity and Access for Diverse Youth	Institute of Museum and Library Services	$569,583	Hughes-Hassell (PI), Rawson (co-PI), Gollop, Sturm
Quantitative Approaches to Biomedical Big Data: Statistical & Visualization Methods for PGHD to Enable Precision Medicine	National Institutes of Health	$939,306	Gotz (co-Inv)
Reengineering Postnatal Unit Care to Reduce Perinatal Morbidity and Mortality	Agency for Healthcare Research and Quality	$1,238,093	Gibson (Co-Inv)
Review, Appraisal and Triage of Mail (RATOM)	Andrew W. Mellon Foundation	$1,100,000	Lee (PI)
Scalable Visual Analytics for Semi-Structured Longitudinal Event Data	RTI International	$127,026	Gotz (PI)
Search Assistance Using Search Trails	National Science Foundation	$498,180	Capra (co-PI), Arguello (co-PI)
Simulation-Based Research to Enhance Performance of Radiation Therapists	Agency for Health Care Research & Quality (AHRQ)	$747,585	Mazur (PI)
Visual Data Exploration for Integrated Structured/Unstructured Analysis	Department of Defense Laboratory for Analytical Sciences	$214,295	Gotz (PI), Yue Wang (co-PI)

III.6 The faculty hold advanced degrees from a variety of academic institutions. The faculty evidence diversity of backgrounds, ability to conduct research in the field, and specialized knowledge covering program content. In addition, they demonstrate skill in academic planning and assessment, have a substantial and pertinent body of relevant experience, interact with faculty of other disciplines, and maintain close and continuing liaison with the field. The faculty nurture an intellectual environment that enhances the accomplishment of program objectives.

Table 3.1 in Section III.1 above displays the twenty-one different academic institutions from which the faculty have received their degrees and shows the relationship between their research focus (and, by extension, their principal publishing areas) and their teaching of program content. This table also shows the professional ties they maintain with the field, and their vitae list the myriad conferences at which they present to maintain their interactions with local, national, and international colleagues in the field and in related disciplines. The faculty also collaborate on grants, several have dual appointments (Section V.2), and many participate on campus committees (Section V.2) and are invited to give presentations nationally and internationally (please see faculty vitae). The new curriculum is also evidence of their collective ability to do academic planning. All faculty have relevant degrees and the necessary participation in the field to be effective teachers.

Students feel that the faculty have the requisite knowledge in their areas of expertise. On the two Current Student Surveys, respondents were asked to assess the quality of the full-time and adjunct faculty on "integrating current thinking into courses." Seventy-nine percent (2020) and seventy percent (2016) felt the full-time faculty were either *very good* or *outstanding* in this regard (N=22), and 82% (2020) and 87% (2016) felt similarly for the adjunct faculty (N=39).

The recent alumni responded in like fashion, with seventy-nine percent (2020, N=38) and 78% (2016, N=103) responding that they *agreed* or *strongly agreed* that faculty integrate current thinking into their courses. Further, when asked to agree or disagree with the statement, "the faculty were knowledgeable about the course material presented," 92% (2020, N=38) and 88% (2016, N=103) either *agreed* or *strongly agreed.* Ninety-seven percent (2020, N=38) and 85% (2016, N=103) felt the faculty were "generally available either in person or electronically," and seventy-nine percent (2020, N=38) and 76% (2016, N-103) *agreed* or *strongly agreed* that the ""quality of their interaction with faculty was high."

According to the 2016 and 2020 Alumni Surveys, the faculty are skilled at planning their courses and evaluating their students. The percentage of respondents who *agreed* or *strongly agreed* with the following course design questions is listed in Table 3.17 below:

Table 3.17: Course design components

	2020		2016	
Alumni Survey Item	**Respondents (N=39)**	**Percent**	**Respondents (N=105)**	**Percent**

Course prerequisites were clearly stated	34	87%	98	93%
Course expectations were clearly explained	31	79%	92	88%
Grades reflected the quality of the work done	32	82%	83	79%

Our engagement in the campus-wide Data Science initiative was an exercise in academic planning, as we explored a vision and an implementation plan and SILS's future as a major player. While we withdrew from the proposed implementation plan as detrimental to SILS, we remain committed to the vision and participating as an active contributor.

III.7. Faculty assignments relate to the needs of the program and to the competencies of individual faculty members. These assignments assure that the quality of instruction is maintained throughout the year and take into account the time needed by the faculty for teaching, student counseling, research, professional development, and institutional and professional service.

While there is no way to ensure that faculty have time for everything they agree to take on, SILS' procedures try to ensure an equitable division of responsibilities among faculty, while "protecting" junior faculty who are gaining experience and working toward tenure. Typically, faculty members are expected to teach two courses per semester see Table 3.6 for actual load over the past two years). They may also supervise Independent Studies, Field Experiences, and Master's Papers, and they may also be involved in the supervision of doctoral students. Faculty agree individually to supervise students' Independent Studies and Master's Papers, so there is no "control" over the number that any faculty member takes on, but we suggest that faculty limit their commitment to 1-2 Independent Studies per year. The Associate Dean and Program Coordinators monitor faculty workload for these particular courses. Our general academic advising process is designed to distribute new students equitably across faculty (our two Student Services Coordinators assign new students to faculty advisors) as much as possible while keeping within the applicant's range of stated interests. Our Career Services Coordinator supervises the Field Experience process and ensures a more equitable division of faculty time in this area.

With the recent budget cuts, faculty time devoted to teaching has increased, with most faculty teaching larger classes (some as high as 60-120 students) and some taking on overload classes to ensure the needed courses are offered. We are hopeful that this is a short-term solution that will not become permanent; the balance between teaching, research, and service will continue to be negotiated both individually and collectively by the faculty.

III.8 Procedures are established for systematic evaluation of all faculty; evaluation considers accomplishment and innovation in the areas of teaching, research, and service. Within applicable institutional policies, faculty, students, and others are involved in the evaluation process.

Faculty are reviewed in multiple ways and on an ongoing basis. Each faculty member submits an annual report to the Dean of the School and meets to discuss the report, their success in achieving their goals for the year, and their plans for the future. New, tenure-track faculty are formally reviewed for re-appointment in their third year and are assessed for tenure and promotion in their sixth year. Tenured faculty undergo formal post-tenure review every five years. These reviews are comprehensive and examine the faculty member's entire portfolio of teaching, research, and service. Policies and procedures governing these reviews are described in the document, "Criteria and Procedures for Faculty Appointments, Reappointments, Promotion and Tenure."

Faculty teaching is assessed by students at the end of each course (the quantitative Carolina Course Evaluation and the SILS qualitative supplement) and is observed by faculty peers on a systematic schedule (see: SILS COA Document Archive: III Faculty: Peer-Observation_Guidelines_2021-05-06_FINAL). New faculty are observed in their 2nd and 3rd semesters, and again in the spring of year 4 and 5), and tenured faculty are observed two years prior to each post-tenure review. New fixed-term faculty are reviewed in their 2nd and 3rd semesters and then every 4 years post-reappointment. Adjuncts are observed in their 1st and 2nd semesters of teaching, and, if possible, the semester before reappointment; thereafter every 4th semester teaching. Teaching assistants are observed every semester. Full-time faculty conduct these peer teaching observations to provide perspective and feedback on each other's interactions in the classroom and on course design. Faculty discuss with the instructor any specific areas of focus. They examine the course syllabus and schedule to assess content and design, and they observe 75 minutes of one class period during the semester to provide feedback on the classroom experience. The result is either a conversation or a written report (if needed for tenure or promotion); at least one of these reports must be included in any reappointment, promotion or tenure package. The final reports on observations of teaching fellows and adjuncts are also reviewed by the Associate Dean. Guidelines for peer observation are publicly available in the faculty handbook and address six primary areas: course content, instruction, instructor-student interaction, presentation/style, student behavior, and general/concluding comments.

III.9 The program has explicit, documented evidence of its ongoing decision-making processes and the data to substantiate the evaluation of the faculty.

The documented evidence is presented throughout this chapter and lies in the annual reports of the faculty, the awards and honors they achieve, and their participation and leadership in their scholarly and professional communities. The evaluation rubric used by the Dean for the annual

assessment of productivity (for determination of merit raises, when available) is included in the SILS COA Document Archive: III. Faculty folder.

III.10 The program demonstrates how the results of the evaluation of faculty are systematically used to improve the program and to plan for the future.

SILS faculty are essential to our program and our future. Our recruitments are intensive, extensive, and attract top applicants from around the world. Faculty are mentored, submit annual reviews, and go through rigorous promotion and tenure processes.

CHAPTER 4 – STUDENTS

STANDARD IV: Students

IV.1 The program formulates recruitment, admission, retention, financial aid, career services, and other academic and administrative policies for students that are consistent with the program's mission and program goals and objectives. These policies include the needs and values of the constituencies served by the program. The program has policies to recruit and retain students who reflect the diversity of North America's communities. The composition of the student body is such that it fosters a learning environment consistent with the program's mission and program goals and objectives.

Admissions

As a member of the UNC Graduate School, SILS follows their admissions policies. A member of the SILS faculty, Sandra Hughes-Hassell, serves on the Graduate School's Administrative Board – the policy-making body for the Graduate School. We do not formally admit our own students; instead we recommend admission to the Graduate School, whose decision is final. We have a lot of autonomy in making these recommendations and can provide supporting evidence and a rationale for admitting students who do not meet UNC Graduate School minimum standards. SILS student policies for admission to our two accredited master's programs are available on the open web and align with our mission to "educate innovative and responsible thinkers who will lead the information professions." Specifically, our goal each admissions cycle is "to assemble a student body that is diverse on many levels (i.e., race, ethnicity, age, physical ability, cultural perspective, intellectual background, and work experience) to foster the most dynamic learning and research environment possible so that faculty and students challenge each other to explore and envision the possible." In 2015, we conducted a correlation assessment between the GRE and academic success (See SILS COA Document Archive: Students & Alumni) that showed a weak but significant relationship between the GRE score and the number of High Pass grades students received, suggesting that the GRE was a modest predictor of academic success; at that time, we decided to keep the GRE requirement. Since that time, we have increasingly believed that the standardized test is a barrier to applications. Based on research indicating bias in standardized testing against under-represented populations (particularly BIPOC students), faculty and student discussion, and several student requests for GRE waivers due to financial hardship, in 2020 we eliminated the GRE as a requirement for admission, and we will be tracking applications and admission numbers from under-represented communities to assess the impact of that decision. We also use a holistic approach to evaluate applications, giving all components of the application equal emphasis: academic success (evidence: GPA, Transcripts, three Recommendation letters), work experience (evidence: Resume), and motivation and career alignment with our programs (evidence: Statement of Purpose).

Financial Aid

SILS provides merit-based aid only; need-based aid is handled by the university. Need-based assessment requires students to submit the Free Application for Federal Student Aid (FAFSA) form to the university. The Office of Scholarships and Student Aid reviews the form and makes determinations with regard to need-based scholarships, student loans, work-study eligibility, and so on.

All current and prospective students at SILS are considered for financial aid on an equitable basis with merit as the major criterion for awards (no separate application is necessary). Merit awards begin with SILS' assessment of an applicant's potential eligibility for Graduate School awards in January and proceeds through awarding of SILS financial aid on a rolling basis to be concluded in April. The application deadline for merit award consideration (both Graduate School and SILS) is mid-December. Most of our merit-based awards are disbursed to students entering during the fall semester, but some funds for students are available for students entering during the spring semester as well.

Several sources of student support are available to students entering our master's degree programs. First, we can nominate students to compete for several financial awards available from the UNC-CH Graduate School. These include Merit Assistantships (solely based on merit; stipend, insurance, student fees, and full tuition support for one year) and Weiss Urban Livability Supplemental Awards (for students interested in urban livability; supplements stipend from SILS; provides insurance and student fees; tuition cost is shared with SILS). SILS nominates candidates for these awards, and they compete with students from all areas of campus. Since 2011, two students have received the Merit Assistantship and one has received the Weiss Urban Livability Fellowship. One other student was offed an award but declined admission.

Second, in collaboration with the UNC Libraries, we select a number of Carolina Academic Library Associates (CALAs). The CALA program is an intensive two-year program for master's students who are interested in ultimately working in an academic environment. The program began more than twenty years ago as a successful collaboration between SILS and the UNC University Library. Applicants are selected based on twelve criteria:

- Diversity of experience
- Problem solving
- Critical thinking
- Flexibility
- Creativity
- Enthusiasm
- Adaptability
- Service ethic
- Willingness to learn

- Project management
- Interpersonal skills
- Demonstrated initiative

During the two-year program, the students benefit from strategic mentoring by their supervisors as well as specialized workshops from UNC Library Human Resources on useful career topics such as effective job search techniques, writing cover letters and resumes plus mock interviews. The program is unique among ILS programs in North America. These positions provide two years of support in the form of a stipend and health insurance (provided by the UNC Libraries), and tuition support (provided by SILS). We currently have 9 CALAs: 4 in their first year and 5 in their second year. Third, SILS has a parallel program of aid: the Carolina Technology Associates (CaTA) program. The support is financially the same as for CALAs and is shared in the same way between SILS and the CaTA's employing institution. We currently support 3 CaTA students.

Some of our MS students also work on grant-funded research or other projects while studying at SILS. The amount of financial aid provided in this way can vary greatly, from an hourly rate of pay to a 20-hour per week stipend, plus insurance and tuition support. There are currently 12 master's students who are supported through these types of external funding mechanisms.

Finally, SILS offers a number of small fellowships (approximately $4,000 each) to students on a merit basis. Most of these awards go to first-year students (selected based on the review of merit by the admissions committee), but some are occasionally provided to second-year students (selected based on their academic performance). Currently 16 of our MS students are receiving non-service fellowships.

In addition to the financial aid offered by SILS, many of our students are employed part-time in libraries and other information settings on campus and in the Research Triangle area. SILS assists students in finding these positions by working closely with potential employers to learn of available positions, and then making students aware of them through the School's student jobs listserv.

Recruitment

While the school's reputation as a top-tier school helps draw excellent students, declining support from the North Carolina state legislature curtails the School's student support, though we have worked assiduously to find alternative funding sources for our students, including:

- Creating collaborative, funded internships with organizations and corporations such as the UNC University Libraries (Carolina Academic Library Associates), the EPA Library (a collaboration spanning over 45 years and helping train 450+ information and library science students), Credit Suisse, (funded internship program pre-pandemic), and Ally

Financial (we are currently in our second semester of offering the Ally Scholars program).
- Establishing a two-year assistantship with EBSCO-NoveList for a SILS student to work on strategic initiatives for the company.
- Actively recruiting donor support, such as the fund for diversity and global programs established in 2020 by SILS Alumna Irene Owens to support students of color and those interested in issues of diversity, equity and inclusion.

SILS has been an active participant in the 2017-2022 Carolina Campaign, with a School goal to raise $20 million; to date we have raised $25.69 million. The three SILS priorities for this campaign are:

- Build a culture of innovation and impact
- Attract the world's best faculty
- Maximize the student experience, by recruiting the best students from diverse backgrounds and offering more student support.

The Graduate Student Services Coordinator, the Career Services Coordinator, and the SILS Programs Officer attend recruiting events and design special programs to help recruit students and increase the visibility of SILS on campus and in the community. Recently, they have attended the: Wake County (NC) Public Libraries annual information sessions (April 2020 and 2021), an ALA information joint session with the iSchool consortium (June 2020), the Power of Information joint event with the iSchool consortium (November 2020), a Davis Library work study session annual event, and this year they are starting an annual presentation for Carolina Covenant upperclassmen which will begin this Spring 2022.

Our BSIS degree also serves to recruit students into our master's degree programs. Recruiting efforts have focused on undergraduate orientations with attendance at virtual information fairs over the summer (16 fairs lasting 3 hours each in summer 2021), a fall and spring orientation session on campus, two Week of Welcome information sessions (the first week of classes), transfer sessions, virtual visits to other universities (i.e., Wake Tech), a Data Aware presentation for high school students, a pending CSTEP partnership to improve access to Carolina degrees for transfer students, and digital outreach with an undergraduate interest form, Heel Life page, and Academic advising listserv. We are also planning to give a presentation at the fall "Fall into Your Major 2021" event. Since 2017, eleven of our undergraduate students have chosen to pursue a master's degree with us (8 MSIS and 3 MSLS). Our BS/MS dual degree allows undergraduate students to complete both degrees (the BSIS, combined with either the MSIS or MSLS) more efficiently. A recent revision (fall 2021) to the Graduate School dual BS/MS degree guidelines enables students to "double-count" up to twelve credit hours of coursework (i.e., 12 credits may count toward their BSIS *and* toward their MS degree). While students in the past had to take an extra 12 graduate credits while in their undergraduate programs, this new ruling allows them to reduce their time to degree by up to twelve credits.

We use our website, Facebook, Twitter, YouTube channels and LinkedIn presence to connect with potential students. Our Board of Visitors and our SILS Alumni Inclusion and Diversity (SAID) Committee also help us identify and recruit new students.

Career Services and Student Outcomes

Our Career Services Coordinator is charged with helping students prepare for careers in the field from the moment they arrive at SILS to long after they depart as alumni. Lori Haight has had a huge impact on student success at attaining employment, as our data showing student achievement indicate (what the industry used to call "placement" is now referred to as "achievement") (Table 4.1).

Table 4.1: Student Achievement Data (% employed or in further schooling one year post-graduation)

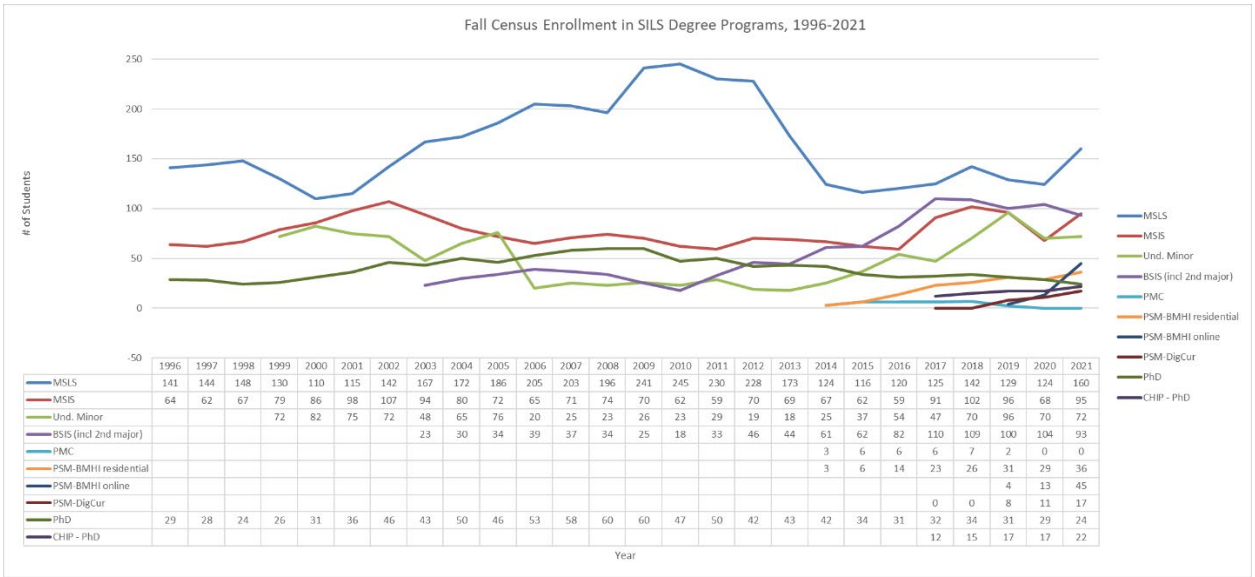
Year	Degree	Student Job Success
2020	MSIS	84% (Based on 94% response rate)
	MSLS	82% (Based on 85% response rate)
2019	MSIS	89% (Based on 96% response rate)
	MSLS	80% (Based on 89% response rate)
2018	MSIS	83% (Based on 97% response rate)
	MSLS	71% (Based on 94% response rate)
2017	MSIS	95% (Based on 100% response rate)
	MSLS	89% (Based on 98% response rate)

Composition of the Student Body

Degree Tracks

Our two master's degree programs are the largest among the programs offered at SILS. The other programs include a BSIS program, an undergraduate minor, a professional science masters, and a doctoral program. As of fall 2021, the MSLS and MSIS comprised 72% of the students enrolled at SILS. While we continue to market and develop our MSIS degree, and enrollments in the MSLS degree fell precipitously in 2012 and 2013, the MSLS program remains our largest program (Figure 4.1).

Figure 4.1: Enrollments in all SILS programs



	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
MSLS	141	144	148	130	110	115	142	167	172	186	205	203	196	241	245	230	228	173	124	116	120	125	142	129	124	160
MSIS	64	62	67	79	86	98	107	94	80	72	65	71	74	70	62	59	70	69	67	62	59	91	102	96	68	95
Und. Minor				72	82	75	72	48	65	76	20	25	23	26	23	29	19	18	25	37	54	47	70	96	70	72
BSIS (incl 2nd major)								23	30	34	39	37	34	25	18	33	46	44	61	62	82	110	109	100	104	93
PMC																			3	6	6	6	7	2	0	0
PSM-BMHI residential																			3	6	14	23	26	31	29	36
PSM-BMHI online																								4	13	45
PSM-DigCur																						0	0	8	11	17
PhD	29	28	24	26	31	36	46	43	50	46	53	58	60	60	47	50	42	43	42	34	31	32	34	31	29	24
CHIP - PhD																						12	15	17	17	22

Year

Since our last accreditation review in 2014, the MSLS and MSIS degree enrollments have been rising, with a sharp increase in both degrees in 2021 due most probably to: the relaxing restrictions on COVID-19 that had kept our international students out of the USA (particularly true for our MSIS program due to high interest in that degree from Asian countries), a poor economy and high unemployment rate that encouraged students to return to school, and the arrival of students who had deferred their enrollment in 2020. Our desire to balance enrollments between our two accredited master's degrees has yet to be fully realized, despite growth in MSIS program and contraction of the MSLS. We continue to market both degrees, while exploring opportunities to expand the scope of the MSIS to include user-centered data science and new developments in the field.

Diversity

The recruitment, retention, and education of an outstanding and diverse student body is one of the primary emphases of the School of Information and Library Science, as we believe that variety of opinion and perspective challenges students to move beyond the complacency of the known, through the discomfort of authentic learning, and into the dynamic excitement of revelation and new knowledge. Through our admissions process we seek to create a student body that will bring multiple perspectives to the school based on a broad definition of diversity as included in our Statement on Diversity:

> In support of the University's diversity goals and the mission of the UNC School of Information and Library Science, SILS embraces and promotes diversity and inclusion in all their forms. We broadly define diversity to include ability, age, ethnicity, gender, gender identity, gender expression, immigration status, national origin, race, religion, sexual orientation, and socioeconomic status. SILS is committed to preparing our graduates to be leaders in an increasingly multicultural and global society.

To this end, we strive to:

- Ensure that our leadership, policies, and practices are inclusive
- Integrate diversity into our curriculum and research
- Promote and nurture an environment in which diverse perspectives and experiences are respected and valued
- Recruit and retain students, faculty, and staff from traditionally underrepresented groups
- Participate in outreach to underserved communities in North Carolina and beyond

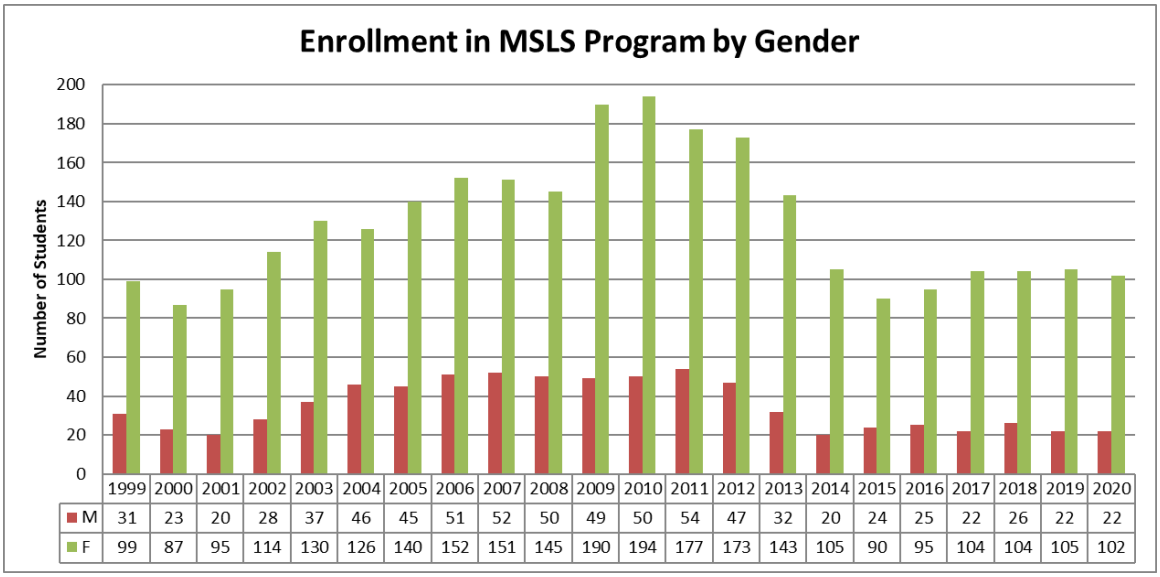
We are committed to cultivating an academic environment that is open, representative, and equitable to all.

The statement represents a commitment of resources to the development and maintenance of an academic environment that is open, representative, reflective and committed to the concepts of equity and fairness.

Diversity: Gender

Library science is still predominantly a female profession, and our MSLS degree mirrors that social trend as eighty-two percent of our MSLS students identify as female. This number is similar to national trends in the field. The 2020 Census data show that 75.6% of the "librarians, curators, and archivists" in the workforce identify as female.

Figure 4.2: MSLS enrollment by gender

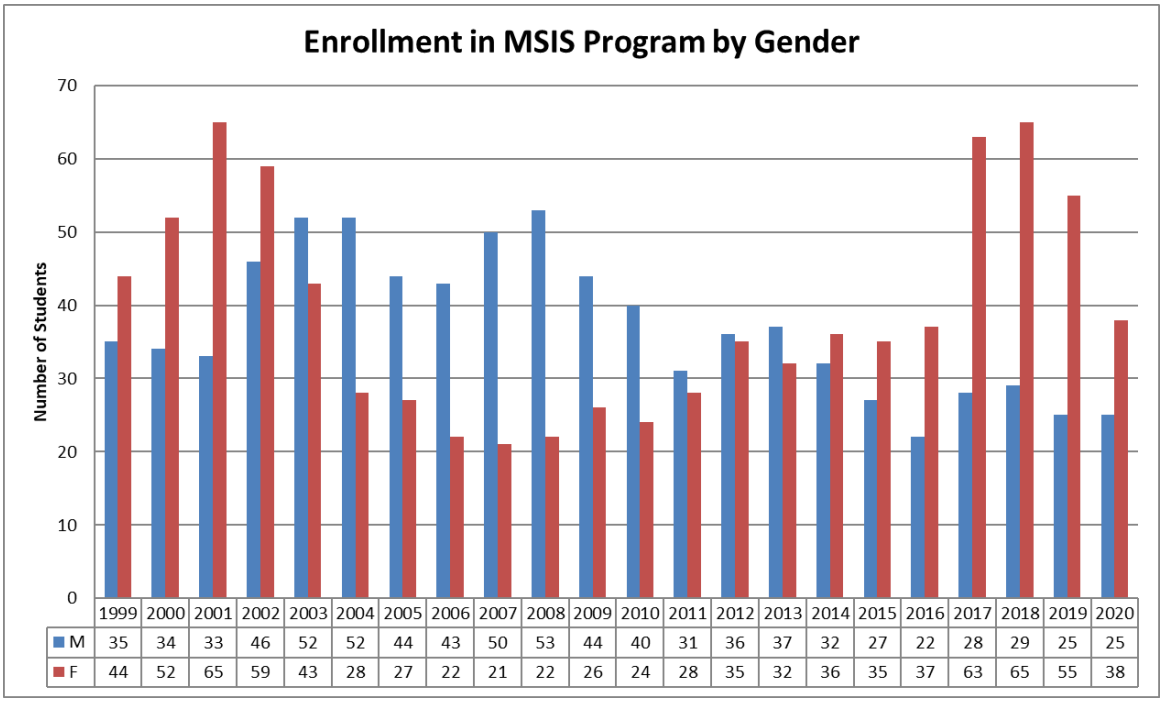


	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
M	31	23	20	28	37	46	45	51	52	50	49	50	54	47	32	20	24	25	22	26	22	22
F	99	87	95	114	130	126	140	152	151	145	190	194	177	173	143	105	90	95	104	104	105	102

The MSIS degree has also seen a rise in female enrollments. This trend is at odds with national Census data that shows that in 2019, only 36.6% of "computer and information research scientists and analysts, and information security analysts identified as female. Our enrollments

may be due to the stronger English language skills evident in the female Chinese students (TOEFL scores), who are therefore admitted in higher numbers than their male counterparts.

Figure 4.3: MSIS enrollment by gender



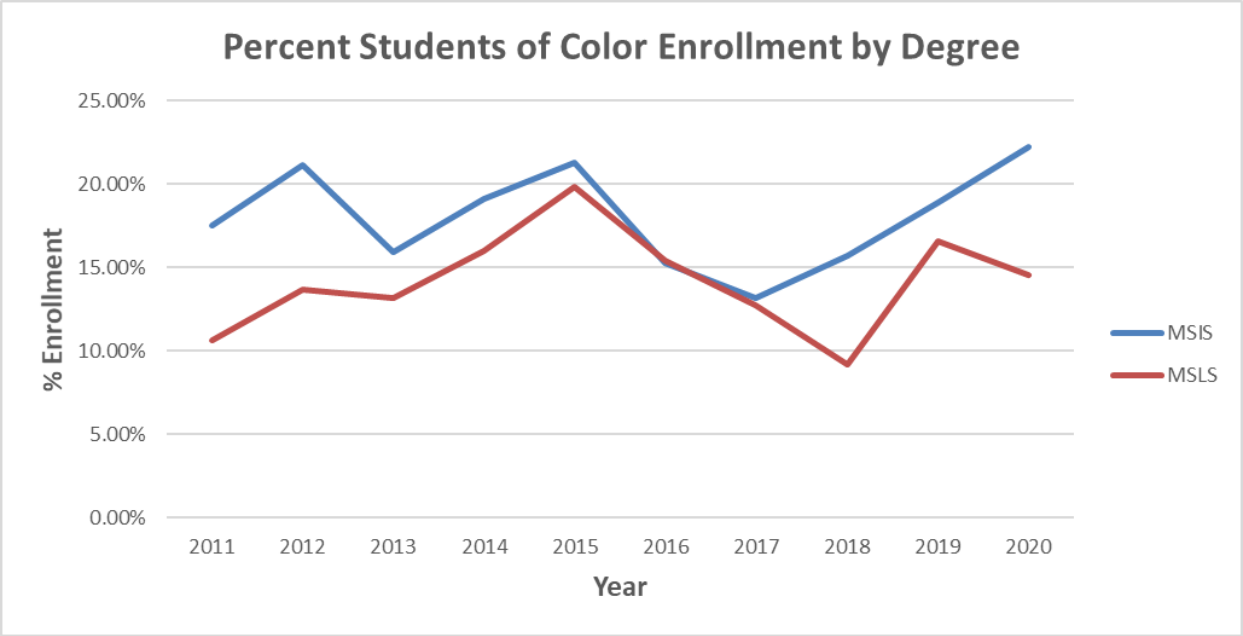
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
M	35	34	33	46	52	52	44	43	50	53	44	40	31	36	37	32	27	22	28	29	25	25
F	44	52	65	59	43	28	27	22	21	22	26	24	28	35	32	36	35	37	63	65	55	38

Our long-term goal is to have nearly equal enrollments in our two master's degrees. We continue to look for ways to recruit new MSIS students to our program. The data science initiative on the UNC campus is an opportunity to do precisely that, though it may also be a challenge to our enrollments, as our students who express an interest in data science may switch to that new school and degree, if it becomes a reality.

Diversity: Minority and International Students

When people speak of diversity, they often are speaking of racial and/or ethnic diversity. While we define diversity more broadly, we do consider race, ethnicity, and nationality as components of the diversity we'd like to achieve at SILS. We know of our students' racial or ethnic status based on the information they provide to SILS (Figure 4.4). While applicants are required to provide information about their nationality/citizenship, their reporting of race and ethnicity are optional, so the completeness and accuracy of these numbers is debatable.

Figure 4.4: Percent students of color enrollment in master's degrees



The race of the students in the MSLS degree remains predominantly white, with just over 15% of our students classifying themselves as persons of color (Hispanic/Latino, American Indian/Alaska Native, Asian, Black or African American, Native Hawaiian/Pacific Islander, Multiracial). For the MSIS, 23% identify as students of color. This is a trend seen across the US library profession as a whole; data from the 2021 ALISE statistics show that non-white/Hispanic representation in ILS schools (24.5%) is higher than that of the profession as measured by: 1) the 2017 ALA Demographics Study of its members (9.4%), 2) the Department for Professional Employees (AFLCIO) 2021 Fact Sheet (17%), 3) the datausa.io compilation of US Census Bureau ACS, PUMs data (13%), and 4) the Zippia.com librarian demographic data (20%).

Some factors that may contribute to our low enrollment of people of color include:

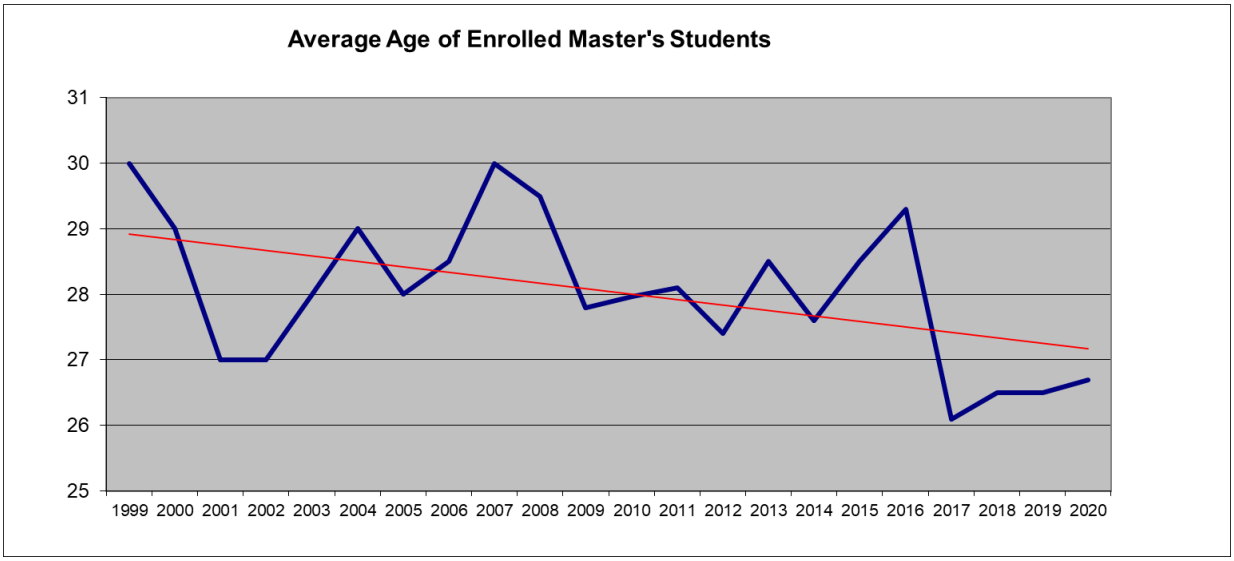
- A two-year, 48-credit-hour program compared to the 36-credit-hour degrees at neighboring institutions
- The presence in North Carolina of two other accredited ILS schools (North Carolina Central University, an historically black college, and UNC-Greensboro) and two non-accredited ILS schools (Appalachian State University and East Carolina University, an entirely online program). In terms of the number of accredited ILS programs in the state, North Carolina (3) is exceeded only by New York (4), but North Carolina has half the population of New York.
- A higher overall cost for attendance than our competitors. For 2021-2022, a full-time (9-credit hours), in-state graduate student at East Carolina would pay $7,612 in tuition and fees per year, University of North Carolina at Greensboro would cost $9,920, North Carolina Central University would cost $10,400, while UNC-Chapel Hill would cost

$16,072. Out-of-state costs are similarly differentiated, and international students face an even steeper cost differential.

Diversity: Age

Many of our students apply to SILS directly from their undergraduate degrees or within 5-7 years after completing those degrees (students who are still relatively mobile and willing to move to Chapel Hill to undertake a two-year residential program), so the average age of our students is about 27 years old (Figure 4.5); however, we try to increase the intellectual and experiential diversity of our student body by admitting a wide variety of age groups whenever possible.

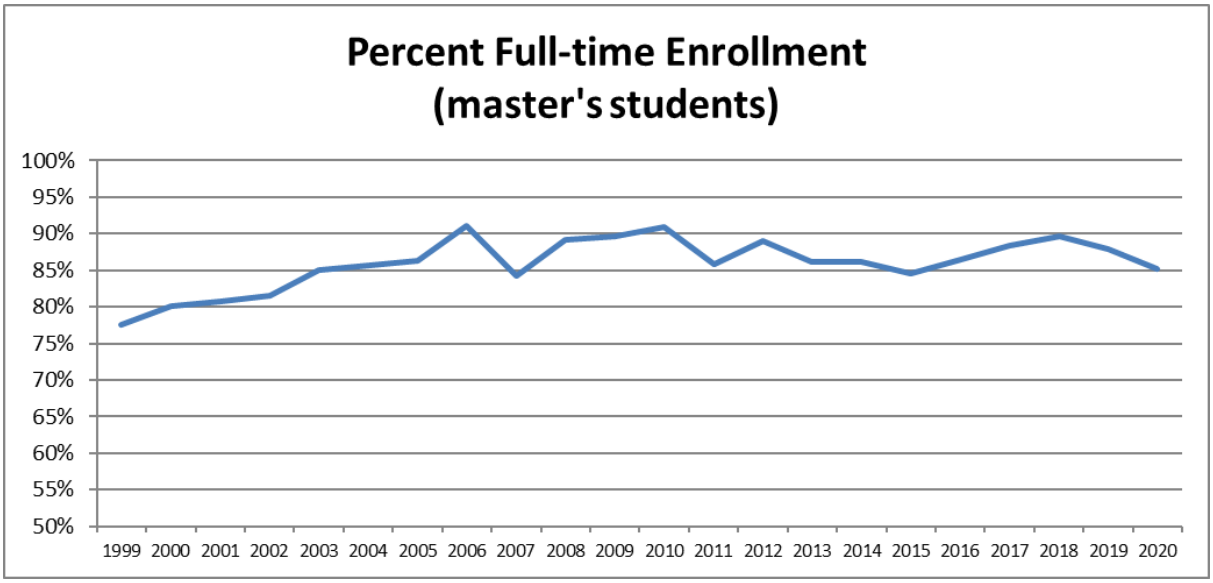
Figure 4.5: Age of enrolled master's students



Diversity: Full-time/Part-time

Since 1999, on average 85% of our students attend SILS full-time (Figure 4.6 below). Difficult economic times often correlate with an increase in part-time status, as students hold onto jobs they already have or find new jobs to help defray college expenses, but perhaps a more important influence on our part-time student body is the frequency with which SILS courses are offered during working hours. The majority of SILS courses are offered in-person and during working hours, and this may be contributing to keeping our part-time student body small.

Figure 4.6: Percent Full-time enrollment



Diversity: Academic

We take immense pride in the excellence of our students. They come to SILS from renowned universities and have strong performance records. They bring an immense diversity of background academic experience to their time at SILS. The students who matriculated in SILS in fall 2021 attended 85 different universities around the world for their most recent studies and majored in 75 different subject areas.

Our students' research also serves as evidence of their commitment to diversity; in the last seven years, 25 Master's Papers have emphasized issues of diversity, whether related to gender, race, ethnicity, multiculturalism, sexual orientation, or special needs. Our students challenge existing stereotypes and traditionally biased practices as they move the field forward with their research. A list of these diversity-related Master's Papers is available in the SILS COA Document Archive: II Curriculum: Masters_Papers_DEI_Themes_2014-2020.

IV.2. Current, accurate, and easily accessible information about the program is available to students and the general public. This information includes documentation of progress toward achievement of program goals and objectives, descriptions of curricula, information on faculty, admission requirements, availability of financial aid, criteria for evaluating student performance, assistance with placement, and other policies and procedures. The program demonstrates that it has procedures to support these policies.

Availability of Program Information about SILS

SILS is dedicated to maintaining an accurate, current, and comprehensive website of information for current and prospective students and the general population.

The academic and administrative policies relating to students are all available in various locations on the SILS website with links to relevant university policies and procedures:

- Mission
- Student Achievement
- Programs and Curriculum
- Faculty
- Admissions
- Financial Aid
- Human Resources
- Academic Policies and Grading
- Careers and Student Outcomes

We have aggregated the various forms and documents students may need to complete their degrees into one page for easy access, and the administrative staff have compiled – and maintain – student handbooks or checklists for each of the degree levels we offer (undergraduate, master's, and doctoral). Information on academic advising, curriculum issues, registration procedures, degree requirements, graduate school policies, graduation, careers and professional development, facilities, student organizations, and campus resources are all detailed and/or hyperlinked within these documents.

In addition SILS maintains an internet presence on Facebook, Twitter, Flickr, YouTube, LinkedIn, and Vimeo, and our Director of Communication provides annual electronic and print copies of the SILS Newsletter. Our Career Services Coordinator is active in promoting SILS Student Outcomes services and career opportunities to students through the SILS Careers portion of the website (career resources, employment resources, employer resources, and networking suggestions) and the SILS jobs and student jobs listservs.

Specific criteria for evaluating student performance in particular classes are available on course syllabi. SILS has a policy that all current syllabi should be accessible on the open web from the schedule of classes, and we make every effort to ensure that instructors comply, though some prefer to keep their syllabi behind firewalls.

Our Director of Communication is the primary supervisor of website content, though many staff members have editing capacity for content and pages relevant to their positions (Student Services Managers, Career Services Coordinator, Director of Development, Director of Information Technology, Administrative Office Support, etc.).

IV.3 Standards for admission are applied consistently. Students admitted to the program have earned a bachelor's degree from an accredited institution; the policies and procedures for waiving any admission standard or academic prerequisite are stated clearly and applied consistently. Assessment of an application is based on a combined evaluation of academic, intellectual, and other qualifications as they relate to the constituencies served by the program, the program's goals and objectives, and the career objectives of the individual. Within the framework of institutional policy and programs, the admission policy for the program ensures that applicants possess sufficient interest, aptitude, and qualifications to enable successful completion of the program and subsequent contribution to the field.

SILS' admissions procedures are conducted within the context of the UNC Graduate School policies. The Graduate School's minimum requirements for admission are:

- a bachelor's degree (based on a four-year curriculum) completed before graduate study begins or its international equivalent with an accredited institution
- an average grade of B (cumulative GPA 3.0) or better

Along with these minimal requirements, admission decisions are based on a number of factors. As described on the SILS website for our two graduate programs, "We look for strong academic records, judged by the applicant's past Grade Point Average (GPA), and we examine the coursework on the student's transcript(s) to determine personal strengths and areas of mastery. Recently accepted graduate students had an average undergraduate GPA of 3.5 on a 4.0 scale."

The deadline for receiving an application for consideration for admission in the subsequent spring is early October, and for the subsequent fall is mid-April. The deadline for submission of applications for consideration for all types of university financial aid (including SILS-specific aid) is mid-December of each year.

The application packet, submitted electronically via the ApplyNow web application, includes multiple sources of information that SILS faculty use to evaluate the qualifications of each applicant. Similar to the Graduate School guidelines, these sources of information include the student's:

1) Statement of academic purpose,
2) resume,
3) educational history (including transcripts),
4) official TOEFL score for international students, and
5) at least three letters of recommendation.

Using this information, faculty evaluate each applicant in the SLATE environment on their:

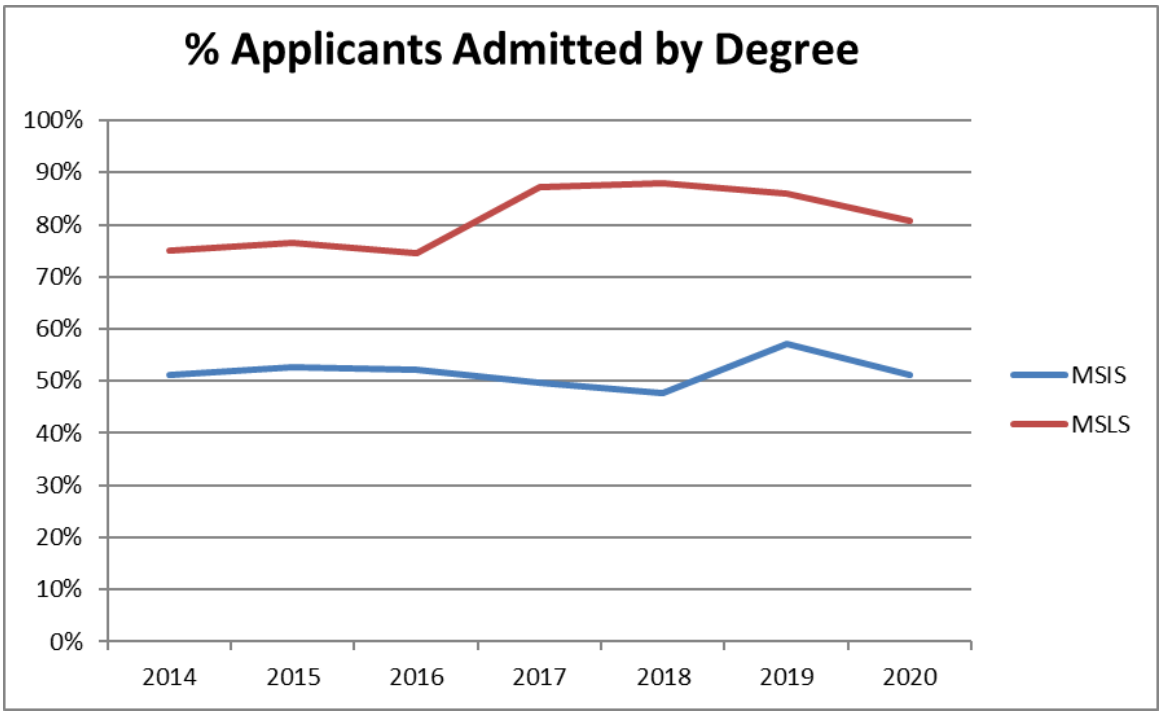
1) Academic potential (GPA and official test scores, academic awards, letters of reference, language facility, and coursework pertinent to the LIS field),
2) work experience (jobs, internships, volunteer activities, membership or leadership in related organizations),
3) unique contribution to the diversity (broadly defined) of our student body, and
4) appropriateness for SILS, i.e., whether SILS is the best place to help them realize their career interests and expectations.

The two Master's Program Coordinators administer the admissions process for master's students in collaboration with the Associate Dean for Academics. The two Coordinators conduct an initial review of the applications as part of their administrative duties, rank each candidate (1=Poor/Reject, 5=Outstanding/Recruit). The Associate Dean conducts a second review of each applicant, makes final admission decisions, and awards financial aid based on the Coordinators' recommendations and rankings. Any disagreement in ranking is resolved by a third reader.

Decisions are tracked in the SLATE management system. The Graduate Student Services Manager notifies the Graduate School of the admission recommendation within two weeks of it being made by the Associate Dean for Academics (usually within a few days). The Graduate School then makes the final decision regarding admission, notifies the student, and officially admits the student once all official documentation (e.g., an official transcript) has been received.

Figure 4.7 below shows the result of our admissions procedures for each degree, indicating that our application process is applied consistently at the degree level.

Figure 4.7: Admissions by degree



There is, however, a discrepancy between the degrees, as we admit a much higher percentage of MSLS applicants than MSIS applicants. This is due primarily to the poor language scores on the TOEFL exam from many of our international applicants to the MSIS program or their interest in a business information systems degree that does not align with our MSIS.

Successful Completion of the Program

The students we admit are successful in completing their studies in a timely manner. Our retention rate for students who matriculated in fall 2019 was 100% (N=89). According to the spring SILS Exit Surveys 2015-2021, 86% (N=207) report feeling *prepared, very prepared,* or *extremely prepared* to start their careers (Table 4.2).

Table 4.2: Graduates' preparation for career

How prepared do you feel as you launch your career?														
	2015		2016		2017		2018		2019		2020		2021	
	# Responses (N=34)	%	# Responses (N=29)	%	# Responses (N=25)	%	# Responses (N= 30)	%	# Responses (N=34)	%	# Responses (N=29)	%	# Responses (N=26)	%
Extremely Prepared	11	32%	5	17%	7	28%	3	10%	2	6%	4	14%	4	15%
Very Prepared	11	32%	11	38%	11	44%	15	50%	12	35%	11	38%	17	65%
Prepared	10	29%	7	24%	7	28%	4	13%	15	44%	7	24%	3	12%
Somewhat Prepared	2	6%	4	14%	0	0%	7	23%	4	12%	6	21%	1	4%
Not at all Prepared	0	0%	2	7%	0	0%	1	3%	1	3%	1	3%	1	4%

One MSIS alumnus (2019) contributed this memory of SILS to the 90th anniversary "Memories of SILS" website: *"being able to truly enjoy my MSIS program knowing that I was walking away with the skills and confidence I needed to go out into the world and use information for good."*

IV.4. Students construct a coherent plan of study that allows individual needs, goals, and aspirations to be met within the context of requirements established by the program. Students receive systematic, multifaceted evaluation of their achievements. Students have access to continuing opportunities for guidance, counseling, and placement assistance.

Coherent Program of Study

Core Knowledge and Electives

A "coherent" program of study is one that provides a logical pathway for a student to follow to reach a desired destination. Each student works in conjunction with a faculty advisor to devise a unique set of learning experiences (coursework, practical experiences, independent studies, and a research project) that best suit the goals and career objectives of the student. Coherence, however, does not mean complete choice, since all students are required to complete the required courses for their degree. These classes (explained in more detail in Chapter 2: Curriculum) form two sets: 1) a common core of 16.5 credits that students in both degree programs take, ensuring that all of our students have a foundational knowledge of basic concepts, theories, and skills, and 2) a degree-specific core (12 credits for the MSIS and 6 credits for the MSLS) that tailors their learning to either the core concepts of Information Science, or the core concepts of Library

Science. The remainder of the credits needed to graduate are electives agreed upon by the student and their academic advisor or stipulated by the particular certificate track the student has chosen.

The new curriculum will be more flexible in design, requiring only two courses (Ethics, Values & Society and Perspectives on Information, Technology & People). The "bin" system will ensure students' exposure to a broad array of ideas in core knowledge areas: information, services & organizations, technology, and people & communities. (See the SILS COA Document Archive: II Curriculum: 2021_SILS_New_Curriculum_Proposal.pdf, or the SILS website for details)

Theory and Practice

A coherent program of study is also one that provides students with a solid grounding in theory *and* practice during their academic experience (see Chapter 2 for details). The students' exposure to LIS theory occurs mostly in the classroom, and their exposure to practice occurs in experiential learning embedded in courses, internships, work experiences, and the Professional Field Experience class (INLS 795). For example, students encounter theory in the INLS 500 Human Information Interactions class and the INLS 520 Organization of Information class. Class exercises help students to see how theory might apply to real-world professional activities. In INLS 500, students are asked to explore how social cognition frameworks influence their own research and educational experiences, and the INLS 520 course concludes with students applying organization theory they learned in class to designing a schema for a chosen set of objects and reflecting on their process. As student engage in INLS 795 Professional Field Experience or other types of experiential learning, they have the theoretical tools that will enable them to think creatively about emerging problems and opportunities (the reflective log they keep for their Field Experience serves this function).

Their ability to integrate theory and practice is examined with the master's comprehensive exam (Learning Outcome #3). In addition, they can apply this ability in developing their Master's Paper or Project. In the new curriculum, the Practicum will be a capstone opportunity to ground their theoretical learning in practice. SILS presents the Dean's Achievement award for the best Master's Papers each year, and the winners – listed in Table 4.3 below – show the breadth of interests and excellence our students manifest.

Table 4.3: Dean's achievement award winners 2014-2021

YEAR	AUTHOR	TITLE
2019-2020	Jon Clancy	Breakdowns in Human-AI Partnership: Revelatory Cases of Automation Bias in Autonomous Vehicle Accidents
	Meg McMahon	A Makerspace of One's Own? An Exploratory Study of Women and Gender Non-Conforming Individuals' Experiences of an Academic Makerspace
2018-2019	Qu Jiaming	A Medical Literature Search System for Identifying Effective Treatments in Precision Medicine

	Kimberly J. Reisler	Cognitive Authority and the Christian Worldview: An Examination of Goodreads Reviews of Christian Books
2017-2018	Julia Gootzei	“The Zine Scheme”: A Comparison of Five Institutions’ Methods of Zine Description and an Assessment of the xZINECOREx Metadata Schema for the Creation of a Zine Union Catalog
	Jesse Moore	Product, Process and Photographs: Archival Workflows and More Product Less Process (MPLP) in Large Film Photography Collection
2016-2017	Erin Dickey	"Her Own Version of History": A Case Study of the Guerrilla Girls Oral Histories at the Archives of American Art, Smithsonian Institution
	Natalie Ornat	Reading for your Life: The Impact of Reading and Writing During the Siege of Sarajevo
2015-2016	Emma Boettcher	Predicting the Difficulty of Trivia Questions Using Text Features
	Meredith Hale	Searching for Art Records: A Log Analysis of the Ackland Art Museum's Collection Search System
2014-2015	Aaron Kirschenfeld	Yellow Fever: Describing Negative Legal Precedent in Citators
	Rachel Walton	Looking for Answers: A Usability Study of Online Finding Aid Navigation

On the 2020 Alumni Survey, 77% of the respondents felt the curriculum did a *very good* or *excellent* job of covering the philosophy, principles, and ethics of the field (N=39); for the 2016 Alumni Survey, that number was 75% (N=105). Several alumni provided textual comments on the School’s balance between theory and practice:

> *“I do think it's important for students to know the theory, but in terms of professional skills, I learned those from working.”*

> *“There needs to be less theory and more practical experience. The program would greatly benefit from having a required practicum in a local business or library for every student.”*

On the 2020 Alumni Survey, 76.3% (N=38) of respondents *agreed* or *strongly agreed* that the faculty “integrated theory and practice effectively in their courses.” For the 2016 Alumni Survey that number was 68.9% (N=103).

Evaluation of Student Achievements

Course Grading Scheme

Students receive feedback on their performance throughout their time at SILS. The most uniform feedback is in the form of the grades they receive. UNC uses a grading scheme for graduate work

that is different from the typical undergraduate scheme of A, B, C, D, F, and SILS abides by the university's grading policy. The Grading scheme (see http://registrar.unc.edu/academic-services/policies-procedures/university-policy-memorandums/upm-24-the-grading-system/) is:

- H=High pass (clear excellence)
- P=Pass (entirely satisfactory)
- L=Low pass
- F=Fail
- IN=Work incomplete

Assignments

Another source of feedback to students is faculty comments on student work. Two of the questions on the Current Student Surveys of 2020 and 2016 asked about the "timeliness" and "usefulness" of feedback from professors (Table 4.4).

Table 4.4: Quality of SILS full-time faculty on feedback provided

Please assess the quality of the SILS FULL-TIME faculty in the following areas								
	Timeliness of feedback from professors				**Usefulness of feedback from professors**			
	2020		**2016**		**2020**		**2016**	
	Number (N=22)	**%**	**Number (N=39)**	**%**	**Number (N=22)**	**%**	**Number (N=39)**	**%**
Outstanding	9	41%	9	23%	8	36%	9	23%
Very Good	11	50%	19	49%	10	45%	17	44%
Neutral	1	5%	4	10%	3	14%	7	18%
Fair	0	0%	5	13%	1	5%	5	13%
Poor	1	5%	2	5%	0	0%	1	3%

These data show that, in 2020, 91% of students felt the timeliness of feedback was *outstanding* or *very good* (72% in 2016), and 83% of students felt the usefulness of feedback was *outstanding* or *very good* (67% in 2016). After reviewing the 2016 survey results and hearing from students in the spring Town Hall about needing more and better feedback from professors on assignments, the issue was brought up in the faculty meeting on April 28, 2016 (minutes available in the SILS COA Document Archive: III Faculty: Faculty Meeting Minutes). Faculty were asked to ensure that they were giving adequate time and attention to this issue. The results on the 2020 survey are suggestive that faculty responded to that request, though the low response rates for these surveys makes these data inconclusive.

We also asked the alumni about whether the faculty provided "timely and useful feedback to students" as part of the 2016 and 2020 Alumni Surveys (Table 4.5 below). For alumni, the gain

in perception seen in the Current Student surveys was not seen; alumni in 2020 ranked faculty feedback lower (67%) than in 2016 (69%).

Table 4.5: Ratings of feedback provided by faculty

The faculty provided timely and useful feedback to students						
	2020		2016		All	
	Number (N=36)	%	Number (N=103)	%	Number (N=139)	%
Strongly Agree	6	17%	20	19%	26	19%
Agree	18	50%	51	50%	69	50%
Neutral	8	22%	25	24%	33	24%
Disagree	4	11%	5	5%	9	6%
Strongly Disagree	0	0%	2	2%	2	1%

Another question on the Alumni Surveys asked whether their Master's Paper advisor, specifically, provided timely and appropriate feedback (Table 4.6). These results were slightly higher than for the faculty in general, most likely due to the intensive nature of the faculty/student interaction needed for complete these capstone research studies.

Table 4.6: Timeliness and appropriateness of feedback on master's paper

My master's paper adviser provided timely and appropriate feedback						
	2020		2016		All	
	Number (N=39)	%	Number (N=105)	%	Number (N=144)	%
Strongly Agree	18	46%	52	50%	70	49%
Agree	12	31%	29	28%	41	28%
Neutral	4	10%	14	13%	18	13%
Disagree	4	10%	5	5%	9	6%
Strongly Disagree	1	3%	5	5%	6	4%

Comprehensive Exam

In their final semester, students take the comprehensive exam (please see Chapter 2: Curriculum for details on the process). This is another opportunity for students to receive an evaluation of their overall knowledge and their ability to think critically and apply theories and evidence to a particular problem in a specific context. While the students do not receive comments on these exams other than a grade, students who do not pass the written exam are given the opportunity to explain their answer in person in an oral examination during which faculty can provide specific feedback on issues that were not addressed and ask for clarification of ideas that were provided. Each year the Comprehensive Exams are graded using the Learning Outcomes as a rubric. The

results are then analyzed and presented as part of the annual SACS Accreditation Review and reviewed by the Master's Committee to determine if any action is needed.

Student Publications

One measure of student achievement is their ability to get their work published in reputable journals in the field. According to the Alumni Survey of 2013 (for our prior Accreditation review), 33% (N=149) of our students had "published an article or given a public presentation on any of their coursework at SILS." For the 2016 Alumni Survey, that number was 37% (N=104) and for the 2020 survey, the number was 31% (N=39).

Guidance, Counseling, and Student Outcomes Assistance

Please see section IV.5.3.

IV.5 The program provides an environment that fosters student participation in the definition and determination of the total learning experience. Students are provided with opportunities to:

IV.5.1 Participate in the formulation, modification, and implementation of policies affecting academic and student affairs;

The students at SILS are an active part of the life and governance of the School, and their "voice" is heard across all aspects of the academic and social environment. Students representatives are elected to all of the SILS Standing Committees and thereby have input on policy revisions and decisions relevant to all aspects of SILS governance. Student typically organize a Town Hall each semester (under the impetus of the Information and Library Science Student Association (ILSSA) to provide all students an opportunity to voice their concerns.

During the recent curriculum revision, the faculty sought student suggestions and feedback on draft changes via a survey and through student representatives on the Master's Committee.

Student representatives also attend the faculty meetings held every third week of the year (during the pandemic, we opened those meetings up to any student who wished to join the Zoom session, as a way to try to increase communication with our virtual students). We have since returned to our normal face-to-face faculty meetings with student representatives in an effort to streamline the discussions once again.

IV.5.2 Participate in research;

Students at SILS have many opportunities to participate in research. The capstone experience (INLS 992 Master's Paper) has traditionally been an independent student research project, in which they have created a proposal, identified their research questions, composed a literature review, collected and analyzed data, and written up the results in a formal paper that is bound and electronically available and is indexed by Library and Information Source. Under the new curriculum, this research opportunity will still be available to students.

Some master's students are also hired on faculty research grants, though this has become less frequent due to our need to support our doctoral students on grant dollars and their longer availability for continuity on the grant.

Our student assistantships (like the CALAs) and internships (like the EPA library) also provide students opportunities for research and discovery.

IV.5.3 Receive academic and career advisement and consultation;

Student Academic Guidance

All students are assigned an academic advisor by the Graduate Student Services Manager when they are admitted. The manager tries to align the student's primary area of interest (as listed on the application) with faculty who have similar interests while simultaneously balancing the advising workload across faculty members. Advisors meet individually with their advisees to discuss each student's academic plan, offer suggestions and resources (such as the specialization course suggestions available on the web), and help guide student planning; they work with the Student Services Coordinators to troubleshoot administrative issues. Typically, faculty reach out to students two weeks prior to registration to discuss their advisees' plans for the coming semester, but it is incumbent upon the students to make those appointments. Students may switch advisors at any time during their program. ILSSA, our primary ILS Student Association, also provides a mentoring service to any new students who wish to avail themselves of it, pairing second year students with new students to help them acclimate and offer advice.

The 2020 and 2016 Current Student Surveys asked students to rate the "usefulness of the academic advising" they received (Table 4.7). The combined results (N=68) show that fewer students perceive academic advising as useful (26%) than not useful (37%), while 36% are neutral.

Table 4.7: Current student perception of the usefulness of academic advising

How would you rate the USEFULNESS of academic advising to your course planning and selection?						
	2020		**2016**		**All**	
	Responses (N=22)	**Percent**	**Responses (N=34)**	**Percent**	**Responses (N=56)**	**Percent**
Very Useful	0	0%	3	9%	3	5%
Useful	4	18%	8	24%	12	21%
Neutral	9	41%	11	32%	20	36%
Not very useful	3	14%	9	26%	12	21%
Not useful at all	6	27%	3	9%	9	16%

The spring SILS Exit Surveys 2015-2021 asked graduating students to complete a short online questionnaire to evaluate the learning environment at the School. Over the past six years, 64% of respondents to this survey have *agreed* or *strongly agreed* that the "quality of academic advising given by faculty was high (Table 4.8 below).

Table 4.8: Academic Advising Quality (Student Exit Surveys, 2015-2021)

The quality of academic advising given by faculty was high																
	2021		2020		2019		2018		2017		2016		2015		All	
	Number (N=13)	Percent	Number (N=28)	Percent	Number (N=33)	Percent	Number (N=31)	Percent	Number (N=25)	Percent	Number (N=27)	Percent	Number (N=32)	Percent	Number (N=189)	Percent
Strongly Agree	11	85%	12	43%	15	45%	10	32%	3	12%	11	41%	8	25%	70	37%
Agree	7	54%	4	14%	8	24%	8	26%	5	20%	9	33%	10	31%	51	27%
Neutral	4	31%	8	29%	4	12%	8	26%	6	24%	4	15%	5	16%	39	21%
Disagree	2	15%	3	11%	5	15%	3	10%	7	28%	1	4%	6	19%	27	14%
Strongly Disagree	2	15%	1	4%	1	3%	2	6%	4	16%	2	7%	3	9%	15	8%

The 2016 and 2020 Alumni Surveys asked recent graduates to provide their recollection of the quality of advising they received while at SILS (Table 4.9). Overall fifty-seven percent *agreed* or *strongly agreed* that the advising they received was of high quality.

Table 4.9: Alumni perceptions of the quality of academic advising

The quality of advising given by faculty was high						
	2020		2016		All	
	Number (N=37)	Percent	Number (N=103)	Percent	Number (N=140)	Percent
Strongly Agree	9	24%	30	29%	39	28%
Agree	11	30%	30	29%	41	29%
Neutral	11	30%	30	29%	41	29%
Disagree	5	14%	10	10%	15	11%
Strongly Disagree	1	3%	3	3%	4	3%

To determine whether there has been a change in students' perceptions of the academic advising they receive, the 2020 Current Student Survey results were compared with those from 2013 Current Student Survey (Table 4.10 below).

Table 4.10: Current students: usefulness of academic advising 2020 and 2013

How would you rate the USEFULNESS of academic advising to your course planning and selection?		
	2020 (N=37)	2013 (N=44)
Very Useful	24%	14%
Useful	30%	27%
Neutral	30%	16%
Not very useful	14%	16%
Not useful at all	3%	27%

These results suggest a moderate impact of faculty advising on student academic planning, perhaps due, at least in part, to the faculty's decision to allow students to register for classes without meeting with their academic advisor beforehand. As we implement the new curriculum, which arguably will necessitate significantly *more* academic advising due to its more flexible nature, we will continue to monitor student and faculty perceptions of advising to determine future steps. For example, the faculty are discussing whether to return to mandatory advising before students can register, or whether group advising or other approaches might be more effective.

Student Career Guidance

Career guidance is offered by faculty whenever it is requested and is covered to some degree in many of our courses, but the School's Career Services Coordinator has primary responsibility for career guidance.

Fifty percent (N=22) of the responding students on the 2020 Current Student Survey stated they had received career advising (compared to 68% in 2016). One hundred percent of those students found the career counseling they received *useful* or *very useful* (compared to 87% in 2016).

Students seek career counseling from a variety of sources. The Career Services Coordinator and the faculty were the primary sources of career counseling in 2020 with 27% and 21% of responses, respectively. In 2016, the Career Services Coordinator, employers and peers played the primary roles, with 25%, 17%, and 16% of responses, respectively). In 2006, for our last Accreditation report, only 20% of students received career counseling from our Career Services Coordinator. This steady increase in the coordinator's advising role, shows how valuable her services are to SILS.

IV.5.4 Receive support services as needed;

Our graduate students have several staff and faculty whose roles are to support their needs. The Graduate Student Services Coordinator is the primary support for administrative issues such as registration, orientation, and course scheduling; she is also often the point person for students with mental health crises, and so she had a variety of training experiences that help her engage students in this manner. The MSIS and MSLS Coordinators are available for concerns particular to those two degrees that focus primarily on student academics and admissions issues. The Associate Dean for Academics is available for student support in financial aid, curriculum issues, and other duties as needed. The Dean of SILS also plays a role in student support when needed. All of these faculty and staff are well-versed in campus student support services.

We also provide links to many campus academic and student life resources on our Student Services website.

IV.5.5 Form student organizations
IV.5.6 Participate in professional organizations

All students at SILS are members of the ILS Student Association, ILSSA. ILSSA organizes a variety of activities, both social and professional. It also sponsors a Town Hall meeting, to which faculty and staff are invited, once a semester to air concerns and provide feedback and suggestions for improving the intellectual and social life at SILS.

SILS also hosts many student organizations that our masters students may join, some of which are chapters of professional organizations. Due to COVID-19, many of these student organizations have been inactive for the past year and half, and many do not have current officers. We are working with ILSSA to reconstitute those and reinvigorate our student community.

SILS Policy and Governance (students have a voting representative at SILS meetings at each level of study: undergraduate, masters, and doctoral)

- Information & Library Science Student Association (**ILSSA**)

Professional Association Student Chapters

- American Society for Information Science & Technology (currently inactive)
- Student Chapter of the American Library Association (currently inactive)
- Student Chapter of the Society of American Archivists (currently inactive)
- Special Libraries Association (**SLA**)

Additional Student Organizations

- Art & Museum Library & Information Student Society (**AMLISS**)
- Future Leader of User Experience (**FLUX**)
- **FLOURISH** (supporting students of color and international students)
- CheckedOut: SILS Diversity (**CheckedOut**)
- Coalition of Youth Librarians (**COYL**)

These organizations have webpages, some have Facebook pages, Twitter accounts, Instagram accounts, and all sponsor events, including field trips, reading clubs, book fairs, guest lectures, and discussions of issues pertinent to the organization's focus.

The SILS Alumni Association's mission is:

> To foster positive and productive relationships between SILS alumni and current students. Recognizing that the continued health and success of our profession depends upon excellent information and library education, and that strong ties between alumni and the school contribute to a robust educational program, SILSAA supports the work of

SILS through several programs and initiatives. The Association's activities focus on three crucial areas: engagement, recognition of achievement, and financial support.

SILSAA provides opportunities for alumni to give back to current students, maintain contact with classmates, develop new contacts within the library and information professions, and draw attention to distinguished achievement within the SILS family. To advance this mission, the Alumni Association sponsors a reception to welcome new SILS students (pre-COVID and with hopes to return to supporting this); presents scholarships, research awards, and the Student Service to the School Award; presents Distinguished Alumni Awards; and maintains a listserv for SILS alumni.

The Epsilon Chapter of the international library and information studies honor society, Beta Phi Mu, was founded at UNC-Chapel Hill in 1948. The top 30% of each graduating class are offered membership in this society, and the society supports student endeavors with two scholarships and an award for the graduating student with the highest percentage of "high pass" grades at the end of his or her studies.[4]

On the 2020 and 2020 Current Student Surveys, students were asked to rate their opportunities to participate in SILS governance and administration, in student organizations, and in student chapters of professional organizations (Table 4.11). Results show that they feel SILS provides ample opportunities for them to become involved.

Table 4.11: Availability of opportunities to participate in SILS

How would you rate the opportunities for students to participate at SILS?	2020						2016					
	Decision-making		ILSSA		Student Chapters		Decision-making		ILSSA		Student Chapters	
	Number (N=22)	Percent	Number (N=22)	Percent	Number (N=22)	Percent	Number (N=33)	Percent	Number (N=33)	Percent	Number (N=33)	Percent
Many Opportunities	2	9%	18	82%	9	41%	5	15%	17	52%	15	45%
Some Opportunities	14	64%	2	9%	9	41%	10	30%	8	24%	12	36%
Neutral	4	18%	2	9%	4	18%	8	24%	8	24%	6	18%
Few Opportunities	1	5%	0	0%	0	0%	8	24%	0	0%	0	0%
Very Few Opportunities	1	5%	0	0%	0	0%	2	6%	0	0%	0	0%

IV.6 The program applies the results of evaluation of student achievement to program development. Procedures are established for systematic evaluation of the extent to which the program's academic and administrative policies and activities regarding students are accomplishing its objectives. Within applicable institutional policies, faculty, students, staff, and others are involved in the evaluation process.

Evaluation of the School's policies and procedures is an ongoing process on many fronts. The Master's Committee is charged with supervision and evaluation of the two master's degrees' policies and procedures. The faculty try to capture as much feedback from students as possible to

[4] UNC-CH does not calculate GPAs for graduate students.

assess the quality of their experiences, from the macro-level of overall perception of the students' experiences at SILS to the micro-level of individual courses, and many of the Standards throughout this self-study report include explanations of how the results of evaluation are being applied to program improvement.

Macro-level Evaluation Results

Comprehensive Exam

Each year the School evaluates the comprehensive exams for evidence of the learning outcomes we hope to achieve (see Section II.5 for details on this process). The most recent report (please see SILS COA Document Archive: II Curriculum: Outcome_Assess_Reports folder for past reports, 2016-2021, and a longitudinal assessment) shows that the majority of our students have achieved these Learning Outcomes (Table 4.12).

Table 4.12: Mean scores across all learning objective outcomes, spring 2021

2020-2021 Comps	ALL # (n=96)	ALL %	% Excellent or Good	MSIS # (n=44)	MSIS %	% Excellent or Good	MSLS # (n=52)	MSLS%	% Excellent or Good
Outcome 1: Apply critical thinking									
Excellent	24	25%	79%	8	18%	68%	16	31%	88%
Good	52	54%		22	50%		30	58%	
Fair	18	19%		12	27%		6	12%	
Poor	2	2%		2	5%		0	0%	
NA	0	0%		0	0%		0	0%	
Outcome 2: Apply standard professional tools									
Excellent	20	21%	69%	6	14%	66%	14	27%	71%
Good	46	48%		23	52%		23	44%	
Fair	22	23%		12	27%		10	19%	
Poor	3	3%		2	5%		1	2%	
NA	5	5%		1	2%		4	8%	
Outcome 3: Apply ideas, theories, and empirical evidence									
Excellent	19	20%	73%	4	9%	68%	15	29%	77%
Good	51	53%		26	59%		25	48%	
Fair	20	21%		10	23%		10	19%	
Poor	6	6%		4	9%		2	4%	
NA	0	0%		0	0%		0	0%	
Outcome 4: Demonstrate a nuanced understanding									
Excellent	24	25%	79%	6	14%	64%	18	35%	92%
Good	52	54%		22	50%		30	58%	
Fair	15	16%		12	27%		3	6%	
Poor	5	5%		4	9%		1	2%	
NA	0	0%		0	0%		0	0%	
Outcome 5: Expresses ideas clearly									
Excellent	27	28%	85%	6	14%	70%	21	40%	98%
Good	55	57%		25	57%		30	58%	
Fair	11	11%		10	23%		1	2%	
Poor	3	3%		3	7%		0	0%	
NA	0	0%		0	0%		0	0%	

The proportions of ratings have been relatively consistent over the years (Figures 4.8 and 4.9), despite changing questions, students, and faculty graders.

Figure 4.8: MSIS Comprehensive exam ratings 2016-2021

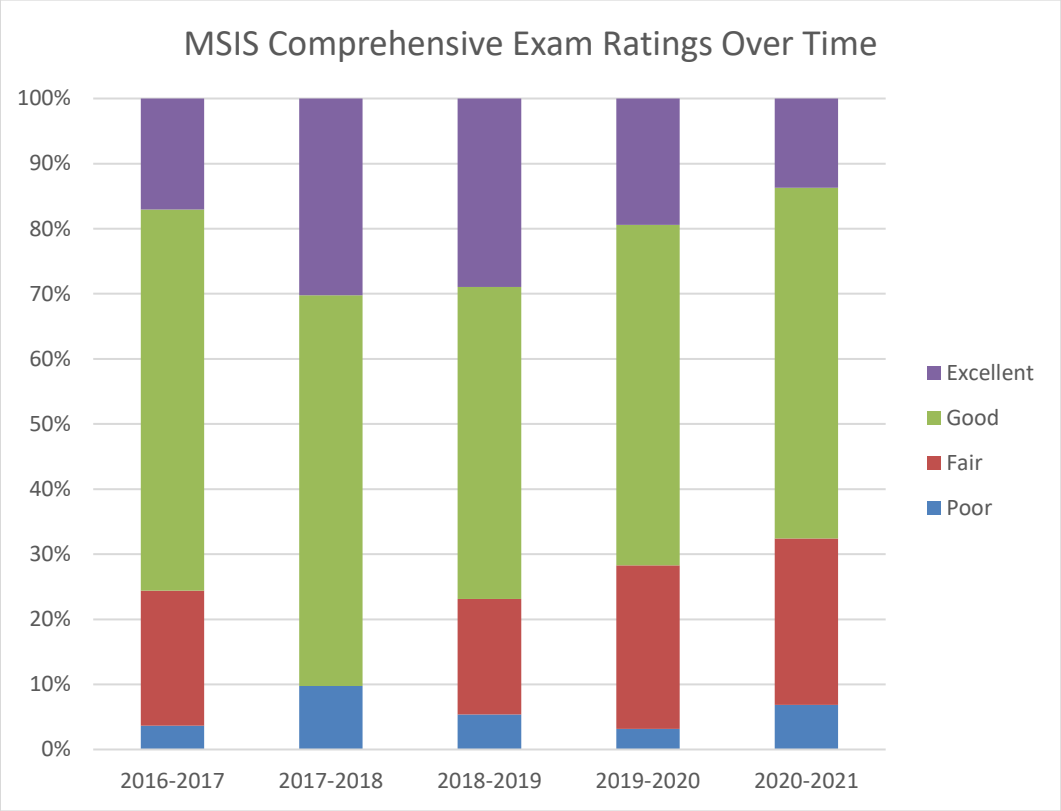
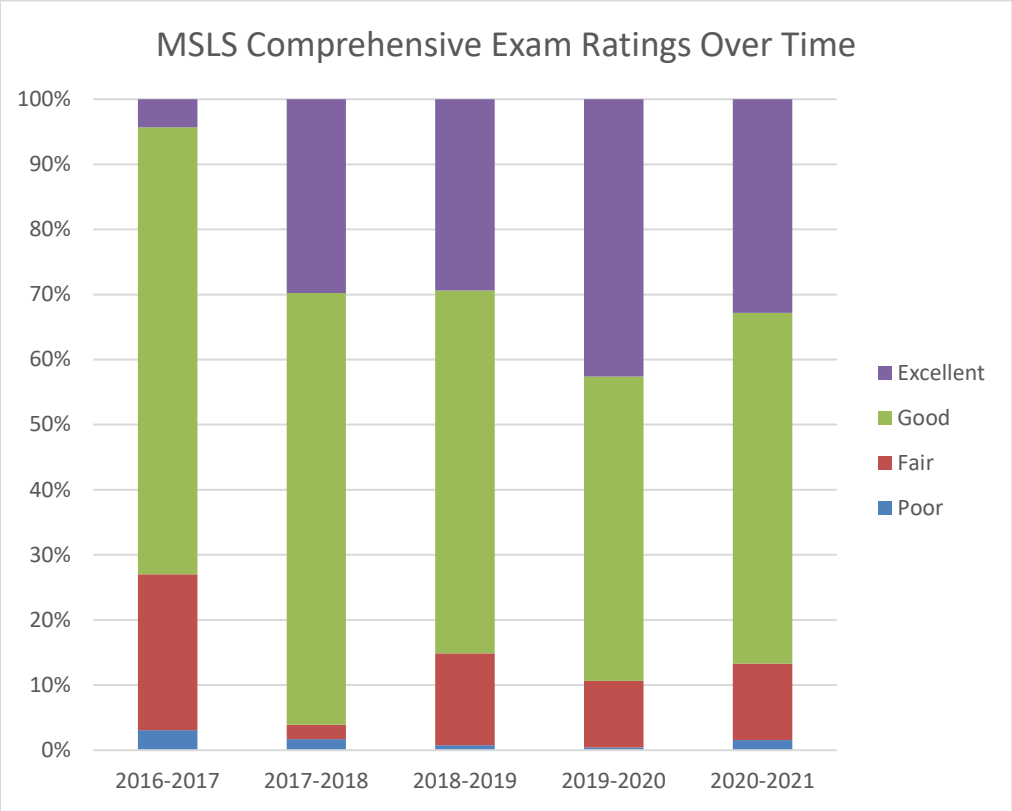


Figure 4.9: MSLS Comprehensive exam ratings 2016-2021



The Dean also conducts exit interviews with students to gain a deeper understanding of their perceptions of their time at the School (see notes in SILS COA Document Archive: II Students & Alumni: SILS Exit Interview Notes). The Dean summarizes the main take-aways from these sessions and brings them to an ensuing faculty meeting for dissemination and discussion.

Micro-level Evaluations

Courses:

Each semester, students have the opportunity to provide formal feedback on teaching (by full-time faculty, adjuncts and teaching fellows) in two ways: the Carolina Course Evaluations (CCEs), administered by the University, and a SILS course evaluation form. The CCEs are primarily rating scales (with a few options for adding comments); the results are distributed to the instructors and to SILS administration. The results are reviewed each semester by the Dean and Associate Dean for Academics, with particular attention to the highest ratings (for possible nomination for the SILS Deborah Barreau Award for Teaching Excellence) and to those that indicate some need for additional coaching. These evaluations are also included in a faculty members' dossier when being considered for tenure and promotion. The SILS evaluation form goes only to the individual faculty member who taught the course. The questions on this form, originally developed by ILSSA, are intended to provide some fine-grained feedback to the instructor on how to improve the course. In addition, full-time faculty conduct peer teaching

observations of each other and of adjunct faculty and teaching fellows (see Section 3.8 for a more detailed overview of the process). Faculty members utilize all of these evaluations to reflect on their teaching and to make improvements to their individual course content and structure. Many faculty also utilize less formal course evaluation approaches within the structure of a class (for example, one-minute papers or mid-semester questionnaires).

CHAPTER 5: ADMINISTRATION

STANDARD V: Administration

Overall Statement

SILS is a professional school at UNC-CH. It has autonomy in decision making and setting policy (within the scope of State and University policies). Its Dean has the same powers and responsibilities as other deans on campus. We receive equitable amounts of resources and make use of centralized campus systems. Since the last program review, the proportion of support for the school that comes from the state has decreased; however, SILS has been able to grow due to strategic initiatives that include: school-based tuition ($3,500/year), increases in undergraduate enrollment, increases in grants and contracts that generate finance and administrative (F&A) fees, aggressive fund raising, and increased use of shared campus IT services such as virtual servers.

UNC-CH experienced two significant changes in leadership in 2020, with the appointment of a new Chancellor, Kevin Guskiewicz. Our current Provost, Robert Blouin, is stepping down, and a search for his replacement is currently underway. Many of our campus deans have also stepped down in the past two years. This change in campus leadership provides us with an opportunity to strengthen our position on campus, make new partnerships with researchers and practitioners around the world, as well as within the university, and find creative ways to meet the educational, intellectual, and financial challenges of the future. We will continue to build on advantages derived from participation by members of the SILS community in school and university planning, decision making, evaluation and intellectual life.

V.1 The program is an integral yet distinctive academic unit within the institution. As such, it has the administrative infrastructure, financial support, and resources to ensure that its goals and objectives can be accomplished. Its autonomy is sufficient to assure that the intellectual content of its program, the selection and promotion of its faculty, and the selection of its students are determined by the program within the general guidelines of the institution. The parent institution provides both administrative support and the resources needed for the attainment of program objectives.

SILS is one of the 13 professional schools of the University of North Carolina at Chapel Hill. The university is a top tier research university with a strong concern for a liberal arts education at the undergraduate level, recognition of the importance of graduate professional education, and regard for excellent teaching at all levels. A member of the prestigious Association of American Universities, UNC-CH regularly ranks as the best value for academic quality in U.S. public higher education, according to Kiplinger's Personal Finance magazine. The university's goal is to be the best public university in the nation. Several graduate programs, including SILS, are highly ranked in the U.S. News & World Report's “America's Best Graduate Schools”.

Academic management at UNC at Chapel Hill is decentralized (please see the Office of the Chancellor Organizational Chart, Office of the Executive Vice Chancellor and Provost Reporting Units and Staff). Most of the school-level decision-making authority resides with the deans, reflecting the understanding that the university's academic units have distinct characters, and that deans have the best sense of the needs of their schools. The same autonomy is exercised by all of the university's professional school deans, including Dean Marchionini. The Dean of SILS functions under various University policies, including UNC System policies and the Trustee Policies and Regulations Governing Academic Tenure in the University of North Carolina at Chapel Hill University of North Carolina General Administration (GA) also has oversight through its policies and reporting requirements.

SILS is part of the UNC-CH Graduate School whose mission is to provide leadership to "envision, shape and support the highest quality education for a diverse community of graduate students whose contributions will have global impact" (Graduate School Mission). The SILS graduate programs (MSLS, MSIS, PSM, PhD) operate under the Graduate School policies, as documented in the Graduate School Handbook. The Graduate School's services to SILS include admissions, graduation clearance, student financial support, and professional development opportunities for students. The Graduate School provides guidance in program and curriculum design; program changes must be approved by the Graduate School.

The School operates in accordance with its own published *Bylaws, Procedures and Policies* and Criteria and Procedures for Faculty Appointments, Reappointments, Promotion and Tenure,. These documents spell out the rights and responsibilities of the Dean, other administrators, faculty, staff, and students. Dean Gary Marchionini is responsible for the overall functioning of the school and has the ultimate authority within the school over personnel and financial matters. The Dean appoints faculty, staff, and students to committees and makes final decisions within the school on actions to be taken, but all constituents of the SILS community have a role in shaping the school's priorities, identifying issues and opportunities for the School, and providing feedback on the effectiveness of actions.

The Associate Dean for Academic Affairs and Director of Graduate Studies, Brian Sturm, has responsibility for course scheduling, student financial aid, facilitating SILS meetings, and representing the school and the Dean at university and non-university functions.

The Executive Associate Dean, Tammy Cox, has responsibility for financial strategy, operations, managing administrative offices, oversight of the WISE program, and administrative data stewardship.

The Associate Deans are granted signatory authority for specific items on an as-needed basis by the Dean.

Each of the School's programs has a Program Coordinator (an administrative position filled by current faculty members with an associated stipend and/or course release). Cal Lee is

Coordinator of the doctoral program, Casey Rawson is Coordinator of the MSLS program, Brad Hemminger is Coordinator of the MSIS program, and Ryan Shaw is Director of Undergraduate Studies and Coordinator of the BSIS program. The Program Coordinators work closely together to monitor and assess policies and processes related to curricular issues, recruitment, admissions, and other student concerns.

Each of the professional schools that report to the university provost has an Administrative Board, appointed to three-year terms by the chancellor upon the recommendation of the Dean. The Administrative Board of the School of Information and Library Science consists of seven members, four from the School's faculty (one of whom is the Dean) and three from the faculty of the University outside the School. The Dean serves as chair of the Administrative Board, schedules the meetings, and sets the agenda. The Administrative Board is required to meet at least once a year. The Administrative Board duties are defined in the Faculty Code of University Government (Section 6.3):

- To formulate, together with the dean, educational policies;
- To advise the dean in handling administrative matters;
- To review and approve new programs and curricula;
- To examine and pass finally on all new courses proposed to the particular school or college; and
- To perform such other duties as may be delegated to them by the dean.

Current members from SILS are Gary Marchionini, Maggie Melo, Arcot Rajasekar, and Mohammad Jarrahi. Members from outside SILS are Mark Crescenzi, Chair and Professor, Department of Political Science, Joyce Rudinsky, Professor, Department of Communication, and Arlene Chung, Assistant Professor, Lineberger Comprehensive Cancer Center. All documents related to Administrative Board meetings are stored on the secure Administrative server.

The university provides centralized systems for personnel management, travel, accounting, student records, research grant management, registration, classroom scheduling, alumni relations, development, and undergraduate admissions. The Graduate School provides an application management system (SLATE) for graduate applicants and reviews student records for graduation.

There is an ongoing concern, ever since the 2010 Graduate School review (and reiterated in the 2021 Graduate School review), that SILS is understaffed, particularly in student services. In 2018, we added a staff position, Programs Officer (Shirley Parker), who has some student services responsibilities, particularly for the Professional Science Master’s degrees.

Since our last accreditation review, we have added three staff positions: a pre-award contracts and grants officer (Nicole Boryczka) in 2020, an instructional design director, (Reema Bhattacharya, 2018), and an IT analyst for the Carolina Health Informatics Program (Doug

White, 2020). We have also added two grant-supported staff to oversee the Center for Technology and Public Life (CITAP): Kathryn Peters (2020) and Joanna Burke (2020).

Provost Blouin initiated the Operational Excellence initiative in 2018 to examine administrative structures and procedures to find ways to create "a high-functioning administrative operation that supports the University's key mission of teaching, learning and research." This group has focused on streamlining HR and other campus-wide administrative functions.

V.2 The program's faculty, staff, and students have the same opportunities for representation on the institution's advisory or policy-making bodies as do those of comparable units throughout the institution. Administrative relationships with other academic units enhance the intellectual environment and support interdisciplinary interaction; further, these administrative relationships encourage participation in the life of the parent institution. Decisions regarding funding and resource allocation for the program are made on the same basis as for comparable academic units within the institution.

SILS faculty, staff, and students are active participants in a variety of University level boards, councils, and committees. These provide venues for learning about campus endeavors to which SILS can contribute, raising issues of interest to SILS, and establishing and maintaining relationships at all levels. Through these activities, SILS representatives have established partnerships for interdisciplinary curricular programs, helped shape policy on issues of particular interest, such as IT, research, and library services, and strengthened our identity across campus. Participation in such activities, although time-consuming, is a two-way street. SILS' ideas and perspectives are shared with other members of the University, and we bring back issues and ideas for discussion and deliberation.

As a relatively small unit on campus, it behooves us to play an active role in the University. In contributing our time, perspectives, and expertise, we raise awareness of the contributions of Information and Library Science to all aspects of the University, and indeed, to society as a whole. Examples of such engagement are given below.

- Joint appointments and affiliations with other units, for example:
    - Brad Hemminger holds a joint appointment in the Carolina Center for Genomics and Society
    - Javed Mostafa holds a joint appointment with the Biomedical Research and Imaging Center (BRIC)
    - Lukasz Mazur holds a joint appointment in Radiation Oncology (60%) and SILS (40%)
    - Anita Crescenzi holds a joint appointment with the UNC Eshelman School of Pharmacy (75%)
    - Fei Yu holds a joint appointment in the Health Sciences Library (60%) and SILS (40%)
    - Zeynep Tufekci, Francesca Tripodi, and Tressie McMillan Cottom are adjunct faculty in the Department of Sociology

- Affiliations with interdisciplinary projects and labs, for example:
    - Arcot Rajasekar is Chief Domain Scientist at the Renaissance Computing Institute (RENCI)
    - Amelia Gibson works closely with the School of Nursing.
    - Tressie Cottom, Zeynep Tufekci, and Francesca Tripodi are affiliated with the Center for Information, Technology, and Public Life

SILS faculty serve on several core University policy groups.

- The Council of Deans, which includes all deans on campus (both Academic Affairs and Health Affairs Divisions), meets monthly. Chaired by the Provost, the council meeting provides an opportunity for the deans to discuss university-wide issues as a group, including implications of decisions made at the State level for the University, budget concerns, and developments in research, instruction, and technology. In turn, Dean Marchionini brings these topics to SILS faculty, staff and students to discuss implications or responses.
- The Faculty Council is the University's faculty-based policy-making group. Any academic unit with at least 25 tenure-track faculty members is represented on the Faculty Council. SILS has been represented on the Council since 1999. Our current representative is Cal Lee. This position enables SILS' faculty to both contribute to university-wide discussions of key issues and receive briefings from the SILS representative on them.
- The Administrative Board of the Graduate School oversees matters that affect graduate education, including approving academic policies, curriculum issues, and awarding some scholarships. Sandra Hughes-Hassell is our current representative.
- Each unit has a Director of Graduate Studies, who serves as a liaison to the Graduate School. In addition to responsibilities within their respective units, Directors of Graduate Studies meet at least once each year with Graduate School staff to discuss policy and procedures, with additional meetings as needed to address specific issues. Brian Sturm is the SILS Director of Graduate Studies.

Since our last accreditation review, faculty members have served on a variety of boards and committees focused on areas and issues of particular interest to SILS. This provides opportunities for faculty to contribute expertise to discussions and recommendations, and also helps ensure that SILS' interests are represented in deliberations. Current and recent examples include:

- Administrative Board, University of North Carolina Libraries (Cal Lee)
- Cancer Information & Population Health Resource Steering Committee (David Gotz)
- Carolina Academic Library Associates Steering Committee (Brian Sturm)
- Carolina Campaign Faculty Ambassador (Amelia Gibson, David Gotz)
- Carolina Digital Humanities Initiative History Task Force (Melanie Feinberg)
- Carolina Open Access Review Task Force (Amelia Gibson)

- Chancellor's Task Force on Extend Carolina (Gary Marchionini)
- Committee on Appointments, Promotions and Tenure (Sandra Hughes-Hassell)
- Computational Linguistics Certificate Advisory Board (Jaime Arguello)
- Data Science Professional Science Master's Committee (David Gotz)
- Data Science Subcommittee on Research (David Gotz)
- Data Science@Carolina Steering Committee (Gary Marchionini, Chair)
- Data@Carolina Undergraduate Curriculum Working Group (Ryan Shaw)
- Enterprise Data Coordinating Committee (Cal Lee)
- Faculty Council Agenda Committee (Cal Lee)
- Faculty Information Technology Advisory Committee (Brad Hemminger, Cal Lee)
- General Education Committee (Ryan Shaw)
- Graduate School Administrative Committee (Sandra Hughes-Hassell)
- Graduate School Fellowship Committee (Sandra Hughes-Hassell)
- Provost's Committee for Inclusive Excellence and Diversity (Sandra Hughes-Hassell)
- Provost's Committee to Recommend a Faculty Activity Reporting System for UNC Chapel Hill (Gary Marchionini)
- Provost's Task Force on Data Science (Gary Marchionini)
- School of Data, Information and Society Pre-Implementation Committee (David Gotz, Cal Lee, Helen Tibbo, and Javed Mostafa)
- School of Public Health BIOS Data Science Curriculum Committee (David Gotz)
- Senior Academic Associate Deans Council (Brian Sturm)
- UNC Master Planning Committee (Brad Hemminger)
- UNC Open Access Advisory Committee (Brad Hemminger)
- UNC Research Office of Research Development (Ryan Shaw)
- UNC Student Stores Advisory Committee (Brad Hemminger)
- University Diversity, Equity and Inclusion Council (Gary Marchionini)
- Weiss Urban Livability Award Committee (Sandra Hughes-Hassell)

This partial list illustrates faculty members' outreach and contribution to the University, as well as their ability to inform all members of the SILS community, including students, about issues relevant to the School and the profession.

SILS staff are also participants in university policy and advisory groups.

- Tammy Cox is on the Equal Opportunity & Compliance Office's Hearing Panel for reports of sexual assault, interpersonal violence, stalking, complicity, retaliation, and protected class discrimination and harassment, and she was a member of the School of Data, Information and Society Pre-Implementation Committee.
- Aaron Brubaker, has served on multiple university committees, including: Information Technology Executive Committee (ITEC), Information Security Liaison, CIO Advisory

Committee, CISO Advisory Committee, IT Infrastructure Coordinating Committee, and the Data Science@Carolina Physical Infrastructure Subcommittee.
- Susan Sylvester is a member of the University Policy Review Committee.
- Lori Haight served on the UNC Employee Forum and won one of three Kay Wijnberg Hovious Outstanding Employee Forum Delegate Awards, and the UNC University Career Services Executive Director Search Committee.
- Christal Sandifer and Nicole Boryczka are on the Office of Sponsored Research Business Managers Advisory Committee, and Brian Nussbaum is on the Technical Advisory Committee for the university.
- Reema Bhattacharya is on the university Digital Accessibility Committee, and during the height of the pandemic, she worked with the "KeepTeaching" instructional support group.

SILS faculty and staff serve on search committees across campus, including the search for the new Dean of the Hussman School of Journalism and Media (Gary Marchionini, Chair), Odum Data Scientist Search Committee (Jaime Arguello), University Development Office (Anne Webb), Data Scientist Search Committee (David Gotz), Health Science Library Head of Health Information Technology Initiatives Search Committee (David Gotz), Search Committee for Vice Provost for Digital and Lifelong Learning (Gary Marchionini, Chair), and the Search Committee for the Dean of Education (Gary Marchionini, Chair).

SILS students are members of the Graduate and Professional Student Federation on campus. The Information and Library Science Students Association (ILSSA), to which all SILS students belong, works closely with the SILS Alumni Association sponsoring events such as the annual new student reception and coordinating a new student mentoring program. They and other student organizations also sponsor panels, talks, and the annual used book sale that are open to the University Community. SILS students also participate in University life and build awareness of our school, through assistantships, part-time employment, field experience placements, and course-related projects.

Other collaborations across the University are based on joint curricular programs, with SILS faculty participating as advisors, instructors, and/or members of advisory committees. Interdisciplinary Graduate Certificates include:

- Bioinformatics
- Biomedical Imaging Science (link is external)
- Certificate in Applied Data Science (currently open only to undergraduate students)
- Digital Curation
- Digital Humanities (link is external)
- Public Health Informatics

SILS also partners with other departments to offer Dual Master's degrees, including degrees in Art History, Government, Health Policy, Law, and Public History. These programs' enrollments are described in Tables 2.9 and 2.10.

Members of the SILS community are active participants in all aspects of university life, contributing ideas and expertise and spreading awareness of who SILS is and what we can offer the university. SILS enjoys a well-earned reputation for collaboration and interdisciplinarity across campus. Resources from the university are divided equitably across units (cuts are typically applied across the board, as are salary increases).

V.3 The administrative head of the program has authority to ensure that students are supported in their academic program of study. In addition to academic qualifications comparable to those required of the faculty, the administrative head has leadership skills, administrative ability, experience, and understanding of developments in the field and in the academic environment needed to fulfill the responsibilities of the position.

The administrative head of SILS is the Dean, Gary Marchionini, Cary C. Boshamer Professor. Dean Marchionini earned his doctorate in Education from Wayne State University and was Professor in the College of Library and Information Science at the University of Maryland. The Dean reports directly to the Provost, Robert A. Blouin. The SILS Dean has the same authority on campus as the deans of other professional schools, such as the Hussman School of Journalism and Media or the School of Government. His salary is similar to the heads of similar-sized professional schools at UNC (Education, Journalism and Media, Social Work, and Government) which range from $240,000 to $315,000.

Dean Marchionini has held numerous leadership and administrative roles including: President of the Association for Information Science, iSchool Executive Committee, and Conference Co-Chair, ACM/IEEE Joint Conference on Digital Libraries (Wuhan, China). Please see his full CV in the SILS COA Document Archive: III. Faculty: Faculty CVs.

Dr. Marchionini is an internationally renowned researcher and scholar, with over 17,000 citations (Google Scholar), an h-index of 53, and an i10-index of 146. He also has a solid record of successful grantsmanship. He has been recognized as an outstanding teacher, mentor, and researcher. Among other awards, he has the SILS Deborah Barreau Award for Teaching Excellence (2009), the University Graduate School's Faculty Award for Excellence in Doctoral Mentoring (2010), and the Association for Information Science and Technology 2011 Award of Merit (the Society's highest honor), the ASIST SIGUSE Outstanding Contributions to Information Behavior Award (2014), and the ACM/IEEE JCDL Annual Conference Best Reviewer Award (2018).

Deans are appointed by the chancellor of the University. Chancellor Holden Thorp appointed Dr. Marchionini as Dean of SILS in 2010 for a five-year term as Dean, with a 12-month appointment. Dean Marchionini's leadership and ability have been so well-regarded by his colleagues and the university administration that his appointment has been renewed twice; he is currently in the middle of his third term as Dean.

V.4 The program's administrative head nurtures an environment that enhances the pursuit of the mission and program goals and the accomplishment of its program objectives; that environment also encourages faculty and student interaction with other academic units and promotes the socialization of students into the field.

Dean Marchionini has established an environment that encourages engagement with ideas, interaction with members of the university community, outreach to citizens of North Carolina, and networking with members of the profession. During the COVID-19 pandemic, he implemented all-school meetings that were open to all students, faculty, and staff in an effort to promote transparency and community. He encourages faculty to host visiting scholars and guest lecturers and provides a travel account for all faculty to attend conferences to present their scholarly work. He explores opportunities for academic and research collaborations with other units on campus, negotiates partnerships on the administrative level, and is constantly building SLIS's network for collaboration. He has also actively helped develop the Professional Science Master's degree and the Certificate of Applied Data Science on campus.

Other initiatives exemplify his vision for the future. He spearheaded the development of the Center for Information, Technology and Public Life (CITAP), he actively recruited Matt Perrault and his Center and Technology Policy to join SILS, and he has centered SILS in the ongoing discussion of how data science should unfold on the UNC-Chapel Hill campus as a pan-university collaboration across units.

The Dean instituted voluntary, monthly "Faculty Breakfasts" (though no food is served due to changes in university policies) at which faculty discuss school issues in a casual format on the first Friday of each month during the academic year. He typically starts these off by providing information on University administrative actions and concerns. The agenda for each breakfast typically examines issue relevant to SILS, including: distance education, curriculum revisions, nurturing research in the school, or utilization of building space. These gatherings provide time for a depth of discussion on very specific topics that can be difficult to obtain in other venues. No official votes or decisions are made at these meetings.

The Dean encourages students, to be active in the School and to engage with the profession. He expects students to be active in school governance and discuss issues among themselves and with faculty and administrators, through ILSSA and their representatives on standing committees. One notable example is the regular town hall meetings, sponsored by the Information and Library Science Student Association (ILSSA), in which students set the agenda for discussion of

issues and concerns with the Dean, staff, and faculty. He also supports their participation in student chapters of professional organizations and provides opportunities for students to meet with distinguished visitors to the school.

In all these endeavors, the Dean leads by example and encourages faculty, students, and staff to be active in the School, the University, and the profession.

V.5 The program's administrative and other staff support the administrative head and faculty in the performance of their responsibilities. The staff contributes to the fulfillment of the program's mission, goals, and objectives. Within its institutional framework decision-making processes are determined mutually by the administrative head and the faculty, who regularly evaluate these processes and use the results.

In addition to administrative staff, SILS is supported by staff in Business and Finance, Student Services, Career Services, Information Technology, the Library, Communications, Development, and Research. The SILS organizational chart is in the SILS COA Document Archive: V. Administration.

- **Administrative staff:** Tammy Cox, Executive Associate Dean; Susan Sylvester, Executive Assistant
- **Student Services:** Lara Bailey, Student Services Manager for Graduate Programs; Shayna Flint, Student Services Manager for the Undergraduate Program; Shirley Parker, Programs Officer
- **Career Services:** Lori Haight, Career Service Coordinator
- **Instructional Design:** Reema Bhattacharya, Director of Instructional Services
- **Business and Finance:** Ananya Bhattacharya, Business Office Specialist; Michelle Lawrence, Human Resources Consultant; Christal Sandifer, Business Officer; Nicole Boryczka, Contracts and Grants Pre-Award Officer; Michelle Taylor, Accounting Technician
- **Development:** Anne Webb, Associate Dean for Development
- **Communications:** Sammantha Dellaria, Communications Coordinator
- **Information Technology:** Aaron Brubaker, Director of Information Technology; Brian Nussbaum, Desktop Support and Help Desk Manager; Doug White, IT Program Analyst for the CHIP program
- **SILS Library:** Rebecca Vargha, SILS Librarian; Kenny Jones, SILS Library Assistant
- **Carolina Health Informatics Program (CHIP):** Hannah David, Programs Manager; Claire Paulson, Program Specialist; Shikha Yadav, Program Coordinator, Project ENABLE
- **Environmental Protection Agency Library (EPA):** Anthony Holderied, Director; Taylor Johnson, Assistant Director; Emily Vorhies, Electronics Resources Librarian; Jonathan Beeker, User Services and Research Librarian; Andre Kimber, Library Assistant
- **Center for Information, Technology, and Public Life (CITAP):** Kathryn Peters, Executive Director; Joanna Burke, Project Coordinator
- **Research:** Kam Woods, Research Scientist; Cristóbal Palmer, Technical Director ibiblio; Rachel Kuo, Post-doctoral Fellow (CITAP)

SILS has been fortunate to gain a few staff positions in the past several years; however, our staff is stretched to provide all the services the school requires. Staff members serve as *ex officio* members of standing committees as appropriate; for example, the Graduate and Undergraduate Student Services Coordinators serve on the Masters' and Undergraduate committees, respectively. (See the SILS Bylaws.) Members of the staff also attend the monthly School meetings, proposing items for the agenda and contributing to discussions.

Staff members help fulfill the mission of the School through their actions. For example:

- The Student Services staff work with students from their initial contacts with the School to learn more about the programs, through commencement and beyond. At each step, they seek to educate students about their opportunities and responsibilities. They have created numerous information tools to help students plan their program, track their progress, and achieve their goals. (see, for example, the Forms webpage and the 1st and 2nd-year student checklists).
- The Career Services Coordinator starts working with students at the beginning of their program, helping them to think strategically about their preparation and search for jobs. In addition, she helps match students to Field Experience opportunities to enhance their education and give them an advantage in finding a job. She seeks out new Field Experience sites and employers, educating them about what a SILS graduate can do for them.
- Business and Financial staff handle all aspects of the School's finances and help students, staff, and faculty navigate the complexities of the various systems involved.
- The Associate Dean for Development aims to educate potential donors about the School's opportunities and needs, encouraging them to provide commitments to make them happen by meeting with prospects and helping alumni create their planned gifts and cash gifts. Increased funding for students is a high priority, resulting in opportunities such as the Irene Owens fund for diversity and global programs (2020). The Associate Dean has helped spearhead the SILS Campaign for Carolina, which has raised over $25 million from over 1,000 donors. SILS was the first school to meet its campaign goal (2019).
- The Director of Communications works to inform SILS constituencies of the accomplishments of faculty, staff, and students, as well as opportunities for involvement in the School through our social media presence, email lists, newsletters, and a monthly news@sils overview.
- SILS IT and Library staff embody the profession to which our students are committed. They support the information infrastructure to further the teaching, research, and service missions of the school, educate the entire SILS community in what resources are available and how to use them, and demonstrate the highest standards in their work. In addition, they host the Carolina Technology Associates and employ work study students whenever possible.

SILS staff members are engaged in using information and information systems to support the School, solving real world problems encountered along the way. They are proactive managers

and stewards of the School's information systems. Recent efforts include digitizing and organizing the School's historical and current records and documents; migrating to more secure and discoverable platforms for institutional data; improving information provided to incoming students, adjuncts, and new faculty; and creating new workflows and automated systems to maximize efficiency and reduce errors (e.g., Microsoft Forms).

Several faculty and staff members have completed HAVEN training that "provides students, faculty, staff and postdoctoral students with tools to be an ally to someone who has experience sexual assault, interpersonal violence, and/or stalking," SAFEZONE training that "provide information and resources related to sexual orientation, gender identity, and gender expression," GREENZONE training "to train members of the Carolina community to know more about the issues and concerns faced by military-affiliated students and to identify individuals who are available to assist this population," and Mental Health First Aid training that "teaches how to identify, understand and respond to signs of mental illness and substance use disorders." Additionally, our Graduate Student Services Coordinator recently completed a 3-day intensive Wellness Coaching training; she will be sharing the knowledge gained with the SILS community.

Staff members are supportive of students and faculty and participate fully in the life of the school and the university. Based on student and alumni surveys, students are extremely pleased with the staff members they come in contact with (particularly Student Services, Library, and IT staff), and look upon them as role models, as well as sources of assistance.

Table 5.1 shows the percent of respondents to the 2020 and 2016 Current Student Survey who were *satisfied* or *very satisfied* with the accessibility and helpfulness of SILS administrators and staff.

Table 5.1: 2020 and 2016 Current Student Survey respondents' satisfaction with SILS administrators and staff

	Accessibility		Helpfulness	
	2020	**2016**	**2020**	**2016**
Dean	26% (N=19)	39% (N=31)	25% (N=19)	30% (N=30)
Associate Dean	37% (N=19)	29% (N=31)	32% (N=19)	24% (N=30)
Office Staff	90% (N=20)	83% (N=34)	90% (N20)	86% (N=34)

Lara Bailey can fix any problem. (2020)
As the deputy, Professor Bergquist always went above and beyond. (2020)
I think the SILS administration, especially the office staff, are excellent. (2016)
SILS staff can't be beat! I am always impressed when we receive email from the dean and other faculty – it shows that they are very connected with the student body. (2016)

Based on survey comments, it is possible that the differential in ratings between the Dean/Associate Dean and the staff is based on the staff's ability to answer questions and solve problems right away, rather than having to refer students to upper administrators.

> *I only chose "neutral" for the Dean because I don't expect deans to be available. (2020)*
> *I don't care to have a relationship with the Dean. (2016)*

Responses to the 2020 and 2016 Alumni Surveys regarding the administrative staff were very positive, with 89% and 94%, respectively, *agreeing* or *strongly agreeing* that SILS administrative staff were available (N=37, 102), 89% and 92%, respectively, *agreeing* or *strongly agreeing* they were helpful (N=37, 102), and 89% and 89%, respectively, *agreeing* or *strongly agreeing* they provided excellent service (N=37, 102).

Annual performance evaluations take place according to university and State policies. In 2006 the School instituted an annual Staff Excellence Award. Any member of the SILS community may nominate a staff member for the award, which is given to the staff member who has best demonstrated excellence, commitment, teamwork, and outstanding service during that year. Winners receive a cash award, three days leave time, and a framed certificate.

An important aspect of our expression of the values of our field, our university, and our school is rooted in the belief that open, respectful communication and sharing of information is a crucial prerequisite for good decision-making. Regular meetings among administration and staff are one venue for discussion, planning, and assessment. The Dean meets weekly with the Associate Dean for Academic Affairs and with the Executive Associate Dean. The Executive Associate Dean and staff hold monthly meetings, which often include sessions in which one staff member describes aspects of their job to the others. This practice helps avoid "siloing" of responsibilities, and also fosters knowledge of, and respect for, colleagues' capabilities.

School Meetings are held every three weeks of the academic year. Attendees include faculty, staff, and representatives of the doctoral, master's and undergraduate students. The typical meeting opens with brief remarks by the Dean on any activities or issues of note and informational items raised by other School members. Meetings also include presentation, discussion, and voting on committee motions. Committee presentations and motions represent research, evaluation, and discussion by the individual committees that has occurred beforehand. At the end of each semester, committees submit final reports summarizing their deliberations and actions (SILS COA Document Archive: III. Faculty: Master's and Diversity Committee Reports). Time is also allotted for discussion items, such as curriculum revision and policy review (SILS COA Document Archive: III. Faculty: Faculty Meeting Minutes). Personnel issues and other confidential topics are discussed in executive session; these are attended only by faculty and, if necessary, Student Services Coordinators. Outcomes of faculty meeting include

changes to SILS policy and procedures, recommendations to the Dean for action, and topics and ideas for future discussion or committee investigation.

Students feel they have ample opportunity to participate in school governance. See Table 4.11 for the 2016 and 2020 Current Student Survey overview of students' perceptions.

There is a real advantage to having faculty, staff, and students back in the building, despite the ongoing need to provide electronic access to school meetings due to the COVID-19 pandemic. Scheduled meetings and appointments are important, but unplanned encounters often lead to discussions about research, teaching, or other topics. SILS seeks to encourage such serendipitous encounters in its use of Manning Hall. One example is the co-location of Student Services, Career Services, and the Associate Dean in one office suite. Another example is the use of the ground floor of Manning Hall for research groups. Other spaces such as the lobby of Manning Hall and the SILS Library serve as gathering places for students as well.

V.6 The parent institution provides continuing financial support for development, maintenance, and enhancement of library and information studies education in accordance with the general principles set forth in these Standards. The level of support provides a reasonable expectation of financial viability and is related to the number of faculty, administrative and support staff, instructional resources, and facilities needed to carry out the program's teaching, research, and service.

The last two years have been particularly difficult for SILS due to a budget cut imposed by the university. Note that the cuts the university made were across the board in all campus units. This cut halted faculty hiring to replace those who retired or left, significantly reduced the number of adjuncts available to teach students and made it improbable that SILS will be developing new staff positions in the immediate future, unless other funding becomes available. Table 5.2 below shows the impact of these cuts on course sections offered at SILS, particularly those taught by adjuncts (See full data in the SILS COA Document Archive: V. Administration: Course Sections Offered (fall semesters 2017-2021):

Table 5.2: Course Sections by Year (fall only)

YEAR	COURSE SECTIONS	ADJUNCT SECTIONS
2018	92	34
2019	93	41
2020	79	26
2021	78	21

This decrease in adjunct funding has been offset by federal CARES grant funding received by the university for which SILS applied in the fall of 2021. We expect to hire more adjuncts in the spring of 2022 with this funding. While this has mitigated the immediate issue, the long-term consequences of this recurring cut will have a serious impact on SILS's ability to grow and

develop its programs and services. The immediate impact has been larger class sizes (mean enrollment in a course section in fall 2019 – discounting single enrollment courses like INLS 696, 992, and 994 – was 18 students; in fall 2021 it is 24 students).

Overall, financing for the school continues to become less dependent on state funds and more on school-based tuition, trust and gifts, and research grant F&A. In 2011, the university approved SILS's request to charge school-based tuition (SBT). This tuition cost is applied to each master's degree student's tuition bill, and the money comes directly to SILS rather than into university coffers for distribution. School-based tuition in 2021 was $3000/year. These funds have allowed SILS to support our Career Services Coordinator and several faculty, to pay adjuncts salaries, and to provide non-service scholarships for SILS students.

For more than a decade, the School received 19% of Facilities and Administration funds (F&A) from grants awarded to SILS faculty from the University; of this, the Dean allocates 20% to the principle investigator and 20% to the IT Director to support research computing. SILS faculty frequently collaborate with researchers from other units. For these the University allocates 3.9% to the vice chancellor for research, 5.2% to the administrative unit responsible for managing the award, 5.2% to the principle investigator(s)' unit(s), and 5.2% to the work location unit.

The distribution of F&A funds on campus will be changing in 2022 to a 40% return of funds to units; however, there will be additional costs included that were previously paid for by the university. We do not yet know the impact this will have on SILS's bottom line, as the details of specific charges have not been finalized. SILS has been treated equitably with other university units, as we have been careful stewards of our budget.

Although state funds have been cut as an overall portion of our budget, our increased enrollments at the undergraduate level since 2014 have helped make up for some of the state cuts, our increase in enrollments in the MSIS and MSLS programs for fall 2021 have also helped, and we have successfully increased our efforts to win research grants (see Table 3.16) and to elicit gifts from donors.

Finally, we have cut IT costs by moving to virtual servers and storage arrays leased from our campus computing center (ITS) and replacing individual office printers with networked, shared printers and printing/copying quotas, thus achieving economies of scale and reducing operational and maintenance costs. SILS operates very close to peak efficiency on all aspects of educational and administrative service. We see this as a double-edged sword because peak efficiency is difficult to sustain given the complexities and uncertainties of higher education today. When running near capacity, human-service enterprises are subject to people being recruited away or burning out. One of our challenges will be to find ways to continue working at high levels of efficiency while maintaining our faculty and staff talent pool.

V.7 Compensation for the program's faculty and other staff is equitably established according to their education, experience, responsibilities, and accomplishments and is sufficient to attract, support, and retain personnel needed to attain program goals and objectives.

UNC is a public research university where compensation is determined by a combination of state and campus factors. Compensation for most staff is set by the State Personnel Act and initial salaries are set within ranges dependent on job descriptions. Compensation for new faculty is mainly under the control of the Dean and yearly increases are determined by across-the-board state mandated adjustments and/or campus-based funds assigned to deans to use as merit increases.

Mean tenure-track faculty base salaries and ranges as of June 30, 2021 are shown in Table 5.3.

Table 5.3: 2013-2014 Faculty salary data

Rank	Number at Rank	Mean Base Salary (range)
Assistant Professor	5	$93,600 ($90,000-$98,500)
Associate Professor	10	$110,500 ($91,000-$141,500)
Professor	7	$128,400 ($100,300-$166,400)

Note that the data in Table 5.3 exclude stipends for extra administrative duties, faculty on fixed-term or part-time appointments, faculty with primary appointments in other departments, and the Dean's salary.

According to the Chronicle of Higher Education's "Chronicle Data," the average salaries of faculty in 4-year public universities in the US were $79,873, $92,034, and $128,831 respectively for assistant, associate, and full professors; these data are for 2018-19, the most recent data available, and are not focused on information and library science faculty. According to the UNC Office of Institutional Research the 2020-2021 average salaries at UNC were $103,200, $107,000, $168,100. Given that these data include the five health affairs schools, SILS' averages equitably represent our faculty education, experience, responsibilities, and accomplishments and are sufficient to attract, support, and retain personnel needed to attain Program Goals and objectives.

Allocation of Budget Funds

SILS' budget is determined by the campus budget committee, which is chaired by the Provost and includes the Vice Chancellor for Finance and other budget administrators. The State General Assembly determines whether and how much across-the-board increases will be allocated to all state employees, and what allocations will be provided to the University of North Carolina System. The UNC System in conjunction with the Board of Governors provides allocations to each campus. From these allocations, the Provost and budget committee recommend a pool of money to be used for merit-based and/or equity-based increases. The allocations of merit or equity increases are discretionary to the deans.

SILS requires each faculty member to file annual reports that include data on teaching, advising, research activity, service activity, and other professional engagement. These reports serve as the basis for salary increase decisions made by the Dean.

The University requires each unit to establish an elected faculty salary committee to review annual salary decisions for equity. The SILS faculty salary committee consists of one person from each tenure-track rank; current members are Professor Stephanie Haas, Associate Professor Jaime Arguello, and Assistant Professor Sayamindu Dasgupta, and Fixed-Term Professor, Casey Rawson.

Although SILS benefits from being part of a world-class university, with proximity to the Research Triangle Park and proximity to many academic and research partners, salaries and benefits are a concern in recruiting and retaining faculty. Similarly, staff salaries are less than those offered in Research Triangle Park and other nearby corporations, making retention a challenge. Further, staff have very limited opportunity for increases in compensation within SILS; advancing their careers usually means leaving SILS. We have been successful in faculty retention, losing only one faculty member to competitive offers since the last review.

Losses of both faculty and staff are a risk that we face. The University typically reserves a retention pool of funds to help schools make faculty retention counteroffers; however, these funds tend to be used up early in the academic year, and there are no such funds for retaining non-faculty employees. Retention offers are also currently under pressure to the university budget cuts.

Overall, salaries are a factor in our ability to attract new faculty; however, we have been successful in hiring outstanding new faculty in recent years. The several recent years of limited or no raises for all employees give us great concern about retention.

V.8 Institutional funds for research projects, professional development, travel, and leaves with pay are available on the same basis as in comparable units of the institution. Student financial aid from the parent institution is available on the same basis as in comparable units of the institution.

The University Research Council sponsors an Internal Grants Program that provides funding for research, innovation, and publication. Junior faculty travel awards of up to $1000 and EU Research and Travel awards are also available for researchers.

Junior Faculty Development Awards of up to $10,000 are offered to untenured faculty; several SILS faculty have received these in the past, including: Rob Capra (2014), Mary Grace Flaherty (2014), Mohammad Jarrahi (2015), and Amelia Gibson (2017). We encourage all junior faculty to apply for these awards.

Other research services provided by the University include assistance in finding funding, proposal development assistance, and award management. SILS staff also play a key role in assisting faculty in writing and managing grants, including budgets, travel, and student assistantships. We now have a Pre-award Specialist and a Post-award Specialist to facilitate grant-writing.

The School started awarding the Eleanor M. and Frederick G. Kilgour Research Grant Award to faculty in 2011. This award of up to $10,000 is awarded for projects that will lead to grant proposals. Recent recipients have included: Mohammad Jarrahi, Amelia Gibson, Mary Grace Flaherty, Ray Wang, Sayamindu Dasgupta, and Maggie Melo.

SILS supports student research as well. Student may apply to the Carnegie grant fund twice for up to $200 ($400 total) for expenses associated with their research projects. Table 5.4 shows the number of grants that have been given in the last two academic years. These numbers are much smaller than in past years due to the COVID-19 pandemic's effect on research (moving it all to virtual).

Table 5.4: Number of Carnegie grants distributed to master's students

	2019-2020	2020-2021
MSLS	1	1
MSIS	0	4

The SILS Alumni Association established the Elfreda Chatman Research Award in 2002 for masters' students who demonstrate creative and scholarly vision in their research proposals for their Master's Paper or Project.

The School's travel policy allocates each faculty member a minimum of $2000 per year from SILS trust funds for travel not otherwise supported (e.g., by grants).

Although the University of North Carolina does not fund sabbatical leaves, the school has a formal administrative leave policy. University policy requires schools to make available a one-semester research leave to all junior faculty members who have been re-appointed and are on a tenure path. Tenured faculty may also request research leaves on a rotating basis every seven years (SILS Bylaws, 3.3.12.2). The Dean approves these requests, and the Associate Dean for Academic Affairs adjusts the teaching schedule to accommodate any leave granted. Pre-tenure leaves that have been approved in the past three years include: Maggie Melo (spring 2022) and Ray Wang (spring 2022). Tenured faculty approved leaves include: Jaime Arguello (spring 2021), Sandra Hughes-Hassell (fall 2021), Zeynep Tufekci (2021-2022, unpaid), Tressie McMillan Cottom (spring 2022, unpaid).

Outside funding can support release-time for faculty as well. Grant-funded course releases are currently limited to two courses per year. Leaves or course reductions for other purposes (e.g.,

Fulbright awards) are worked out between the Dean, the faculty member, and the university, as stated in the SILS Bylaws, 3.3.12. SILS has a strong commitment to both research and teaching; faculty members strive to keep the two in balance.

The Graduate School provides several highly competitive scholarships for master's students, such as the Weiss Urban Livability Fellowship, the Impact Award and the University Merit Assistantship. SILS students are considered for these on the same basis as other students from other units. The Graduate School also offers the Graduate Student Opportunity Fund for "unusual and unexpected academic expenses," and the Graduate Student Transportation Grant for presenting their research at conferences and professional society meetings.

The University policy prescribes how graduate assistants are compensated. A helpful SILS-created form "Faculty Request to Hire" is available online in the faculty handbook, and it provides guidelines on compensation, tuition, health insurance and additional benefits that may be given.

V.9 The program has access to physical and technological resources that allow it to accomplish its objectives in the areas of teaching, research and service. The program provides support services for teaching and learning regardless of instructional delivery modality.

The School of Information and Library Science (SILS) is housed in Manning Hall, located in the central portion of the UNC-CH campus. Manning Hall was built in 1923 and was originally occupied by the UNC Law School. SILS moved into Manning Hall in 1970. In the past, SILS shared Manning Hall with the Odum Institute but with the Institute's move to Davis Library in fall 2013, SILS is now the sole tenant, though two university-controlled classrooms exist in the building (room 209 and room 307); SILS has priority scheduling for room 307 but must compete with other units for the use of room 209.

The School's location is advantageous in many ways. Its proximity to the Graduate and the Undergraduate libraries, as well as several department libraries (e.g., Art, Journalism, Law, Music, Science), as well as Wilson Library, which houses special collections and the North Carolina Digital Heritage Center, promotes regular interchange among faculty, students, and library staff. (See the map of the UNC-CH Library System). Library and IT staff teaching as SILS adjuncts, students with assistantships or part-time jobs, and even class field trips to library facilities benefit from being in the same neighborhood. The Schools of Medicine, Public Health, and Business as well as University Information Technology Services (ITS) are further away, but bus transportation is frequent and free (throughout the town of Chapel Hill). As with many universities, parking for faculty, staff, and students is problematic; regional bus service and park-and-ride lots provide some alternatives.

Manning Hall is the site of almost all of the School's facilities and functions. The main exception is the need to hold occasional classes in other campus buildings. The COVID-19 pandemic had helped us find a good balance between the use of physical classrooms and virtual course delivery

so that we maximize use of our facility without overextending. Manning Hall contains offices for SILS administrators and staff, faculty, and doctoral students. The Information and Technology Resource Center (ITRC), which houses the SILS library and IT help desk, is located on the first floor of the building, with floors of library stacks forming the core of the building. Classrooms include 2 university-controlled classrooms and 5 controlled by SILS. Research labs and other collaborative spaces are housed throughout the building. The co-location of students, faculty, staff, and School facilities and services helps build the sense of SILS as a community, with opportunities for educational, research-related, professional, and social interchange.

Portions of Manning Hall have been renovated many times over the years, and the building is currently on the University's list of buildings to undergo complete renovation (contingent on the University's financial situation). Our most recent changes have been the conversion of the SILS IT teaching lab to the Center for Information, Technology, and Public Life (CITAP) and the addition of a gender-neutral bathroom on the second floor. A complete renovation of the building would address numerous shortcomings that are obvious to students, faculty, staff, and visitors. One problem is the lack of handicapped access to one part of the building (Rooms 300A and 300B) and limited handicapped-accessible bathrooms. Only 48% of respondents to the 2016 Current Students Survey rated their satisfaction with handicapped accessibility of the building as *satisfied* or *very satisfied* (N=31); in 2020, that number was 26^ (N=19). Faculty and staff view accessibility as a serious shortcoming of Manning Hall.

The recent hiring of our Director of Instructional Services (2018) has improved our ability to provide virtually delivered classes at SILS with her expertise in instructional design and delivery. Our technology infrastructure is constantly being upgraded to maintain its functionality and to integrate with centralized university IT services. our Director of IT, Aaron Brubaker, and our Desktop Support and Help Desk Manager, Brian Nussbaum, provide the majority of our IT support, while IT Program Analyst, Doug White, works closely with our CHIP program’s IT needs.

V.*10 Physical facilities provide a functional learning environment for students and faculty; enhance the opportunities for research, teaching, service, consultation, and communication; and promote efficient and effective administration of the program.*

The School has had insufficient space for its administrative, instructional, and research activities for many years. The 2014 COA Self Study and External Review Panel report, and the 2010 and 2020 Graduate School Review Self Study and ERP reports reinforce the need for improvements to Manning Hall (See SILS COA Document Archive: I. Strategic Planning & Overview Data: Past Reports). We use all of our spaces fully, though the COVID-19 pandemic has alleviated some of the pressure as faculty and students continue to operate partially in a virtual modality. Still, the enrollment increase in the fall of 2021 may signal renewed demand for physical learning spaces that will be challenging to meet.

Classroom and learning spaces and facilities

Table 6.1 lists the classrooms in Manning Hall, including their capacity and a brief description of their functions. "Control" refers to who controls scheduling, furnishings, and information technology for the room. The capacity is determined based on the number of student seats available in the room. The practical capacity for many SILS classes that involve small group discussions and activities is often less than listed.

Table 5.5: Manning Hall classrooms: capacity, control, and description

Room	Capacity	Control	Description
001	40	SILS	General purpose
014	21	SILS	Seminar
208	30	SILS	General purpose
209	186	University	Lecture hall
303	15	SILS	Seminar
304	24	SILS	General purpose
307	48	University/SILS priority	General purpose

As the maximum size for most SILS classes is about 30 students, Manning 209 is typically used for non-SILS classes. The recent budget cuts and decrease in our adjunct-taught classes has resulted in larger classes and increased demand for our larger classrooms. Should this trend continue, SILS will struggle to find space in Manning Hall for its courses. SILS classes are given first priority for scheduling in Manning 307, although non-SILS classes are also held there. The other 5 classrooms in Manning Hall are used solely for SILS classes and other activities. All classrooms contain computers, whiteboards, and web conferencing capabilities. Room displays include projectors and screens. Wireless access to the University network is widely available across campus, both indoors and outside (see Section VI.3 for details).

Classroom furnishings vary in both style and condition from room to room. Activities in SILS classes would be best supported by flexible classroom arrangement; as it is, instructors and students alike must frequently move tables and chairs around to accommodate larger or smaller group discussions and exercises, as well as student use of laptops. Room 304 has rolling seats that provide just such a flexible design, though many students dislike them.

Responses to the 2020 Current Student Survey revealed that 90% of responding students (N=21) were *satisfied* or *very satisfied* with classroom equipment and 52% (N=21) were *satisfied* or *very satisfied* with classroom furnishings. For 2016, those numbers were 87% (N=32) and 64% (N=33), respectively. Still, students notice the deficiencies:

- *Are there gender-neutral bathrooms in the building? If not, please create them. (2020)*
- *Room 001 is a model classroom and other classrooms would be improved if they were more like that one. The rolling chairs in Room 304 are a failed experiment in furniture design. (2020)*

- *I realize that it is unlikely, but our building is old and needs major renovation. (2016)*
- *I know it probably won't happen but overhauling the bathrooms would be fantastic. (2016)*
- *It really needs a facelift. For a technology school we really need better looking classrooms and technology. (2016)*

Other common concerns expressed by students include the lack of sufficient electrical outlets for charging laptops, uncomfortable chairs, poor lighting, and general dingy appearance of the building.

The SILS Student Collaboratory, located in the SILS computer lab, is available for students' project work. The space contains two large screen flat panel displays and a white board, as well as mobile furniture for work space flexibility, and can be reserved by students. Other areas where students can work on class assignments include the Lobby and first floor hallway, and the Information and Technology Resource Center, which houses the library and the computer lab. A small student lounge with a microwave and refrigerator has space for about 6 people.

Space in which students can study individually or in small groups is available both within SILS and in the immediate vicinity. The University Library website provides a list of available places to study.

- The SILS library reading room and the lobby, as well as empty classrooms (mostly in the evenings), provide space within Manning Hall.
- Davis Library provides carrels and other areas for quiet study, as well as study rooms for small groups.
- The House Undergraduate Library similarly provides areas for individual study and rooms for small and medium-sized groups.
- The most elegant reading space is the Fearrington Reading Room in Wilson Library.
- The Carolina Union contains a variety of reservable rooms.

Finally, one should not forget the beautiful UNC campus around Manning Hall, which contains many pleasant areas for working outside, including tables near Lenoir dining hall, the steps of Manning Hall, and the many sitting walls and benches. Between the pleasant weather, the ubiquitous wireless network, and the recent indoor mask requirements due to COVID-19, many students meet and study outside.

Research space and facilities

SILS faculty and research assistants are housed throughout Manning Hall. In addition, some faculty have additional research space in other buildings, based on their research collaborations with other units; for example, some faculty also have offices in the Renaissance Computing Initiative (RENCI) space off-campus.

In fall 2020, the Dean solicited proposals from the faculty for research spaces throughout Manning Hall. Spaces are allocated for 3 years and are renewable based on the benefits accrued during that time. Each group must demonstrate how they have taken advantage of the space to achieve their own and the School's outcomes. Both new and previously-existing research spaces within Manning Hall are now home to synergistic research groups, including office and work space for faculty and graduate students.

- The Interactive Information Systems Lab includes Drs. Arguello and Capra and their students and is located in rooms 8-13. Dr. Arguello and several students use office space in this area. This area also includes lab space for running experiments with subjects.
- The Equity in Making lab and the Data and Society Innovation Collaboratory is housed in rooms 27 and 30. Professors Melo and Rajasekar are the principal users of this space.
- The Information Organization Group is located in rooms 19-26, and includes Professors Feinberg, Shaw, Rajasekar and their students. Rooms 19, 23, and the glass enclosure are allocated to the Data Analytics and Interaction lab of Drs. Gotz and Wang.
- The Center for Technology, Information, and Public Life is located in room 117.
- Community Equity, Data and Information lab of Dr. Gibson is located in Suite 213A and 213C. Room 213B houses the Digital Forensics lab of Dr. Lee. Room 213 is shared space between ibiblio and these two labs.
- The Laboratory of Applied Informatics Research (LAIR), led by Professor Mostafa, is in rooms 300A and B.

Each faculty member has an individual office. In addition, SILS can provide shared office space for emeritus faculty and, when appropriate, visiting scholars.

Doctoral students are housed in room 016, a reconfigured portion of the library stacks, and provided a cubicle; this space is near the research groups on the lower level. Doctoral students with instructional duties who need to meet with students or who need meeting space for other purposes may reserve meeting rooms through the Outlook reservation system.

Administrative space and facilities

Administrative staff are housed on the first and lower levels of Manning Hall or in space in the library. We currently have 17 staff members at SILS, 4 staff who are associated specifically with the CHIP program and located in the Health Sciences Library, 5 staff who are associated with the EPA Library in the Research Triangle Park EPA facility, and 2 staff who are associated with the SILS Library located in Manning Hall. Staff dealing with financial and personnel matters have offices in the main office suite, along with the Dean’s executive assistant and administrative support staff. Student and career services staff have individual offices on the opposite side of the main lobby, along with the Associate Dean for Academic Affairs. The offices of the Associate Dean of Development, the Communication Coordinator, and the Human Resources Specialist are located on the ground floor. The Instructional Design Specialist is located across from the Digital Media Lab on the fifth floor of the Library Stacks. The Program Coordinators are spread

throughout the building in their respective faculty offices. This co-location of personnel with similar focuses enhances communication and coordination among them.

Meeting space is at a premium for SILS and for the rest of the University. Committees, research groups, student groups, and others often struggle to find space. There is one dedicated meeting room in the Administrative Office Suite and two meeting rooms on the second floor (214 and 216) that can be reserved through the Outlook based reservation system by faculty, staff, and doctoral students; rooms outside the building were often needed prior to the expansion.

The Provost has also provided funding for office space in the Health Sciences Library to serve as an administrative hub for the growing interdisciplinary Biomedical and Health Informatics programs at UNC. The staff of the Carolina Health Informatics Program (CHIP) has office space there.

V.11 Instructional and research facilities and services for meeting the needs of students and faculty include access to information resources and services, computer and other information technologies, accommodations for independent study, and media production facilities.

The Information and Technology Resource Center (ITRC) houses the Information and Library Science Library and the Information Technology labs and services. This model of combining a lab and library with two separate staffing lines is a unique model of service on our campus. The center of the ITRC is a single service desk, with space for library and IT services staff. This not only allows for better coverage and logistical coordination but serves patrons with a single point for reference help, IT support and book and equipment checkout. In addition to added convenience for lab and library patrons, students who are working as Library and ITS Staff gain practical knowledge which gives them a competitive edge in the current job market.

During the current academic year, the ITRC and the SILS Library are open weekdays from 9:00am to 5:00pm. This is a reduction in available hours due to university budget cuts. Prior to those cuts in hours, 81% of current students on the 2020 Current Student Survey were *very satisfied* or *satisfied* with the availability of the SILS Library (hours and seating). In 2016, that number was 85%. We will need to assess whether the reduced hours have a negative impact on student satisfaction.

The University, as well as the School benefit greatly from the quality of SILS library and information technology facilities, staff, and services.

Library facilities and services

SILS is fortunate in having its own library housed in Manning Hall, including stack space and a gracious and welcoming reading room. Organizationally, the library is a unit of the UNC University Library. The library's primary goal is to support present and anticipated teaching and research needs in the field of information and library science for students, faculty, and staff. This

goal is achieved through the staff that serves the SILS community, the facilities available to the SILS community, and the collections of the SILS and other UNC libraries.

Funding for the SILS Library comes from primarily from the UNC University Libraries. The UNC Libraries funds the salaries and benefits for the two permanent, full-time staff and the half-time (20 hours per week) graduate assistant in the CALA Program at UNC; SILS provides the tuition and fees support for this graduate assistant. Several undergraduate work study students also provide support in the library.

The ITRC includes a workroom for the library and Library Assistant which is also houses workspace for several post-doc students and the staff of the Center on Technology Policy, and an office for the Librarian. In addition, there is ample space for group study and collaboration in the main Reading Room of the SILS Library.

Library Collection

The collection housed in Manning Hall contains over 108,000 volumes with comprehensive resources in the subject areas of library and information, including both print and electronic books. The average number of books purchased every year is 1,000 titles. The substantive research collection is continuing to grow at a steady pace, and UNC is fortunate to have a collection with such depth. In fact, the collection at SILS is the largest collection of information and library science materials in the southeastern United States. The graduate students in SILS frequently mention how complete the holdings are and what a benefit they perceive in having the materials so conveniently located in Manning Hall. It is a great convenience to students and faculty to have such extensive holdings so readily available.

The SILS library has an extensive professional collection of Information and Library Science materials to support SILS student and faculty research and teaching. It also houses the definitive campus collection of graphic novels, the only campus collection of pop-up books, and an extensive children's book collection with a special emphasis on folklore materials that is used heavily by students from SILS, The Department of English, and the School of Education. The library also houses a print collection of student master's papers and dissertations and provides digital access to master's papers published since 1999 through the Carolina Digital Repository; print copies are in the SILS library from 1963 to present.

The University Libraries provides a document delivery service, through which University faculty, students, and staff can request to have books available at any of the UNC-CH campus libraries, as well as books requested through interlibrary loan delivered to any campus library. A companion service delivers scanned copies of articles held in print for patrons to download. Graduate students in SILS are one of the main groups requesting materials through this University Libraries service. Since the start of the COVID-19 pandemic, the Library boosted access to electronic resources, auto-renewed books that were checked out with no fines, identified electronic replacements for print resources, made high-powered software available

remotely. With the reopening of the libraries in fall 2021, we expect circulation of SILS Library materials to rise once again. Materials from the collection at SILS are requested campus wide.

Table 5.6 below depicts the library visits (gate counts), reference transactions, collection, and circulation data for the SILS Library for the past 5 years.

Table 5.6: SILS Library Data

	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020 (until March 13th, when the Library closed for COVID-19)
Average Visits/Week	-	-	1,362	1,315	1,340
Annual Total Visits	-	-	70,837	68,394	44,220
Reference Transactions					
Basic Help	-	-	104	56	66
Research/Reference	-	-	1,662	1,716	1,264
Email Questions	-	-	320	264	158
Collection (volumes)	105,106	106,738	107,454	108,569	-
Circulation	10,067	9,817	8,265	7,317	-
Interlibrary Loan	526	564	426	494	-
Document Delivery	813	895	892	888	-

The trends visible are a gradually increasing collection size (space is very limited and the SILS library uses off-site storage for part of its collection), a gradual decrease in circulation (due to increased availability of digital collections), and fairly consistent demand for interlibrary loan and document delivery.

The users of the library are very diverse, with SILS graduate students being the primary borrowers of SILS library materials, undergraduate students ranking second, and other graduate students, UNC faculty and staff, and other library departments sharing the rest of the top six positions. The primary collections that circulate are the Juvenile Collection, the Circulating Professional Collection, Reserve Books, and Serials.

Through the UNC Library E-Research web page, members of the SILS community have access to over 500 databases and indexes. The *ACM Digital Library*, *Library and Information Science Abstracts*, and *Library Literature & Information Science* are among the most heavily used. With the 50% collections budget cut sustained by the Library in fiscal years 2021-2023 ($5 million), many of these subscriptions will likely disappear.

The UNC Library is a member of the Triangle Research Libraries Network (TRLN), "the purpose of which is to marshal the financial, human, and information resources of their research libraries." It provides unified search of all members' collections, as well as borrowing and direct delivery services. TRLN also supports initiatives for research and development of tools and policies for supporting collaboration across shared collections, including metadata sharing, merged searching tools, and digital production, access and preservation. The UNC Library is also a member of the Center for Research Libraries (CRL).

The SILS library sponsors a variety of outreach efforts and activities, including specialized bibliographic instruction classes, LibGuides, brochures, storytelling sessions and specific programs on pop-up books and graphic novels. The library has been closed since March 2020 due to the pandemic, but we anticipate the return of programs with the fall 2021 reopening of the physical space.

Information Technology Facilities and Services

The SILS IT Services group provides responsive support to clients and stays abreast of new developments in technology. New School-wide initiatives and growth have challenged the IT Services group to identify and implement effective cost-saving solutions to IT needs while continuing to support an increasingly extensive array of systems and services. The group strives to provide solutions that are simpler, affordable, accessible, customizable and sustainable in support of the School's larger mission.

The IT Services group works closely with the Dean to develop and implement overall IT strategy for the school. In addition to overall planning and implementation tasks, the IT Services group is responsible for school-wide information technology infrastructure and services including systems administration, instructional technology, desktop support, help desk management, student support, administrative computing, research computing, information security, classroom and web conferencing support and support for special events and initiatives.

Within these areas, the School has seen especially high growth in the areas of instructional technology, systems administration, and information security. Many SILS courses require course-specific software, hardware or servers to provide instructors and students with exposure to key technologies. These technologies vary widely from digital library applications, to digital forensic and text mining toolkits, to XML editors and databases. Standard web conferencing capabilities in each classroom have greatly benefitted students.

Systems administration tasks continue to present new challenges as the number and size of research groups and laboratories grow. SILS IT Services administers more than 200 computers and dozens of servers that help SILS faculty and student researchers to advance the field.

Duties and responsibilities related to information security have also increased. In response to the dramatic increase in information security threats, SILS IT Services has needed to allocate a

significant amount of time and effort to maintaining systems security. Acting proactively on system vulnerabilities has been key to ensuring the availability, integrity and confidentiality of the School's information. In addition to securing network and hardware facilities, increasing attention goes to managing risk assessment procedures for new software that must be validated by campus risk assessment personnel before purchase/license and installation.

All students on campus are required to have a laptop, which opens many avenues to just-in-time learning and creative exploration. It has also been invaluable during the COVID-19 pandemic and the switch to remote learning in the spring of 2020. It continues to impact our ability to provide excellent education this fall, both to US citizens and international students, particularly those who cannot get into the country due to visa restrictions.

SILS classrooms are all equipped with desktop computers, projectors and screens (or oversized monitors), digital cameras, and microphones to provide access to remote learning and virtual guest speakers. Eduroam is the primary wireless network on campus. SILS classrooms access the Internet via a 10-gigabit Ethernet switch, providing end user operating speeds of up to 1000Mbps.

SILS IT Services offers a broad service catalog, including support for systems administration, research computing, information security, instructional technology, desktop and laptop support, classroom and conference room support, lab support, and a dedicated student-staffed IT service desk.

To support research needs of the School, the IT Services group manages on-campus and cloud-based virtual and physical servers. These systems are used in support of diverse projects ranging from data science, and archives and records management, to health informatics and community-based information research. The SILS Director of IT helps support 15-20 active research projects within the School.

Multiple learning spaces are also managed including the Digital Media Lab, VR Lab, Interactive Information Science Lab, Collaboratory space, and computer lab. Eight classrooms and conference rooms are supported and well-equipped for courses and video conferencing.

Administrative computing support is provided by a mix of SILS and central IT staff and systems. Commonly supported desktop applications include Microsoft Teams, SharePoint, Power Automate, Zoom, the Microsoft 365 suite, Adobe suite, WordPress and Drupal. SILS IT Services manages over 230 Windows 10 laptops and desktops and 20 Macs. SILS IT Services handles all hardware and software purchases and manages licensing for over 50 applications.

Special projects and programs such as Cytilife (Smart and Connected Campuses) and the Carolina Health Informatics Program and Project ENABLE are also part of regular IT support. The IT Services team was also integral to the SILS website redesign in 2016-2018 (design, content, and migration). Assistance is regularly provided to students, faculty and staff

coordinating special events such as symposiums, panels, visiting lecturers, candidate talks, and web conferencing. The WISE Education Program uses an external web-based product with support from Xendirect.

SILS IT Service partners with central campus IT on information security practices. Significant time and effort are devoted to ensuring the confidentiality, availability and integrity of the School's information. SILS employs regular vulnerability scanning, security agents, and platform data capture and analysis tools to assist in these efforts.

SLIS IT Services provides direct support for learning technologies and classrooms. There are over 30 courses in the SILS catalog that require special technology support. In a typical semester, approximately 10-15 classes have special technology needs. The type of support varies in scope and complexity. For instance, a course may require a single virtual application, or it may require the creation of a dedicated Linux or Windows server. A sampling of specialized course software includes information retrieval packages, video and audio editing software, integrated development environments, screen capture software, forensic toolkits, quantitative and qualitative research applications, graphic design programs, bibliographic software, ontology and sematic applications, visualization packages, data mining applications, analytics software, virtualization software, web conferencing, databases, database clients, electronic health records applications, digital library and archival platforms, and more. An extensive array of equipment is also available to students for check-out from the IT Service Desk.

Funding Sources

The majority of the SILS IT Services budget comes to the school from university-wide student technology fees. This allocation has decreased over the years. Student fees dollars cover much of the school's IT infrastructure including hardware and software licenses. Student fees also cover the salary of the Desktop Support and Help Desk Manager position. The salary for the Director of Information Technology is provided from state funds through the School.

Since 2009, the SILS IT Services budget has been supplemented with a portion of the F&A from contracts and grants awarded to the school, IT support is written into most grant applications, and they receive some funding from school-based tuition funds. This amount is approximately 10% of the overall SILS IT budget and is used primarily to support faculty labs and research computing infrastructure. Funds are also received each summer through the UNC Summer School Program to support IT services during the summer program. Private donations have also provided important recurring support to SILS IT services and have been used to benefit all SILS students; they are an important part of our development strategy.

In 2001, SILS launched the Carolina Technology Associate (CATA) program, funded by state dollars and modeled after the successful CALA program, to help students gain the practical and strategic skills and knowledge needed to become Chief Information Officers. Aaron Brubaker, Director of SILS IT Services, is the supervisor for this program. CATA students work closely

with SILS IT staff in assisting students, faculty and staff with their information technology needs. Their duties include providing remote technical support for the SILS IT Service Desk and working on special technology-related projects. CATA student gain valuable first-hand knowledge of organizational information technology systems and processes. They help develop technology solutions and process improvements while learning about computer applications and technologies, customer service, troubleshooting and communication skills.

SILS has also worked with UNC ITS to deliver special applications through the ITS Virtual Lab which provides on-demand access to a wide variety of software. These virtualized applications are delivered instantly to users via any computer or mobile device connected to a network at any location on or off campus. The ITS Virtual Lab is available 24x7.

In summary, the SILS Information and Technology Resource Center provides spaces, collections, equipment, and expertise to support the instructional and research endeavors of the school. Changes to funding models, along with cuts to university and school budgets, are an ongoing concern which we seek to mitigate at least in part by increased emphasis on collaborations across campus, as well as developing additional sources of funding,

V.12 The staff and the services provided for the program by libraries, media centers, and information technology units, as well as all other support facilities, are appropriate for the level of use required and specialized to the extent needed. These services are delivered by knowledgeable staff, convenient, accessible to people with disabilities, and are available when needed.

Budget cuts and lack of funding have been perennial issues for both the SILS Library and SILS IT services; both are understaffed and must rely on student workers for added support. While this is a great learning opportunity for the students, it puts added pressure on the staff to train them and find resources to support them. Some are undergraduate work study students, but this model limits the positions available to SILS *master's* students, who could gain valuable experience working in the ITRC were funding available.

That said, perhaps the most significant characteristic of members of SILS staff is their commitment to providing outstanding service to the School. As exemplars of service-oriented information professionals, they serve as role models for SILS students.

> *I cannot speak highly enough of Lara Bailey, Lori Haight and Tiffany Harris. They have always been so helpful, professional and friendly. Lara has on many occasions helped me through tight spots without a single grumble. And I am not sure I would be able to manage my huge career shift into Information Science if not for Lori. I have also found Susan Sylvester, Maggie Hite, Tammy Cox, Aaron Brubaker and Katherine Perales to be just as warm and helpful when I organized the DataRescue. I think everyone in the SILS Admin Staff is exceptional.* (2018 SILS Student Exit Survey)

Library Staff

Rebecca Vargha is the SILS Librarian. While officially an employee of the University Libraries, she has served SILS and the professional community in many ways, including being active in the Special Libraries Association and serving as its president in 2006-2007, teaching INLS 501 Information Sources and Services, INLS 513 Resource Selection and Evaluation, and INLS 747 Special Libraries and Knowledge Management, advising Master's Papers and Independent Studies, and mentoring SILS students. The Special Libraries Association inducted her as a Fellow in June 2013, awarded her the 2015 Rose L. Vormelker Award for her role in teaching and mentoring students and working professionals, and appointed her Chair of the Advocacy Task Force in 2016.

> *Several professors were really helpful during my coursework- particularly Rebecca Vargha and Dr. Barbara Moran. Their classes were engaging, up to date on current issues, and relevant to various fields of librarianship. Additionally, they were lovely people who truly cared about the growth and success of their students.* (2016 Alumni Survey)
>
> *My classes with Mary Grace Flaherty, Rebecca Vargha, and Casey Rawson have been remarkable and wonderful and really strong classes that I look forward to.* (2020 Current Student Survey)

Kenny Jones serves as the full-time Library Assistant. He joined the SILS Library Staff in May 2013 and had worked in Interlibrary Borrowing in UNC's Davis Library prior to joining the staff in Manning Hall.

Table 5.7 shows the Current Student Survey data regarding student satisfaction with the Library services and staff.

Table 5.7: Current Student Perceptions of the SILS Library Services and Staff

	Very Satisfied		Satisfied		Neutral		Slightly Dissatisfied		Very Dissatisfied	
	2020	2016	2020	2016	2020	2016	2020	2016	2020	2016
SILS Library Collections	43%	46%	48%	42%	9%	12%	-	-	-	-
SILS Library IT	43%	38%	33%	59%	19%	3%	5%	-	-	-
Helpfulness of SILS Library Staff	71%	64%	19%	33%	10%	3%	-	-	-	-
Availability of SILS Library	52%	53%	34%	41%	14%	6%	-	-	-	-

Staff										
Availability of SILS Library (hours and seating)	67%	46%	14%	39%	19%	9%	-	-	-	-

IT Services Staff

SILS IT Services has two full-time staff members. The Director of Information Technology is Aaron Brubaker, a SILS alumnus (MSIS 2006). He joined SILS as Assistant Director of Instructional Technology in 2007 and has been Director since 2012. He has received both the SILS Staff Excellence Award and the UNC Information Technology Award, given for outstanding service to UNC.

Brian Nussbaum has been the Desktop Support and Help Desk Manager since 2015 and has provided excellent service to the School with automating tasks, maintaining hardware and software, and training students to provide help desk support.

Four Carolina Technology Associates (CATA) staff the SILS Help Desk and work on special projects. Working 20 hours/week, they are trained on university and SILS-specific applications and systems and play a critical role in the IT support of the school. They work side-by-side with the professional staff and gain valuable first-hand experience in an array of IT roles and technologies. With short-, medium- and long-term IT projects, students are matched with specific projects based on their strengths, professional experience and interests in the field. While staffing the Help Desk, students learn valuable customer service, trouble-shooting and communication skills. This arrangement fosters independent work and problem-solving in a rapidly changing environment. Students always bring a fresh perspective to IT services delivery in SILS and create new services and enhance existing ones as part of their regular work. In this role students are exposed to the entire IT operations of the School and gain impressive knowledge and skill that set themselves apart in the job market.

Current students are very satisfied with the IT services and staff. Table 5.8 below depicts the student perceptions on the 2016 and 2020 Current Student Survey.

Table 5.8: Current Student Perceptions of the SILS IT Services and Staff

	Very Satisfied		Satisfied		Neutral		Slightly Dissatisfied		Very Dissatisfied	
	2020	2016	2020	2016	2020	2016	2020	2016	2020	2016

SILS Computer Labs: hardware/software	24%	42%	57%	58%	14%	-	5%	-	-	-
SILS Computer Labs: networking	24%	42%	43%	52%	33%	6%	-	-	-	-
Helpfulness of SILS Computer Lab Staff	72%	47%	19%	44%	9%	9%	-	-	-	-
SILS Classroom Equipment	19%	16%	71%	72%	5%	9%	5%	3%	-	-

Ninety percent of students were satisfied or very satisfied with the helpfulness of the staff, 65%-80% were satisfied with the computer labs, and 90% were satisfied with the classroom technology.

Alumni were also satisfied, with 83% (N=35) *satisfied* or *very satisfied* with the availability of computers, and 86% (N=36) were *satisfied* or *very satisfied* with the availability of software in 2020; in 2016 those numbers were 94% (N=110) and 93% (N=100), respectively. The decrease in satisfaction may be due, in part, to the low response rate on the 2020 survey, and also to the students' increased involvement with technology due to the pandemic.

Other Support Facilities

There has been a significant effort over the past few years to provide as much school-related information as possible in digital form, including administrative, instructional, and operational information. Similar efforts are ongoing at the University level, with the result that a majority of information and services for students, faculty, and staff, are available online, including applications to SILS, course planning and registration, class rosters and grade submission, room reservations, course scheduling, and many more. The result is that students, faculty, and staff can accomplish much of their work without needing to be physically on campus. Students benefit from increased flexibility of access to classes and class resources such as readings and software, as well as collaboration tools for supporting group assignments and other activities. Faculty have a rich assortment of tools to support research collaborations, communicate with colleagues world-wide, and even allow them to conduct classes even when they are away from campus. Help documents, tutorials, and access to user support combine to empower all members of the SILS community to find information and accomplish work. These systems will play an increasingly important role as the university copes with the current budget crisis and decrease in the University Libraries collections budget.

At SILS, current and past policies, reports, forms, and other documents are publicly available through the SILS website; restricted access documents are available on our burgeoning Microsoft

Teams network of sites, and private documents are stored on the secure, administrative SharePoint site.

Publicly-available documents include information on the School's programs, course offerings and syllabi, research activities, and public engagement, as well as operational information such as forms needed by students and the faculty handbook. Information for the SILS faculty and staff held in Teams include agenda and minutes for school meetings and standing committees and other administrative resources. Student and personnel records require appropriate permissions for access. Having so much information easily available helps inform committee deliberations, eases many aspects of project management and student advising, and administration of such ongoing activities as admissions and financial aid awards

SILS instructors determine what level and type of instructional technology best suits their class and teaching style. How instructors provide class resources has also changed in recent years. Some post basic course documents online. Others experiment with a variety of software each semester, supporting collaborative work, discussion, and other activities. Instructors are required by the University to make syllabi available "no later than the first day of class." SILS asks its instructors to link class syllabi to the semester schedule, as described in the Faculty Handbook.

The University supports the Sakai course management tool. An instructor can easily set up and customize a site for any class, and sites can also be created for research and special projects. Some instructors use Sakai for basic class functions such as providing resources to students (e.g., slides and schedules), others take advantage of the gradebook, assignment, discussion, wiki, video, and other tools. Technical and instructional support for Sakai is outstanding, including online tutorials for students and teachers, training and workshops, and timely response to any technical problems that arise.

Although some courses still require a hardcopy textbook, many depend entirely on digital readings, including e-books and journals, e-reserves supported by the University Libraries, and other resources available on the web. Other course requirements, such as software, participation in online discussions, and use of collaborative tools make it easier for students to participate more fully in classes even when it is difficult for them to be on campus, for example if they are working, have family responsibilities, or wish to avoid a commute, and we made full use of these tools and resources during the pandemic, when the University went entirely remote.

> *Taking a small number of online classes allows me to have greater flexibility in scheduling my work hours.* (2020 Current Student Survey)
>
> *I took an online class my first semester just because it was a class I needed to take that was available online. I took an online class this semester (my last semester) because I'd had a good experience with my other online class, and I wanted a more flexible schedule (and a class I wanted to take was available online).* (2020 Current Student Survey)

I needed to take a class over the summer so I could graduate on time, and with my other responsibilities in the summer, I needed the flexibility of an online course. (2016 Current Student Survey)

The flexibility made it possible for me to take the class. I liked being able to move as quickly as I wanted to through the material. The few meetings we had online were useful. The professor was incredibly responsive and gave detailed feedback quickly. (2016 Current Student Survey)

The University provides a variety of information and services to improve accessibility to facilities and services.

- The UNC website states that "nothing in design or programming should impede the ability of users to navigate and access content." They provide a list of development tools, campus accessibility resources, and a link to report digital accessibility issues.
- The Office of Accessibility Resources & Service provides information on resources and services available to all members of the university community, including accommodations for students and suggestions for faculty.
- The Equal Opportunity and Compliance Office is "dedicated to the well-being and success of Carolina's most valuable asset – its people."
- The University Libraries website provides access information for each location, including information on physical access and reference and research assistance. SILS Library information is at http://library.unc.edu/sils/access/.

V.13 The program's systematic planning and evaluation process includes review of its administrative policies, its fiscal and support policies, and its resource requirements. The program regularly reviews the adequacy of access to physical resources and facilities for the delivery of face-to-face instruction and access to the technologies and support services for the delivery of online education. Within applicable institutional policies, faculty, staff, students, and others are involved in the evaluation process.

SILS is committed to ongoing visioning, planning, and assessment cycles in all its endeavors, including administrative and financial matters. Information is sought from all SILS constituents, including students, staff, faculty, university colleagues, and members of the professions. Outcomes from these discussions encompass all aspects of the school, such as:

- Setting priorities in time of lean budgets, including maintaining student support and current staff members
- Creating and taking advantage of opportunities such as adding the Center for Information, Technology and Public Life (CITAP) in 2019 and the Center on Technology Policy in 2021.

- Deciding how best to participate in and lead university efforts, such as the growing areas of data science, health informatics, and data curation

Formal assessments of SILS activities and operations include this COA process every seven years and review by the UNC Graduate School every ten years. The latter review includes external and internal reviewers; the most recent review was in 2020 (SILS COA Document Archive: I. Strategic Planning & Overview Data: Past Reports). The University Office of Internal Audit provides "independent, proactive analyses of operations, financial activities, and systems of internal control."

The Dean prepares an annual "State of the School" report (SILS COA Document Archive: I. Strategic Planning & Overview Data: State of the School Reports) that reviews accomplishments and challenges in all aspects of the school, including administrative and financial aspects. This report is reviewed by the Board of Visitors and the SILS faculty and staff. The Dean also presents an annual report to the Provost that addresses key accomplishments of the school, key accomplishments of the Dean, the needs of the School, and plans/goals for the upcoming year.

Each SILS staff member is reviewed annually by the individual's supervisor, following the appropriate University and State policies and procedures described in the Performance Management Policy for SHRA Employees or the EHRA Non-Faculty Performance Evaluation.

Students provide feedback on facilities and administration via representation on all standing committees, student representatives at School Meetings, the semi-annual Town Hall Meetings, and exit interviews with the Dean. The Current Student Surveys and Alumni Surveys request feedback on these issues as well. The SILS Exit Survey and Exit Interviews are also avenues for student input. The Graduate School conducts the Graduate Student Exit Survey, covering student life, student productivity, faculty and program support, financial support, and employment.

Within the constraints of our building, classroom control, our budget, and University policy, improvements to facilities are made as promptly as possible. The Executive Assistant, Susan Sylvester, is the SILS liaison with the University facilities staff. Members of the SILS community can report problems to her, and she will inform the appropriate people. Recent renovations in Manning Hall include the adaptation of room 117 from a computer classroom to the Center for Information, Technology, and Public Life, and the installation of a gender-neutral bathroom on the second floor. The Dean works closely with the SILS Director of IT Services to ensure that technology in the building is systematically updated and maintained.

Instructors work with the Associate Dean for Academic Affairs and the Graduate Student Services Coordinator to identify classrooms that are appropriate for their classes; this is of particular importance for classes that must be taught outside Manning Hall.

We work around the remaining physical limitations of Manning Hall by taking advantage of other University facilities, offering online courses and instructional materials, and fostering an attitude of flexibility and creativity in our community.

The annual Faculty Planning Day at the beginning of the fall term is an opportunity to review the School's mission, goals and objectives, and take a more intensive and thoughtful look at priorities for the future. While SILS facilities and infrastructure are common topics of conversation, the university's deferred maintenance backlog of over $900 million suggests a renovation for Manning Hall will continue to be pushed down the pipeline, despite the 2015 Finance and Infrastructure Committee report presented to the UNC Board of Trustees which lists Manning Hall as one of many buildings in "severe" condition (see map on page 30 of the report).

SILS administration is transparent about budgetary issues. Needs and priorities are discussed at School meetings, Faculty breakfasts, and town hall meetings. Based on these inputs, the School's annual budget request is put together in late winter by the Dean and Executive Associate Dean. The University and School budgets are seldom known by the Faculty Planning Day at the opening of the academic year because state budget decisions and subsequent system budget decisions in recent years have slipped well into the fall and in the past two years have not been finalized so allocations remained at 2018-19 levels.

The School's development priorities and plans are shaped by input from all members of the SILS community, and focus especially on funding for student assistantships, scholarships and other learning opportunities; support for faculty recruiting and research; enhancing the School's diversity; increasing use of technology for face-to-face and remote instruction; and upgrading the School's facilities. The university is nearing the end of its multi-year fund raising campaign, and SILS has exceeded both its initial goal and its subsequently raised goal (we have currently raised $25.69 million).

SILS has seen significant changes in its financial situation over the past seven years. Like other schools across the nation, we have faced freezes and cuts in our state budget allocation; we have also recently faced a campus restructuring budget reduction that has been very challenging to our ability to provide services and resources. We have adapted by shepherding school-based tuition resources, trying to grow our enrollments, finding economies of scale in operations, and increasing our fund-raising activities. We have managed to operate at very high efficiencies on all fronts:

- Faculty have more students in their classes than before, as we have reduced the number of sections offered each semester. At the same time, they are feeling pressure to seek more external funding and participate in the exciting developments taking place on campus and in the field.
- Students strive to excel in a rigorous 48-credit-hour program while working part time, seeking internships, and building networks that will ensure career success.

Efficiency and optimization may be the new normal; however, it can erode human performance and is susceptible to unanticipated events that can undermine success. We are financially stable and have set in motion programs and activities that will allow us to continue to develop as a School; however, we must be alert to new opportunities and sources of funding that will allow us to sustain our enterprise over time.

V. 14 The program has explicit, documented evidence of its ongoing decision-making processes and the data to substantiate the evaluation of administration, finances, and resources.

SILS is a complex and dynamic enterprise that exists within a global, public research university that itself adapts to changing conditions in the state of North Carolina and the world. As documented in the previous sections, decision making is informed by myriad data collection efforts put in place by SILS itself and by those put in place by the larger campus and system offices. Within this context, SILS, like other Schools on the Chapel Hill campus has substantial decision-making control over curriculum, staffing, and research directions within the economic and institutional constraints imposed by campus and system policies and operations.

V. 15 The program demonstrates how the results of the evaluation of administration, finances, and resources are systematically used to improve the program and to plan for the future.

SILS is a learning enterprise and we learn from our actions and the planning decisions that drive those actions. This learning systematically and pragmatically arises from micro-level data flows over the course of semesters that feed into annual discussions and reports that serve to shape the trajectory of our school over the years. The micro-level data includes that generated by student feedback via surveys, exit interviews, town halls, and participation in committees, and meetings and surveys of alumni, regular discussions in faculty and staff meetings. These data are integrated into annual reports provided to the campus on various operations ranging from student enrollments and services to HR, finance, and infrastructure services, reports to campus leadership, advisory boards, and our alumni. These annual data in turn drive decisions about course scheduling, new initiatives, and hiring and in aggregate are presented in long-term reports and evaluations such as periodic campus reviews, and campus and school accreditation reviews.

Appendices

Appendix A: Faculty 2-page CVs

DENISE ANTHONY, PhD
Teaching Assistant Professor
School of Information and Library Science
University of North Carolina Chapel Hill
Email: anthonyd@email.unc.edu

EDUCATION

- PhD, University of Michigan Ann Arbor, MI: School of Information: 2006
- MILS, University of Michigan Ann Arbor, MI: School of Information and Library Studies: 1993
- BS, Biochemistry, Michigan State University, East Lansing, MI: 1977.

TEACHING EXPERIENCE

- University of North Carolina at Chapel Hill, School of Information and Library Science *(Lecturer, Jan. 2013 – present)*.
- University of Denver Library and Information Science Program (2005-2012)

PROFESSIONAL EXPERIENCE

- *Consultant:* University of Colorado, Boulder, Wise Law Library, 2013-2014
- *Archivist and Consultant:* Michigan State University Archives and Historical Collections, East Lansing, MI *(2003-2005)*
- *Project Coordinator:* University of Ft. Hare, South Africa *(May – June, 1998)*
- *Consultant:* State Archives of Michigan, Lansing, MI *(1995-1996)*
- *Consultant:* Japanese American National Museum, Los Angeles, CA (Sept. 1996)

CONFERENCE PRESENTATIONS

- *Sharing the Love: Generating an Archival Perspective in Community Groups*. Presented with Chaitra Powell, African-American Collections and Outreach Archivist, UNC-Chapel Hill; Erin Dickey, SILS and Art History masters student; and Valerie Szwaya, SILS masters student, UNC-Chapel Hill. Society of North Carolina Archivists Annual Conference, March 31, 2016.
- *The Intersection of Job Skills and Knowledge in Archives and Libraries.* Research presentation at AERI 2011, July 11, 2011. Simmons College, Boston, MA.
- *Mapping Uncharted Terrains: Introducing Best Practices to the Management of Law School, Court and Law Firm Historical Collections*. Workshop presented at the American Association of Law Libraries annual meeting, July 2010, in Denver, in collaboration with Kurt X. Metzmeier, Associate Director of the Law Library at the University of Louisville, Kentucky.

CONFERENCE PRESENTATIONS (Cont.)

- *Beyond Description: An exploration of experienced archivists' knowledge and searching skills.* American Educational Research Association Conference, Denver, CO. Division I, Education in the Professions. Panel session title: Professional development - Local through global perspectives. (2010, April)
- *From Expert to Novice: Using the Dreyfus Model for Educating and Training Librarians,* Association of Research Libraries annual conference, Seattle, WA., March, 2009.
- *That Thing You Do: Researching the Archival Reference Process,* Society of American Archivists National Conference, New Orleans, August 2005
- *Beyond Description: Exploring the Searching Skills and Practical Abilities of Reference Archivists.* Association of Canadian Archivists Conference, Saskatchewan, June 2005.
- *Triggers of Social Memory*. (Chair) Midwest Archives Conference Meeting, Des Moines, Iowa, October 2004.
- *Perspectives on Archival Education and Research,* Society of American Archivists Annual Meeting, Pittsburgh, PA, August 1999.

GRANTS

- Co-PI "Learning from Artists' Archives: Preparing Next Generation Art Information Professionals through Partnerships with North Carolina's Artists' Archives." Institute of Museum and Library Services Laura Bush 21st Century Library Program Grant. Connecting artists with concepts of personal information management and long-term preservation of analog and digital documents, records and ephemera. 2015-2017.

WORKSHOPS

- *Archiving for Artists*. Workshops for artists on personal records management, organization and preservation. October 3, 2015, North Carolina Museum of Art, Raleigh, N.C. and October 8, 2016, Mint Museum Randolph, Charlotte, N.C.

MEMBERSHIPS

- Society of American Archivists (SAA)
- Archival Educators Research Institute (AERI)
- Society of North Carolina Archivists (SNCA)

HONORS AND AWARDS

- Phi Beta Kappa, Epsilon Chapter, Michigan State University
- University of Denver Center for Community Engagement and Service Learning: Service Learning Faculty of the Year Award, 2010
- Ehrlicher Scholar, University of Michigan School of Information, 1996

Jaime Arguello

EDUCATION

Ph.D., Language Technologies 2006-2011
Advisor: Dr. Jamie Callan
Language Technologies Institute, School of Computer Science
Carnegie Mellon University

SELECTED PUBLICATIONS (in reverse chronological order by category)

Monographs

1. **J. Arguello** . 2017. Aggregated Search. *Foundations and Trends in Information Retrieval (FNTIR)*. Now Publishers. 365-502

Book Chapters

2. **J. Arguello** and F. Diaz. 2014. Aggregated Search. *Relevance Ranking of Vertical Search Engines*. Y. Chang and B. Long. Elsevier. 147-179

Refereed Journal Articles

3. A. C. Griffin, Z. Xing, S. P. Mikles, S. Bailey, S. Khairat, **J. Arguello**, Y. Wang, and A. E. Chung. 2021. Information Needs and Perceptions of Chatbots for Hypertension Medication Self-Management: A Mixed Methods Study. In *JAMIA Open*.

4. R. Stemerman, **J. Arguello**, J. Brice, A. Krishnamurthy, M. Houston, R. Kitzmiller. 2021. Identification of Social Determinants of Health Using Multi-Label Classification of Electronic Health Record Clinical Notes. In *JAMIA Open*.

5. B. Choi, A. Ward, Y. Li, **J. Arguello**, and R. Capra. 2020. The Effects of Task Complexity on the Use of Different Types of Information in a Search Assistance Tool. In *ACM Transactions of Information Systems*. (38)1. 1-28

6. H. O'Brien, **J. Arguello**, and R. Capra. 2020. An Empirical Study of Task Characteristics and User Task Perceptions on Search Engagement. In *Information Processing & Management*. (57)3.

7. **J. Arguello** and B. Choi. The Effects of Working Memory, Perceptual Speed, and Inhibition in Aggregated Search. 2019. In *ACM Transactions of Information Systems*.(37)3. 1-34

8. **J. Arguello**, B. Choi, and R. Capra. 2018. Factors Influencing Users' Information Requests: Medium, Target, and Extra-topical Dimension. In *ACM Transactions of Information Systems*. (36)4. 1-37

9. **J. Arguello** and R. Capra. 2016. The Effects of Aggregated Search Coherence on Search Behavior. *ACM Transactions of Information Systems*. 35(1). 1-30.

10. **J. Arguello**, J. Callan, and Stuart Shulman. 2008. Recognizing Citations in Public Comments. *Journal of Information Technology and Politics*. 5(1). 49-71.

11. C. Rosé, Y. Cui, **J. Arguello**, K. Stegmann, A. Weinberger, and F. Fisher. 2008. Analyzing Collaborative Learning Processes Automatically: Exploring Advances in Computational Linguistics

in Computer Support Collaborative Learning. *International Journal of Computer Supported Collaborative Learning.* 3(3). Springer Link. 237-271.

Refereed Conference Papers

12. **J. Arguello**, A. Ferguson, E. Fine, B. Mitra, H. Zamani, and F. Diaz. 2021. Tip of the Tongue Known-Item Retrieval: A Case Study in Movie Identification. In *CHIIR '21: Proceedings of the 6th ACM SIGIR Conference on Human Information Interaction and Retrieval* [acceptance rate: 21%]

13. B. Choi, **J. Arguello**, and R. Capra. 2021. OrgBox: A Knowledge Representation Tool to Support Complex Search Tasks. In *CHIIR '21: Proceedings of the 6th ACM SIGIR Conference on Human Information Interaction and Retrieval* [acceptance rate: 21%]

14. A. C. Griffin, Z, Xing, S. Khairat, Y. Wang, S. Bailey, **J. Arguello**, and A. E. Chung. 2021. Conversational Agents for Chronic Disease Self-Management: A Systematic Review. In *AMIA Annual Symposium Proceedings.*

15. J. Qu, **J. Arguello**, and Y. Wang. A Deep Analysis of an Explainable Retrieval Model for Precision Medicine Literature Search. 2021. In *ECIR '21: Proceedings of the 43rd European Conference in Information Retrieval* [acceptance rate: 24.1%]

16. K. Urgo, **J. Arguello**, and R. Capra. 2020. The Effects of Learning Objectives on Searchers' Perceptions and Behaviors. In *ICTIR '20: Proceedings of the 2020 ACM SIGIR International Conference on the Theory of Information Retrieval.* [acceptance rate: 40%]

17. **J. Arguello** and A. Crescenzi. 2019. Using Principal Component Analysis to Better Understand Behavioral Measures and the Effects. In *ICTIR '19: Proceedings of the 5th SIGIR International Conference on the Theory of Information Retrieval.* [acceptance rate: 49%]

18. K. Urgo, **J. Arguello,** R. Capra. 2019. Anderson and Krathwohl's Two-Dimensional Taxonomy Applied to Task Creation and Learning Assessment. In *ICTIR '19: Proceedings of the 5th SIGIR International Conference on the Theory of Information Retrieval.* [acceptance rate: 49%]

19. S. Avula, **J. Arguello**, R. Capra, J. Dodson, Y. Huang, and F. Radlinski. 2019. Embedding Search into a Conversational Platform to Support Collaborative Search. In *CHIIR '19: Proceedings of the 4th SIGIR Conference on Human Information Interaction and Retrieval.* 15-23. [acceptance rate: 33.3%]

20. R. Capra, **J. Arguello**, H. O'Brien, Y. Li, and B. Choi. 2018. The Effects of Manipulating Task Determinability on Search Behaviors and Outcomes. In *SIGIR '18: Proceedings of the 41st ACM Conference in Research and Development in Information Retrieval.* 52-61. [acceptance rate: 21%]

21. S. Avula, G. Chadwick, **J. Arguello**, R. Capra. 2018. SearchBots: User Engagement with Chatbots during Collaborative Search. In *CHIIR '18: Proceedings of the 3rd ACM SIGIR Conference on Human Information Interaction and Retrieval* [acceptance rate: 38%]

22. H. Kim and **J. Arguello**. 2017. Evaluation of Features to Predict the Usefulness of Online Reviews. In *ASIST '18: Proceedings of the 80th Annual Meeting of the Association of Information Science and Technology*. 213-221.

23. **J. Arguello**, S. Avula, and F. Diaz. 2017. Using Query Performance Predictors to Reduce Spoken Queries. In *ECIR '17: Proceedings of the 39th European Conference on Information Retrieval*. 27-39. [acceptance rate: 27%]

RONALD E. BERGQUIST

8201 Buck Crossing Drive, Durham, NC 27713-6080 | 919.636.2997 | bergr@ad.unc.edu

EDUCATION

University of North Carolina, Chapel Hill, NC
Ph. D. in Information and Library Science **2006**
Dissertation: *"It could have been bigger, but its residents like it as is": Small Town Libraries in Moore County, North Carolina*

University of North Carolina, Chapel Hill, NC
M.S. in Library Science **1999**
Master's Paper: *"Everybody's Talking at Me": Information Flow in a Command and Control Environment*

Naval Postgraduate School, Monterey, CA
M.A. in National Security Affairs **1978**
Graduated with Distinction; focus on Middle East Studies

Defense Language Institute Foreign Language Center, Presidio of Monterey, CA
Arabic Course **1978**
Honor Graduate

University of Texas, Austin, TX
B.A. in Geography **1968**
Distinguished Graduate, Air Force ROTC

AWARDS @ SILS

Deborah Barreau Award for Teaching Excellence	**08 May 2016**
Outstanding Teacher of the Year Award, Adjunct Faculty	**16 May 2007**
Outstanding Service to the School Award, Doctoral Student	**15 May 2006**
Dean's Achievement Award in Recognition of the Best Master's Paper	**14 May 2000**

NUMEROUS MILITARY AWARDS AND DECORATIONS

TEACHING EXPERIENCE

University of North Carolina, Chapel Hill, NC

INLS 050/261/461/161 – Tools for Information Literacy	**55 times since 2000**
INLS 285/385 – Information Management for Organizational Effectiveness	**12 times since 2011**
INLS 843 – Seminar in Public Libraries	**10 times since 2005**
INLS 201 – Foundations of Information Science	**07 times since 2014**
INLS 718 – User Interface Design	**07 times since 2010**
INLS 040/200/151 – Retrieving and Analyzing Information	**05 times since 2006**
INLS 758 – International and Cross-Cultural Perspectives	**03 times since 2010**

North Carolina Central University, Durham NC

LSIS 5180 – The Public Library	**02 times since 2008**

RELATED EXPERIENCE

Town of Pinebluff, NC

Commissioner for Parks & Recreation, Mayor *pro tem* **1995 – 1997**

Elected public official responsible for, among other things, the town's public library.

Defense Language Institute Foreign Language Center, Presidio of Monterey, CA

Assistant Commandant and Support Group Commander, Colonel, US Air Force **1991 – 1994**

In the last active duty assignment in the US Air Force, was the Chief Operating Officer for workforce of 1200+ civilians and 200+ military plus 2500+ military students at a Department of Defense school operated by the U.S. Army's Training and Doctrine Command (TRADOC) at one of their training centers.

United States Air Force

Intelligence Officer **1968 – 1995**

Moved through the ranks from 2nd Lieutenant to Colonel at multiple duty stations in the US and in Vietnam, Great Britain, Italy, Turkey, and Germany. Performed duties as a Targeting Officer, Air Intelligence Officer, NORAD Watch Officer, graduate student, foreign language student, Middle East Intelligence Analyst, Research Associate, NATO Intelligence Plans Officer, Squadron Commander, Wing Deputy Commander for Operations, Joint Task Force Director of Intelligence, and Support Group Commander.

PUBLICATIONS AND PAPERS

"It could have been bigger, but its residents like it as is": Small town libraries in Moore County, North Carolina
Saarbrücken, Germany: VDM Verlag Dr. Müller **2009**

The Arab Bridge
self-published on the web and additionally published at Kaftoun.com **2003**

Sonnenwald, D.H., Bergquist, R., Maglaughlin, K., Kupstas-Soo, E., Whitton, M.
"Designing to support collaborative scientific research across distances: The nanomanipulator example".
In E. Churchill, D. Snowdon, A. Munro (Eds.), *Collaborative Virtual Environments* (pp. 202-224).
London: Springer Verlag. **2001**

The Role of Airpower in the Iran-Iraq War
Maxwell AFB, AL: Air University Press **1988**

LANGUAGES

English – native language

Defense Language Aptitude Battery (DLAB)	tested score 131; last time in **1990**
Defense Language Proficiency Test (DLPT)	
German **1993**	Listening 3, Reading 3 –
French **1992**	Listening 1, Reading 2 –
Spanish **1992**	Listening 2, Reading 2 –

MEMBERSHIPS

Association of Computing Machinery

Robert G. Capra III

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University of North Carolina at Chapel Hill
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Phone: (919) 962-9978; Fax: (919) 962-8071
http://www.ils.unc.edu/~rcapra
rcapra@unc.edu

PROFESSIONAL EXPERIENCE

2017 – present	*Associate Professor*, School of Information and Library Science
2011 – 2017	*Assistant Professor*, School of Information and Library Science University of North Carolina at Chapel Hill
2006 – 2011	*Post-Doctoral Fellow / Research Scientist*, School of Information and Library Science University of North Carolina at Chapel Hill
1999	*Senior Member of Technical Staff*, Speech and Language Technology Group
1994 – 1999	*Member of Technical Staff*, Speech and Language Technology Group SBC Technology Resources, Inc., Austin, TX (now part of AT&T Labs)

EDUCATION

2006	Ph.D., Computer Science, Virginia Tech
1994	M.S., Computer Science, Washington University in St. Louis
1991	B.S., Computer Science, Washington University in St. Louis

PROFESSIONAL MEMBERSHIPS

Association for Computing Machinery (ACM)

SELECTED PUBLICATIONS

Choi, B., Arguello, J., Capra, R., and Ward, A. R. (2021). OrgBox: A Knowledge Representation Tool to Support Complex Search Tasks. In *Proc. Conf. on Human Information Interaction and Retrieval (CHIIR '21)*. ACM, New York, 219-228.

O'Brien, H.O., Arguello, J., Capra, R. (2020). An empirical study of interest, task complexity, and search behaviour on user engagement. *Information Processing & Management 57*(3), 102226.

Choi, B., Ward, A., Li, Y., Arguello, J., Capra, R. (2019). The Effects of Task Complexity on the Use of Different Types of Information in a Search Assistance Tool. *ACM Transactions on Information Systems (TOIS) 38*(1), 1-28.

Capra, R., and Arguello, J. (2019). Using Trails to Support Users with Tasks of Varying Scope. In *Proc. 42st Int. ACM SIGIR Conf. on Research and Development in Information Retrieval (SIGIR '19)*.

Crescenzi, A., Li, Y., Zhang, Y., and Capra, R. (2019). Towards better support for exploratory search through an investigation of notes-to-self and notes-to-share. In *Proc. 42st Int. ACM SIGIR Conf. on Research and Development in Information Retrieval (SIGIR '19)*.

Zhang, Y. and Capra, R. (2019). Understanding How People use Search to Support their Everyday Creative Tasks. In *Proc. Conf. on Human Information Interaction and Retrieval (CHIIR '19)*, Glasgow, Scotland, 153-162.

Capra, R., Arguello, J., O'Brien, H., Li, Y., & Choi, B. (2018). The effects of manipulating task determinability on search behaviors and outcomes. In *Proc. 41st Int. ACM SIGIR Conf. on Research and Development in Information Retrieval (SIGIR '18)*. ACM, New York, 445-454.

Capra, R., Arguello, J., and Zhang, Y. (2017). The effects of search task determinability on search behavior. In *Proc. European Conf. on Information Retrieval (ECIR '17)*, Aberdeen, Scotland, 108-121. (**Best Paper Award**)

Capra, R., Arguello, J., Crescenzi, A., Vardell, E. (2015). Differences in the Use of Search Assistance for Tasks of Varying Complexity. In *Proc. 37th Int. ACM SIGIR Conf. on Research and Development in Information Retrieval (SIGIR '15)*. ACM, New York, 23-32.

Jones, W., Capra, R., Diekema, A., Teevan, J., Perez-Quinones, M., Dinneen, J., and Hemminger, B. (2015). "For Telling" the Present: Using the Delphi Method to Understand Personal Information Management Practices. In *Proc. 33rd Annual Conference on Human Factors in Computing Systems (CHI '15)*. ACM, New York, 3513-3522.

Arguello, J. and Capra, R. (2014). The Effects of Rank and Border on Aggregated Search Coherence and Search Behavior. In *Proc. 23rd ACM Int. Conf. on Information and Knowledge Management (CIKM'14)*. ACM, New York, 539-548.

Capra, R., Arguello, J., and Scholer, F. (2013). Augmenting web search surrogates with images. In *Proc. 22nd ACM International Conference on Information and Knowledge Management (CIKM '13)*. ACM, New York, 399-408.

Capra, R., Khanova, J., Ramdeen, S. (2013). Work and Personal E-mail Use by University Employees: PIM Practices Across Domain Boundaries. *Journal of the American Society for Information Science and Technology, 64*(5): 1029-1044.

Kules, B., and Capra, R. (2012). Influence of Training and Stage of Search on Gaze Behavior in a Library Catalog Faceted Search Interface. *Journal of the American Society for Information Science and Technology, 63*(1): 114-138.

Stutzman, F., Capra, R., and Thompson, J. (2011). Factors Mediating Disclosure in Social Network Sites. *Computers in Human Behavior, 27*(1): 590-598.

Capra, R., Marchionini, G., Velasco-Martin, J., and Muller, K. (2010). Tools-at-Hand and Learning in Multi-Session, Collaborative Search. In *Proc. 28th Int. Conf. on Human Factors in Computing Systems*. ACM, New York, 951-960.

Kules, B., Capra, R., Banta, M., and Sierra, T. (2009). What Do Exploratory Searchers Look at in a Faceted Search Interface? In *Proc. 9th ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL '09)*. ACM, New York, 313-322.

Capra, R., Marchionini, G., Oh, J. S., Stutzman, F., and Zhang, Y. (2007). Effects of Structure and Interaction Style on Distinct Search Tasks. In *Proc. 7th ACM/IEEE-CS Joint Conf. on Digital Libraries (JCDL '07)*. ACM, New York, 442-451.

Capra, R., and Pérez-Quiñones, M.A. (2005). Using Web Search Engines to Find and Refind Information. *IEEE Computer, 38*(10): 36–42.

GRANTS / FUNDING

- $188,993 (funded) – NCSU Laboratory for Analytic Sciences. *Enhancing Tradecraft Documentation Utility*. Principle Investigators: J. Arguello, R. Capra. 2020.
- $186,000 (funded) – NCSU Laboratory for Analytic Sciences. *Enhancing Tradecraft Documentation Utility*. Principle Investigators: J. Arguello, R. Capra. 2020.
- $85,498 (funded) – NCSU Laboratory for Analytic Sciences. *Enhancing Tradecraft Documentation Utility*. Principle Investigators: J. Arguello, R. Capra. 2019.
- $498,180 (funded) – **NSF Award**. *Search Assistance Using Search Trails*. Principal Investigators: R. Capra, J. Arguello. September 2017 – August 2020. (NSF IIS-1718295).
- $546,159 (funded) – **NSF CAREER Award**. *Knowledge Representation and Re-Use for Exploratory and Collaborative Search*. Principal Investigator: R. Capra. February 2016 – 2021. (NSF IIS-1552587).
- $10,000 (funded) – FX Palo Alto Laboratory, Inc. Unrestricted Gift. *Interactive Information Retrieval Systems Research*. Principal Investigators: R. Capra, D. Kelly. March 2013.
- $49,996 (funded) – NSF Award IIS-1301958. *Workshop on Task-Based Information Search Systems*. Principal Investiagors: D. Kelly, J. Arguello, R. Capra. January 2013 – December 2013.

RECENT PROFESSIONAL ACTIVITIES

- Chair, Steering Committee, ACM SIGIR Conf. on Human Info. Interaction and Retrieval (CHIIR), 2017 – 2020
- Associate Co-Editor, Adv. in Info. Sci. section of *J. Assoc. Info. Sci. & Tech.* (JASIST), 2017 – present
- Conference track co-chair, ACM SIGIR Conf. on Research and Development in Information Retrieval (SIGIR 2018)
- **Conference Co-chair**, ACM SIGIR Conference on Human Information Interaction and Retrieval (CHIIR 2016)
- Guest co-editor, IEEE Computer special issue on Collaborative Information Seeking (March 2014)
- Guest co-editor, Information Processing and Management special issue on HCIR (September 2014)

RECENT TEACHING

- Fundamentals of Programming Information Applications (INLS 490/570) – Spring semesters 2017-2021
- Usability Testing and Evaluation (INLS 690/719) – Fall semesters 2015-2020
- Web Databases (INLS 760) – Spring semesters 2012-2018
- Database Systems I (INLS 523) – Fall semesters 2015-2020

TRESSIE MCMILLAN COTTOM, Ph.D.

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EDUCATION

Laney Graduate School, Emory University | 2015
Doctor of Philosophy, Emory College of Arts and Sciences, Department of Sociology
Dissertation: Becoming Real Colleges in the Financialized Era of U.S. Higher Education: The Expansion and Legitimation of For-Profit Colleges
Committee: Richard Rubinson (chair), Irene Browne, Cathy Johnson, Roberto Franzosi, Carol Anderson

North Carolina Central University | 2010
Bachelor of Arts, English and Political Science

PROFESSIONAL EXPERIENCE

Associate Professor **2020 - Present**
School of Information and Library Science
Associate Professor **2019 – 2020**
Department of Sociology, Virginia Commonwealth University
Faculty Affiliate **2015 - Present**
Berkman Klein Center for Internet & Society, Harvard University
Assistant Professor **2015 - 2019**
Department of Sociology, Virginia Commonwealth University

HONORS

RHSU Edu-Scholar Public Influence Rankings (#55/200), Edu-Week | 2020
Public Understanding of Sociology Award, American Sociological Association | 2020
National Book Award, Non-fiction Finalist for *Thick: And Other Essays* | 2019
Brooklyn Public Library Literary Award for *Thick: And Other Essays* | 2019
Doris Entwisle Early Career Award, Sociology of Education Section of the American Sociological Association, New York, NY | 2019
John Jasper Trailblazer Award for Contributions to the African American Community, Sixth Mount Zion Baptist Church; Richmond, VA | 2019
RHSU Edu-Scholar Public Influence Rankings (#113/200), Edu-Week | 2019
Outstanding Early Career Faculty Award, Virginia Commonwealth University | 2018
RHSU Edu-Scholar Public Influence Rankings (#72/200), Edu-Week | 2018
Distinguished Faculty Award for Excellence in Scholarship, Virginia Commonwealth University, College of Humanities & Sciences | 2017
Feminist Activist Scholar Award, Sociologists for Women in Society | 2017

BIBLIOGRAPHY AND PRODUCTS OF SCHOLARSHIP

Books

McMillan Cottom, Tressie. (2019). *THICK: And Other Essays*. New York: The New Press.

- National Book Award, Finalist for Non-fiction, 2019
- Brooklyn Public Library Literary Prize, 2019
- *New York Times* Editor's Choice

McMillan Cottom, Tressie. (2017). *Lower Ed: The Troubling Rise of For-Profits*. New York: The New Press.

- Translation, Traditional Chinese: McMillan Cottom, Tressie. 2019. Dījí Jiàoyù 低級教育. Taipei City, Taiwan: Hizashi Publishing.

Refereed Articles and Papers

Siddiqi, A., Sod-Erdene, O., Hamilton, and McMillan-Cottom, T. (2019). Growing sense of social status threat and concomitant deaths of despair among whites. *SSM Journal of Population Health*, *9.* https://doi.org/10.1016/j.ssmph.2019.100449

McMillan Cottom, Tressie. (2018). Paying More for Less: Lacking Opportunity, The Poor Turn to For-profit Colleges. *Education Next*, *18*(1), 81-83. https://doi.org/10.1016/j.ssmph.2019.100449.

McMillan Cottom, T., Stamm, T., Johnson, J., Honnold, J. (2018). A Vision Among Challenges: Lessons About Online Teaching from the First Online Master's Degree Program in Digital Sociology. *Journal of Public and Professional Sociology, 10*(1), Article 1. Retrieved from: https://digitalcommons.kennesaw.edu/jpps/vol10/iss1/1/

McMillan Cottom, T., Hunnicutt, S., Johnson, J. *Under Review*. Using Social Network Analysis to Understand the Corporatization of Not-For-Profit and For-Profit U.S. Universities.

McMillan-Cottom, T. Angulo, A. (2017). A Radical Education Platform for the 21st Century. *Harvard Kennedy School Journal of African American Public Policy*, 31-35. Retrieved from: http://hjaap.org/wp-content/uploads/2017/07/HJAAPP-2017-Volume.pdf

McMillan-Cottom, Tressie. (2016). Having It All Is Not A Feminist Theory of Change. *Signs*, *42*(2), 553-6. Retrieved from https://www.journals.uchicago.edu/doi/pdfplus/10.1086/688264

Engaged Scholarship

McMillan Cottom,T. (2019). I Was Pregnant and in Crisis. All the Doctors and Nurses Saw Was an Incompetent Black Woman. *TIME.* Retrieved from https://time.com/5494404/tressie-mcmillan-cottom-thick-pregnancy-competent/.

McMillan Cottom,T. (2018). The Real Threat to Campuses Isn't "PC Culture." It's Racism. *Huffington Post.* Retrieved from https://www.huffpost.com/entry/opinion-cottom-campus-racism_n_5a8afb80e4b00bc49f471b41.

McMillan Cottom, Tressie. (2017). How We Make Black Girls Grow Up to Fast. *The New York Times.* https://www.nytimes.com/2017/07/29/opinion/sunday/how-we-make-black-girls-grow-up-too-fast.html?searchResultPosition=1.

ANITA CRESCENZI

301 Pharmacy Lane, Chapel Hill, NC, 27599-3360

amcc@email.unc.edu

EDUCATION

Ph.D. in Information and Library Science, December 2019

University of North Carolina at Chapel Hill, School of Information and Library Science

M.S. in Information Science, May 2005

University of North Carolina at Chapel Hill, School of Information and Library Science

B.S. in Secondary Education, May 1996

University of Illinois at Urbana-Champaign, School of Education

PROFESSIONAL EXPERIENCE (SELECTED)

Assistant Professor (with a focus on research), University of North Carolina at Chapel Hill. Eshelman School of Pharmacy (75%), School of Information and Library Science (25%). August 2020 -

Postdoctoral Research Associate, University of North Carolina. School of Information and Library Science. PI: Rob Capra. December 2019 – July 2020.

Head, IT Development Group, 2012. User Experience, Virtual Presence Librarian, 2006-2011. Health Sciences Library, University of North Carolina.

User Experience Analyst, 2004-2007. BlueCross BlueShield of North Carolina

SELECTED PUBLICATIONS

Full conference papers (refereed)

1. **Crescenzi, A.**, Ward, A., Li, Y., & Capra, R. (2021). Supporting metacognition during exploratory search with the OrgBox. To be presented at *SIGIR '21*.
2. **Crescenzi, A.**, Capra, R., Choi, B., & Li, Y. (2021). Adaptation in information search and decision-making under time constraints. In *Proc. CHIIR '21.*
3. Arguello, J. & **Crescenzi, A.** (2019). Using Principal Component Analysis to better understand behavioral measures and their effects. In *Proc. ICTIR '19.*
4. **Crescenzi, A.**, Kelly, D., & Azzopardi, L. (2016). Impacts of time constraints and system delays on user experience. In *Proc. CHIIR '16*.
5. Capra, R., Arguello, J., **Crescenzi, A.** & Vardell, E. (2015). Differences in the use of search assistance for tasks of varying complexity. In *Proc. SIGIR '15.*

Short conference papers (refereed)

1. **Crescenzi, A.**, Li, Y., Capra, R., & Zhang, Y. (2019). Towards better support for exploratory search through an investigation of notes-to-self and notes-to-share. In *Proc. SIGIR '19.*
2. **Crescenzi, A.**, Capra, R., & Arguello, J. (2017). Time limits, information search, and the use of search assistance. In *Proc. CHIIR '17*.
3. **Crescenzi, A.**, Kelly, D. & Azzopardi, L. (2015). Time pressure and system delays in information search. In *Proc. SIGIR '15*.

4. **Crescenzi, A.**, Capra, R., & Arguello, J. (2013). Time pressure, user satisfaction and task difficulty. In *Proc. ASIST '13*.

Tutorial

1. Kelly, D., & **Crescenzi, A.** (2016, 2017). From design to analysis: Conducting controlled laboratory experiments with users. Tutorial presented at *SIGIR '17*. (refereed)

Workshop papers

1. **Crescenzi, A.** (2016). Metacognitive knowledge and metacognitive regulation in time-constrained information search. Search as Learning Workshop at SIGIR '16. (refereed)

Doctoral consortia

1. *ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR '15)*
2. *Information Interactions in Context (IIiX '14)*.

Working papers

1. McLaughlin, J., Nicolazzo J.A., **Crescenzi, A**., Brouwer, K.L.R. Moving Towards FAIR Data Practice in Health Professions Education. *American Journal of Pharmaceutical Education.* (revise and resubmit, May 2021).
2. Li, Y., **Crescenzi, A.,** Ward, A., & Capra, R. Think inside the box: An evaluation of search-assisting organizational tools.
3. **Crescenzi, A.**, Choi, B., & Li, Y. Explaining recommendations: A content analysis of human-generated recommendations.
4. Golovchinksy, G., Capra, R., Kelly, D., & **Crescenzi, A**. Going deeper in the search results list: The Search Results Navigator. Draft ready for legal review by employer of first author.

INVITED TALKS, PANELS

Adaptation in information search (and decision-making) under time pressure. Arizona State University. March 2, 2020.

Adaptation in search under time pressure. University of Kentucky. February 17, 2020.

Adaptation in search under time pressure. North Carolina State University. February 5, 2020.

Adaptation in search and decision-making. Brown University. January 30, 2020

Panel at *Women in IR*: 2019 ACM SIGIR Conference, July 23, 2019.

TEACHING EXPERIENCE

School of Information and Library Science

Research Methods Overview. INLS 581. Spring 2021, 20 students

Human Information Interactions. INLS 500. Fall 2015, 8 students; Fall 2016, 27 students.

Systems Analysis. INLS 582. Spring 2016, 8 students

FUNDING AWARDS AND FELLOWSHIPS (SELECTED)

National Science Foundation. "AI Institute: Explainable Machine Learning of Biological Structure and Function" (National Artificial Intelligence (AI) Research Institutes, NSF 20-604).

Pending. Effort: 12% (2021, 2023), 10% (2024-2025), 8% (2022).

Semiconductor Researcher Corporation. $25,000. 2002.

University of North Carolina at Chapel Hill
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Chapel Hill, NC, 27599

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sayamindu@unc.edu
https://unmad.in/

Sayamindu Dasgupta

Education

Massachusetts Institute of Technology

2016. PhD in *Media Arts and Sciences* from MIT Media Lab.

2012. Master of Science in *Media Arts and Sciences* from MIT Media Lab.

West Bengal University of Technology

2008. Bachelor of Technology in Computer Science and Engineering.

Academic Appointments & Affiliations

University of North Carolina at Chapel Hill (UNC Chapel Hill)

2018–. Assistant Professor, School of Information and Library Science

2020–. Faculty Affiliate, Center for Information, Technology, and Public Life

University of Washington

2017–2018. Moore/Sloan & WRF Innovation in Data Science Postdoctoral Fellow

Massachusetts Institute of Technology

2017. Research Affiliate, MIT Media Lab

2016. Postdoctoral Associate, MIT Media Lab

2010–2016. Graduate Research Assistant, MIT Media Lab

Selected Publications

Selected Refereed Articles

2020. Laura March and Sayamindu Dasgupta. "Wikipedia Edit-a-thons as Sites of Public Pedagogy." In: *Proc. ACM Hum.-Comput. Interact.* 100:1–100:26.CSCW2 (2020). DOI: 10.1145/3415171

2017. Sayamindu Dasgupta and Benjamin Mako Hill. "Scratch Community Blocks: Supporting Children As Data Scientists." In: *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*. CHI '17. New York, NY, USA: ACM, 2017, pp. 3620–3631. DOI: 10.1145/3025453.3025847.
Honorable mention award

2017. Samantha Hautea, Sayamindu Dasgupta, and Benjamin Mako Hill. "Youth Perspectives on Critical Data Literacies." In: *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*. CHI '17. New York, NY, USA: ACM, 2017, pp. 919–930. DOI: 10.1145/3025453.3025823

2017. Sayamindu Dasgupta and Benjamin Mako Hill. "Learning to Code in Localized Programming Languages." In: *Proceedings of the Fourth (2017) ACM Conference on Learning @ Scale*. L@S '17. New York, NY, USA: ACM, 2017, pp. 33–39. DOI: 10.1145/3051457.3051464

2016. Sayamindu Dasgupta, William Hale, Andrés Monroy-Hernández, and Benjamin Mako Hill. "Remixing As a Pathway to Computational Thinking." In: *Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing*. CSCW '16. New York, NY, USA: ACM, 2016, pp. 1438–1449. DOI: 10.1145/2818048.2819984.
Honorable mention award

Selected Teaching

Courses Taught at UNC Chapel Hill

INLS.560, "Programming for Information Professionals"
Sample course syllabus
Spring 2020, 17 students; Fall 2020, 19 students; Spring 2021, 12 students

INLS.490, "Programming for Data Analysis"
Sample course syllabus
Spring 2020, 14 students; Fall 2020, 19 students; Spring 2021, 13 students

INLS.690, "Designing for Creative Learning"
Sample course syllabus
Fall 2019, 8 students

INLS.201, "Foundations of Information Science"
Sample course syllabus
Fall 2018, 24 students; Spring 2019, 22 students; Fall 2019, 28 students

Selected Grants

2020. Co-PI, "Future of Youth Public Librarian Education".
Total: $149,781
PI: Brian Sturm, Co-PIs: Sandra Hughes-Hassell and Casey Rawson
Institute of Museum and Library Services—National Leadership Grants for Libraries.
Award number: LG-246283-OLS-20

2020. PI, "Developing Youth Data Literacies through a Visual Programming Environment".
Total: $175,000
National Science Foundation—Computer and Information Science and Engineering (CISE) Research Initiation Initiative (CRII)
Award number: 1948113

Selected Service

Selected Service to UNC Chapel Hill

2020– . Member, Faculty Salary Committee, School of Information and Library Science

2020–2021. Member, R&D Committee, School of Information and Library Science

Selected Service to the Profession

2020. Associate chair, "Learning, Education, and Families" subcommittee for ACM CHI 2021.

2019. Associate chair, "Learning, Education, and Families" subcommittee for ACM CHI 2020.

2018. Associate chair, "Learning, Education, and Families" subcommittee for ACM CHI 2019.

2018–.Member of Editorial Advisory Board, Information and Learning Science (journal).

Melanie Feinberg

Education

2008 PhD in Information Science, University of Washington

2004 Master's in Information Management and Systems (MIMS), University of California, Berkeley

1992 B.A. in Modern Thought and Literature with Honors in the Humanities, Stanford University

Academic employment

2015-present Associate Professor, School of Information and Library Science (SILS)
University of North Carolina at Chapel Hill

2009- 2015 Assistant Professor, School of Information
The University of Texas at Austin

Selected peer-reviewed publications

Books

Rambles Through Everyday Data: A Travelogue and Field Guide. Under contract with MIT Press; estimated publication date 2022.

Articles

2020 M. Feinberg, W. Sutherland, M. Jarrahi, S. B. Nelson, and A. Rajasekar. The new reality of replicability: the role of data work in scientific research. *Proc. ACM Hum.-Comput. Interact.* 4 (CSCW1): Article 35 (May 2020).

2018 M. Feinberg. Wolfgang Iser and the reader as creator. In *Critical Theory and Interaction Design,* edited by J. Bardzell, S. Bardzell, and M. Blythe. Cambridge, MA: MIT Press.

2018 M. Feinberg. Factotem: what is information access for? Festschrift for Allyson Carlyle. *Cataloging and Classification Quarterly.* 56(8): 665-682.

2018 D. Maron and M. Feinberg. What does it mean to adopt a metadata standard? A case study of Omeka and the Dublin Core. *Journal of Documentation* 74(4): 674-691.

2017 M. Feinberg, D. Carter, J. Bullard, and A. Gursoy. Translating texture: design as integration. *Proceedings of the ACM Conference on Designing Interactive Systems—DIS 2017,* 297-307.

2017 M Feinberg. A design perspective on data. *Proceedings of the ACM Conference on Human Factors in Computing Systems—CHI 2017,* 2952-2963.

2017 M. Feinberg. Material vision. *Proceedings of the ACM Conference on Computer Supported Cooperative Work and Social Computing 2017 (CSCW 2017),* 604-617.

2017 M Feinberg. Reading databases: slow information interactions beyond the retrieval paradigm. *Journal of Documentation* 73(2), 336-356.

2016 M. Feinberg, R. Broussard, and E. Whitworth. Framing a set: understanding the curatorial character of personal digital bibliographies. *Interacting With Computers* 28(1): 102-124.

2015 M. Feinberg. Genres without writers: information systems and distributed authorship. In *Genre Theory in Information Studies,* edited by J. Andersen. Studies in Information series, Volume 11, 43-66. Emerald Publishing.

2014 M. Feinberg, D. Carter, and J. Bullard. A story without end: writing the residual into databases. *Proceedings of the ACM Conference on Designing Interactive Systems (DIS) 2014,* 385–394.

2014 M. Feinberg, D. Carter, and J. Bullard. Always somewhere, never there: using critical design to understand database interactions. *Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems—CHI 2014,* 1941–1950. *Best paper honorable mention award.* (Top 5% of submissions.)

2013 M. Feinberg. Beyond digital and physical objects: the intellectual work as a concept of interest for HCI. *Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems—CHI 2013,* 3317–3326.

2012 M. Feinberg. Synthetic ethos: the believability of collections at the intersection of classification and curation. *The Information Society* 28(5): 329–339.

2012 M. Feinberg, G. Geisler, E. Whitworth, and E. Clark. Understanding personal digital collections: an interdisciplinary exploration. *Proceedings of the ACM Conference on Designing Interactive Systems (DIS) 2012,* 200–209.

2012 M. Feinberg. Writing the experience of information retrieval: digital collection design as a form of dialogue. *Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems—CHI 2012,* 357–366.

2011 M. Feinberg. How information systems communicate as documents: the concept of authorial voice. *Journal of Documentation* 67(6), 1015–1037.

2011 M. Feinberg. Compiler to author: a process for designing rhetorically aware document collections. *Journal of the American Society for Information Science and Technology (JASIST)* 62(9): 1784–1796.

2010 M. Feinberg. Two kinds of evidence: how information systems form rhetorical arguments. *Journal of Documentation* 66(4): 491–512.

Selected grants and fellowships

2019-2020 European Commission, Horizon 2020 program, Marie Sklowdoska-Curie Actions Individual fellowship (MSCA-IF-EF-ST-SOC 2017)
Award: 24 month fellowship at the Department of Information Studies, University of Copenhagen (212,194.8 euros)

2018-2019 UNC-CH Institute for Arts and Humanities (IAH) faculty fellow (one semester research leave; declined)

Mary Grace Flaherty
School of Information & Library Science
University of North Carolina at Chapel Hill
Chapel Hill, NC 27599-3360
mgflaher@email.unc.edu ; http://mgflaherty.web.unc.edu
919-962-5982; cell 607-745-0512

Education

Ph.D. – Syracuse University School of Information Studies, Syracuse, NY, May 2013.

M.L.S. – University of Maryland, College Park, MD, August 1988.

M.S. – Behavioral Science, Johns Hopkins University, Baltimore, MD, May 1986.

B.S. – Therapeutic Recreation, Pennsylvania State University, State College, PA, May 1982.

Professional Experience

July 2019-present, Associate Professor
July 2013 – June 2019, Assistant Professor
School of Information & Library Science, University of North Carolina-Chapel Hill, NC.
Classes include: Graduate Library Science – Core course, INLS513: Resource Selection and Evaluation; INLS705: Health Sciences Information; INLS711: Disaster Planning for Libraries; INLS781: Proposal Development; INLS842: Seminar in Popular Materials; INLS843: Seminar in Public Libraries.

June 2002 – Aug. 2008, Director
Sidney Memorial Public Library, Sidney, NY.
Managed staff of 18 and $500,000 annual budget. Responsible for main library and two branches. Obtained grants in excess of $400,000 for many projects, including solar installation for facility; PI for NLM/NIH Health Information System grant. Elected to PLS Board of NYLA.

March 1995 – June 2001, Manager/Director
USQA Center for Health Care Research Library, formerly the Prudential Ctr. for Health Care Res., Atlanta, GA.
Created staff research library with access to medical and health services literature.

January 1992 – July 1993, Assistant Director, Librarian III
Aug. 1988 – Dec. 1991, Reference Librarian, Librarian II
Lilienfeld Library, Johns Hopkins University School of Hygiene and Public Health, Baltimore, MD.
As assistant director, responsible for all technical service aspects of the library; supervision and training of reference, circulation personnel and graduate assistants. As reference librarian, provided services to faculty, staff, and students.

Honors/Awards

Donald A.B. Lindberg Research Fellowship Award, Medical Library Association, May 2019.

Deborah Barreau Award for Excellence in Teaching, School of Information & Library Science, University of North Carolina-Chapel Hill, May 2018.

Fulbright Scholar Award, U.S. Dept. of State, Bureau of Educational & Cultural Affairs, for study in Mzuzu, Malawi, January-June, 2017.

Carnegie-Whitney Grant Award, American Library Association, May 2015.

Junior Faculty Development Award, University of North Carolina-Chapel Hill, December 2014.

Kilgour Research Award, School of Information & Library Science, University of North Carolina-Chapel Hill, August 2013.

Institute for Museum & Library Services (IMLS) Fellowship for doctoral studies, Syracuse University School of Information Studies, Syracuse, NY; Academic years 2008-12.

Selected Publications

Books

Flaherty, MG. (2018). *Promoting Individual and Community Health at the Library*. Chicago, IL: American Library Association.

Flaherty, MG. (2017). *The Library Staff Development Handbook: How to Maximize Your Library's Most Important Resource.* Medical Library Association Handbook Series. Lanham, MD: Rowman & Littlefield. Starred review, *Library Journal* 2/1/18; Book of the Week, *Against the Grain* 3/12/18.

Peer-reviewed Journal articles

Flaherty, MG, Threats, MV & Kaplan, SJ. (2020). Patients' health information practices and perceptions of provider knowledge in the case of the newly discovered alpha-gal food allergy. *Journal of Patient Experience*, *7*(1), 132-139. DOI: 10.1177/2374373518808310.

Iglesia EGA, Stone CA, **Flaherty MG**, Commins SP. Regional and Temporal Awareness of Alpha Gal Allergy – An Infodemiological Analysis Using Google Trends. *Journal of Allergy and Clinical Immunology Practice*. 2019 Dec 16. doi: 10.1016/j.jaip.2019.12.003. [Epub ahead of print]. PMID: 31857260

Flaherty, MG & Roberts L. (2019). Internet searching produces misleading findings regarding violent deaths in crisis settings: short report. *Conflict and Health*, *13*, 4. DOI:10.1186/s13031-019-0187-z.

Flaherty, MG, Kaplan, SJ & Jerath, MR. (2017). Diagnosis of life-threatening alpha-gal food allergy appears to be patient-driven. *Journal of Primary Care and Community Health*, Vol. *8*(4), 345-348. DOI: 10.1177/2150131917705714 j. PMID:28447914

Flaherty, MG. (2016). Good value: health information and the MSLS librarian. *The Bottom Line: Managing library finances*, Vol. *29*(3), 173-179.

Flaherty, MG. (2016). From Google to MedlinePlus: the wide range of authoritative health information provision in public libraries. *Library & Information Science Research*, Vol. *38*(2), 101-107.

Funded Projects

8/1/19-7/31/20 ***Principal Investigator***, Medical Library Association Lindberg Research Fellowship Award: *Using an Emerging Condition to Understand Health Info. Use and Diagnostic Delay* $10,000

10/1/17-10/1/18 ***Principal Investigator,*** Public Diplomacy Small Grant Program, US Embassy, Malawi: *Info. Resource Center for Kwithu Community-Based Organization, Luwinga, Malawi* $12,000

5/1/15-5/1/16 ***Principal Investigator***, American Library Association Carnegie-Whitney Grant: *Read & Reach: A Resource for Promoting Physical Activity in Storytime Programs* $ 5,000

1/1/15-12/31/15 ***Principal Investigator***, UNC-CH Junior Faculty Development Award: *Testing Acceptance of the Carolina Health Assessment Research Tool (CHART) as a Health Promotion Tool in a Rural North Carolina Public Library* $ 7,500

10/1/14- 9/30/16 ***Co-Investigator***, UNC/CDC *Project to Extend Chronic Disease Self-Management through Public Libraries*. Shawn Kneipp, PI, UNC School of Nursing $898,360

8/15/13-8/31/15 ***Principal Investigator***, UNC-CH SILS Kilgour Research Grant: *Assessing Health Information Resource Use in NC Public Libraries* $ 9,850

Professional Activities

Member: Academy of Health Information Professionals (AHIP); ALA; ALISE; ASIS&T; Consumer & Patient Health Information Section of MLA (CAPHIS); Medical Library Association; Public Library Association.

1. PERSONAL INFORMATION

Name: Amelia N. Gibson
Current Rank: Associate Professor
Address: 100 Manning Hall, 216 Lenoir Drive Chapel Hill, NC 27599
Email: angibson@email.unc.edu;
Websites: https://sils.unc.edu/people/faculty/profiles/Amelia-Gibson; http://ameliagibson.com/; https://cedi.unc.edu/

2. EDUCATION

Ph.D.	Information Studies (Ph.D. Minor in Geography), Florida State University	2013
M.S.	Library and Information Studies (Knowledge Management), Florida State University	2007
A.B.	Bachelor of Arts, Theatre, Dartmouth College	2002

3. PROFESSIONAL EXPERIENCE

2021-present	Associate Professor, School of Information and Library Science, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, February 2021 –present
2019-present	Director, Community Equity, Data & Information Lab, UNC SILS
2014–2021	Assistant Professor, School of Information and Library Science, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, July 2014 – February 2021

4. HONORS

2020	Nominee, Faculty Award for Excellence in Doctoral Mentoring, UNC
2019-	NYU Center for Critical Race and Digital Studies (Nominated Affiliate)
2018	Deborah Barreau Award for Excellence in Teaching, School of Information & Library Science, UNC
2018-2020	Thorp Faculty Engaged Scholar, UNC

5. BIBLIOGRAPHY AND PRODUCTS OF SCHOLARSHIP

BOOKS, CHAPTERS, AND SECTIONS

1. Gibson, A. N. (2021). Working toward inclusion. In M.G. Flaherty (Ed.), Great library events. Lanham, Maryland: Rowan & Littlefield. P.7-14.
2. Gibson, A. N. (2021). Banned People: Inclusion of teens and adults with high-incidence neurodevelopmental disabilities in library spaces. In C. A. Copeland (Ed.), Differing abilities and the library: Fostering equity for patrons and staff with disabilities. Libraries Unlimited.
3. March, L*., & Gibson, A. N. (2021). Inclusion on the internet. In C. A. Copeland (Ed.),

Differing abilities and the library: Fostering equity for patrons and staff with disabilities. Libraries Unlimited.

4. Gibson, A. N. (2019). Emerging issues. In E. Knox and J. Burgess (Eds.). Foundations of information ethics. Chicago, IL: ALA Editions. pp. 127-135.
5. Gibson, A. N., Hughes-Hassell, S., & Threats, M.* (2018). Critical race theory in the LIS curriculum. In J. Percell, L. Sarin, P. Jaeger, & J. Bertot (Eds.), Advances in Librarianship Volume 42, Re-Envisioning the MLIS: Perspectives on the future of library and information science education. Emerald. pp. 49-70.

REFEREED PAPERS/ARTICLES

1. Gibson, A. N., Hanson, D., & Bowen, K. (2021). We need to talk about how we talk about disability: A quasi-systematic literature review. In The Library With the Lead Pipe. https://www.inthelibrarywiththeleadpipe.org/2021/disability/
2. Gibson, A. N., Chancellor, R. L., Cooke, N. A., Dahlen, S. P., Patin, B., & Shorish, Y. L. (2020). Struggling to breathe: COVID-19, protest and the LIS response. Equality, Diversity and Inclusion: An International Journal. https://doi.org/10.1108/EDI-07-2020-0178
3. Gibson, A. N., & Hanson-Baldauf, D. (2019). Beyond sensory story time: An intersectional analysis of information seeking among parents of autistic individuals. Library Trends, 67(13), 550-75. https://doi.org/10.1353/lib.2019.0002
4. Gibson, A. N., & Martin III, J. (2019). Re-situating information poverty: Information marginalization and parents of individuals with disabilities. Journal of the Association for Information Science & Technology, 70(5), 476–487. https://doi.org/10.1002/asi.24128
5. Gibson, A. N., & Hanson-Baldauf, D. (2019). I want it the way I need it: Modality, readability, and format control for autistic information seekers online. International Journal on Innovations in Online Education, 2(4). (pp. 1-11) https://doi.org/10.1615/IntJInnovOnlineEdu.2019029842
6. Gibson, A. N. (2019). Civility and structural precarity for faculty of color in LIS. Journal of Education for Library and Information Science, 60(3), 215–222. https://doi.org/10.3138/jelis.2019-0006

6. GRANTS

PRINCIPAL INVESTIGATOR

North Carolina Pregnancy and Birth Stories (***Site PI***), $107,922. Health Services and Resources Administration (HRSA) of the U.S. Department of Health and Human Services (HHS)/***subaward*** to UNC School of Medicine & Center for Maternal and Infant Health (Summer 2020)

Thorp Faculty Engaged Scholars. $10,000. UNC Center for Public Service (2018-2020)

Deconstructing Information Poverty: Identifying, Supporting, and Leveraging Local Expertise in Marginalized Communities, $336,649. Institute of Museum and Library Services (2017-2020)

David H. Gotz, PhD

Associate Professor, Information Science http://vaclab.unc.edu/gotz
Associate Professor (Adjunct), Computer Science gotz@unc.edu
Assistant Director, Carolina Health Informatics Program 919-962-3435

CURRENT APPOINTMENTS

School of Information and Library Science at the University of North Carolina at Chapel Hill
Associate Professor, Information Science, 2014 – Present

Department of Computer Science at the University of North Carolina at Chapel Hill
Associate Professor (Adjunct), Computer Science, 2019 – Present

Carolina Health Informatics Program at the University of North Carolina at Chapel Hill
Assistant Director, 2014 – Present

University of North Carolina Lineberger Comprehensive Cancer Center
Associate Member, 2014 – Present

RECENT HONORS

2020 Named Senior Member of the ACM

SELECTED BIBLIOGRAPHY

1. Zhilan Zhou, Ximing Wen, Yue Wang, **David Gotz**. Modeling and Leveraging Analytic Focus During Exploratory Visual Analysis. *ACM CHI Conference on Human Factors in Computing Systems (2021).*
2. David Borland, Jonathan Zhang, Smiti Kaul, **David Gotz**. Selection-Bias-Corrected Visualization via Dynamic Reweighting. *IEEE Transactions on Visualization and Computer Graphics (Volume 27, Issue 2, 2021).*
3. Zhuochen Jin, Shunan Guo, Nan Chen, Daniel Weiskopf, **David Gotz**, Nan Cao. Visual Causality Analysis of Event Sequence Data. *IEEE Transactions on Visualization and Computer Graphics (Volume 27, Issue 2, 2021).*
4. Smiti Kaul, Cameron Coleman, **David Gotz**. A Rapidly Deployed Interactive Online Visualization System to Support Fatality Management During the COVID-19 Pandemic. *Journal of the American Medical Informatics Association (JAMIA) (Online ahead of print, 2020).*
5. Cameron Coleman, **David Gotz**, Samantha Eaker, Elaine James, Thomas Bice, Shannon Carson, Saif Khairat (2020). Analysing EHR Navigation Patterns and Digital Workflows Among Physicians During ICU Pre-Rounds. *Health Information Management Journal (Online ahead of print, 2020).*
6. Yue Wang, **David Gotz**, Ethan M. Basch, Arlene E. Chung. An Evaluation of Clinical Natural Language Processing Systems to Extract Symptomatic Adverse Events from Patient-Authored Free-Text Narratives. *American Medical Informatics Association (AMIA) Informatics Summit Podium Abstract (2021)*.
7. **David Gotz**, Jonathan Zhang, Smiti Kaul, Georgiy Bobashev, David Borland. Visual Analytics to Combat Selection Bias in Retrospective EHR Data Analyses. *American Medical Informatics Association (AMIA) Annual Symposium Podium Abstract (2020).*
8. Hung-Jui Tan, Allison Deal, Antonia Bennett, Susan Blalock, Arlene Chung, **David Gotz**, Matthew Nielsen, Dan Reuland, Alex Sox-Harris, Ethan Basch. Urologist Attitudes towards Risk Prediction Tools, Electronic Health Records, and Surgical Clinical Decision Support. *American Medical Informatics Association (AMIA) Annual Symposium Posters (2020).*

TEACHING AND ADVISING

2021 ***Spring*** INLS 560, Programming for Information Professionals ONLINE (17 Students)
INLS 560, Programming for Information Professionals (14 Students)

INLS 886, Teaching Practicum (1 Student)
COMP 994, Doctoral Thesis (1 Student)
INLS 994, Doctoral Thesis (2 Students)

2020 ***Fall*** INLS 560, Programming for Information Professionals ONLINE (18 Students)
INLS 641, Visual Analytics ONLINE-SYNC (17 Students)
COMP 992, Master's Research (1 Student)
COMP 994, Doctoral Thesis (1 Student)
INLS 994, Doctoral Thesis (2 Students)

PhD COMMITTEES

2018— **Amy Ising**, University of North Carolina at Chapel Hill, CHIP
2018— **Vincent N. Carrasco**, University of North Carolina at Chapel Hill, CHIP
2018—2020 **Manish Kumar**, University of North Carolina at Chapel Hill, CHIP
2018— **Michael Ortiz**, University of North Carolina at Chapel Hill, CHIP
2017— **Austin Ward**, University of North Carolina at Chapel Hill, SILS
2017— **Yuan Li**, University of North Carolina at Chapel Hill, SILS

PhD AVISEES

2020— **Mengtian Guo** *(Co-Advised Yue Wang)*
2020— **William Su** *(Co-Advised with Yue Wang)*
2019— **Zhilan Zhou**
2017— **Alex Rich**
2017— **Wenyuan Wang**
2016— **Charlene Finley** *(Co-Advised with Amelia Gibson)*

GRANTS AND CONTRACTS

NEW AWARDS

DOD *Laboratory for Analytic Sciences* *January 1, 2021 – December 31, 2021*
Title: Visual Data Exploration for Integrated Structured/Unstructured Analysis (Year 2)
Role: PI *(co-PI with Yue Wang, UNC SILS)* Total Award Amount: $163,717

NIH *UL1 NCATS* *June 1, 2020 – February 28, 2022*
Title: ICEES+ COVID-19 Open Infrastructure to Democratize and Accelerate Cross-Institutional Clinical Data Sharing and Research
Role: Co-Investigator Total Award Amount: $412,692

ONGOING GRANTS AND CONTRACTS

NSF *CISE IUSE: Computing in Undergraduate Educ.* *January 1, 2020 – June 30, 2021*
Role: PI *(co-PI with Ketan Mayer-Patel, UNC CS)* Total Award: $299,127 *($47,015 to UNC)*

NSF *CISE IIS REU Supplement* *August 21, 2019 – June 31, 2022*
Role: PI Total Award Amount: $16,000

NSF *CISE IIS: Information Integration and Informatics* *May 1, 2019 – April 30, 2022*
Role: PI Total Award Amount: $25,000

NSF *CISE IIS Core Medium Program* *July 1, 2017 – June 31, 2022*
Role: PI Total Award Amount: $1,370,593

NIH *R01 Stats Learning Methods for Personalized Med* *April 1, 2018 – March 21, 2022*
Role: Co-Investigator Total Award Amount: $1,575,556

NIH *R01 Quant. Approaches to Biomed. Big Data* *September 30, 2017 – June 30, 2020*
Role: Co-Investigator Total Award Amount: $940,152

STEPHANIE W. HAAS

School of Information and Library Science
CB# 3360, 100 Manning Hall
University of North Carolina at Chapel Hill
Chapel Hill, NC 27599-3360
(919) 962-8360
shaas@email.unc.edu
http://ils.unc.edu/~stephani/

EDUCATION

1989 PhD University of Pittsburgh, Pittsburgh, Pennsylvania. Information Science. Dissertation: *Case Hierarchy Based Representations and Procedures for Domain Analysis and the Construction and Porting of Natural Language Interfaces.* 168 pages.

RECENT PROFESSIONAL EXPERIENCE

1989-present Professor, School of Information and Library Science, University of North Carolina at Chapel Hill. (Assistant Professor, 1989-1995, Associate Professor, 1995-2006, McColl Professor 2005- 2007, Professor, 2006-present.) Coordinator of Master of Science in Information Science Program, 2011 – 2017

SELECTED HONORS

2017, 2012, 2006, 1997 Deborah Barreau Award for Teaching Excellence, School of Information and Library Science, University of North Carolina at Chapel Hill

2012 Edward G. Holley for the Good of the Order Award, School of Information and Library Science, University of North Carolina at Chapel Hill

2005 Francis Carroll McColl Term Professor, 2005 – 2007.

1996 Outstanding Information Science Teacher of the Year, ASIST

SELECTED RESEARCH GRANTS AND CONTRACTS RECEIVED

National Institutes of Health, "Atherosclerosis Risk in Communities (ARIC) Study – Renewal for Coordinating Center"
Principle Investigator:I David Couper
Total $2,492,601, Haas, 10% effort
Period: November 2016 – August 2020

National Library of Medicine, "Adapting Natural Language Processing Tools for Biosurveillance"
Principal Investigator: Debbie Travers
Total $450,000, Haas, 10% effort (year 1), 15% effort (year 2)
Period: October 2009 – February 2013.

Centers for Disease Control and Prevention, "Public Health Surveillance Systems"
Principal Investigators: Anna Waller and Pia MacDonald
Total:$1,299,095 (direct only) (Haas, 10% effort)
Period: September, 2008 - August 2013

National Library of Medicine, "Chief Complaint Symposium"
Principal Investigator: Stephanie W. Haas
Total: $17,591 (Haas, 10% effort)
Period: September 30, 2005 – September 29, 2006

North Carolina Division of Public Health, “Developing a Controlled Vocabulary for Emergency Department Chief Complaints Related to Bioterrorism” (part of The North Carolina Bioterrorism and Emerging Infections Prevention System (NC BEIPS) and the North Carolina Emergency Department Database (NCEDD))
Principal Investigator: Anna Waller
Total: $2,000,000 (Haas, 15% effort)
Period: August 2002 – July 2005

National Science Foundation, “Integration of Data and Interfaces to Enhance Human Understanding of Government Statistics: Toward the National Statistical Knowledge Network”
Principal Investigator: Gary Marchionini; Co-PI: Stephanie W. Haas

Total 1,300,000 (Haas, 1 month summer salary)
Period: July, 2002 – June, 2005

SELECTED REFEREED ARTICLES, PROCEEDINGS PAPERS, AND CHAPTERS

Moore, C. Loop, M., Jain, S., Haas, S., Yadav, H., Whitsel, Eric, Rosamond, W., Heiss, G., Kucharska-Newton, A. (2021). Ascertaining Framingham Heart Failure Phenotype from Inpatient Electronic Health Record Data using Natural Language Processing: A Multicenter Atherosclerosis Risk in Communities (ARIC) Validation Study. BMJ Open (to appear)

Haas, S.W., Travers, D.T., Waller, A.E., Mahalingam, D., Crouch J., Schwartz, T. A. Mostafa, J. (2014). Emergency Medical Text Classifier: New system improves processing and classification of triage notes. *Online Journal of Public Health Informatics*, 6 (2).

Travers, D. A., Haas, S. W., Waller, A. E., Schwartz, T. A., Mostafa, J., Best, N. C., Crouch J. (2013). Implementation of Emergency Medical Text Classifier for syndromic surveillance. *Proceedings of the American Medical Informatics Annual Symposium*, 1365-74.

Samoff, E., Waller, A., Fleischauer, A, Ising, A., Davis, M. K., Park, M., Haas, S. W., DiBiase, L., MacDonald, P. (2012). Integration of syndromic surveillance data into public health practice at state and local levels in North Carolina. *Public Health Reports*, 127(3), 310-317.

Rosso, M. A. & Haas, S. W. (2010). Identification of Web Genres by User Warrant. In *Genre on the Web: Computational Models and Empirical Studies*. Mehler, A., Sharoff, S., Rehm, G. & Santini, M. (ed.) Springer.

Irvine, A. K., Haas, S. W., & Sullivan, T. (2008) TN-TIES: A system for extracting temporal information from Emergency Department triage notes. *Proceedings of the American Medical Informatics Association Annual Symposium*, 328-32.

Haas, S. W., Travers, D. A., Tintinalli, J. E., Pollock, D., Waller, A., Barthell, E., et al. (2008). Towards Vocabulary Control for Chief Complaint. *Academic Emergency Medicine*, 15(5), 476-482.

Travers, D. A. & Haas, S. W. (2006). Unified Medical Language System Coverage of Emergency-medicine Chief Complaints. *Academic Emergency Medicine*, 13(12), 1319-1323.

Marchionini, G., Haas, S. W., Zhang, J. & Elsas, J. (2005). Accessing government statistical information. *Computer*, 38(12), 52-61.

Travers, D. A. & Haas, S. W. (2004). Evaluation of Emergency Medical Text Processor, a system for cleaning chief complaint text data. *Academic Emergency Medicine,* 11(11), 1170-1176.

Travers, D. A. & Haas, S. W. (2003). Using nurses' natural language entries to build a concept-oriented terminology for patients' chief complaints in the emergency department. *Journal of Biomedical Informatics*, 36(4-5), 260-270.

Travers, D. A., Waller, A., Haas, S. W., Lober, W. B. & Beard, C. (2003). Emergency department data for bioterrorism surveillance: Electronic data availability, timeliness, sources and standards. *Proceedings of the American Medical Informatics Association 2003*, 664-668.

Travers, D. A., Haas, S. W., Waller, A. E. & Tintinalli, J. E. (2003). Diagnosis clusters for Emergency Medicine. *Academic Emergency Medicine* 10(12), 1337-1344.

Haas, S. W. (2003). Improving the search environment: Informed decision making in the search for statistical information. *Journal of the American Society for Information Science and Technology*, 54(8), 782-797.

Haas, S. W. & Hert, C. A. (2002). Finding information at the U. S. Bureau of Labor Statistics: Overcoming the barriers of scope, concept and language mismatch. *Terminology*, 8(1), 31-57.

SELECTED REFEREED ABSTRACTS, POSTERS, PRESENTATIONS, AND DEMONSTRATIONS

Kucharska-Newton A, Bullo M., Loop, M, Moore, C, Haas SW, Rosamond, W, Futrell, W, Luo, K, Yadev, H, Bogle B. (2018) Completeness in the abstraction of cardiac biomarkers and cardiac pain data from electronig health records (EHR). Findings from the Atherosclerosis Risk in Communities (ARIC) study. *Circulation*, 137, Issue Suppl 1. (Moderated poster abstract presentation: Epidemiologic research using electronic health records.)

Haas, S. W. (2017) *Natural Language Processing*, presented at the FDA on March 9, 2017, through the Duke Center for Health Informatics.

Moore, C., Shaffer, K., Kucharska-Newton, A., Haas, S.W., Heiss, G. (2015). Using Natural Language Processing to Facilitate Medical Record Abstraction in Epidemiological Studies. *AMIA 2015 Annual Symposium.* (poster)

Mahalingam, D., Mostafa, J., Travers, D., Haas, SW, Waller, A. (2012). Automated Syndrome Classification using Early Phase Emergency Department Data. *ACM SIGHIT International Health Informatics Symposium* (poster).

Mahalingam, D., Medlin, R., Travers, D., Haas, SW. (2011). Temporal Information Extractor: Identifying Symptom Onset Date from Emergency Department Notes. *AMIA 2011 Annual Symposium.*

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. **DO NOT EXCEED FIVE PAGES**.

NAME: Hemminger, Bradley Mark

eRA COMMONS USER NAME (credential, e.g., agency login):

POSITION TITLE: Associate Professor, School of Information and Library Science

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
Vanderbilt University	B.S.	05/1982	Mathematics and Computer Science
University of North Carolina-Chapel Hill, Chapel Hill, North Carolina	M.S.	05/1985	Computer Science
University of Utrecht, Utrecht, Netherlands	Ph.D.	05/2001	Computer Science

A. Personal Statement

1. I have been involved in scholarly communications research for over twenty years, publishing numerous papers and providing research and practice-based opportunities for students in the School of Information and Library Science. Currently my research lab's main focus is on digital scholarship, and how scholars communicate through different artifacts, specifically looking to extend journal articles to include annotations and reviews, and additionally examining the utility of datasets, repositories, program code. We have made significant contributions to the field of altmetrics, and launched several initiatives including impactstory.org. I'm committed to the training of doctoral students. I work to have a safe and inclusive environment for our diverse trainees. I meet with doctoral students weekly. My mentees have gone into a variety of careers in research and research-related fields, including professors and startup companies.

B. Contribution to Scholarly Communications

1. I have extensively studied the information seeking and use behavior of scientists which has helped lead to the development of better information searching tools, particularly faceted search interfaces. We evaluated and promoted good designs for interfaces to collections of materials (like library catalogs) through extensive user evaluations and the development of user models based on log data from library searches.
    a. Niu, X., Hemminger, B. M. (2014). Analyzing the Interaction patterns in a Faceted Search Interfaces. Journal of the American Society for Information Science and Technology (JASIST). 65.
    b. Ramdeen S, Hemminger BM, A tale of two interfaces: How Facets affect the library catalog search experience, JASIST (published online 2011). Print 2012. DOI: 10.1002/asi.21689

c. Niu, X., Hemminger, B. M. (2011). A Study of Factors that Affect the Information Seeking Behavior of Academic Scientists. Journal of the American Society for Information Science and Technology (JASIST), Article first published online: 31 OCT 2011 | DOI: 10.1002/asi.21669.
d. Xi Niu, Bradley M. Hemminger, A Method for Visualizing Transaction Logs of a Faceted OPAC, Code4Lib Journal, Issue 12, 2010-12-21.
e. Niu X, Hemminger BM, Lown C, Adams S, Brown C, Level C, McLure M, Powers A, Tennant MR, Cataldo T, National study of information seeking behavior of academic researchers in the United States, JASIST 61(5):p869-890, 2010, DOI: 10.1002/asi.21307.
f. Hemminger BM, Lu D, Vaughan KTL, Adam SJ, "Information Seeking Behavior of Academic Scientists", JASIST, 2205-2225, Dec 2007.

2. I have extensively studied scholarly communications in today's digital world. We have led the way in describing new novel ways of recognizing and capturing scholarly values. In particular my lab was the originator of "altmetrics", and helped establish this as a field.
    a. Priem J and Hemminger BM (2012) Decoupling the scholarly journal. Front. Comput. Neurosci. 6:19. doi: 10.3389/fncom.2012.00019.
    b. Priem J, Hemminger BM, "Scientometrics 2.0: Toward new metrics of scholarly impact on the social Web", First Monday, July 2010, Volume 15, number 7.

3. We are currently developing technologies to allow scholars to share and annotate materials in a global scholarly system, which we believe with significantly improve the ability of all scholars to locate and use scholarly knowledge.
    a. Hemminger, BM; TerMaat, J (2014), Annotating for the world: Attitudes toward sharing scholarly annotations, Journal of the American Society for Information Science and Technology (JASIST). 65, pp2278-2292.
    b. Laura Haak Marcial, Bradley M. Hemminger, Scientific data repositories on the Web: An initial survey, JASIST, Volume 61, Issue 10, pages 2029–2048, October 2010, DOI: 10.1002/asi.21339.
    c. Hemminger BM, "NeoNote: Suggestions for a Global Shared Scholarly Annotation System", D-LIB, 15:5/6, 2009.

D. Additional Information: Research Support and/or Scholastic Performance

Ongoing Research Support

Ochiltree Foundation Grant Hemminger (PI) 1/1/16-12/31/19
New models for scholarly communications.

For my full CV and additional information please consult my webpages
https://ils.unc.edu/bmh/

Sincerely,

Bradley M. Hemminger
Associate Professor
School of Information and Library Science
University of North Carolina at Chapel Hill
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SANDRA HUGHES-HASSELL, Ph.D.

School of Information and Library Science
The University of North Carolina at Chapel Hill
100 Manning Hall, CB #3360
Chapel Hill, NC 27599
smhughes@email.unc.edu
@bridge2lit

EDUCATION

School of Information and Library Science, Ph.D. 1998
University of North Carolina at Chapel Hill
Dissertation Title: *The Impact of Whole Language on Four Elementary School Libraries*

James Madison University, M.Ed. 1987
Major: Library Science

James Madison University, B.S. (summa cum laude) 1982
Major: Early Childhood Education

PROFESSIONAL EXPERIENCE

Professor and Coordinator of the School Library Media Program. School of Information and Library Science, The University of North Carolina at Chapel Hill; July 2011-present

Associate Professor and Coordinator of the School Library Media Program. School of Information and Library Science, The University of North Carolina at Chapel Hill; August 2006-June 2011

Associate Professor. College of Information Science and Technology, Drexel University; Sept. 2004-2006

Assistant Professor. College of Information Science and Technology, Drexel University; Sept. 1998-2004

HONORS

2018 Office of the Provost Engaged Scholarship Award for Project READY: Reimagining Equity and Access for Diverse Youth

2014 Virginia Hamilton Essay Award Honor Citation for: Hughes-Hassell, S. (2013). "Multicultural Young Adult Literature as a Form of Counter-Storytelling." *Library Quarterly,* 80(3), 212-228.

2013 Virginia Hamilton Essay Award Honor Citation for: Rawson, C.R. & Hughes-Hassell, S. (2012). "Rethinking the Texts We Use in Literacy Instruction With Adolescent African American Males." *The ALAN Review* 39(3): 21-29.

ALISE Award for Teaching Excellence in the Field of Library and Information Science Education, January 2012

School of Information & Library Science Faculty Teaching Award, May 2010 (University of North Carolina at Chapel Hill)

Selected Publications

Hughes-Hassell, S. (in press). Collection Management for Youth: Equity, Diversity and Inclusion. Chicago: ALA.

Hughes-Hassell, S., Bracy, P.B., & Rawson, C.H. (Eds.) (2016). *Libraries, Literacy, and African American Youth: Research & Practice.* Libraries Unlimited. 256 p.

Hughes-Hassell, S. (2018). Conceptualizing a Study: Identifying the Problem and Related Research Questions. In R.V. Small & M.A. Mardis (Eds). *Research Methods for Librarians and Educators*: *Practical Applications in Formal and Informal Learning Environments* (pp. 13-20). Santa Barbara, CA: ABC-CLIO.

Gibson, A. N., Hughes-Hassell, S., & Threats, M. (2018). Critical theory in the LIS curriculum. In Sarin, L.C., Percell, J., Jaeger, P.T., & Bertot, J.C. *Re-Envisioning the MLIS: Perspectives on the Future of Library and Information Science Education, Volume 44B* (pp. 49-70). Bingley, England: Emerald Group Publishing

Hughes-Hassell, S. & Vance, K.J. (2016). "Examining Race, Power, and Privilege in the Youth Services LIS Classroom." In Cooke, N.A., & Sweeney, M.E. *Teaching for Justice: Implementing Social Justice in the LIS Classroom* (pp. 103-138). Sacramento, CA: Library Juice Press.

Gibson, A. N., and Hughes-Hassell, S. (2017). We Will Not be Silent: Amplifying Marginalized Voices in LIS Education and Research. *Library Quarterly*, 87 (4), 317-329.

Rawson, C.H., & Hughes-Hassell, S. (2015) "Research by Design: The Promise of Design-Based Research for School Library Research," *School Libraries Worldwide*, 21(2), 11-25.

Hughes-Hassell, S., & Stivers, J. (2015). "Examining Youth Services Librarians' Perceptions of Cultural Knowledge as an Integral Part of Their Professional Practice." *School Libraries Worldwide* 21(1), 121-136.

GRANTS AWARDED

Grants Awarded

Future of Youth Public Librarian Education (co-PI with Brian Sturm, Sayamindu Dasgupta, and Casey Rawson). National Leadership Grant for Libraries, Institute of Museum and Library Services, Funded June, 2020. Grant Amount: $149,781

Examining Youths of Color's Perceptions of Library Inclusiveness (Co-PI Amelia Gibson). 2017 ALA Diversity Grant. Funded June, 2017. Grant Amount: $2,500.

Creating Equitable & Inclusive Libraries for Youth: A Professional Development Resource (Co-PI Casey Rawson). 2017 ALA Carnegie Whitney Grant. Funded February, 2017. Grant Amount: $5,000.

Project Ready: Reimagining Equity and Access for Diverse Youth (Co-PI Casey Raswon). Laura Bush Grant, Institute for Museum and Library Services. Funded April, 2016. Grant Amount: $ 569,583.00

Mohammad Hossein Jarrahi

Associate Professor
University of North Carolina at Chapel Hill
200 Manning Hall, Chapel Hill
NC 27599-3360

jarrahi@unc.edu
Phone: 919-962-8364
http://www.jarrahi.com

SHORT CURRICULUM VITAE

PUBLICATIONS

Refereed Journal Publications

Jarrahi, M.H. Ma, Y. and Goray, C. (forthcoming) "An Integrative Framework of Information as both Objective and Subjective," *Journal of Information Science*.

Jarrahi, M.H. Newlands, G. Butler, B. Savage, S. Lutz, C. Dunn, M. and Sawyer, S. (forthcoming) "Flexible Work and Personal Digital Infrastructures," *Communications of ACM*.

Jarrahi, M.H. Reynolds, R. and Eshraghi, A. (forthcoming) "Personal Knowledge Management and Enactment of Personal Knowledge Infrastructures as Shadow IT," *Information and Learning Sciences*.

Nash, C. Jarrahi, M.H. and Sutherland, W. (2021) "Nomadic work and Location Independence: The Role of Space in Shaping the Work of Digital Nomads," *Human Behavior and Emerging Technologies*. 3 (2). 271-282.

Østerlund, C. Jarrahi, M.H. Willis, M. Boyd, K. and Wolf, C. (2021) "Artificial Intelligence and the World of Work, a Co-Constitutive Relationship," *Journal of the Association for Information Science and Technology.* 72. 128–135.

Feinberg, M. Sutherland, W. Nelson, S.B. Jarrahi, M.H. and Rajasekar, A. (2020) "The New Reality of Reproducibility: The Role of Data Work in Scientific Research," *Proc. ACM Human-Computer.* Interact. May 2020 Article No: 035 . CSCW.

Shin, G. Feng, Y. Gafinowitz, N. and Jarrahi, M.H. (2020) "Improving Patient Engagement by Fostering the Sharing of Activity Tracker Data with Providers: A Qualitative Study," *Health Information & Libraries Journal.* 37 (3). 204-215.

Sutherland, W. Jarrahi, M.H. Dunn, M. and Nelson, S.B. (2020) "Work Precarity and Gig Literacies in Online Freelancing," *Work, Employment and Society.* 34 (3). 457-475.

Jarrahi, M.H. Sutherland, W. Nelson, S.B. and Sawyer, S. (2020) "Platformic Management, Boundary Resources, and Worker Autonomy in Gig Work," *Computer Supported Cooperative Work (JCSCW)*, 29. 153-189.

Hemsley, J. Ericson, I. Jarrahi, M.H. and Karami, A. (2020) "Digital nomads, Coworking, and Other Expressions of Mobile Work on Twitter," *First Monday,* 25 (3).

Jarrahi, M.H. (2019) "In the Age of the Smart Artificial Intelligence: AI's Dual Capacities for Automating and Informating Work," *Business Information Review*. 36 (4). 178-187.

Jarrahi, M.H and Eshraghi, A. (2019) "Digital Natives vs. Digital Immigrants: A Multidimensional View on Interaction with Social Technologies in Organizations," *Journal of Enterprise Information Management*. 32 (6). 1051-1070.

Kinder, E. Jarrahi, M.H. and Sutherland, W. (2019) “Gig Platforms, Tensions, Alliances and Ecosystems: An Actor-Network Perspective,” *Proc. ACM Human-Computer. Interact*. 3. No. CSCW, Article 212

Jarrahi, M.H. and Sawyer, S. (2019) “Networks of Innovation: The Sociotechnical Assemblage of Tabletop Computing,” *Research Policy X.* 1 (December 2019), 100001.

Shin, G. Jarrahi, M.H. Yu, F. Karami, A. Gafinowitz, N. Byun, A. and Lu, X. (2019) “Wearable Activity Trackers, Accuracy, Adoption, Acceptance and Health Impact: A Systematic Literature Review,” *Journal of Biomedical Informatics.* 93 (May 2019). 103153.

Jarrahi, M.H. Philips, G. Sutherland, W. Sawyer, S. and Erickson, I. (2019) “Personalization of Knowledge, Personal Knowledge Ecology, and Digital Nomadism,” *Journal of the American Society for Information Science and Technology (JASIST)*, 70 (4). 313-324.

Shin, G. Feng, Y. Jarrahi, M.H. and Gafinowitz, N. (2019) “Beyond Novelty Effect: A Mixed-Methods Exploration into the Motivation for Long-Term Activity Tracker Use,” *JAMIA Open*. 2 (1), April. 62–72

Sutherland, W. and Jarrahi, M.H. (2018) “The Sharing Economy and Digital Platforms: A Review and Research Agenda,” *International Journal of Information Management*, 43. 328-341.

Jarrahi, M.H. and Nelson, S.B. (2018) “Agency, Sociomateriality and Configuration Work,” *The Information Society,* 34 (4). 244-260.

Jarrahi, M.H. (2018) “Artificial intelligence and the future of work: Human-AI symbiosis in organizational decision making,” *Business Horizons*. 61 (4). 577-586.

Jarrahi, M.H. Gafinowitz, N. and Shin, G. (2018) “Activity Trackers, Prior Motivation, and Perceived Informational and Motivational Affordances,” *Personal and Ubiquitous Computing*, 22 (2): 433–448.

Jarrahi, M.H. (2018) “Social Media, Social Capital, and Knowledge Sharing in Enterprise”, *IEEE IT Professional (IT Pro)*, 20 (4): 37-45.

Sutherland, W. and Jarrahi, M.H. (2018) “The Gig Economy and Information Infrastructure: The Case of the Digital Nomad Community,” *Proc. ACM Human-Computer. Interact*. 1, Article 97 (January 2018).

Jarrahi, M.H. Crowston, K. Bondar, K. and Katzy, B. (2017) “A pragmatic approach to managing enterprise IT infrastructures in the era of consumerization and individualization of IT”, *International Journal of Information Management*, 37 (6): 566–575.

Jarrahi, M.H. Nelson, S.B. and Thompson, L. (2017) “Personal Artifact Ecologies in the Context of Mobile Knowledge Workers,” *Computers in Human Behavior*, 75 (October): 469–483.

Nelson, S.B., Jarrahi, M.H. and Thompson, L. (2017) “Mobility of Knowledge Work and Affordances of Digital Technologies,” *International Journal of Information Management*, 37 (2): 54–62.

Jarrahi, M.H. and Thompson, L. (2017) “The interplay between information practices and information context: The case of mobile knowledge workers,” *Journal of the American Society for Information Science and Technology (JASIST),* 68 (5): 1073–1089.

Jarrahi, M.H. and Sawyer, S. (2015) “Theorizing on the Take-up of Social Technologies, Organizational Policies and Norms, and the Knowledge-sharing Practices of Consultants,” *Journal of the American Society for Information Science and Technology (JASIST)*, 66 (1): 162–179.

Jarrahi, M.H. and Sawyer, S. (2013), “Social Technologies, Informal Knowledge Practices, and the Enterprise,” *Journal of Organizational Computing and Electronic Commerce,* 23 (1). (Special

Issue on Knowledge Management and Social Media: The Challenges; Edited by Robert Mason and Dianne Ford).

Ngamassi, L.M. Hills, M. Jarrahi, M.H. and Du, H. (2012), "On-line Course Registration Systems Usability: A Case Study of the e-Lion Course Registration System at The Pennsylvania State University," *International Journal of Information Systems and Social Change (IJISC)*, 3(4): 38-53.

Jarrahi, M.H. (2010), "A Structurational Analysis of How Course Management Systems Are Used in Practice," *Journal of Behavior and Information Technology*, 29(3): 257 – 275.

Refereed Conference Presentations, Posters, and Panels

Jarrahi, M.H. and Haeri, M. (2021), "Developing a Symbiotic Workflow between Pathologists and AI through Parameterization and Implicitization," Workshop on Transparency and Explanations in Smart Systems (TexSS), Texas A&M University, 13 April.

Lease, M. Jarrahi, M.H. and Savage, S. (2021), "Data Labeling Work in the AI Ecosystem and Opportunities for Improvement," Rabb Symposium: Embedding AI in Society, NC State University, 18-19 February.

Palmer, M. Jarrahi, M.H. Wicher, C. and Donahue, C. (2021), "Exploring Bias in Organizational Contexts and Strategies to Mitigate it," Rabb Symposium: Embedding AI in Society, NC State University, 18-19 February.

Jarrahi, M.H. and Sawyer, S. (2017), "More than Nomadicity: The paradoxical affordances of liminality," ECSCW 2017 Workshop on Nomadic Culture Beyond Work Practices, Sheffield, UK, 29 August.

Ericson, I. Helmsley, J. and Jarrahi, M.H. and Karami, A. (2017). "#digitalnomad v. #remotework: Exploring Trends in Mobile Work on Twitter," 2017 International Conference on Social Media and Society (#SMSociety), Toronto, Canada, 28-30 July.

Ericson, I. and Jarrahi, M.H. (2015). "Innovative Infrastructuring in Mobile Knowledge Work," 4th Innovation in Information Infrastructures (III) Workshop, University of Warwick, UK, 13-15 October.

Shin, G. Cheon, E. and Jarrahi, M.H (2015), "Understanding the Interplay between Quantified-Selfers' Intrinsic and Extrinsic Motivation in the Use of Activity-Tracking Devices," 2015 I-Conference, Newport Beach, California, 24-27 March (Poster).

Shin, G. and Jarrahi, M.H. (2014), "Studying the Role of Wearable Health-Tracking Devices in Raising Users' Self-Awareness and Motivating Physical Activities," Workshop on Interactive Systems in Healthcare (WISH) 2014, Washington, DC, 15 November (Poster).

Hara, N. Fichman, P. Jarrahi, M.H. Rosenbaum, H. Fleischmann and K. Butler, B. (2014), "Social informatics and social media: Theoretical reflections," the American Society for Information Science and Technology (ASIST) 2009 Annual Meeting, Seattle, WA, 31 October – 4 November (Panel).

Book Chapters

Jarrahi, M.H. Goray, C. Zirker, S. and Zhang, Y. (forthcoming) "Using Digital Diaries as a Research Method for Capturing Practices in Situ." In Research Methods for Digital Work and

Organization: Investigating Distributed, Multi-Modal, and Mobile Work, edited by Katrina Prichard and Christine Hine. Oxford University Press, Oxford, UK.

Sawyer, S. and Erickson, E. and Jarrahi, M.H. (2019) "Infrastructural Competence." In Digital STS Handbook, edited by Janet Vertesi and Steve Jackson. Princeton University Press, Princeton, NJ

Jarrahi, M.H. and Williamson, L. (2017) "Mobility of Work: Usability of Digital Infrastructures and Technological Divide." In Social Inclusion and Usability of ICT-Enabled Services, edited by Jyoti Choudrie, Panayiota Tsatsou and Sherah Kurnia. Routledge. ISBN: 978-1-138-93555-6

Sawyer, S. and Jarrahi, M.H. (2014) "The Sociotechnical Perspective." In Information Systems and Information Technology, Volume 2 (Computing Handbook Set, Third Edition,) edited by Heikki Topi and Allen Tucker. Chapman and Hall/CRC. | April 1, 2014 | ISBN-10: 143989844

REVIEWING & CONFERENCE COMMITTEE WORK

Grant Proposal Review, The Natural Sciences and Engineering Research Council of Canada (NSERC) (2020)

Grant Proposal Review, The Dutch Research Council (2020)

Program Committee of iConference (2019)

Program Committee of ACM GROUP (2018)

Program Committee of iConference (2016)

Grant Proposal Review, National Research Foundation of Korea (2016)

Advisory Board of the Consortium for the Science of Socio-technical Systems (2014-2015)

The Journal of the Association for Information Science and Technology (2018)

Information Systems Journal (2015)

Journal of Organizational Computing and Electronic Commerce (2015)

Journal of Information Science (2014)

Information, Communication & Society (2020)

Journal of Information Technology (2008-2015)

Computers in Human Behavior Journal (2013)

ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW) (2014-2016)

Hawaii International Conference on System Sciences (2013-2015)

International Conference on Information Systems (ICIS) (2011-2016)

Annual Meeting of the Academy of Management, Orlando, Florida (2013)

iConference (2009&2011)

European Conference on Information Systems (16^{th}&20^{th})

Christopher (Cal) Lee

216 Lenoir Drive, CB#3360, 100 Manning Hall, Chapel Hill, NC 27599-3360, callee@ils.unc.edu

PROFESSIONAL PREPARATION:

- **PhD**, University of Michigan School of Information – 2005
- **Master of Science in Information,** concentration in Archives & Records Management, University of Michigan School of Information – 1999
- **Bachelor of Arts in Philosophy** (Summa Cum Laude with Honors) with a concentration in Public Service, Albion College - 1995

APPOINTMENTS:

- **Professor**, University of North Carolina, School of Information and Library Science – 2016-Present
- **Associate Professor**, University of North Carolina, School of Information and Library Science – 2011-2016
- **Assistant Professor**, University of North Carolina, School of Information and Library Science – 2005-2011
- **Research Assistant**, University of Michigan School of Information - 2000-2004
- **Consultant,** Electronic Records Research Agenda. National Historical Publications and Records Commission - 2002-2003
- **Electronic Records Project Archivist**, Kansas State Historical Society (Funded by the National Historical Publications and Records Commission) - 1999-2000
- **Research Assistant**, University of Michigan School of Information - 1997-1999

SELECTED PUBLICATIONS:

- Lee, Christopher A. "Computer-Assisted Appraisal and Selection of Archival Materials." In *Proceedings of the 2018 IEEE International Conference on Big Data*, 2721-2724. Piscataway, NJ: Institute of Electrical and Electronics Engineers, 2018.
- Lee, Christopher A., Jonathan Crabtree, Leo Konstantelos, Nancy McGovern, Yukio Maeda, Maureen Pennock, Helen Tibbo, Kam Woods, and Eld Zierau, eds. *Proceedings of the 12th International Conference on Digital Preservation*. Chapel Hill, NC: University of North Carolina, School of Information and Library Science, 2015.
- Woods, Kam, Christopher Lee, Oleg Stobbe, Thomas Liebetraut and Klaus Rechert. "Functional Access to Forensic Disk Images in a Web Service." In Proceedings of the 12th International Conference on Digital Curation, edited by Christopher A. Lee, Jonathan Crabtree, Leo Konstantelos, Nancy McGovern, Yukio Maeda, Maureen Pennock, Helen Tibbo, Kam Woods, and Eld Zierau, 191-195. Chapel Hill, NC: University of North Carolina, School of Information and Library Science, 2015.
- Woods, Kam, Christopher Lee, and Sunitha Misra. "Automated Analysis and Visualization of Disk Images and File Systems for Preservation." In *Proceedings of Archiving 2013* (Springfield, VA: Society for Imaging Science and Technology, 2013), 239-244.
- Lee, Christopher A., ed. *I, Digital: Personal Collections in the Digital Era*. Chicago, IL: Society of American Archivists, 2011.
- Lee, Christopher A. "A Framework for Contextual Information in Digital Collections." *Journal of Documentation* 67, no.1 (2011): 95-143.
- Tibbo, Helen R., Carolyn Hank, Christopher A. Lee, and Rachael Clemens, eds. *Proceedings of DigCCurr2009: Digital Curation: Practice, Promise, and Prospects*. Chapel Hill, NC: University of North Carolina, School of Information and Library Science, 2009.

SYNERGISTIC ACTIVITIES:

Service and Leadership:

- Society of American Archivists
  - *American Archivist* Editorial Board (2008-2012, 2012-2016), Chair and Editor (2018-Present)
  - Website Working Group (2008-1009)
  - Publications Board (2002-2008)
  - Electronic Records Section, Vice-Chair (2000-2001), Chair (2001-2002), Steering Committee (2002-2005)
  - Electronic Publications Task Force (2001-2002)
- University of North Carolina

Awards and Honors:

- Institute for the Arts and Humanities Academic Leadership Program (ALP) Fellow – 2019-2020
- Fellow, Society of American Archivists - 2017
- Frances Carroll McColl Term Professor – 2013-15
- Poster Award, Aligning National Approaches to Digital Preservation (ANADP) II: An Action Assembly (with Jerry McDonough, Mark Matienzo, Porter Olsen, and Kam Woods) - 2013
- School of Information and Library Science 2007

- Faculty Council – 2008-2014 (Agenda Committee - 2012-13, 2019-2020), 2016-2019, 2019-2022
- Coordinator, Center for Research and Development of Digital Libraries (CRADLE) Lecture Series – Fall 2008
- Carolina Digital Repository Steering Committee – 2008-Present
- University of North Carolina Digital Curation / Institutional Repository Committee (and Subcommittee Chair) – 2005-2008

- Program Committee, Archival Education Research Institutes (AERI) – 2008-2010
- Expert Panel to Review the National Archives and Records Administration (charged by National Research Council and U.S. Government Accountability Office) – 2010
- International Digital Curation Education and Action (IDEA) Working Group - Steering Committee and Leader of Graduate Curriculum Sub-Committee – 2010-Present
- Extending the Reach of Southern Sources: Proceeding to Large-Scale Digitization of Manuscript Collections, Advisory Board – 2007-2008
- Chair, Short Course Program, Archiving 2009 Conference
- National Historical Publications and Records Commission (NHPRC) Electronic Records Research Fellows Program, Executive Board Member – 2006-2007
- Kansas Electronic Records Committee, Co-Founder and Chair – 2000

Outstanding Teacher Award Nomination (University of North Carolina) – 2007
- Junior Faculty Development Award (University of North Carolina) – 2007
- Paul Evan Peters Fellowship (Coalition for Networked Information) - 2002-2004
- University of Michigan Rackham Graduate School Outstanding Graduate Student Instructor Award – 2004
- School of Information Outstanding Graduate Student Instructor – 2004
- Special Commendation from Digital Preservation Coalition Conservation Award Panel for "development of innovative technical strategies to combat technological obsolescence" (to CAMiLEON Project Team) – 2004
- Second Place, Association of Library and Information Science Educators (ALISE) Doctoral Student Poster Competition – 2004
- One Term Dissertation Fellowship (Rackham School of Graduate Studies) – 2004/2005
- Managing Electronic Records Conference Student Scholarship (Cohasset Associates) - 1998, 2001
- President's Recognition Award (Albion College) - 1991-95
- Gerald Ford Institute for Public Service Leadership Award - 1992, 1993, 1994, 1995
- Jack F. Padgett Award in Philosophy – 1995
- Rhodes Scholarship State Finalist – 1994
- Phi Beta Kappa – 1994
- Susan J. Liioi Memorial Scholarship in Ethics - 1994

TEACHING:

- UNC SILS – 2005-Present
  - Acquiring Information from Digital Storage Media – Spring 2011
  - Carolina Digital Curation Fellows (CDCF) Introductory Seminar – Fall 2007
  - Datafication of Everything – Spring 2018
  - Digital Forensics for the Curation of Digital Collections – Fall 2013, Fall 2014, Fall 2015
  - Electronic Records Management – Spring 2006, Spring 2007, Spring 2011, Spring 2012, Spring 2014, Fall 2016
  - Information Technology Foundations for Managing Digital Collections – Spring 2018, Spring 2020
  - Introduction to Archives and Records Management – Fall 2005, Fall 2006, Spring 2008, Fall 2009, Fall 2010, Fall 2011, Fall 2012
  - iRODS Rule Construction – Spring 2009, Spring 2010
  - Proposal Development – Fall 2015
  - Research Issues and Questions – Fall 2018, Spring 2019, Fall 2019, Spring 2020
  - Resource Selection & Evaluation – Spring 2006, Fall 2006, Spring 2007, Fall 2007, Fall 2008, Fall 2011
  - Understanding Information Technology for Managing Digital Collections – Fall 2008, Spring 2010, Spring 2012, Spring 2013, Summer 2014, Spring 2015, Summer 2015, Summer 2016, Spring 2017, Summer 2017, Summer 2018, Summer 2019, Summer 2020

- Co-Organizer and Co-Instructor, DigCCurr II Professional Institute – 2009-2013
- Co-Organizer and Co-Instructor, An Introduction to Digital Curation for Public Records Professionals – 2011, 2012, 2013
- Instructor, Archives and Records Management Fundamentals Workshop, Al Akhawayn University, Ifrane, Morocco - 2011
- Workshop Instructor, Applying Digital Forensics Techniques to Materials Acquired on Physical Media – 2009, 2010, 2011
- Workshop Instructor, Digital Forensics for Archivists (SAA) – 2012-Present
- Graduate Student Instructor, Social Systems and Collections, University of Michigan School of Information - 2002, 2003, 2004
- Instructor, Society of American Archivists Basic Electronic Records Workshop – 2003
- Professor's Assistant, Albion College, Department of Political Science - 1993-1994
- Flight Instructor, Freelance and L&W Flight Service - 1991-1996

VITA OF GARY MARCHIONINI Dean and Cary C. Boshamer Professor
School of Information and Library Science University of North Carolina at Chapel Hill Chapel Hill, NC 27599

PERSONAL DATA:

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rch

ACADEMIC BACKGROUND: Degrees:

Ph.D. (Curriculum Development: Mathematics Education), Wayne State University, 1981
Dissertation: Computer Enhanced Practice and Introductory Algebra
M.Ed. (Secondary Mathematics Education), Wayne State University, 1974
B.A. (Mathematics, English), Western Michigan University 1971

PROFESSIONAL WORK EXPERIENCE:

2010-present: Dean, School of Information and Library Science, University of North Carolina at Chapel Hill
1998-present: Cary C. Boshamer Professor, School of Information and Library Science, University of North Carolina at Chapel Hill
1995-1998: Professor, College of Library and Information Services, University of Maryland
Member of Human-Computer Interaction Laboratory, Center for Automation Research 1990-1998
Director, Digital Library Research Group, University of Maryland 1996-1998
1989-1995: Associate Professor with tenure, College of Library and Information Services, University of Maryland
1983-89 Assistant Professor, College of Library and Information Services, University of Maryland
1982-83 Assistant Professor, Department of Instructional Technology, Wayne State University
1981-82 Research Associate, Detroit Center for Professional Growth and Development, Wayne State University
1978-81 Research Assistant, Detroit Center for Professional Growth and Development, Wayne State University
1971-78 Teacher, Mathematics, East Detroit Public Schools, East Detroit, Michigan

Bibliometrics (Google Scholar): April 2020 citations 15792; h-index 52; i10-index 137

PUBLICATIONS:

Books:

Marchionini, G. (2010*). Information concepts: From books to cyberspace identities*. Morgan and Claypool Publishers. ISBN: 9781598299625. DOI 10.2200/S00306ED1V01Y201010ICR016

Marchionini, G. (1995). *Information seeking in electronic environments*. NY: Cambridge University Press. ISBN 0-521-44372-5.

Marchionini, G. & Moran, B. (Editors), 2012. Information Professionals 2040: Educational Possibilities and Pathways. ISBN 978-1-300-20486-2. Open Access: http://sils.unc.edu/sites/default/files/news/Information- Professionals-2050.pdf

Articles in Journals:

Marchionini, G. (2018) Search, sense making and learning: closing gaps, *Information and Learning Science*, https://doi.org/10.1108/ILS-06-2018-0049

Marchionini, G. (2016). Information Science Roles in the Emerging Field of Data Science. *Journal of Data and Information Science*, 1(2). http://159.226.100.150:8084/cjlis/fileup/PDF/20160201.pdf

Marchionini, Gary. (2014). Libraries of People. *Information Studies* 20(3), (Jul 2014), 143-194. http://search.proquest.com/docview/1545884312/fulltextPDF/FF93BA357FE14EB6PQ/1?accountid=14244

Marchionini, G. (2014), Research Data Stewardship: Ensuring Data Quality to Enable New Science in iSchools. *Document, Information and Knowledge*. http://en.cnki.com.cn/Article_en/CJFDTOTAL-TSQC201304000.htm

SELECTED PROFESSIONAL PRESENTATIONS and CONFERENCE PAPERS:

International Invited Talks:

Preparing for Careers post PhD. Doctoral Consortium at the 2020 iSchool Conference. Boras, Sweden. April 23, 2020 (via Zoom).

Socio-Technical Challenges and Impacts of Data. 41st iSpeaker Distinguished Lecture. Sungkyunkwan University (SKKU), Seoul, South Korea. November 28, 2018.

iSchools as Crucible: Melding public good, technical efficiency, and knowledge. International Council on Knowledge Management (ICKM 2018), Vancouver, BC Canada. November 9, 2018.

Information Science Roles in Data Science. FEIS - International Symposium on the Future of Education in Information Science, Pisa, Italy. September 11, 2018.

Data and Information Social Impact. Association of Data, Information, and Society. Nanjing University, Nanjing, China, July 4-6, 2018.

Open Access Data Publishing Challenges and Limitations. The International Symposium on Open Data and Innovation: Vision and Practice. National Science Library, Chinese Academy of Sciences, Beijing. July 14, 2017.

Information Seeking and Learning. Tsurumi University, Yokohama-City, Japan. January 21, 2017.

Data Science and Information Science: A Human-Centric View. NII National Institute of Informatics, Tokyo, Japan. January 19, 2017

National and Local Invited Talks

Library Science, Information Science, and Data Science (LIDS): The Many-Featured Elephant in the Fable of iSchool Evolution. Invited Talk to Celebrate the 80th Anniversary of the University of North Texas Department of Information Science. November 8, 2019.

Challenges and Opportunities for Libraries and Librarians. EPA National Library Council Meeting. Research Triangle Park, NC. November 7, 2018.

SMART Series: The Role of Data Analytics in Revolutionizing the Energy Market. RTP Headquarters November 2, 2017.

Research Enterprise: The Noun and the Verb. Empirical Librarians Conference, NC A&T State University, Greensboro, NC. February 24, 2017.

CONTRACTS & GRANTS:

Grant Awards:

Principal Investigator. Center for Information, Technology, and Public Life. Knight Foundation. $5,000,000 2019-2025.

Principal Investigator. Center for Information, Technology, and Public Life. Luminate Foundation. $750,000 2019-2022.

Principal Investigator. Center for Information, Technology, and Public Life. Hewlett Foundation. $600,000 2019-2022.

Principal Investigator for North America. i4G: iSchools' Identity, Interactions and Impact. Mellon Foundation to iSchool Consortium ($600,000). Subcontract to UNC for North American Portion $160,000 2019-2021.

Principal Investigator. Data Management Training Curriculum for OSC (Open Source Center). CIA. ($310,000) 2016-2020. $47,635 2020

Principal Investigator. Data Management Training Curriculum for OSC (Open Source Award supplement A16-0697. 2018-2020 ($160,000)

Principal Investigator. 6-month bridge funding to Master Contract $387,467 April 1, 2020-September 30, 2020. Provision of Library and Information Center Support Services to the EPA Library in North Carolina. EPA Contract EP-D-15-013. ($25,000,000) 2014-2019.

AWARDS:

ACM/IEEE JCDL Annual Conference Best Reviewer Award 2018

ASIST SIGUSE Outstanding Contributions to Information Behavior Award. November, 2014.

ASIST Award of Merit. 2011.

2010 UNC Faculty Award for Excellence in Doctoral Mentoring. May, 2010.

Personal Information

Lukasz Mazur, PhD
310 Kinney Glen Ct, Durham, NC, 27713
Phone: 919-616-9702
E-mail: lmazur@med.unc.edu

Honors and Awards

2019 Invited Lecture: AHRQ National Web Conference on Patient Safety Culture.
2019 Invited Workshop: American Medical Association (AMA) Physician Wellbeing Conference, Charlotte, NC.
2018 Engineering Lean Six-Sigma Conference, Atlanta, GA.
2018 AHRQ National Web Conference Reducing Provider Burden through Better-Health IT Design.
2018 Induction into the Hall of Fame, Athletics – Tennis Team (Assistant Coach)
2015 Junior Faculty Development Award, Office of the Executive Vice Chancellor and Provost
2013 Innovation Pilot Award Recipient, School of Medicine Center for Innovation
2012 Best Paper of the Year from the American Society of Engineering Management
2012 Induction into the Academy of Outstanding Faculty Engaged in Extension
2011 Induction into the Hall of Fame, Athletics – Tennis Team (Player)

Publications 2019-20 (* indicates my supervisory role of the leading author):

1. *Judy G, Lindsay D, Mullins T, Mosaly P, Chera B, **Mazur LM**. Incorporating Human-Factors and Classification System (HFACS) into Analysis of Reported Near-misses and Incidents in Radiation Oncology. *Practical Radiation Oncology*. September 14, 2019 [published on-line ahead of print]. doi.org/10.1016/j.prro.2019.09.005

2. *Mullins B, McGurk R, Ronald W, McLeod R, Amos An PhD3; Gu D, Chera S, Marks L, Das S, **Mazur LM.** Human Error Bowtie Analysis to Enhance Patient Safety in Radiation Oncology. *Practical Radiation Oncology*. 9(6):465-478, 2019. doi.org/10.1016/j.prro.2019.06.022

3. **Mazur LM**, Stokes S, McCreery J. Lean-Thinking: Implementation and Measurement in Healthcare Settings. *Engineering Management Journal*. 31(3):193-206, 2019. doi:10.1080/10429247.2019.1605957

4. Pillai M, Adapa K, Das K, **Mazur LM**, Dooley J, Marks L, Thompson R, Chera B. Utilizing AI to Improve Quality and Safety of Radiation Therapy. *Journal of the American College of Radiology.* 16(9):1267-1272, 2019.

5. Walburn T, Wang K, Sud S, Zakrzewski A, Roehm R, Sutton S, Tan X, Adams R, **Mazur LM**, Marks LB, Chera BS. A Prospective Analysis of Radiation Oncologist Compliance With Early Peer Review Recommendations. Int J Radiat Oncol Biol Phys. 104(3):494-500, 2019. doi: 10.1016/j.ijrobp.2019.02.036

6. *Howell C, Tracton G, Amos A, Chera C, Marks LB, **Mazur LM**. Predicting Radiation Therapy Process Reliability Using Voluntary Incident Learning System Data. *Practical Radiation Oncology.* 9:e210-e217, 2019. doi.org/10.1016/j.prro.2018.11.012

7. *Mosaly R, Guo H, **Mazur LM**. Toward Better Understanding of Task Difficulty during Physicians' Interaction with Electronic Health Record System (EHRs). *International Journal of Human-Computer Interaction*. 35(20):1883-1891, 2019. doi.org/10.1080/10447318.2019.1575081

8. **Mazur LM**, Mosaly PR, Moore C, Marks L. Association of the Usability of Electronic Health Records With Cognitive Workload and Performance Levels Among Physicians. *JAMA Netw Open.* 2(4):e191709, 2019. doi:10.1001/jamanetworkopen.2019.1709

Refereed Oral Presentations:

1. **Mazur LM**, Stokes S. Measuring Individual Transformation to Lean Thinking -- Pilot Study, Industrial and Systems Engineering Research Conference, Orlando, FL, May 2019. Accepted for oral presentation.

2. **Mazur LM.** Using Simulation-based Training to Advance Safety Mindfulness of Radiation Therapy Therapists. 25th Annual Meeting of Society for Simulation in Europe. Glasgow, Scotland, June 2019a. Accepted for oral presentation.

Grants:

1. Simulation-based Research to Enhance Performance of Radiation Therapists.
    a. Agency: AHRQ Advances in Patient Safety through Simulation Research (R18 HS023458-01): $800K Date: April 2018 – March 2021 PI: **Mazur LM**, Effort: 25%).

2. To Quantify the Impact of the Existing vs. Enhanced Work Configuration of Radiation Therapy Technicians on Workload, Situation Awareness and Performance during Pretreatment QA Tasks.
    a. Agency: AHRQ Small Research Projects (R03): $100,000 Proposed Date: September 2018 – August 2020 (PI: Mosaly P, Co-PI: **Mazur** LM, Effort: 5%).

Service Agreements:

1. Application of Systems Analysis to Physician Wellness/Burnout Issues.
    a. Agency: University of North Carolina Healthcare System: $164K. Date: August 2019 – July 2020 (PI: **Mazur LM**. School of Medicine, University of North Carolina (UNC)).
    b. Agency: University of North Carolina Healthcare System: $164K. Date: August 2020 – July 2021 (PI: **Mazur LM**. School of Medicine, University of North Carolina (UNC)).

2. Application of Neurofeedback Interventions to Residents Wellness/Burnout Issues.
    a. Agency: Physician Network, University of North Carolina Healthcare System: $25K. Date: August 2019 – July 2021 (PI: **Mazur LM**. School of Medicine, University of North Carolina (UNC)).

Marijel (Maggie) Melo
University of North Carolina - Chapel Hill 100
Manning Hall, Chapel Hill, NC 27599-3360

EDUCATION (Selected)

Doctor of Philosophy, English, University of Arizona, May 2018
Program: Rhetoric, Composition, and the Teaching of English | AAUW American Fellow

Master of Arts, English, California State University of Northridge, 2012
Program: Rhetoric and Composition

Bachelor of Arts, California Lutheran University, 2008
Major: English (*magna cum laude*)

PROFESSIONAL APPOINTMENTS (Selected)

Assistant Professor, School of Information & Library Science, UNC at Chapel Hill, July 2018-PresentApplied

Humanities Coordinator, Innovation Space, University of Arizona, June 2015-May 2018 Graduate Teaching

Associate, Writing Program, University of Arizona, August 2013-May 2018

Teaching Associate, English Department, California State University of Northridge, August 2010-May 2012

PUBLICATIONS (Selected)

Melo, Marijel and Jennifer Nichols**.** "Re-making the Library Makerspace." *Library Juice Press.* (December 2020)

Book Chapters & Contributions:

Melo, Marijel. "Programming in Action: How to Plan a Remote Makerspace Workshop." In *Great Library Events: From Planning to Promotion to Evaluation* (Flaherty, Mary Grace). *Rowman & Littlefield.* April 2021.

Melo, Marijel and Brianna Marshall. "From Needs Analysis to Power Analysis: A Framework to Broker Power in Makerspaces." In *Re-making the Library Makerspace: Critical Theories, Reflections, and Practices. Library Juice Press,* December 2020. [Preprint]

Melo, Marijel and Jennifer Nichols. "Centering Voices from the Margins: Unsettling the Exceptionalist Lore of Makerspaces." In *Re-making the Library Makerspace: Critical Theories, Reflections, and Practices. Library Juice Press,* December 2020.

Melo, Marijel. "How do Makerspaces Communicate Who Belongs? Examining Gender Inclusion through the Analysis ofJourney Maps in a Makerspace," *Journal of Learning Spaces,* April 2020.

Melo, Marijel. "Developing LIS Curricula for Information Professionals in Library Makerspaces." In *ALISE 2019 JuriedPapers,* September 2019. [Paper]

Melo, Marijel, Elizabeth Bentley, Ken S. McAllister, Jose Cortez. "Pedagogy of Productive Failure: Navigatingthe Challenges of Integrating VR in the Classroom." *Journal of Virtual Worlds Research,* February 2019.

Melo, Marijel and Antonnet Johnson. "Teaching Technical Writing through the Designing and Running ofEscape Rooms." *Dialogue: The Interdisciplinary Journal for Popular Culture and Pedagogy*, June 2018.

Melo, Marijel. "Exploring Pedagogical Violence: Students' Right to their Own Learning Experiences." *Hybrid Pedagogy,* May 2018.

Melo, Marijel. "Knotty Cartographies: Augmenting Everyday Looking Practices of Craft and Race." *CraftResearch*, March 2018.

Nichols, Jennifer, **Melo, Marijel**, and Jason Dewland. "Makerspaces in Academic Libraries: Exploring theRole of Makerspaces as Support for Entrepreneurs and Digital Humanities." *portal: Libraries and the Academy*, April 2017.

AWARDS, AND GRANTS (Selected)

Awards

Deborah Barreau Teaching Excellence Award. School of Information and Library Science, University of North Carolinaat Chapel Hill (2020).

"Top Library Cat Award," University of Arizona Libraries, October 2018.

Peter W. Likins Inclusive Excellence Award. Office of Diversity and Inclusion, University of Arizona, 2017.

Excellence in Professional Writing Teaching Award. University of Arizona Writing Program, 2016.

"Audience Favorite Data Visualization," Team "Dream Weavers," *Arizona Migrahack Hackathon,* 2015. $750.Aaron

Swartz Award for Best Webtext. *Writing Commons,* 2015.

Research and Travel Grants

"Equity in the Making: Investigating Spatial Arrangements of Makerspaces and its Impact on Diverse User Populations." National Science Foundation (NSF) (June 2020). $715,021.

Adobe Course Development Grants – UNC Chapel Hill Libraries Course Development Grant. (2020). $1,250.

Course-Based Undergraduate Research Experiences (CURE) Award, "Real-time Data Science in the Makerspace: MakingSense of the Everyday." Co-teacher: Arcot Rajasekar. UNC-CH College of Arts and Sciences (2020). $11,000.

Eleanor M. and Frederick G. Kilgour Research Grant Award, UNC-CH, School of Information and LibraryScience, 2018. $8,202.

Student-Faculty Interaction Grant, Student Affairs, University of Arizona, 2016. $500.

Innovative Learning Catalyst Grant, Focused Associational Thinking-Virtual Reality (FAT-VR). Project team:Elizabeth Bentley, Ken McAllister, Kate Chaterdon, José Cortez, and Mary Wildner-Bassett. (2015). $5,000.

CONFERENCES AND INVITED TALKS (Selected)

Keynote addresses

"The Possibilities and Perils of Inclusion in Makerspaces." *Makerspaces and Innovation in Research Academics* (*MIRA*). University of La Verne, La Verne, CA, July 2019

"Unboxing the Maker Movement in Higher Ed." *Academic Technology Expo*. University of Oklahoma, Norman, OK, January 2019

"The Reality of Virtual Reality." *Online Learning Consortium Conference.* Nashville, TN, April 2018

"Strategies for Developing Maker-Centric Curriculum for Non-STEM Classrooms." *Northern Arizona University: Cline Library and Faculty Development Symposium*. Flagstaff, AZ, November 2016

Invited Talks

"Making it Up as We Go: Accidental Academics & the 'Follow Your Passion' Myth." Invited lecture, Florida International University, School of Journalism (Online lecture) (March 2021)

"Investigating the Spatial Arrangements of Makerspaces and its Impact on Diverse Student Populations." Coalition of Networked Information. (December 2020)

"Makers Gonna Make: Maker Ed in Remote/Hybrid Learning Environments." ABC-CLIO. (October 29). Co-panelists: Stacy Brown, Leslie Preddy, and Heather Moorefield-Lang

"Remaking the Library Makerspace: New Moves toward Equity and Joy." Maker Ed Convening. (October 2020)

"Cultivating Equitable Makerspaces through Generous 'Exclusion." Principles for the Equitable Design ofSTEM Learning Environments Summit, Tucson, AZ, February 2019

"Hacking the Hackathon: Designing for Inclusion in Tech Events." *Google Women Techmakers Summit,* New York City, NY, October 2017

"A Consideration for Women's-Only Events: Women Techmakers Tucson 2016 Hackathon." *Google Developers Groups, North America Summit*. Googleplex. Mountain View, CA, May 2017

"A Critical Pedagogue's Guide: Integrating Critical Maker Culture into the Classroom." *Academic TransitionPrograms*, Northern Arizona University. Flagstaff, AZ, April 2017

Javed Mostafa

a. Professional Preparation.

Institution	Major	Degree	Year
NW Oklahoma State University	Computer Science	B.S.	1987
Ohio State University	Instructional Design	M.A.	1990
University of Texas at Austin	Information Science	Ph.D.	1994

b. Appointments.

2010-present	Professor, Biomedical Research Imaging Center and School of Information and Library Science, University of North Carolina at Chapel Hill, Chapel Hill, NC
2010-present	Director, Carolina Health Informatics Program, University of North Carolina at Chapel Hill, Chapel Hill, NC
2009-2010	Frances Caroll McColl Term Professor, School of Information and Library Science, University of North Carolina at Chapel Hill, Chapel Hill, NC
2007-2009	Associate Professor, Biomedical Research Imaging Center and School of Information and Library Science, University of North Carolina at Chapel Hill, Chapel Hill, NC
2004-2006	Associate Dean for Research, School of Library and Information Science, Indiana University, Bloomington, IN
2003-2004	Associate Dean, School of Library and Information Science, Indiana University, Bloomington, IN
2000-2007	Victor H. Yngve Associate Professor, School of Library and Information Science, Indiana University, Bloomington, IN
2000-2007	Associate Professor, School of Informatics, Indiana University, Bloomington, IN
1999-2007	Core Faculty Member, Cognitive Science, Indiana University, Bloomington, IN
1998-1999	Victor H. Yngve Assistant Professor, School of Library and Information Science, Indiana University, Bloomington, IN
1994-1998	Assistant Professor, School of Library and Information Science, Indiana University, Bloomington, IN

c. Products.

PRODUCTS MOST CLOSELY RELATED

[1] Stager, S., Weir, C., Kim, H., **Mostafa, J**., & Del Fiol, G. (2017). Physicians' perception of alternative displays of clinical research evidence for clinical decision support – A study with case vignettes. Journal of Biomedical Informatics, 65(1): 1532-64.

[2] **Mostafa, J.,** Carrasco, V., Foster, C., & Kelly, G. (2015). Identifying neurological patterns associated with Information Seeking: A Pilot fMRI study. In Fred Davis, René Riedl, Jan vom Brocke, Pierre-Majorique Léger, Adriane Randolph (Eds.), Information Systems and Neuro Science: Gmunden Retreat on NeuroIS 2015 (Springer Lect. Notes Information System Organization)

[3] Shoffner, M., Owen, P., **Mostafa, J**., Lamm, B., Wang, X., & Schmitt, C. (2013). The secure medical research workspace: An IT infrastructure to enable secure re-search on clinical data. Clinical & Translational Sciences Journal, 6(3):222-5.

[4] Seki, K., & **Mostafa, J.** (2009). Discovering implicit associations among critical biological entities. International Journal of Data Mining and Bioinformatics, 3(2), 105-123.

[5] Yingang, L., **Mostafa, J.,** Wang, X. (2006). A privacy enhancing infomediary for retrieving personalized health information from the web. Proceedings of the 2nd Personal Information Management Workshop, SIGIR Conference on Research and Development in Information Retrieval, Seattle, WA.

OTHER SIGNIFICANT PRODUCTS

[1] Ke W., & **Mostafa J.** (2013). Studying the clustering paradox and scalability of search in highly distributed environments. ACM Transactions on Information Systems, 31(2), 1-40.).

[2] **Mostafa, J**. (2005). Seeking better web searches. Scientific American, 292(2), 66-73.

[3] **Mostafa, J**., Mukhopadhyay, S., & Palakal, M. (2003). Simulation studies of different dimensions of users' interests and their impact on user modeling and information filtering. Information Retrieval, 6(2), 199-224).

[4] **Mostafa, J**., Seki, K., & Ke, W. (2008). Beyond information retrieval: Literature mining for biomedical knowledge discovery. In Jake Chen and Stefano Lonardi (Eds.), Biological Data Mining. Boca Raton, FL: Chapmen & Hall.

[5] **Mostafa, J**., Mukhopadhyay, S., & Palakal, M. (2003). Simulation studies of different dimensions of users interests and their impact on user modeling and information filtering. Information Retrieval, 6(2), 199-224.

c. Synergistic Activities.

1. Dr. Mostafa is a Deputy Director of the Translational & Clinical Sciences Institute, Biomedical Informatics (TraCS). He has served in this role with a particular focus on advanced educational and training program development for the last five years. TrACS is one of the largest interdisciplinary research centers in the University of North Carolina, Chapel Hill.
2. Dr. Mostafa is the Director for the Carolina Health Informatics Program (CHIP), an interdisciplinary program at the University of North Carolina at Chapel Hill. CHIP connects faculty from multiple academic units with data scientists and scholars from variety of research organizations to tackle complex informatics problems highly relevant to the current proposal.
3. Dr. Mostafa has been actively engaged in NSF-sponsored workshops. He was the organizer of the NSF Research & Education in Biomedical Informatics Workshop (Chapel Hill, NC, February 8, 2009; in conjunction with the I-School Conference), and the NSF Biomedical Informatics Workshop: Expanding Secondary Use of Health Data (Portland, Oregon, December 4-5, 2007). Dr. Mostafa was also an invited participant in the NSF's International Collaboration on Cyberinfrastructure (in health and tobacco research) workshop (Beijing, China, March 27-29, 2008), and the NSF's International Collaboration on IT Workshop (Budapest, Hungary, March 21-24, 2004).
4. Dr. Mostafa is currently an Editor-in-Chief of the Journal of the American Society for Information Science & Technology, as well as Associate Editor of ACM Transactions on Internet Technology and Editor of the Information Processing & Management Journal. He has also served as Associate Editor of the ACM Transactions on Information Systems for 8 years.
5. Dr. Mostafa has extensive experience mentoring graduate students and post-doctoral trainees on a variety of data sciences and informatics projects. He has served as dissertation and thesis advisor to over 30 students and is presently mentoring several pre- and post-doctoral trainees. Students mentored by Dr. Mostafa have gone on to success in a range of academic and industry roles.

NAME: Rajasekar, Arcot Kuppuswamy

POSITION TITLE & INSTITUTION: Professor, University of North Carolina at Chapel Hill, SILS

A. PROFESSIONAL PREPARATION
(see PAPPG Chapter II.C.2.f.(i)(a))

INSTITUTION	LOCATION	MAJOR/AREA OF STUDY	DEGREE (if applicable)	YEAR (YYYY)
University of Madras	Madras, India	Electronics & Communications	B.E. (honors)	1979
Indian Institute of Technology	Madras, India	Computer Science	M.S.	1983
University of Maryland	College Park	Computer Science	Ph.D.	1989
UMIACS, University of Maryland	College Park	Computer Science	Postdoc	1990

B. APPOINTMENTS
(see PAPPG Chapter II.C.2.f.(i)(b))

From - To	Position Title, Organization and Location
2008 – present	Professor, School of Information & Library Sciences, Univ. of North Carolina
2008 – present	Chief Scientist, Renaissance Computing Institute (RENCI)
2016 - present	Director, Data Intensive Cyber Environments Center, Univ. North Carolina
2008 - 2016	Co-Director, Data Intensive Cyber Environments Center, Univ. North Carolina
2001- 2008	Director, Data Grid Technologies Group, San Diego Supercomputer Center, UC San Diego
1996 - 2001	Scientist, San Diego Supercomputer Center, UC San Diego
1990 - 1996	Assistant Professor, University of Kentucky at Lexington

C. PRODUCTS

(see PAPPG Chapter II.C.2.f.(i)(c))

Products Most Closely Related to the Proposed Project

[1] iRODS Open Data Management Software. https://irods.org/
[2] Moore, R., A. Rajasekar, "Reproducible Research within the DataNet Federation Consortium", International Environmental Modelling and Software Society 7th International Congress on Environmental Modelling and Software, San Diego, California, June 2014.
[3] Moore, R. A. Rajasekar, H. Xu, "DataNet Federation Consortium Preservation Policy Toolkit", iPRES conference, Best Paper Award, November 2015.
[4] Billah, M., J. Goodall, U. Narayan, B. Essawy, V. Lakshmi, A. Rajasekar, R. Moore, "Using a data grid to automate data preparation pipelines required for regional-scale hydrologic modeling", Environmental Modelling and Software 78:31-39, March 2016.
[5] Moore R., H. Xu, M. Conway, A. Rajasekar, J. Crabtree, and H. Tibbo, "Trustworthy Policies for Distributed Repositories," book in Synthesis Lectures on Information Concepts, Retrieval, and Services, Editor Gary Marchionini, Morgan Claypool Publishers, 2017.
[6] Rajasekar A., J. Orcutt, and F. Vernon, "Workflow-Oriented Cyberinfrastructure for Sensor Data Analytics," 9th iRODS User Group Meeting, Utrecht, Netherlands, June 2017.

Other Significant Products, Whether or Not Related to the Proposed Project

[1] Baru, R. Moore, A. Rajasekar and M. Wan, "The SDSC Storage Resource Broker", Proc. CASCON'98.
[2] Rajasekar A., S. Sankaran, H. Lande, T. Carsey, J. Crabtree, H. Kum, M. Crosas, G. King, J. Zhan, "Sociometric methods for relevancy analysis of Long Tail Science Data," ASE/IEEE International Conference on Big Data, Septemer 2013.
[3]Moore, R., M. Conrad, R. Marciano, A. Rajasekar, M. Wan. "Transcontinental Preservation Archive Prototype", Proceedings of Indo-US Workshop on International Trends in Digital Preservation", 2009.
[4] Rajasekar A., H. Lander, "Big Data Analysis in a Message Oriented Framework," International Conference on Big Data Science and Computing, Stanford, CA, May 2014.

D. SYNERGISTIC ACTIVITIES

(see PAPPG Chapter II.C.2.f.(i)(d))

[1] Team lead and co-developer of the integrated Rule-Oriented Data System (iRODS), Storage Resource Broker (SRB), Metadata Catalog (MCAT) and the Data Bridge Platform softwares. Currently the iRODS system is used at more than 3000 sites across the world by universities and federal agencies (2007-present).
[2] Participant in several GRID activities including the Datanet Federation Consortium (DFC), Ocean Observatories Initiative (OOI), Real-time Observatories, Applications, and Data management Network (ROADNet), Science Environment for Ecological Knowledge (SEEK), Particle Physics Data Grid (PPDG), ASCI Data Visualization Corridor (DVC), NASA Information Power Grid (IPG), Biomedical Information Research Network (BIRN) and the Knowledge Network for BioComplexity (KNB).

Casey H. Rawson, Ph.D.
TEACHING ASSISTANT PROFESSOR, UNC CHAPEL HILL SILS
crawson@email.unc.edu

EDUCATION

PH.D., INFORMATION AND LIBRARY SCIENCE, 2016
University of North Carolina at Chapel Hill

MASTER OF SCIENCE IN LIBRARY SCIENCE, 2011
University of North Carolina at Chapel Hill

MASTER OF ARTS IN TEACHING, 2007
University of Louisville

BACHELOR OF SCIENCE IN BIOLOGY, 2005
Duke University

EXPERIENCE

TEACHING ASSISTANT PROFESSOR
UNC-CH SCHOOL OF INFORMATION AND LIBRARY SCIENCE, CHAPEL HILL, NC
06/2018 - PRESENT

POSTDOCTORAL RESEARCH ASSOCIATE
UNC-CH SCHOOL OF INFORMATION AND LIBRARY SCIENCE, CHAPEL HILL, NC
06/2016 – 06/2018

TEACHING ASSISTANT / ADJUNCT INSTRUCTOR
UNC-CH SCHOOL OF INFORMATION AND LIBRARY SCIENCE, CHAPEL HILL, NC
TEACHING ASSISTANT (08/12 – 05/14; 08/15 – 05/16); ADJUNCT INSTRUCTOR (08/16 – 05/16)

ADJUNCT INSTRUCTOR
OLD DOMINION UNIVERSITY, NORFOLK, VA
01/17 – 05/18

SELECTED PUBLICATIONS

DOCTORAL DISSERTATION

Rawson, C. H. (2016). *In search of synergy for science: A collaborative lesson plan assignment for preservice elementary school teachers and preservice school librarians* (Doctoral dissertation). Retrieved from ProQuest Dissertations &Theses. (10119809)

REFEREED JOURNAL ARTICLES

Baron, J.S., Specht, A., Garnier, E., Bishop, P., Campbell, C.A., Davis, F.W., Fady, B., Field, D., Gross, L.J., Guru, S.M., Halpern, B.S., Hampton, S.E., Leavitt, P.R., Meagher, T.R., Ometto, J., Parker, J.N., Price, R., Rawson, C.H., Rodrigo, A., Sheble, L.A., & Winter, L. (2017). Synthesis centers as critical research infrastructure. *BioScience, 67(*8), 750–759.

Rawson, C.H., & Hughes-Hassell, S. (2015). Research by design: The promise of design-based research for school library research. *School Libraries Worldwide, 21*(2), 11-25.

Rawson, C.H., Anderson, J., & Hughes-Hassell, S. (2015). Preparing pre-service school librarians for science-focused collaboration with pre-service elementary teachers: The design and impact of a cross-class assignment. *School Library Research, 18.*

Rawson, C.H., & McCool, M. (2014). Just like all the other humans? Images of scientists in children's trade books. *School Science and Mathematics, 114*(1), 10-14.

BOOKS AND BOOK CHAPTERS

Crescenzi, A., Rawson, C.H., and Wildemuth, B. (In Press). *Applications of Social Research Methods to Questions in Information and Library Science* (3rd Ed.). Santa Barbara, CA: Libraries Unlimited.

Rawson, C.H. (Ed.) (2020). *Picking up STEAM: Science, Technology, Engineering, Arts, and Mathematics Instruction in the Public Library*. Available online at https://steam.web.unc.edu/

Rawson, C.H. (Ed.) (2018). *Instruction and pedagogy for youth in public libraries*. Available online at https://publiclibraryinstruction.web.unc.edu/

SELECTED PRESENTATIONS AND WORKSHOPS

North Carolina School Library Media Association, 2019, Winston-Salem, NC

- Presented a session with Sandra Hughes-Hassell titled *Project READY: Open-Access Online Professional Development for Equity and Inclusion*

ALA Annual Conference, 2019, Washington, D.C.

- Presented a session with Mara Rosenberg and Ness Shortley titled *Defining and Embracing the Instructional Role for Public Youth Services Librarians*
- Supervised the Project READY exhibit table, which was open for the duration of the conference.

American Library Association Annual Conference 2018, New Orleans, LA

- Project READY: An online professional development curriculum (poster), presented by Casey Rawson, Kimberly Hirsh, and Sandra Hughes-Hassell

Project READY at Wake County Public Schools, 2016, Raleigh, NC

- Worked with UNC project team and Wake County partners to develop and implement an intensive face-to-face training curriculum focused on racial equity. Co-led this training over fifteen days with 89 WCPSS school librarians and other educators.

GRANTS

- Recipient of a $30,000 private grant from EBSCO Information Services to support research and teaching for the 2018-2019 school year. This grant is funding the creation of an open-access online textbook titled "Picking up STEAM: Science, Technology, Engineering, Arts, and Mathematics Instruction in the Public Library."
- Co-recipient of a 2017 Carnegie Whitney grant along with Dr. Sandra Hughes-Hassell for a yearlong project to develop an online resource center for professional development materials related to diversity and equity.
- Co-wrote a successful IMLS Laura Bush 21st Century Librarian Project grant totaling approximately $570,000, in collaboration with Dr. Sandra Hughes-Hassell at UNC Chapel Hill, the School of Library and Information Sciences at NC Central University, and the Wake County Public School System. The grant will fund a three-year project to develop a professional development curriculum that includes a suite of blended professional development experiences for school librarians, classroom teachers, and literacy coaches focusing on cultural competence, culturally relevant pedagogy and equity literacy.

RYAN SHAW

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Chapel Hill, NC 27599-3360
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http://aeshin.org/
919.636.9660

EDUCATION

University of California, Berkeley, School of Information, Berkeley, CA.

Ph.D. in Information Management & Systems, December 2010. Advisor: Michael Buckland.

University of California, Berkeley, School of Information Management & Systems, Berkeley, CA.

Master's in Information Management & Systems, May 2005. Advisor: Marc Davis.

Stanford University, Stanford, CA.

B.S. in Symbolic Systems, June 1998. Minor in Japanese. Advisor: Daphne Koller.

SELECTED FUNDED PROJECTS

A Digital Gazetteer of North Carolina *2019–2021*

Funded by a Course-based Undergraduate Research Experience development grant from UNC, a new course in which students and I cooperatively build a digital gazetteer of North Carolina places.

Periods, organized (PeriodO) *2014–2019*

Funded by the NEH and IMLS, this project is creating a gazetteer of assertions about historical periods, to ease the linking of datasets that define periods differently. http://perio.do

Contours of the Past: Event-Oriented Access to History *2012–2016*

Funded by aN Early Career Development grant from the Institute of Museum and Library Services, this project explored how to model narrative structure for linking and comparing oral histories.

ACADEMIC RESEARCH EXPERIENCE

Univ. of North Carolina, Chapel Hill, School of Information & Library Science *2011–present*

Associate (since 2016) professor teaching principles of information organization and studying computational tools for humanities scholarship and how the humanities can inform IT design.

University of California, Berkeley, Context and Relationships *2007–2010*

Demonstrating how auxiliary resources can be made more readily available with tools for finding, adding, and aggregating contextually relevant links. Principal investigator: Michael Buckland.

University of California, Berkeley, Biography in Context *2007–2010*

Designing and evaluating standards and best practices for encoded mark-up, embedded queries, and associated editing tools to create digital biographical texts. Principal investigator: Ray Larson.

Centrum Wiskunde & Informatica, Semantic Media Interfaces *Summer 2008*

Examined the state of the art in RDFS+OWL data models for representing information about events and developed a new model that attempts to address the deficiencies found.

University of California, Berkeley, Garage Cinema Research *2003–2005*

Designed and developed digital systems for creating and using metadata to automate media production and reuse. Principal investigator: Marc Davis.

Stanford University, Daphne Koller's research group *1997–1998*

Built prototypes implementing object-oriented Bayesian networks integrating probabilistic reasoning with frame-and-slot knowledge bases.

INDUSTRY RESEARCH EXPERIENCE

Yahoo! Research Labs, Research Intern *2005–2007*

Explored and invented social media and mobile media technology and applications that enabled people to create, describe, find, share, and remix media on the web.

Multimedia Search, Yahoo!, Technical Intern *Summer 2004*

Investigated ways to identify multimedia objects on the web and associate these objects with descriptive metadata. Developed a framework for relating metadata from heterogeneous sources.

TEACHING EXPERIENCE

Foundations of Information Science *2013–2021*

Undergraduate course surveying information science.

Organization of Information *2011–2016*

Introduction to the problems and principles of organizing information.

Web Information Organization *2012–2018*

Advanced course focusing on understanding and exploiting the architecture of the Web.

History of the Book *2015*

Graduate seminar in the history of the book and reading.

Making the Humanities Digital *2011–2012*

A seminar examining the idea of "the digital humanities" combined with a design studio.

SELECTED PUBLICATIONS

Shaw, R. 2020. **Periodization**. In *ISKO Encyclopedia of Knowledge Organization*, edited by Hjørland, B. and Gnoli, C. https://www.isko.org/cyclo/periodization

Shaw, R. 2019. **The missing profession: toward an institution of critical technical practice.** In *Proc. of the 10th Int'l Conf. on Conceptions of Library and Info. Science* (Ljubljana). http://informationr.net/ir/24-4/colis/colis1904.html

Shaw, R., Rabinowitz, A., Golden, P. and Kansa, E. 2016. **A sharing-oriented design strategy for NKOS.** *IJDL* 17 (1). http://dx.doi.org/10.1007/s00799-015-0164-0

Shaw, R. 2016. **Gazetteers enriched: A conceptual basis for linking gazetteers with other kinds of information.** In *Placing Names: Enriching and Integrating Gazetteers*, edited by Mostern, R., Southall, H., and Berman, M. L. Bloomington: Indiana University Press.

Shaw, R. 2015. **Big data and reality.** *Big Data and Society* 2 (2). http://dx.doi.org/10.1177/2053951715608877

Shaw, R. 2013. **Information organization and the philosophy of history.** *JASIST* 64(6). http://doi.wiley.com/10.1002/asi.22843

Shaw, R. and Maloney, M. 2013. **The forms of resource descriptions.** In *The Discipline of Organizing*, edited by Glushko, R.J., 283–324. Cambridge, Massachusetts: MIT Press.

Shaw, R. 2010. **Events and periods as concepts for organizing historical knowledge.** Ph.D. thesis, University of California, Berkeley. http://aeshin.org/dissertation/

Shaw, R., Troncy, R., and Hardman, L. 2009. **LODE: Linking open descriptions of events.** *ASWC 2009*. http://dx.doi.org/10.1007/978-3-642-10871-6_11

Brian W. Sturm, PhD
School of Information and Library Science
University of North Carolina at Chapel Hill
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Chapel Hill, NC 27599-3360
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Education

Ph.D. in Library and Information Science. Indiana University, Bloomington, Indiana. 1998.
Master of Library Science. Indiana University, Bloomington, Indiana. 1991.
Bachelor of Arts in French, minor in Biology. College of William and Mary, Williamsburg, Virginia. 1985.
Université Paul Valéry, Montpellier, France. 1983-84. (junior year of college abroad)
Norfolk Academy, Norfolk, Virginia. 1981.

Selected Professional Experience

Associate Dean for Academics. School of Information and Library Science at the University of North Carolina at Chapel Hill, 2020-present.
Professor of Information and Library Science at the University of North Carolina at Chapel Hill. 2020-present. Associate 2004-2019. Assistant 1998-2004.
Coordinator of the Masters in Library Science Program, School of Information and Library Science at the University of North Carolina at Chapel Hill. 2011-2020.
Children's Librarian, Monroe County (IN) Public Library. 1995-97.
Professional Storyteller: performing and conducting workshops for adults and children at schools, libraries, conferences, and special events, 1990- present.

Honors

2019 Nominated for UNC Faculty Award for Excellence in Doctoral Mentoring.
2016-2018 Frances Carroll McColl Term Associate Professorship.

Monographs

MacDonald, Margaret Read and **Brian W. Sturm**. (2001). *The Storytellers Sourcebook, 1983-1999.* Chicago: Gale. 712 pages. (2002 Storytelling World Award, 2003 Anne Izard Storytellers' Choice Award).

Refereed Articles

Nelson, Sarah Beth, Amanda Sacchitello, **Brian W. Sturm**. (accepted). Saying "Yes" to performing arts for STEM students. *Library and Information Science Research,*

Wang, Pianran, Jianhua Xu, **Brian W. Sturm**, Qi Kang, and Yingying Wu. (2021). Books, physical spaces, rules, people: A holistic analysis of Chinese young Chinese children's perceptions of public libraries. *Journal of Librarianship & Information Science,* published online. https://doi.org/10.1177%2F09610006211007197

Sturm, Brian. (2020). "The hidden voices of symbolism and superstition in the Hungarian folktale of "The Rooster and the Diamond Button", *Storytelling, Self, Society,* 15, 2, 145-165. https://digitalcommons.wayne.edu/storytelling/vol15/iss2/2

Xu, Jianhua, Pianran Wang, **Brian W. Sturm**, and Yingying Wu. (2018). How preschool children think about libraries: Evidence from six children's libraries in China. *Journal of Librarianship & Information Science,* 52(2), 428-440. https://doi.org/10.1177/0961000618818887

Sturm, Brian W. and Sarah Beth Nelson. (2017). What can folktales teach us about higher education teaching? *Storytelling, Self, Society,* 13, 2, 170-194 (invited)

Wang, Pianran, Jinhua Xu, and **Brian W. Sturm.** (2017). 阅读方法对儿童表达能力影响的实验研究 [Study on Expression Skill Impacts of Children's Reading Techniques]. 图书馆论坛［*Library Tribune*], 37, 4, 83-89. Retrieved from http://eng.oversea.cnki.net/kcms/detail/detail.aspx?filename=TSGL201704011&DBName=cjfqtotal&dbcode=cjfq&uid=WEEvREcwSlJHSldRa1Fhb09jSnZqem43UkVoYjFRbnpQL2tGcnRXc0RoZz0=$9A4hF_YAuvQ5obgVAqNKPCYcEjKensW4ggI8Fm4gTkoUKaID8j8gFw!!

Sturm, Brian W., Mark Riddle, and Laura Fox. (2017). Storytelling's impact on school library circulation. *School Libraries Worldwide*, 23, 1, 1-14.

Nelson, Sarah Beth and **Brian Sturm.** (2017). Storytelling. In Michael Levine-Clark and John McDonald (Eds.), *Encyclopedia of Library and Information Sciences*. 4th edition. (pp. 4437-4446). New York: Taylor & Francis.

Evaluation Reports

Sturm, Brian W. (2021). Program presentation for the committee on accreditation of the American Library Association. School of Information and Library Science, University of North Carolina at Chapel Hill.

Sturm, Brian W. and Gary Marchionini. (2020). Self-study: Graduate school program review at UNC-Chapel Hill. School of Information and Library Science, University of North Carolina at Chapel Hill.

Haas, Stephanie and **Brian W. Sturm.** (2014). Program presentation for the committee on accreditation of the American Library Association. School of Information and Library Science, University of North Carolina at Chapel Hill.

Non-Refereed Works

Sturm, Brian. (submitted). Storytelling and aphantasia. *Journal of Tar Heel Tellers,*

Sturm, Brian. (2019). How much description is too much? *Journal of Tar Heel Tellers,* 25, 2, 9-12.

Sturm, Brian. (2018). The paradox of participation. *Journal of Tar Heel Tellers,* 25, 1, 9-10.

Sturm, Brian. (2018). Charleston voices: the relevance of the MLS degree. *Against the Grain,* http://www.against-the-grain.com/2018/03/charleston-voices-a-new-series-edited-by-matthew-ismail/.

Sturm, Brian. (2017). Storytelling and the 4th wall. *Journal of Tar Heel Tellers,* 24, 1, 8-10.

Sturm, Brian. (2017). Why do stories start as they do? *Journal of Tar Heel Tellers,* 23, 2, 6-7.

Children's Books

[Ghost writer]

Berne, P. J. (2012). *The Adventures of Rugby and Reme: the ancient adventure ends.* Manchester Sky, LLC. (2012 Parent Tested/Parent Approved award)

Berne, P. J. (2012). *The Adventures of Rugby and Reme: the ancient adventure begins.* Manchester Sky, LLC. (2012 Parent Tested/Parent Approved award)

CREATIVE WORK

Story Squad

Literacy initiative to bring world folklore to the community. Includes development of a Folktale Storytelling Digital Library, student storytellers, and research initiatives.

Serious Game Design

"Project Durkow" Project Team. Wrote story line and helped develop and deploy second Alternate Reality Game to help undergraduates in History class on Border Conflicts learn about resources and information seeking processes. 2011-2012.

"Should Brandon and Nicole Get Engaged (ShBANGE)." Project Team: Narrative Expert. Helped write, design, and deploy the first Alternate Reality Game on the University of North Carolina campus, intended to help undergraduate students think about relationships. 2009-2010.

Grants

Institute for Museum and Library Services National Forum Grant. 2020. *The Future of Youth Public Librarian Education*. Principal Investigator. Co-Investigators: Sandra Hughes-Hassell, Casey Rawson, Sayamindu Dasgupta. $149,781.

Heineman Foundation. 2017. $31,000. *Motivating Literacy Through Storytelling, II*. Principal Investigator.

August 2020

HELEN R. TIBBO

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University of North Carolina at Chapel Hill
Chapel Hill, NC 27599-3360

Cell: 919.418.4557
Skype: Helen.Tibbo
tibbo@ils.unc.edu

EDUCATION

Ph.D. 1989. University of Maryland -- Library and Information Science

Dissertation: *Abstracts, Online Searching, and the Humanities: A Study of the Structure and Content of Abstracts of Historical Discourse*

M.A. 1984. University of Maryland -- American Studies

M.L.S. 1983. Indiana University -- Library and Information Science

B.A. 1977. Bridgewater State College -- English, with minors in education and history

PROFESSIONAL EXPERIENCE

2016-	Director of Digital Curation Programs, SILS
2010-	Alumni Distinguished Professor, SILS, UNC-Chapel Hill
	ISO Primary Trustworthy Digital Repository Audit Board (PTAB), founding member
2000-2002	Frances Carroll McColl Term Professor, SILS, UNC-Chapel Hill
1996-2000	Assistant/Associate Dean, SILS, UNC-Chapel Hill
1989-2010	Assistant/Associate Professor/Professor, SILS, UNC-Chapel Hill

SELECTED PUBLICATIONS

Duff, Wendy, Elizabeth Yakel, & Helen R., Tibbo. "Archival Reference Knowledge." *The American Archivist.* Vol. 76/ No. 1 (Spring/Summer, 2013).

Yakel, Elizabeth, Wendy Duff, Helen R. Tibbo, Adam Kriesberg, and Amber Cushing. "The Economic Impact of Archives: A Survey of Users of Government Archives in Canada and the United States." American Archivist, 75/2 (Fall/Winter 2012): 297-325.

Helen R. Tibbo. "Placing the Horse before the Cart: Conceptual and Technical Dimensions of Digital Curation." *Historical Social Research*, 37/3 (2012): 187-201.

Tibbo, Helen R. "On the Occasion of SAA's Diamond Jubilee: A Profession Coming of Age in the Digital Era" Forthcoming in American Archivist, 75/1 (Spring/Summer 2012): 17-34.

Yoon, Ayoung and Helen Tibbo. "Examination of Data Deposit Practices in Repositories with the OAIS Model: Social Science Context." IASSIST Quarterly, 35/4 (Winter 2011): 6-13.

Lee, Christopher A. and Helen R. Tibbo. "Where's the Archivist in Digital Curation? Exploring the Possibilities through a Matrix of Knowledge and Skills." *Archivaria* 72 (2011): 123-168.

Duff, Wendy, Elizabeth Yakel, and Helen R. Tibbo. "The Development, Testing, and Evaluation of the Archival Metrics Toolkits." *American Archivist.* 73/2 (Fall/Winter 2010): 569-599.

Yakel, Elizabeth and Helen R. Tibbo. "Standardized Survey Tools for Assessment in Archives and Special Collections." *Performance Measurement and Metrics.* 11/2 (Fall/Winter 2010): 211-222.

Helen R. Tibbo and Christopher A. Lee. "Convergence through Capabilities: Digital Curation Education for Libraries, Archives and Museums." *Archiving 2010 Final Program and Proceedings.* The Hague, Netherlands, June 1-4, 2010 Springfield, VA: Society of Image Science & Technology, June, 2010, pp. 53-57.

Lee, Christopher A. & Helen R. Tibbo. "Capturing the Moment: Strategies for Selection & Collection of Web-Based Resources to Document Important Social Phenomena." *Archiving 2008 Final Program and Proceedings.* Bern, Switzerland, June 24-27, 2008 Springfield, VA: Society of Image Science & Technology, June, 2008, pp. 300-305.

Tibbo, Helen R., Carolyn Hank, and Christopher A. Lee. "Challenges, Curricula, and Competencies: Researcher and Practitioner Perspectives for Informing the Development of a Digital Curation Curriculum." *Archiving 2008 Final Program and Proceedings.* Bern, Switzerland, June 24-27, 2008 Springfield, VA: Society of Image Science & Technology, June, 2008, pp. 234-238.

Lee, Christopher A., Helen R. Tibbo, & John Schaefer. "DigCCurr: Building an International Digital Curation Curriculum & the

Carolina Digital Curation Fellowship Program." *Archiving 2007 Final Program and Proceedings.* Arlington, VA, May 21-24, 2007. Springfield, VA: Society of Image Science & Technology, May, 2007, pp. 105-109.

Carolyn, Helen R. Tibbo, & Heather Barnes. "Building from Trust: Using the RLG/NARA Audit Checklist for Institutional Repository Planning and Deployment." *Archiving 2007 Final Program and Proceedings*. Arlington, VA, May 21-24, 2007. Springfield, VA: IS&T, May, 2007, pp. 62-66.

Tibbo, Helen R. "Impact of Information Technology on Academic Archives in the 21st Century," In *College and University Archives Reader*, edited by Ellen Swain and Christopher Prom. Chicago: Society of American Archivists, 2008: 27-52.

Tibbo, Helen R. "Primarily History in America: How US Historians Search for Primary Materials at the Dawn of the Digital Age." *American Archivist* 66 (Spring/Summer 2003): 9-50.

Tibbo, Helen R. "On the Nature and Importance of Archiving in the Digital Age." *Advances in Computers*. 57 (2003): 1-67.

Abstracting, Information Retrieval and the Humanities: Providing Access to Historical Literature. ACRL Publications in Librarianship no. 48. Chicago: American Library Association, 1994.

SELECTED GRANTS

CRADLE: Curating Research Assets and Data using Lifecycle Education: Data Management Education Tools for Librarians, Archivists, & Content Creators. PI: Helen R. Tibbo, Co-PI: Thu-Mai Christian. Submitted to IMLS, September 20, 2012. Funded April 14, 2013; Award request: $499,902; total project cost: $929,371.

Educating Stewards of Public Information Infrastructure in the 21st Century – II (ESOPI II). PI: Helen Tibbo; Co-PI: Christopher Lee. Award request: $897,449; total project cost: $1,269,682. Submitted: December 15, 2010. Funded, June 2011.

Closing the Digital Curation Gap: An International Collaboration to Integrate Best Practice, Research & Development, and Training in Digital Curation. PI: Helen Tibbo; Co-PI: Christopher Lee. Project Partner: Joint Information Systems Committee and the Digital Curation Center, UK. Award amount: $249,623; total project cost: $384,032. Funded Sept. 2009. Travel grant, January 2011, $10,000. Extension funding, June 2011, Award request: $92,812.13; total project cost: $151,498.59.

Educating Stewards of Public Information in the 21st Century (ESOPI 21). PI: Helen Tibbo; Co-PIs: Christopher Lee and Shannon Tufts. Award amount: $803,258; total project cost: $1,190,485. Funded: June 17, 2009.

Archival Metrics and User Evaluation for Government Archives. Collaborative proposal with Elizabeth Yakel (PI) University of Michigan and Wendy Duff, University of Toronto to National Historical Publications and Records Commission. Requested funding: $149,993. Grant period: January 1, 2009 – December 31, 2010. Funded: Nov. 2008.

DigCCurrII: Extending the Digital Curation Curriculum Domain. Institute for Museum and Library Services. PI: Helen Tibbo; Christopher Lee, Co-PI. Award amount: $878,606; total project funding: $1,718,783. Grant period: September 2008-August 2012. Funded June 18, 2008.

Preserving Access to Our Digital Future: Building an International Digital Curation Curriculum & the Carolina Digital Curation Fellowship Program. (DigCCurr) Institute for Museum and Library Services. PI: Helen Tibbo. Requested funding: $642,041; total project funding: $1,117,322. Funded. Grant period: July 1, 2006 – June 30, 2009.

Developing Standardized Metrics: Towards Understanding the Impact of College and University Archives and Special Collections on Scholarship, Teaching, and Learning. Co-PIs: Wendy Duff (U. of Toronto), Helen Tibbo, Elizabeth Yakel (U. of Michigan). Andrew Mellon Foundation. Total funding requested: $ 328,976; Funded. June 2005 – May 2007.

SELECTED HONORS, AWARDS, & ELECTED OFFICES

Library of Congress "Digital Pioneer" 2011.

Society of American Archivists, Fellow, 2005; Vice-President, 2009-2010; President 2010-2011; Council, 1997-2000.

Society of American Archivists' 1994 Fellows' Ernst Posner Prize for the most outstanding article in the 1994 volume of the *American Archivist.*

American Society for Information Science Doctoral Dissertation Award, 1990, 1st place.

Francesca Bolla Tripodi

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CURRENT POSITION

Assistant Professor, School of Information and Library Science
Senior Faculty Researcher, Center for Information Technology and Public Life
Affiliate, Data & Society Research Institute

EDUCATION

2017 Ph.D., Sociology, University of Virginia
Dissertation: *The Silenced Minority – How Integrated Audiences Limit Participation Across Platforms*
2012 M.A., Sociology, University of Virginia
2010 M.A., Communication, Culture, and Technology, Georgetown University
2003 B.A., Communication, University of Southern California

PREVIOUS POSITIONS

Assistant Professor of Sociology, James Madison University (2018 – 2020)
Postdoctoral Scholar, Data & Society Research Institute (2017-2018)
PhD Intern, Office of the Dean of Students, University of Virginia (2015-2016)

HONORS

Karl F. Landegger Honors in International Business Diplomacy - Georgetown University (2010)

PUBLICATIONS

Books

Tripodi, Francesca. Under Contract. *Searching for Alternative Facts: how conservative pundits and politicians wield the power of search.* Yale University Press.

Press, Andrea and Francesca Tripodi. 2021. *Media Ready Feminism and Everyday Sexism.* State University of New York Press.

Book Chapters

Tripodi, Francesca.2017. "Yakking About College Life." in Tressie McMillan Cottom, Jessie Daniels, and Karen Gregory (eds.) Digital Sociologies. Policy Press.

Press, Andrea L., Fan Mai, Francesca Tripodi, and Mike Wayne. 2016. "Audiences." *The Encyclopedia of the Social Sciences*. Oxford: Elsevier.

Press, Andrea L., and Francesca Tripodi. 2014. "Feminism in a Postfeminist World: Who's Hot – and Why We Care – on the Collegiate 'Anonymous Confession Board.'" in Cindy Carter, Lisa McLaughlin, and Linda Steiner (eds.). The Routledge Companion to Media and Gender. New York: Routledge.

Refereed Journal Articles

Tripodi, Francesca. Revise & Resubmit. "ReOpen demands as public health threat: a sociotechnical framework for understanding the stickiness of problematic content." *Computational and Mathematical Organization Theory Special Issue on Disinformation*

Tripodi, Francesca. Conditional Acceptance. "Ms. Categorized: Gender, Notability, and Inequality on Wikipedia" *New Media & Society*

Tripodi, Francesca. 2017. "50 Shades of Consent?" *Feminist Media Studies*.

Popular Press

Tripodi, Francesca, 2021. Don't expect breaking up Google and Facebook to solve our information woes. *Nieman Lab – Predictions for Journalism 2021* .
Tripodi, Francesca.2020. "Conservatives are gearing up to blame Big Tech for Trump's Loss." *Slate*
Tripodi, Francesca. 2020. "Google and the Cost of 'Data Voids' During a Pandemic" *Wired*
Tripodi, Francesca. 2019. "Devin Nunes and the Power of Keyword Signaling." *Wired*
Tripodi, Francesca. 2019. "Escaping the 'Invincible Mom' Trap." *Medium*
Tripodi, Francesca.2018. "There's No Such Thing as a Web Without Gatekeepers." *Medium*
Tripodi, Francesca.2018. "No, Big Tech Isn't Silencing Conservatism." *Medium*
Tripodi, Francesca.2018. "How Trump Voters Decide Who to Trust." *Medium*
Tripodi, Francesca.2018. "Alternative Facts, Alternative Truths." *Points.*

GRANTS & FELLOWSHIPS

2020 In Search of Search and its Engines – The Pufendorf Institute for Advanced Studies (Lund University)
2019 Sociology & Anthropology Summer Research Grant – James Madison University $4000
2019 Innovative Efforts Award (IDEA) "Celebrating Academic Bravery- Filling the Bowl with Hope and Understanding" / Office of Access & Inclusion, James Madison University - $4000
2019 College of Arts & Letters Scholarly Workshop - $5000
2016/2017 Research Fellowship – Provost's Office – University of Virginia - $14,000

INVITED TALKS/WORKSHOPS

2021 Reimagine the Internet – Knight First Amendment Institute at Columbia University
2021 Truth and Denial – UC Berkeley Social Science Matrix
2020 Disinformation, Authenticity, and Democratic Participation – Social Science Research Council
2020 Oliver Smithies Nobel Symposium – UNC School of Medicine
2020 National Academy of Sciences – Symposium on Addressing Misinformation on the Web in Science, Engineering, and Health.
2019 Senate Judiciary Committee Testimony – Subcommittee on the Constitution (April 10 and July 16)
2018 Friends of O'Reilly (FOO) Camp
2018 "Searching for Alternative Facts" – Laboratory of Social Machines – MIT Media Lab
2018 "Online Platforms: Personalization and Polarization" - Co-sponsored by the Center for Democracy & Technology and the Charles Koch Institute.
2018 "The Consequences of Misinformation." Social Science Research Council (SSRC)

CONFERENCES

2020 Social-Cybersecurity in Times of Crisis and Change – IDeaS Institute – Carnegie Mellon University
2020 Digital Sociology Collective "un"Conference – University of Pennsylvania – co-organizer
2019 "Amplifying Hate" – Invited Session – American Sociological Association Annual Conference
2019 "Mainstreaming the Extreme" – Eastern Sociological Society – Digital Sociology Mini-Conference
2019 Organizer – Digital Sociology Mini-Conference – Eastern Sociological Society Annual Conference

AWARDS

2020 James Madison University Liberal Arts Legacy Award – Excellence in Teaching & Scholarship
2014 1st Place – Huskey Research Exhibition – University of Virginia
2013 All-University Graduate Teaching Assistant Award in Media Studies

ZEYNEP TUFEKCI
zeynep@technosociology.org
917-651-1942

EDUCATION

University of Texas at Austin, Ph.D., 2004. Dissertation: "In Search of Lost Jobs: The Rhetoric and Practice of Computer Skills Training"
University of Texas at Austin, M.A., 1999. Thesis: "Mental Deskilling in the Age of the Smart Machine"
Istanbul University, Turkey B.A., Sociology, 1995
(Also: Bosphorus University, Turkey. Undergraduate degree in Computer Programming)

ACADEMIC EXPERIENCE

Associate Professor, 2016 – Present
University of North Carolina, School of Information and Library Science, Chapel Hill, NC

Andrew Carnegie Fellow, 2015-2016
Andrew Carnegie Fellow in the Social Sciences and Humanities

Assistant Professor, 2011 – 2016
University of North Carolina, School of Information and Library Science, Chapel Hill, NC

Adjunct Assistant Professor, 2011-Present
University of North Carolina, Department of Sociology, Chapel Hill, NC

Faculty Associate, 2012-Present
Harvard University, Harvard Berkman Klein Center for Internet & Society, Cambridge, MA

HONORS

O'Reilly Security Defender Award, 2016. (Inaugural) for best practices and effective new approaches to online security.
Andrew Carnegie Fellow, 2015-16, Carnegie Corporation of New York. (Inaugural, national class of 32).

EXTERNAL GRANTS

2019-2024	**$5,000,000** Knight Foundation Grant, to establish The Center for Informed Society with three other UNC co-PIs
2019-2020	**$750,000** Luminate Foundation (to be announced in July 2019) (To support research into privacy and surveillance especially with machine learning applications, to work on public health and public sphere aspects in two projects).
2019-2021	**$660,000** Hewlett Foundation (Algorithms and Society) (Co-PI with Deen Freelon)
2018-2020	**$274,081** Omidyar Foundation (Impact and Consequences of Encrypted Chat Apps) (sole PI)

BIBLIOGRAPHY AND PRODUCTS OF SCHOLARSHIP

Books

Tufekci, Zeynep. (forthcoming). *Age of Machine Intelligence.* Penguin Press.
Tufekci, Zeynep. (2017). *Twitter and Tear Gas: The Power and Fragility of Networked Protests*. Yale University Press.
Straubhaar, J., Spence, J., **Tufekci Z** ., Lentz, R. (Eds.) (2012). *Inequity in the Technopolis: Race, Class, Gender, and the Digital Divide in Austin*. University of Texas Press: Austin.

Refereed Papers/Articles

Tufekci, Zeynep. (2016). As the Pirates Become CEOs: The Closing of the Open Internet. Daedalus. 145 (1), 65-78.
Tufekci, Zeynep. (2015). "Algorithmic Harms beyond Facebook and Google: Emergent Challenges of Computational Agency." *J. on Telecomm. & High Tech. L.*, *13*, 203-445.
Tufekci, Zeynep. (2014). "Engineering the public: Big data, surveillance and computational politics." *First Monday*, 19 (7). doi:10.5210/fm.v19i7.4901.
Tufekci, Zeynep. (2014). "Big Questions for Social Media Big Data: Representativeness, Validity and Other Methodological Pitfalls." In *ICWSM '14: Proceedings of the 8th International AAAI Conference on Weblogs and Social Media*.
Tufekci, Zeynep. (2014). "Social Movements and Governments in the Digital Age: Evaluating a Complex Landscape." *Journal of International Affairs*, 68 (1). December 2014.
Tufekci, Zeynep. (2014). "The Medium and the Movement: Digital Tools, Social Movement Politics, and the End of the Free Rider Problem." *Policy & Internet*, 6 (2), 202–208. doi:10.1002/1944-2866.POI362.

Book Chapters

Tufekci Zeynep (2015). Authoritarian Use of Social Media. In *Is Authoritarianism Staging a Comeback?* Matthew Burrows and Maria Stephan (Eds). Atlantic Council.

Reports and White Papers

2015. (co-authored) "The Ethics of Algorithms: from radical content to self-driving cars." White Paper for the Ethics of Algorithms Conference for *the Centre for Internet and Human Rights*.
https://www.gccs2015.com/sites/default/files/documents/Ethics_Algorithms-final%20doc.pdf

SELECTED INVITED TALKS

TED Talks:

- TED talk on Algorithmic Society and Machine Learning. New York, 2017.
- "Machine intelligence makes human morals more important." TED. Banff, Canada. (June, 2016).
- "Online social change: easy to organize, hard to win." TED Global. Rio de Janeiro, Brazil. (October, 2014)

Yue Wang

School of Information and Library Science
The University of North Carolina at Chapel Hill
Manning Hall, CB 3360, Chapel Hill, NC 27599-3360
wangyue@email.unc.edu
http://ils.unc.edu/~wangyue/

Education

Shanghai Jiao Tong University	Shanghai, China	Information Security	BS, 2009
Shanghai Jiao Tong University	Shanghai, China	Computer Science and Engineering	MS, 2012
Georgia Institute of Technology	Atlanta, GA	Electrical and Computer Engineering	MS (dual), 2012
University of Michigan	Ann Arbor, MI	Computer Science and Engineering	PhD, 2018

Appointments

Year(s)	***Title***
2018 – Present	Assistant Professor, School of Information and Library Science, UNC-CH
2019 – Present	Core Faculty, Carolina Health Informatics Program, UNC-CH

Selected Awards and Honors

- Deborah Barreau Award for Teaching Excellence, 2021
- Kilgour Research Award, School of Information and Library Science, UNC-CH, 2018
- Outstanding Reviewer/PC Award, WSDM 2016; 2019; 2020
- Best Paper Award, WSDM 2016

Selected Publications

Jiaming Qu, Jaime Arguello, **Yue Wang**. A Deep Analysis of an Explainable Retrieval Model for Precision Medicine Literature Search. In Proceedings of the 43rd European Conference on Information Retrieval (ECIR), 2021.

Jiaming Qu, Jaime Arguello, **Yue Wang**. Towards Explainable Retrieval Models for Precision Medicine Literature Search. 43rd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR), 2020.

Yue Wang, Kai Zheng, Hua Xu, and Qiaozhu Mei. Interactive Medical Word Sense Disambiguation Through Informed Learning. *Journal of the American Medical Informatics Association* (JAMIA). Volume 25, Issue 7, 800–808, 2018.

Yue Wang, Dawei Yin, Luo Jie, Pengyuan Wang, Makoto Yamada, Yi Chang, Qiaozhu Mei. Optimizing Whole-Page Presentation for Web Search. *ACM Transactions on the Web* (TWEB), Volume 12 Issue 3, July 2018, Article No. 19.

Xinning Gui, **Yue Wang**, Yubo Kou, Tera Reynolds, Yunan Chen, Qiaozhu Mei, Kai Zheng. Understanding the Patterns of Health Information Dissemination on Social Media during the Zika Outbreak, in *American Medical Informatics Association Annual Symposium Proceedings* (AMIA), pp. 820-829, 2017.

Yue Wang, Dawei Yin, Luo Jie, Pengyuan Wang, Makoto Yamada, Yi Chang, Qiaozhu Mei. Beyond Ranking: Optimizing Whole-Page Presentation. In *Proceedings of the 9th ACM International Conference on Web Search and Data Mining* (WSDM), 103-112, 2016. **[Best Paper Award]**

Cheng Li*, **Yue Wang***, Paul Resnick, Qiaozhu Mei. ReQ-ReC: High Recall Retrieval with Query Pooling and Interactive Classification. In *Proceedings of the 37th Annual International ACM SIGIR Conference on Research and Development in Information Retrieval* (SIGIR), 163-172, 2014. (* equal contribution)

Yan Xu, **Yue Wang**, Jiahua Liu, Zhuowen Tu, Jiantao Sun, Junichi Tsujii, Eric Chang. Suicide Note Sentiment Classification: A Supervised Approach Augmented by Web Data. *Journal of Biomedical Informatics Insights*, 2012:5 (Suppl. 1) 31-41.

Active Grant & Contract

NCSU, Laboratory for Analytic Science, 01/01/2021 – 12/31/2021
Visual Data Exploration for Integrated Structured/Unstructured Analysis (Year 2)
Role: PI (co-PI with David Gotz, UNC-CH)
Total Award Amount: $163,717

NIH/NIDA, CRCNS-Computation Neuroscience, 09/01/2020 – 07/31/2024
CRCNS Data Sharing Proposal: Collaborative Research: NeuroBridge: Connecting Big Data for Reproducibility Research in Clinical Neuroscience
Role: co-PI (PI: L. Wang, Northwestern University; Rajasekar, UNC SILS)
Total Award Amount: $432,298

Teaching Experience

Instructor, INLS 509 Information Retrieval (3 credits), UNC-CH.
Fall 2018, 2019; Spring 2019, 2020, 2021

Instructor, INLS 690-270 Data Mining: Methods and Applications (3 credits), UNC-CH.
Fall 2019, 2020; Spring 2019, 2020

Selected Professional Services

Program committee of prestigious data mining and information retrieval conferences (WSDM 2016-2021; SIGIR 2017-2021; WWW 2017-2021)

Invited reviewer for *ACM Transactions on Information Systems (TOIS)* and *IEEE Transactions on Knowledge and Data Engineering (TKDE)*

Megan A. Winget, PhD.

Phone: +1.512.919.6100 ✪ email: megan.winget@gmail.com ✪ website: http://meganwinget.com

Selected Experience

Teaching Assistant Professor, School of Library and Information Science, UNC — July 2018 – Present

Design teaching agenda that meets the needs of students and faculty. Nurture students, develop collaborative relationships within the faculty and within the university community; provide leadership and strategic advice for people interested in "information" as a career.

Owner & Principal, Conviviali Consulting (Research, Audience Engagement) — September 2010 - Present

Identify potential business opportunities through market research, personal and professional networks and highlighting existing project work through blog posts, white papers, and case studies. Current engagements include market research, experience design and product strategy, both for independent customer development and for a variety of clients. Examples:

- Better Together, ATX (community organization, activism) — November 2016 - Present
  Create and direct a local "Indivisible" community-led activism group following the 2016 presidential election.
  - Develop community ties with other political action groups in Austin and surrounding areas. Create relationships with the First Unitarian Universalist Church of Austin to sponsor the group.
  - Use Facebook to grow the group from 8 members at its first meeting in November 2016 to over 700 in February 2017, nearing 1000 members today.
  - Facilitate participant meetings to shape the group's mission, activities, and goals.
- Consulting Grant Specialist, MIT (grant writing, editing) — November 2013 – Present
  Develop strategy for external development and grant making for Research Professor at the Massachusetts Institute of Technology.
  - Perform funder research on governmental, foundation, and corporate sources; identify new funding sources and develop strategy to go after these opportunities.
  - Establish timelines, work distribution schedules, and oversee the production of all deliverables from project director.
  - Keep up to date on the interests, skills, and projects of current faculty and research assistants; connect their interests with viable funding prospects.
- Interim Director of Research, Umbel (audience analytics & patent dev.) — May – November 2013
  Led strategic leadership initiatives for product development and audience evaluation techniques; forged partnerships with academic, granting agency and industry partners.
  - Research & Presentation: Compiling, synthesizing and analyzing audience engagement research to advise CIO in development of metrics for audience behavior, brand engagement and media needs in terms of advertising, content, and revenue generation.
  - Patent Development: Translated novel technological approaches to language suitable for provisional patents. Researched prior art, developed patent strategy.

Assistant Professor, School of Information, University of Texas at Austin — 2006 – 2013

Designed research agenda focused on examination of issues in digital curation, specifically the representation and preservation of non-text materials and new media.

- Grant-Writing: Raised ~ $300K+ in research grants after finding federal, state, and local funding, and developing proposals that met funding agencies' goals.
- Grant-Reviewing: Sat on the review board of over 10 grant cycles. Reviewed grants for the NEH, NEA, NSF, and the IMLS (Institute of Library and Museum Services). Developed in-depth understanding of the grant process, and what constitutes a "successful"
- Project Management: Managed the preparation of proposals, developed project timelines, schedules and milestones; managed budgets and resource allocation. Identified necessary resources, managed work plan execution for student-lab.
- Outreach: Built collaborative partnerships with industry at the local, national and international level.

- Leadership: Developed a network of personal and professional contacts, expanded network over time. Regularly published in scholarly and trade publications, presented at national and international scholarly and industry conferences, conducted workshops and tutorials.

Invited Speaker

"The Wicked Problem of New Media Preservation." Library of Congress Digital Preservation Symposium, Washington DC. July 23, 2012.

"The Videogame Archive at the University of Texas at Austin. Authors' Papers; Developers' Documentation." Videogame Preservation Group. Museum of the Moving Image; Queens, New York. September 29, 2011.

"I Am Large, I Contain Multitudes: The Problem of 'The Creator' in New Media." Social Media & Online Communities Workshop. Boulder, Colorado. August 9 -10, 2011.

"Preserving New Media: Object, Artifact, Experience, Interaction." Netherlands Media Arts Institute. Amsterdam, The Netherlands. June 28, 2011.

"Videogame Documentation and Archival Appraisal – We Need A New Model." Re-Imagining the Archive: Remapping and Remixing Traditional Models in the Digital Age. A Three-Day Symposium at UCLA. Los Angeles, CA. November 12 – 14, 2010.

"Thinking About Videogames." Northeast Document Conservation Center, The Tectonics of Digital Curation: A Symposium on the Shifting Preservation and Access Landscape. Boston, MA. May 24 – 26, 2010.

"Representing and Collecting Artifacts of Participatory Culture: Videogame Fanboys, Otaku, and the Culture of Creativity." Digital Media Workshop, University of Texas at Austin. Organized by Winget and Bill Aspray (February 14, 2009).

Peer Reviewed Journal Articles

Winget, Megan A. (2013). "A Meditation on Social Reading and Its Implications for Preservation." *Preservation, Digital Technology & Culture*. Volume 42. Issue 1. pp. 1-14.

Winget, Megan A. (2011). "Videogame Preservation and Massively Multiplayer Online Role-Playing Games: A Review of the Literature." *Journal of the American Society for Information Science & Technology: Advances in Information Science*. Volume 62, Issue 10 pp. 1869-1883.

Winget, Megan A. (2011). "Collecting the Artifacts of Participation: Videogame Players, Fan-Boys, and Individual Models of Collection." In *Digital Media: Interdisciplinary Perspectives on History, Preservation, and Ontology*, Megan Winget and William Aspray, Eds., pp. 27-72. New York: Scarecrow.

Efron, Miles and Megan Winget. (2010). "Query Polyrepresentation for Ranking Retrieval Systems Without Relevance Judgments." *Journal of the American Society for Information Science & Technology*. Volume 61, Number 6, pp. 1081-1091.

Winget, Megan. (2009). "Describing Art: an Alternative Approach to Subject Access and Interpretation" *Journal of Documentation*. Volume 65, Number 6, pp. 958–976.

Winget, Megan A. (2008). "Annotations on Musical Scores by Performing Musicians: Collaborative Models, Interactive Methods, and Music Digital Library Tool Development." *Journal of the American Society for Information Science & Technology*. Volume 59, Issue 12, pp. 1878-1897.

Peer Reviewed Conference Papers

WInget, Megan A. & W. Walker Sampson. (2011). "Game Development Documentation and Institutional Collection Development Policy." [Long Paper] *Proceedings of the 2011 ACM / IEEE Joint Conference on Digital Libraries* (JCDL). Ottawa, Canada (June 14-17, 2011) pp. 29-38.

Winget, Megan. (2009). **"**Archiving the Videogame Industry: Collecting Primary Materials of New

Media Artifacts." [Poster] *Proceedings of the 9th ACM/IEEE-CS Joint Conference on Digital Libraries* (JCDL). Austin, TX (June 15 – 19, 2009) p. 459.

Winget, Megan A. & Caitlin Murray. (2008). "Collecting and Preserving Videogames and Their Related Materials: A Review of Current Practice, Game-Related Archives and Research Projects." [Long Paper] *Annual Meeting of the American Society for Information Science & Technology*. Columbus, OH (October 24 – 29, 2008).

Winget, Megan A. (2007). "A Methodology and Model for Studying Boundary Objects, Annotations, and Collaborative Practices: Musicians and Musical Scores." Milwaukee, WI (October 18 – 25, 2007).

FEI YU

216 Lenoir Drive, 100 Manning Hall, Chapel hill, NC 27599-3360

Education

University of North Carolina at Chapel Hill
Master of Professional Science in Biomedical and Health Informatics, May 2018

University of Pittsburgh, Pittsburgh, PA
Ph.D., Library and Information Science, July 2006

Wuhan University, Hubei, China
Master of Information Management, August 2000

Wuhan University, Hubei, China
B.A. in Library and Information Science, August 1997

Professional Experience

Assistant Professor, School of Information and Library Science (SILS) at UNC-Chapel Hill, July 2017– present

- Teaching INLS 718 User Interface Design (fall & spring)
- Advising students at School of Information and Library Science (SILS) and Carolina Health Informatics Program (CHIP)
- Serving at various SILS committees (e.g., Diversity, Personnel, & Master)

Health Informatics Librarian, Health Sciences Library at UNC-Chapel Hill, February 2017 – present

- Liaison librarian to the Carolina Health Informatics Program (CHIP) & North Carolina Translational and Clinical Institute (NC TraCS)
- Expanding the library's support in the areas of health & research informatics, health analytics, mobile health, electronic health records, and related fields
- Helping UNC Health Affairs schools with research impact evaluation through bibliometrics network analysis and visualization

Peer-reviewed Publications & Poster Abstracts (May 1, 2020 – April 30, 2021)

- **Yu, F.**, & Mani, N. (2021). Comparison of data analytics software usage in biomedical and health sciences research: A case study. In K. Toeppe, H. Yan, & S. K. W. Chu (eds.), *Diversity, Divergence, Dialogue: 16th International Conference, iConference 2021, Beijing, China, March 17–31, 2021, Proceedings, Part I* (Vol. 12645, pp. 124–136). Cham: Springer International Publishing. doi:10.1007/978-3-030-71292-1_11
- Mani, N., Ottosen, T., Fratta, M., & **Yu, F.** (2021). An analysis of state health department COVID-19 information for the Public. *Manuscript accepted by Journal of Medical Library Association (JMLA) and will be published in the latest issue.*
- Wang, M., Sharmin, W., Wang, M., & **Yu, F.** (2021) A mixed-method usability study on user experience with systematic review software. *Manuscript accepted by ASIS&T 2021 Program Committee and will be published in the conference proceeding*.

- Thomas, J., Carlson, R., Cawley, M., Yuan, Q., Fleming, V., & **Yu, F.**, The gap between technology and ethics, especially in low- and middle-income country health information systems: A bibliometric study. *Manuscript submitted to MedInfo 2021 (International Medical Informatics Association) and currently under peer-review.*
- Mani, N., Hayes, B.E., Dodd, A., **Yu, F.**, & Cawley, M. (2021). New data-related roles for librarians: Using bibliometric analysis and visualization to increase visibility of research impact. Book chapter submission and currently under review. In B. J. Holland (eds.), *Handbook of Research on Knowledge and Organization Systems in Library and Information Science.* IGI Global Publishing.
- Wang, M., **Yu, F.**, Walker, J.B., & Mostafa, J. (2021). A systematic review of automatic text summarization for biomedical literature and EHRs. Manuscript submitted to *Journal of American Medical Informatics Association (JAMIA)* and currently under peer-review.
- Qua, K., **Yu, F.**, Patel, T., Dave, G., Cornelius, K., & Pelfrey, C.M. (2021). Cross-CTSA evaluation of KL2 scholars' scholarly productivity using bibliometrics and federal follow-on funding. *Submitted to Journal of Medical Internet Research (JMIR) and currently under peer-review.*
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Submitted Grants (May 1, 2020 – April 30, 2021)

Song, L. (PI) (2020, September). Development and Pilot Testing of the interactive prostate Cancer Information, Communication, and Support Program (iPICS). U.S. Department of Defense, $1,152,078. (**Yu,F.** as Co-investigator, 5% effort) (Notified for the award)

Appendix B: 2021 New Curriculum Proposal

SILS CURRICULUM REVISION COMPREHENSIVE PROPOSAL

Finalized by the SILS Master's Committee, June 2021

This document presents the formal recommendations of the SILS Master's Committee, approved by the SILS faculty and Administrative Board in April 2021, regarding large-scale revisions to the MSLS and MSIS curricula. Three interrelated elements of this plan are described:

1. A reduction of our current core requirements down to two new courses (called "the perspectives core" and "the ethics core" in this document);
2. The development and implementation of a set of shared "bins" of courses that will guide students in obtaining a well-rounded SILS education and assist them in planning their coursework; and
3. The addition of a team-based[1] practicum capstone to serve as an alternative to the research-based master's paper, with related changes to advising and coursework surrounding these options.

These changes are summarized in the graphic below and presented individually on the following pages.

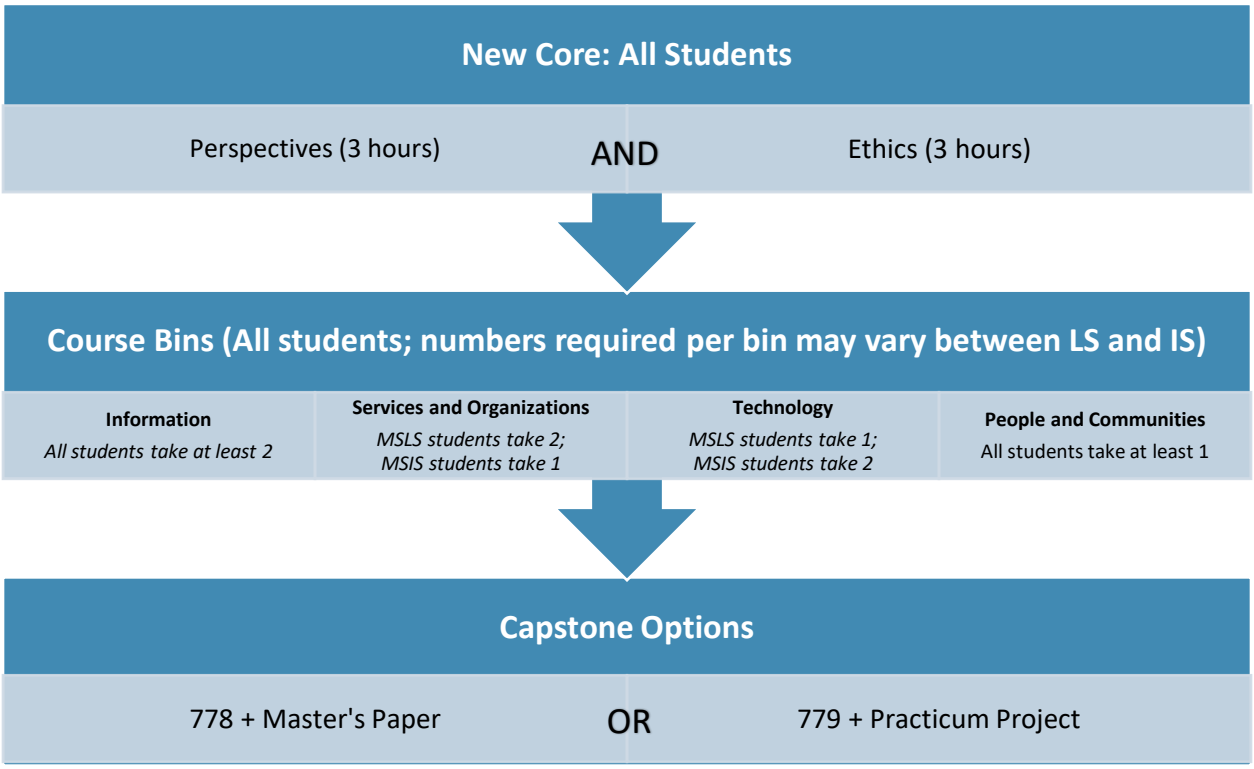

Figure 1. Overview of proposed curriculum structure.

[1] See our thoughts on offering the practicum as a team-based, versus individual, experience on p. 17.

Timeline

Approval for these changes needs to be secured at several levels. If we move as efficiently as possible, here are the key dates we anticipate for this process:

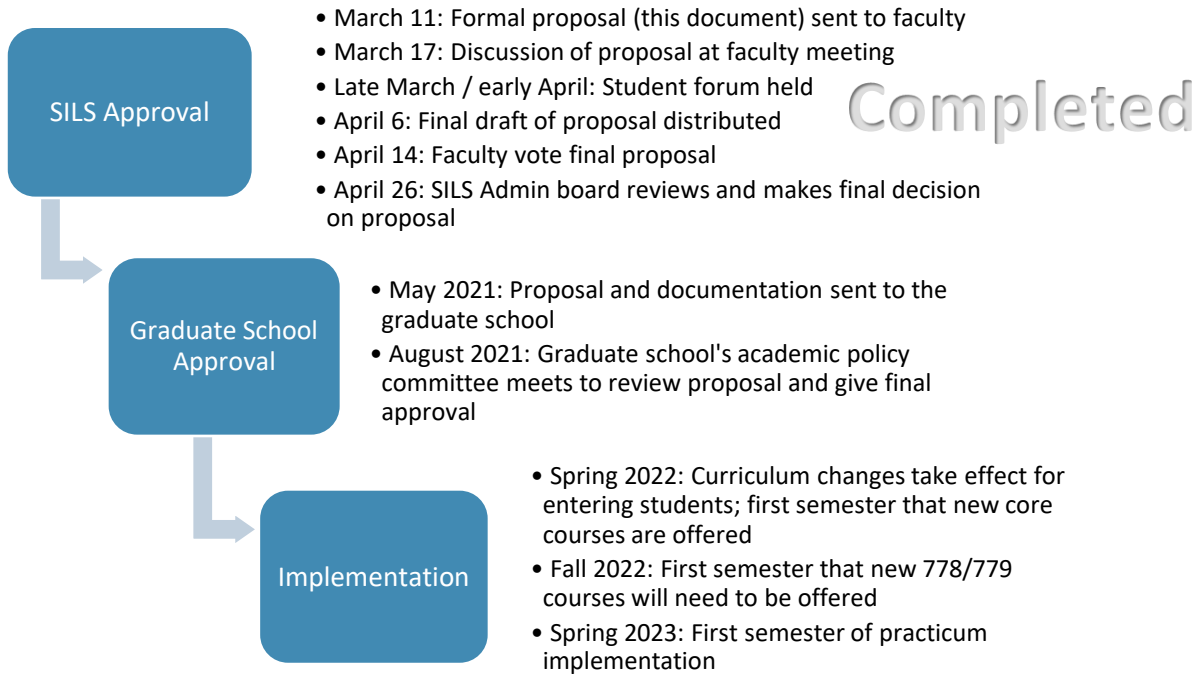

Figure 2. Timeline for curriculum approval and implementation.

New Core

Summary: We propose a reduction to our current core requirements (7.5 courses for MSLS students and 9.5 courses for MSIS students) down to two new courses that will be taken by all SILS master's students in their first year:

1. A "perspectives" core course that explores information and library science from a variety of historical, technical, social, and theoretical perspectives and examines the commonalities and differences among information and library professions, organizations, and the contexts in which they operate.
2. An "ethics, values, and society" core course that explores the impact of information and library science work on people and communities, formal frameworks for ethical reasoning and their limitations, and the expression of power, values, and beliefs in sociotechnical information systems and organizations.

Need

Our current core of 7.5 courses for MSLS students and 9.5 courses for MSIS students is large compared to our peer institutions, many of which require only two or three core courses. Students feel that the large core does not leave them enough flexibility to take elective courses that are better aligned with their professional interests. In addition, it is increasingly difficult for us to offer enough sections of these courses each semester; many have been taught mostly by adjuncts in the past, and with recent and ongoing budget cuts, this is not sustainable for our school. There is also a sense that our current core is not cohesive; it does not represent a shared set of ideas or competencies that we feel are central to our curriculum.

Proposed Two-Course Core

To address these issues, we propose a new two-course core that will be taken by all SILS master's students in their first year. The new core courses will be:

1. A "perspectives" core course that explores information and library science from a variety of historical, technical, social, and theoretical perspectives and examines the commonalities and differences among information and library professions, organizations, and the contexts in which they operate.
2. An "ethics, values, and society" core course that explores the impact of information and library science work on people and communities, formal frameworks for ethical reasoning and their

limitations, and the expression of power, values, and beliefs in sociotechnical information systems and organizations.

Initial polling of the faculty indicated that at least 10 people are willing to teach and/or help develop each of these courses. Draft syllabi for each course are attached.

Impact on Equity and Inclusion at SILS

The proposed new core will help to ensure that every SILS master's student engages in instruction centered on diversity, equity, and inclusion (DEI). Both the ethics course and the perspectives course include learning goals that encourage a critical examination of our field, its history, and its impact on individuals and communities. The final project for the ethics course will involve student participation in the SILS Symposium on Information for Social Good, which will allow students to apply DEI concepts to current issues in their areas of interest. Centering the "human side" of LIS in these courses will convey the message that a focus on the social impact of our work is a foundational value of our school, rather than an optional add-on for those already interested in this work.

Course Descriptions and Learning Objectives

Draft course descriptions and learning objectives for both new core courses are below and included on the attached draft syllabi for each course.

INLS 776: Ethics, Values, and Society

Short Course Description:

This course explores ethical issues related to information, data, knowledge, and technology in various individual, community, and societal contexts.

Longer Course Description:

In this course, we will explore ethical issues and questions relevant to the work and impact of LIS professionals: How should our values and beliefs be expressed in our information and data systems and services? What impact does our work have on people (at different scales)? What is our responsibility to understand and respond to those impacts? How is power expressed in various sociotechnical information systems, and how does power impact who gets to decide what counts as "knowledge?" How do the values that we (intentionally or unintentionally) build into these systems help or harm? What is our obligation to "goodness," "fairness," "justice," or "ethics?" What are the limitations of these frameworks?

Student Learning Objectives:

Students will be able to:

- Engage in a combination of public and private thought and discussion on issues related to information, data, knowledge, and technology in various individual, community, and societal contexts.
- Describe and apply a series of formal frameworks for ethical reasoning.
- Examine issues relevant to information and data systems and services through collective consideration of recent cases.
- Identify ethical problems in existing technologies/information sources being developed or uses of data/tech already in circulation.
- Design a poster presentation for a research-based conference.

INLS 777: Perspectives on Information, Technology, and People

Course Description:

Examines the relationships between information, technology, and people from an array of disciplinary, professional, cultural, and other orientations. Explores the application of diverse perspectives to understand current matters of concern.

Student Learning Objectives:

Students will be able to:

By the end of the course students will:

- Appreciate the diverse range of disciplines, professions, and other orientations by which people have attempted to make sense of information, technology, and people.
- Contextualize, critique, and compare disciplinary, professional, cultural, and other perspectives with which one might identify and interpret relations between information, technology, and people.
- Trace different ways of understanding current information problems through the lens of different perspectives.
- Examine how your own interests and goals intersect, align, and conflict with different disciplinary, professional, cultural, and other perspectives.
- Articulate your own emerging professional identity.
- Understand the myriad impacts of technology on information and information users.

Questions

- **Will we offer an IS and a LS version of each of these courses?** No. These courses will be an opportunity for students and faculty to explore what connects us as a field, and to be exposed to differing perspectives on information, information organizations, and information professionals. Thus, we feel it is important for all sections of these courses to have a mix of LS and IS students.
- **Will everyone need to teach these from a standardized syllabus?** No. We propose that all faculty who teach these courses agree to use the same set of course learning objectives, and that we communicate with each other to arrive at a common understanding of the expected workload in these courses for students and faculty. How individual faculty choose to help students reach those objectives (in terms of things like assignments, readings, and course mode) is up to them.
- **How large will these course sections be?** The master's committee recommends that these courses be capped at 30 students for pedagogical reasons. One of the advantages of having only two core courses that are shared among LS and IS students is that these courses will allow students to meet and form relationships with peers who may have very different professional interests and backgrounds. This advantage would be greatly reduced in a large section. We also believe students will get more out of these classes if they were structured around active learning activities such as discussion, guided practice, debate, etc. versus lecture. Smaller class sizes will help to facilitate this type of instruction.
- **When will we offer these courses?** We see two possibilities for this. One is to simply offer two sections of each of these courses every semester. Another possibility, and one that we think offers multiple advantages, is that **we always offer the ethics course only in the Spring (to coincide with the Symposium on Information for Social Good) and the perspectives class only in the Fall (or vice versa, if we wanted to move the symposium to the Fall)**. The advantages of this approach are that it allows the instructors who teach these courses to have one semester each year when they do not have to teach a required course, and makes advising more straightforward (students must take one of these classes in their first semester, and one in their second semester). We will also have a better idea of how many sections we will need to offer for each of these each semester based on our MS cohort size for that year. Instructors could choose to teach two sections of these in the same semester, which would lessen the number of instructors we would need to cover each course and possibly reduce prep time for those instructors.

Course Bins

Summary: We propose that a subset of SILS courses be organized into a set of four "bins," with students required to take 1-2 courses from each bin during their time at SILS. These bins will work together with our specialization / "track" guidelines to ensure that all MSIS and MSLS students leave our program with competencies across a range of areas, regardless of whether they choose a specialization.

Need

If we reduce our current core down to only two courses, students will need additional guidance on what to take for their remaining 42 credit hours. While many of our students choose a specialization or "track" such as Archives and Records Management or data governance, many others do not, so our existing course recommendations for specializations may not meet the needs of all students. In addition, we want to ensure that students receive a well-rounded education at SILS, and that they leave here with competencies across a range of domains. The bins systems proposed here will address both of these concerns. This system is similar to ones used in other top-tier Information and Library Science programs that also operate with a small core.

Proposed Bins

No organizational scheme will work perfectly to categorize all of our courses into a manageable number of bins. However, **categorizing all our courses is not the goal here**. We wish instead to establish a shared set of central competency areas, which students will develop by selecting 1-2 courses from a list of possibilities that address those themes. There will be SILS courses that do not fall into any of these bins, and students will still have space in their course loads to take those courses. Specializations / "tracks" can still recommend courses that fall outside of these bins, though course advising documents for each specialization should account for the bin requirements as well (sample specialization course guides are provided below, pp. 9-11). In addition, there may be courses that fall into more than one of these bins. In those cases, we recommend listing the course in multiple bins but only allowing it to "count" in one of them for each student.

The chart below is a draft, and we will have time to finalize this before implementation. We may find, for example, that some of this needs to shift once faculty who oversee specializations / tracks begin working with this to create new course guidance documents for their students. We also want to make sure there is a mechanism for allowing 690 and 890 courses to count in these bins as appropriate.

Table 1. Draft course bins.

Information	Services and Organizations	Technology	People and Communities
All students take at least 2.	**MSLS - take at least 2 MSIS – take at least 1**	**MSLS – take at least 1 MSLS - take at least 2**	**All students take at least 1.**
INLS 500: Human Information Interactions INLS 509: Information Retrieval INLS 513: Resource Selection and Evaluation INLS 515: Consumer Health Information INLS 520: Organization of Information INLS 530: Young Adult Literature and Related Materials INLS 609: Experimental Information Retrieval INLS 620: Web Information Organization INLS 625: Information Analytics INLS 701: Information Retrieval Search Strategies INLS 714: Introduction to Information Analytics INLS 732: Children's Literature and Related Materials INLS 749: Art and Visual Information Management INLS 753: Preservation of Library and Archive Materials INLS 755: Archival Appraisal	INLS 501: Information Resources and Services INLS 554: Cultural Institution INLS 556: Introduction to Archives and Records Management INLS 558: Principles and Techniques of Storytelling INLS 582: Systems Analysis INLS 585: Management for Information Professionals INLS 624: Policy-Based Data Management INLS 700: Scholarly Communication INLS 711: Disaster Planning for Libraries INLS 719: Usability Evaluation and Testing INLS 721: Cataloging Theory and Practice INLS 733: Administration of Public Library Work with Children and Young Adults INLS 740: Digital Libraries: Principals and Applications INLS 747: Special Libraries and Knowledge Management INLS 754: Access, Outreach, and Public	INLS 512: Applications of Natural Language Processing INLS 523: Introduction to Database Concepts and Applications INLS 534: Youth and Technology in Libraries INLS 541: Information Visualization INLS 560: Programming for Information Professionals INLS 561: Digital Forensics for Curation of Digital Collections INLS 570: Fundamentals of Programming Information Applications INLS 572: Web Development I INLS 573: Mobile Web Development INLS 613: Text Mining INLS 623: Database Systems II: Intermediate Databases INLS 626: Introduction to Big Data and NoSQL INLS 641: Visual Analytics INLS 672: Web Development II INLS 712: Introduction to Text Mining INLS 718: User Interface Design	INLS 585: Management for Information Professionals INLS 660: Social Media and Society: A Theoretical and Empirical Overview INLS 690: Community Data Lab (could be given a permanent course number) INLS 690: Information Professionals in the Makerspace (could be given a permanent course number) INLS 737: Inclusive Information Services for Diverse Populations INLS 739: Information Services for Specific Populations Disability Information and Informatics (will have a new course number - has been taught as a 690) INLS 758: International and Cross Cultural Perspectives for Information Management INLS 789: Big Data, Algorithms and Society INLS 890: Networks of Racial Capitalism (could be given a permanent course number)

INLS 757: Principles and Practices of Archival Description	Service in Cultural Heritage Repositories INLS 782: Library Assessment INLS 783: Library Instruction and Pedagogy INLS 786: Marketing of Information Services INLS 841: Seminar in Academic Libraries INLS 843: Seminar in Public Libraries	INLS 750: Introduction to Digital Curation INLS 751: Advanced Digital Curation INLS 752: Digital Preservation and Access	

Impact on Equity and Inclusion at SILS

These four bins were created collaboratively through discussion that included a focus on DEI. Some of the factors we considered were how to ensure the continued viability of our DEI-related courses in the new curriculum, and how to make sure that our bins reflected not only the key competencies expected of SILS graduates, but also the core values of the school. Requiring all students to take a course from the People and Communities bin should reinforce the idea that our work is human-centered and includes a focus on the public good. It is important to note that while requiring these courses is one important step toward better integration of DEI themes throughout the SILS curriculum, additional work will be required to ensure that all faculty and students are prepared to have DEI-focused conversations in all SILS courses.

Sample Course Advising Matrices

Faculty who oversee each specialization or track will continue to have primary control over what they recommend for their students to take. In most cases, existing course advising guidelines already meet these bin requirements. Two sample advising matrices are below - one for the information retrieval specialization, which is a more typical specialization that is not associated with external certification requirements, and one for the school library media track, which has externally-imposed state requirements.

Table 2. Sample advising matrix for Human Computer Interaction Design (based on https://sils.unc.edu/sites/default/files/general/for-students/MSIS-Human-Computer-Interaction-Design-20180719.pdf)

Core Courses: Take in first year			
INLS 777: Perspectives		INLS 776: Ethics	
Recommended Bin Courses			
Information (take at least 2)	**Services and Organizations (take at least 1)**	**Technology (take at least 2)**	**People and Communities (take at least 1)**
INLS 500: Human Information Interactions INLS 509: Information Retrieval INLS 520: Organization of Information	INLS 582: Systems Analysis INLS 585: Management for Information Professionals INLS 719: Usability Evaluation and Testing	INLS 523: Introduction to Database Concepts and Applications INLS 560: Programming for Information Professionals INLS 570: Fundamentals of Programming Information Applications INLS 572: Web Development I INLS 573: Mobile Web Development INLS 623: Database Systems II: Intermediate Databases INLS 641: Visual Analytics INLS 672: Web Development II INLS 718: User Interface Design	INLS 585: Management for Information Professionals INLS 660: Social Media and Society: A Theoretical and Empirical Overview
Capstone (Take in Second Year)			
INLS 778 / 992 (research-based master's paper track) **OR** INLS 779 / 992 (practicum / project track)			
Additional Recommended Courses			
INLS 720: Metadata Architectures and Applications INLS 723: Database III INLS 760: Web Databases			

Table 3. Sample advising matrix for the school library media track.

<table>
<tr><th colspan="4">Core Courses: Take in first year</th></tr>
<tr><td colspan="2">INLS 777: Perspectives</td><td colspan="2">INLS 776: Ethics</td></tr>
<tr><th colspan="4">Bin Courses</th></tr>
<tr><th>Information</th><th>Services and Organizations</th><th>Technology</th><th>People and Communities</th></tr>
<tr><td>INLS 530: Young Adult Literature and Related Materials (Fall)

INLS 732: Children's Literature and Related Materials (Spring)</td><td>INLS 501: Information Resources and Services (Fall or Spring)

INLS 783: Library Instruction and Pedagogy (Spring, must be taken in first year)</td><td>INLS 534: Youth and Technology in Libraries (Spring)</td><td>Choose any course from this bin.</td></tr>
<tr><th colspan="4">Additional Required Courses</th></tr>
<tr><td colspan="2">INLS 796: Supervised Field Experience in School Library Media (must be taken in second year)</td><td colspan="2">Capstone: Take in second year
INLS 778 / 992 (research-based master's paper track) <u>OR</u>
INLS 779 / 992 (practicum / project track)</td></tr>
<tr><th colspan="4">Additional Recommended Courses</th></tr>
<tr><td colspan="4">INLS 782: Library Assessment (Fall)
INLS 513: Resource Selection and Evaluation
INLS 558: Principles and Techniques of Storytelling</td></tr>
</table>

Questions

- **With these bins, students will have 30 hours of required coursework (6 hours in the core, 6 hours for capstone, and 18 bin hours). How is that an improvement over what we have now?** While it is true that the bins requirement may somewhat reduce students' flexibility in planning their degrees compared to only having 2 required core courses and nothing else, this system is still MUCH more flexible than our current system. Students will have the ability to choose from a wide range of classes in each bin, and each bin has courses that fit within a wide range of specializations and interest areas. And, they will still have 18 credit hours of "pure electives" that they can fill with other bin courses, non-bin courses, or courses outside of SILS. This system will also mean that instead of needing to offer 5 sections annually for nine or ten different required courses, we will only need to offer multiple sections of our two "new core" classes and the capstone 778/779 classes. Bin courses will not need to have multiple sections offered each semester, or even each year (though to the extent we are able, we will try to ensure that all bin courses are offered at least biennially).
- **What about special topics courses?** We can designate these as falling into particular bins so that students get a bin credit for taking them. For example, Dr. Wang's Fall 2020 690 class on data mining might be designated as meeting a "technology" bin requirement.

- **Could courses outside of SILS count for the bins requirement?** Our thought is that courses outside of SILS should not count for these requirements. For one thing, we want to encourage students to take our courses and ensure their continued viability. For another, allowing courses outside of SILS to count in this way would add a lot of administrative burden (who would track this? Who would maintain a list of courses from other departments that would count?). Students will still have space in their course loads to take courses outside of SILS, and these will count toward their required 48 credit hours.

Capstone Practicum Option

Summary: We propose to offer a team-based practicum project as an alternative to the master's paper. At the end of their first year of coursework, students will choose to either:

- pursue the master's paper (research) track by taking a recombined 581 and 781 (INLS 778) in their third semester, followed by 992 (master's paper hours) in their final semester. These students will be individually advised for their 992 hours as in our current system.
- pursue the practicum (project) track by taking a new INLS 779 course (project management + project development) in their third semester, followed by a designated section of 992 (practicum) in their final semester. These students will be collectively advised by 1-2 faculty members who handle a section of 992 consisting of multiple student teams. A poster and/or demonstration session will serve as the culmination of this track.

Need

SILS students have expressed repeatedly that they would like a capstone option that is more "practical" than the master's paper. While the project option for the master's paper was originally intended to fill this role (and some students do use this option for this purpose), students feel that this option is insufficient to meet their needs, especially considering that the final product is still a lengthy paper. In addition, other issues make the master's paper a less-than-ideal capstone experience for both students and faculty:

- Master's paper advising work has become an equity issue among faculty, with some faculty rarely advising papers and others advising 10+ each semester.
    - A related issue is that advising these doesn't "count" for much in faculty reviews, P&T, etc.
- The master's paper sequence takes up three semesters of space in our program, since students must first take 581, then 781, before registering for 992.
- Many students feel that the master's paper does not help them on the job market; this is related to the fact that very few of our students pursue a PhD or a tenure-track library position after the MS.

Solutions Considered

The SILS Master's Committee has explored and ultimately rejected several alternatives to the master's paper:

- **Portfolio:** This option was the first alternative that we explored. Our thought was that a portfolio tied to our program outcomes would allow students to build a set of professional artifacts and reflection documents that would help them on the job market. However, after speaking to representatives in the School of Government, which uses a portfolio in their MPA program, we found that the portfolio would require an untenable amount of administrative work. The School of

Government hires multiple adjunct instructors each year simply to help evaluate student portfolios and sit on 3-person teams that review students' oral presentations of their portfolios. The portfolio option would also require a significant review of each course in our curriculum to ensure that students in any track would create artifacts in each portfolio category over the course of their time at SILS; this may also require some undesirable standardization of assignments across course sections.

- **Capstone course:** This option would be a seminar-style course that focuses on emerging issues in the field, similar to what we currently offer our undergraduates. The biggest problem with this option is that the Graduate School would be unlikely to accept this as an alternative to the master's paper (it could be an alternative to the comprehensive exam, but this does not save us any effort or time). In addition, we would likely need to offer several sections of this course each semester, perhaps tailored to different "tracks," which adds a lot of teaching burden onto the faculty.
- **Capstone Projects:** Another option we explored was capstone projects similar to what Washington's iSchool requires (https://ischool.uw.edu/capstone). At Washington, these projects involve small groups of students who work together to develop and implement real-world applications of their coursework. Most of these projects happen in the context of an area business, non-profit, or governmental organization. Students take a preparatory course (similar to 781) the semester before their project in which they form teams and develop a plan for their projects. Projects are presented in a symposium-style event at the end of the project semester. This option is closest to what we would like to be able to offer our students.

Proposed Practicum

The alternative we are currently proposing might be considered a hybrid between our field experiences and the current master's paper project option. While the field experience is intended to help students *learn* professional skills in an individualized environment (and will still be offered at SILS), the capstone practicum is intended for them to *apply* professional skills in a team-based environment to a real-world problem.[2]

- Students will choose either a *research track* or a *practicum track* after their second semester at SILS.
- Students who choose the research track will take 778 and 992 and write a research-based master's paper (the project-based paper option will be eliminated). **INLS 778 will be a 3-credit course that combines research methods and proposal development, and INLS 581 will be eliminated.** Based on the student feedback and survey data we have collected, we anticipate that this option will be chosen by around 25% of our students (though that is only an estimate based on current student input). Initially, we will continue to have these students seek out an individual advisor for their studies, however we may explore the possibility of having just one or two faculty supervise all of these and receive a course credit for doing so (perhaps one LS- and one IS-focused instructor). There are advantages and disadvantages to each approach:
    - If we continue to have individual faculty advisors for these papers, this may actually increase inequity among the faculty in terms of who gets asked to supervise these (especially if it is

[2] See p. 17 for further explanation of how the practicum compares with our existing field experiences.

mostly LS students who choose this option), however there may be a better "fit" between the student and the advisor.

- On the other hand, if we have a single advisor for all papers, we eliminate the need for students to approach individual faculty and make it easier for 992 to operate more like a class with scaffolded due dates and perhaps semi-regular meetings; however, there is a risk that students would still pursue additional faculty help if the official advisor was outside of their professional area of interest, and if that happens the person providing that help would get no official credit at all.

One student from this track will win the Dean's Award for outstanding paper each year, and 778 proposals will continue to be nominated for the Elfreda Chatman award.

- Students who choose the practicum track will take a course - 779 Practicum Development[3] (analogous to 778) - in which they:
  - form teams based on similar interests,[4]
  - identify and investigate an information problem in a real-world setting,
  - identify and communicate with a **project sponsor** (could be an outside organization, academic department, library, business, etc.; could also be a faculty member),[5]
  - develop a feasible plan for addressing the information need within a one-semester time window, and
  - develop a practicum "charter" and sponsor agreement (the final assignment for the course).
    - The charter will explicitly spell out each team member's responsibilities within the project.
  - Like the 778 course described above, this will be a 3-credit course, incorporating elements of project management. INLS 685 (Project Management) will continue to be offered separately since this course is intended specifically for students who want to become PMP certified.
- Practicum students will then complete their project the following semester under the direct supervision of their project sponsor (similar to our field experiences). All practicum students will be enrolled in a single section of 992, which will meet 3-4 times during the semester to check in on progress, address areas of concern, and provide guidance on completing the final assignment. The instructor(s) of this course will receive a course credit for teaching it.
- The culmination of the project track (final assignment) will be a poster and/or demonstration session (teams will choose a poster or demonstration option depending on what is more appropriate for their project). Each student team will share their work in the form of an academic poster or demonstration and an accompanying brief oral synopsis. All faculty will attend this event and

[3] See draft course description and objectives for this course on p. 20.

[4] Note: polling data shows that students strongly support the idea of team-based capstone projects. Additional justification for this is provided on p. 17.

[5] We will gather statements of need or "CFPs" from potential sponsors that students could choose from as an alternative to developing their own idea. For example, faculty who run labs could define projects within that lab; local libraries could let us know about assessment projects they would like to undertake; we could reach out to Chapel Hill government to see if they have data management needs that our students might address. The Gillings School, which does a practicum for their MPH program, has a form on their website for folks to submit ideas.

evaluate student work using a standardized rubric (how this may work: each faculty member is assigned 3-4 student groups working in their general area of interest to visit and assess; each group gets feedback from two faculty members). One student or student team from this track will win the Dean's Award for outstanding project each year, and we could create an analogous award for the best project proposal to align with the Elfreda Chatman award on the research track side. This event will be open to project sponsors and may serve as a great opportunity to help SILS develop more connections in the community.

Questions

- **What will happen to INLS 581?** As noted above, 581 will be combined with the new version of 781 to form a single 3-credit course (INLS 778) that prepares students for master's paper work. We could consider whether we wanted to develop a new methods course outside of the master's paper sequence that would focus on methods for evidence-based professional practice.
- **Could students in the project track take 778 if they want training in research methods, or could students in the research track take 779 if they want project management training?** Yes, in theory this will be possible. Those students could still do all of the same assignments, but would not actually implement their plans in the following semester. If we allow this, we will need to give registration priority to students who intend to proceed with the respective paper or project to ensure they can fulfill that requirement before students who want these courses as electives.
- **Who will teach the 779 practica course?** Since this course is not focused on new specialized material, but more on skills like project management and communication, anyone could theoretically teach it (though if it was taught by an adjunct, we would want to make sure that person has a clear understanding of our goals and expectations for the practicum project). It might be best if the same people teach 779 and the large section of 992, since they would already be familiar with students' project plans.
- **Can't students basically already do this with the project option we already have?** Kind of. The project option does allow for students to apply their learning to on-the-ground information needs, however it is poorly understood by students, and the thrust of our 581/781/992 track right now is designed primarily to help students who want to do a research study. The final paper that is currently required of students who choose a project is also poorly understood and intensely disliked by students (and some faculty!). While we do technically allow students to complete the project as part of a team, very few people choose this, and thus the current project option does not do a good job of teaching teamwork and project management skills.
- **How can we ensure that community partners do not get overwhelmed with project requests?** We plan to implement a "call for proposals" system that will allow organizations or individuals to suggest projects that might be helpful and feasible in their spaces. For example, the UNC Libraries might submit an idea for an assessment project; Dr. Gibson might submit a project idea related to CEDI lab work; the Chapel Hill government might submit something related to a data analysis or visualization need. To facilitate this, we will create a simple online form that can be monitored by the MSLS and MSIS program coordinators and shared with the 779 instructors and students. Students will be

encouraged to choose among these pre-approved project options as a first resort. They may also propose their own project topic and site, however in those cases the 779 instructors may need to provide students with additional support in securing a supervisor and keeping track of other project requests to ensure that no single partner is fielding too many requests from our students.

- **What counts as a "project?"** A project could be many things: creating a "thing" (for example an app, database, or information platform), designing and implementing a library program or service, conducting assessment of an existing library service or collection, creating a professional development experience for archives practitioners, spearheading an advocacy or marketing campaign, etc. When communicating with students about this option, we need to explain the practicum in ways that make it clear that it should be equally valuable to everyone, no matter one's professional inclinations. Eventually, we will have a collection of former projects that we can point students to as examples of the range of possibilities. Soliciting CFPs from potential supervisors, and making it clear to them what might "count" as a project, should also help students understand that a project does not necessarily equate to "making a technical artifact."
- **How will students be evaluated?** Student project teams will be evaluated in several ways and by several different stakeholders. The instructor of the 992 project section(s) will be the person who ultimately signs off on project completion for students' graduation paperwork, however students will also be evaluated by other faculty (at the culminating project fair), site supervisors (likely via a form sent near the end of the project semester), and their peers (through team and self-evaluations). Students will also maintain individual work logs throughout the project semester. These will serve to document individual effort within the team and provide an "early warning system" to the instructor for any students or groups who may be falling behind or experiencing other challenges.
- **How does this relate to our existing field experiences?** Field experiences are intended for individual students to work 1-on-1 with an external supervisor to *learn* new professional skills. The capstone practicum, in contrast, is intended for students to *apply* professional skills in a team-based environment. Additional comparisons are listed in the table below.

Table 4. Comparison of the master's paper, practicum capstone, and field experiences.

Master's Paper	Practicum Capstone	Field Experience
Opportunity to **conduct individual research** and write a substantive research report under guidance of a single faculty advisor who also evaluates the work	Opportunity to **apply professional skills in a team-based environment** with an external or internal supervisor; evaluated by supervisor, faculty 992 instructor, peers, and faculty reviewer at culmination event	Opportunity to l**earn new skills by working 1-on-1 with external advisor**; may be taken at any point after the student has taken 18 hours of coursework; final reflection paper evaluated by faculty advisor and career services coordinator

- **Will students have to complete the practicum as part of a team, or could they do an individual project?** While it might be theoretically possible for students to complete a practicum project individually, we plan to make this a very rare and unadvertised exception. There are several reasons

for this. Since each practicum project will require an internal or external sponsor / supervisor, requiring students to complete this in teams will greatly reduce the number of sponsors we need to secure and the overall number of projects that will be monitored by the faculty who oversee 992. Students have indicated strong support for team-based practicums in past polling. We also feel that the teams approach more authentically replicates the type of work students will be expected to perform after graduation; teamwork skills are one of the major learning outcomes we hope will be attained through this experience. We are concerned that if it was a standard option for students to complete these practicum projects individually, many students would default to this because it would be perceived as "easier," and the practicum would become weaker pedagogically because the teamwork skills development components would be eliminated, as well as unwieldy from a logistics / administration standpoint.

- **Could students develop a project that does not depend on an outside organization (for example, creating a database with a public audience, or developing a start-up plan)?** Yes, but they will need to find someone (a faculty member or other expert) to supervise their project group.
- **Does any other UNC school offer something similar?** Yes. The Gillings School does a very similar practicum with their MPH students: https://sph.unc.edu/resource-pages/master-of-public-health/mph-practicum/.
- **What are the advantages of making this change?** Student demands for additional opportunities to engage in professional practice will be met in a way that helps them form professional networks, apply the academic skills they have learned while also practicing teamwork and communication skills, and get something tangible on their CVs. SILS will have the opportunity to make new or stronger connections with community organizations. The project culmination event will be an especially great chance for SILS to build these relationships. First-year students and undergraduates could also attend this event, which will be an excellent opportunity for them to understand the range of possibilities involved in the project track as well as gain additional exposure to the breadth of professional and academic interests among SILS students.
- **What are the challenges?** We have identified several:
    - It can be a challenge to identify good projects and sponsors. Programs that do this usually spend a portion of a staff position to oversee and maintain this, and while this would be ideal for SILS to pursue, budget realities might not allow for it, at least not right away. With that said, putting a form on our website to solicit project calls from potential sponsors (as the Gillings school does) and sending a generic email to the organizations with which SILS already has relationships might not involve much time and effort, and this is something that the MSLS and MSIS program coordinators will initially handle, in collaboration with career services and communications staff. Over time we hope that established relationships with community partners will lead to regular project opportunities, but the first couple semesters may be bumpy. Outside of the pre-approved projects resulting from this CFP process (which we hope will account for the large majority of student teams), we recommend that the responsibility for identifying, communicating with, and securing approval from project sponsors falls mostly on the students. This is in part to make the project less of an

administrative burden for the school, but also because making these contacts is good professional practice for students, and this task will be integrated into 779 so they will have guidance in how to approach this.

- To address the concern of individual team members not "pulling their weight" and the related concern of students being uncertain how much time to devote to these projects, we plan to include explicit expectations of hours spent on the project (so students and sponsors know what to expect), and to implement individual work logs similar to what field experience students currently complete. Three credit hours according to the registrar equals a total of 135 hours of work, so this number will be used as an initial guideline.
- As with master's papers, students will likely need a lot of guidance developing a project plan that is reasonable for the time they have. Working backward from typical graduate school deadlines for us to "sign off" on students' completion of these projects, teams will likely have about 14 weeks to complete their projects (using the 135 hour estimate above, this means that each person on the team will be spending about 9-10 hours per week on this over the course of the semester). The instructors of 779 will need to work closely with each project group to ensure their plans are appropriately scoped for this timeframe given the number of people on their team. We already do this in 781, but it may be more of a challenge the first few times through this since team-based projects at this scale are not typical at SILS currently.
- We will need to ensure, as much as we can, that our students are actually doing helpful work and building positive relationships with community partners, rather than being a burden on them. Soliciting project ideas from willing / interested parties is one way to accomplish this, but we may not have enough of those, especially the first few times we implement this, for all students. With that said, we have already heard from several potential project sponsors, so we know there is some excitement about this among our community partners already.
- Any time we work with outside organizations, there is the possibility that they might not hold up their end of the deal, which in this case might leave our students "stranded" during their project semester. Hopefully, the project charters developed the previous semester will prevent this, but we need to have options for how to respond if/when this happens (and this too is "real-world experience" for the students - things don't always work as planned). Possibilities in this case might include switching to a new project supervisor, or completing the project as close to the original plan as possible given the altered circumstances with the support of the 992 instructor. These cases will be handled individually as they arise.
- More MSIS than MSLS students are likely to choose the practicum option. This may make it challenging to maintain equity in spreading paper advisors across the faculty. If this is the case, we may switch to having a single faculty advisor supervise all master's papers.
- What happens if a student doesn't finish their project work, or does a bad job? As with our master's papers, this scenario would probably require the student to repeat INLS 992, but that is a bit more complicated when dealing with a project sponsor, who may also need to

extend their commitment to the student in cases like this. It is our hope that the regular 992 meetings, student work logs, and midpoint peer group evaluations would catch and correct such problems before they result in this necessity. However, if we do have an unavoidable issue (for example, a student withdraws due to a health reason midway through the semester), there are three possibilities which will be decided among on a case-by-case basis:

- The student could repeat the project 992 hours the following semester, working with a different group.
- The student could complete an individual project the following semester (we want practicum projects to generally be team-based, but in this limited circumstance where an individual student has withdrawn from their initial project group, this could be an option to still get them to graduation).
- The student could switch to a master's paper.

Impact on Equity and Inclusion at SILS

The practicum will allow SILS to improve our relationships with community partner organizations, including non-profit and governmental organizations. Our hope is that many of these student projects will contribute positively to the public good of our community and beyond. For examples of such projects, see the Capstone website at the University of Washington's iSchool (https://ischool.uw.edu/capstone), where many student projects focus on DEI issues.

INLS 779 (Practicum Project Development) Draft Course Description and Objectives

Course Description

This course will prepare students to conduct their capstone practicum. It includes a broad introduction to project management principles, tools, and strategies intended for use in a variety of applications.

Course Objectives

By participating in this course, students will be able to:

- describe the parameters of and requirements for the master's capstone practicum project.
- form project teams [of between 2 and 5 students?] with peers in their class.
- select an existing project opportunity from a list of submitted options, or develop their own idea for an appropriate project and secure a project sponsor.
- identify and address project stakeholders and their requirements.
- work with their project team members, instructor, and project sponsor to develop a project charter and sponsor agreement that will guide project work in the following semester.
- understand the project life cycle.

- define and use appropriate project management terminology.
- develop a working knowledge of project management tools.