

PART A: SUMMARY OF WORK ACCOMPLISHED (PREPARED BY THE CANDIDATE)

Background information on the candidate (required)

Candidate's name: Jo Klein (legal: Elizabeth Klein)

Candidate's Department and Unit: University Libraries, Department of Research, Outreach, and Instruction

Action Under Consideration: Reappointment

Education (including the names of the institutions and the dates when each degree was received):

**TAB TO ADD ADDITIONAL ROWS TO TABLE*

DEGREE	DATE (MONTH, YEAR)	INSTITUTION
Master of Library and Information Science	December 2018	University of North Carolina at Greensboro
Bachelor of Science in Biology	May 2015	University of Maryland, Baltimore County

Previous positions held:

**TAB TO ADD ADDITIONAL ROWS TO TABLE*

TITLE	DATE POSITION BEGAN (MONTH, YEAR)	INSTITUTION
GIS & Data Visualization Librarian, Assistant Professor	July 2019 (current)	University of North Carolina at Greensboro
Visiting GIS & Data Visualization Librarian, Assistant Professor	January 2019	University of North Carolina at Greensboro

Date joined the UNCG faculty: January 2, 2019

Total number of years in current rank at UNCG (including current year): 3

A.I: TEACHING

A.I.a. Statement of Teaching Philosophy

Geographic information systems (GIS) and data visualization are two tools that researchers across disciplines use to explore, analyze, and communicate their research:

- *Data visualizations* are charts, graphs, maps, and other ways to visually represent data.
- *A geographic information system (GIS)* is a computing system used to map and analyze data linked to a place or location, also called geospatial or spatial data.

As the GIS and Data Visualization Librarian in the University Libraries Department of Research, Outreach and Instruction (ROI), I provide research and instructional services to promote access to these tools by the UNCG community, “promoting learning, inspiring creativity and enhancing research and collaboration” as charged by the Libraries’ mission.¹ I also support research, instruction, and learning in the Departments of Geography, Environment, & Sustainability (GES), Informatics & Analytics (IA), and Computer Science (CSC) by providing broader information-related services as a library liaison.

I use information literacy as the foundation for my approach to research and instruction services, which includes instruction in the form of in-class visits and workshops, one-on-one or group research consultations, and learning objects such as research and resource guides and Canvas modules. From the Association of College and Research Libraries (ACRL) Framework for Information Literacy for Higher Education:

“Information literacy is the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning.”²

The goal of information literacy-based instruction is that learners will understand the following concepts, paraphrased from the ACRL Framework:

- Information reflects the authority of its creator(s), which is constructed and contextual.
- Information reflects the varying processes of research, creation, revision, and dissemination through which it’s created.
- Information has value as a commodity and as a means of education, to influence, and to understand, and this value influences the processes by which information is created.
- Research is iterative inquiry that extends across disciplines and methods and beyond academia.
- Scholarship is a conversation influenced by many perspectives and levels of authority and privilege.
- Searching is strategic exploration and strategies vary by sources, scope and context of information needs.

In the ROI department, we apply information literacy through five main learning goals for research instruction: *finding* information and information sources, *evaluating* that information for credibility and relevancy, *using* the information as evidence in arguments, as background, or in other ways, and connecting (i.e. *crediting*) existing information to *create* something new and contribute to the scholarly conversation. The find, evaluate, use, credit, and create (or, FEUCC) structure facilitates conversations with instructors about library research and instruction services, helping us get the most out of limited class-time and narrow our focus to what would be most useful for students in specific classes and at different levels of understanding. I also apply it to

¹ UNCG University Libraries. “Mission, goals, and customer service values.” 2018. https://library.uncg.edu/info/mission_statement.aspx.

² Association of College and Research Libraries. *Framework for Information Literacy for Higher Education*. February 9, 2015. <http://www.ala.org/acrl/standards/ilframework>.

my other duties under librarianship, for example, considering how learners will find and access resources like eBooks and creating multiple discovery points using resource guides to facilitate that access.

I take a similar approach with more data-specific topics using frameworks like Carlson, Fosmire, Miller, and Nelson's Core Competencies for Data Information Literacy³ to extend information literacy and the FEUCC learning goals to the skills and concepts required for data-related research activities. These include concepts like data curation and reuse, processing and analysis, conversion and interoperability, and visualization and representation, among others. Carlson et al investigated the perceived importance of these concepts to faculty versus students, and found some differences, particularly around concepts relating to workflow and discovery and organization of data.

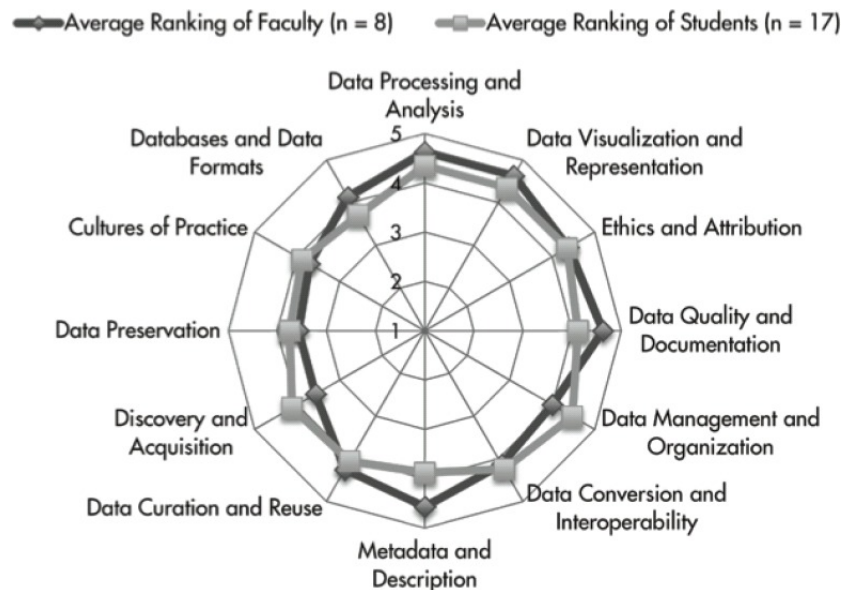


Fig. 1: “Graphical comparison of faculty and student ratings of importance of DIL competencies. Scale: 5 = essential; 4 = very important; 3 = important; 2 = somewhat important; 1 = not important.” From “An exploration of the data information literacy competencies: Findings from the project interviews” in *Data Information Literacy: Librarians, Data, and the Education of a New Generation of Researchers*, edited by Jake Carlson and Lisa R. Johnston, Purdue University Press, 2015, pp. 53.

This difference in priorities is important to consider when developing instruction: what faculty and students may find interesting and useful may not always align. There are a lot of data literacy-related skills and concepts, and not enough time to cover them all in a single instruction session. My preferred strategy to maximize the time I have with learners and meet both the needs of students and the learning objectives requested by instructors is to use flipped learning. Students independently learn foundational theoretical content via Canvas modules, video

³ Carlson, Jake, et al. “Determining data information literacy needs: A study of students and research faculty.” *Data Information Literacy: Librarians, Data, and the Education of a New Generation of Researchers*, edited by Jake Carlson and Lisa R. Johnston, Purdue University Press, 2015, pp. 11–34, <http://www.jstor.org/stable/j.ctt6wq2vh.6>.

tutorials, and other tools and can explore the subject on their own and develop their own approaches and questions before class, and then participate in hands-on collaborative, creative, and exploratory activities during class.

Using flipped learning is also useful for adapting content to a varied audience. Although GIS falls under geography by name, both it and data visualization are interdisciplinary in practice. The interdisciplinary nature of these tools and of my liaison areas are reflected by my instruction; most of my workshops on these topics are requested and attended by students and faculty from a variety of disciplines, including Library & Information Science, History, Nanoscience, Sociology, Nursing, and others, each with their own approach to research and idea of what it should look like. These attendees also come from varying educational backgrounds and are at different steps in academia. Sometimes my instruction will be tailored for specific classes, disciplines, or class levels, but more often it must be understandable and applicable to learners with different subject expertise and at different levels of understanding and skill. Additionally, GIS and data visualization, like most topics within data science and digital research and scholarship, can be intimidating, jargon-heavy, and difficult to start learning. Luckily, there are several ways to make GIS and data visualization more accessible to learners, in addition to flipped learning or where flipped learning isn't an option.

Like with facilitating access to library resources, identifying and providing multiple access points for GIS and data visualization can make it a more enjoyable and engaging experience for all learners. The most common access point is practical, tool-based instruction, with checklists for design best practices, guided tutorials or workbooks, and entry-level tools built to guide creators through a scripted design process. This is especially attractive to beginning students and researchers who just need to create one chart and be done with a project. However, this approach frames GIS and data visualization as task-oriented tools, like a word processor or PDF editor for creating document. This limits creativity and the exploration of these tools as key methods in research and inquiry. It also often leaves learners back at step one when they start a new project with new data. Learners who have mastered GIS and data visualization, not just as tools but also as methods of inquiry, will be able to apply concepts they've learned to other tools, other data, and other projects, thinking critically about the visualizations they're creating and the processes that go into that creation. Meeting learners where they are is a far better way to generate access points: find a topic of interest, discuss existing charts and maps and how they can be interpreted versus what their creators wanted to say, and tie these tools into the broader scholarly conversation. Having learners contribute to citizen science and analyze crowd-sourced data is my favorite way to do this. Citizen science is when everyday citizens are involved in scientific research, usually through crowd-sourced data collection and processing, using tools like iNaturalist, eBird, and Zooniverse. Citizen science projects are sometimes community-driven, and learners can choose to contribute to projects that interest them or impact their communities. Some tools, like iNaturalist, also make their data available for the public to explore and use; learners can download a crowd-sourced dataset and use it in activities at various levels of mastery while engaging with real-world research.

Finally, I place great value on teaching with compassion, respect, and equity and celebrating diversity as key to ensuring that students not only succeed but also thrive. The well-being of learners attending my instruction sessions comes before the learning objectives of the day, which

can always be revisited later. Some great methods for protecting this well-being that I employ include:

- Being accommodating with online and face-to-face formats and providing multiple ways for learners to participate in an instruction session.
- Staying informed of and acknowledging the many sources of stress and anxiety facing learners and scaling back activities with heavy cognitive load in favor of more creative or flexible activities as often as needed.
- Creating an inclusive and welcoming communal environment by using inclusive and respectful language and engaging with learners at the beginning of, during, and outside instruction.
- Demonstrating self-care, healthy work/home boundaries, and effective communication and giving students both the space and active permission to follow suit.

A.I.b. Summary of Teaching Responsibilities

A full list of my instruction, directed student learning, and learning objects created from January 2019 to December 2021 can be found in [Appendix A](#).

Materials and other evidence are organized into sections corresponding to the sections below on OSF at <https://osf.io/56fys/>.

GIS and Data Visualization Services

Campus Visits and Developing Services

In February and March 2019, I visited Duke University, UNC Chapel Hill, and NC State University to meet with other GIS and data visualization librarians and get ideas for services and spaces that could be scaled to UNCG's needs and available resources. These ideas included some which I have implemented (e.g., instruction, resource guides, other learning objects, and consultations) and which are described in more detail below, and some which I plan to work with the Data Services Librarian, Lindsay Gypin, and other liaisons and library units on delivering in Spring 2021 (e.g., drop-in help hours, a data help desk or other physical space, a virtual space or landing page on the library website, and a series of workshops, discussions, and talks).

GIS Resources LibGuide

I developed the [GIS resources LibGuide](#), with links to resources for learning and using GIS tools and data. I included a welcome page introducing the concept of GIS, lists of software and tools, training and tutorials, and data sources, resources for how to cite GIS data, and linked to the research data management guide. I regularly update the lists of tools and training resources and am currently working on adding more featured resources to the books, articles, and websites page. I also created a flyer to help learners get started with the many different ArcGIS options, which is featured on the [software and tools page](#).

- [ArcGIS at UNCG Flyer on the GIS Resources LibGuide](#) (see folder: *A.I. Teaching/Instruction/Learning Objects/Other*)

Instruction

I teach in-class instruction sessions, internal training for library employees, UNCG workshops for UNCG students, staff, and faculty, and UNCG community members. Since January 2019, I've taught 49 instruction sessions, workshops, and internal trainings on GIS and data visualization topics, reaching more than 700 students, staff, faculty, and UNCG community members. See *A.I.b. – Instruction*.

Research Consultations

I provide research consultations on GIS and data visualization topics for research projects and assignments. I've reached approximately 37 students, staff, faculty, and external researchers over 47 total consultations on GIS and data visualization topics. See *A.I.b. – Research Consultations*

Collaborations

I collaborate with stakeholders in GIS and data visualization services across campus, including:

- GES Spatial Analysis Lab Director, James Nelson to create and manage institutional ArcGIS accounts and access to ArcGIS Pro and ArcGIS Desktop software.
- ITS Research Computing Administrator, Jacob Fosso Tande to develop the Research Technology Facilitation Network to facilitate the use of research technology on campus.
- Center for Housing and Community Studies Director, Stephen Sills and GIS Specialist Meredith DiMattina at the Center for Housing and Community Studies to develop instruction and resource guides.
- Facilities GIS Unit Leader, Michael Swaim to facilitate the access and discoverability of campus GIS assets and resources.
- The University Libraries Digital Research and Scholarship Services team, which has members from across the library in Research, Outreach, and Instruction, Electronic Resources & Information Technology, Special Collections & University Archives, and Technical Services, to coordinate instruction and research services for digital projects including GIS and data visualization.

Professional Development

I attend conferences, trainings, and other professional development opportunities to learn more about GIS and data visualization and tools, methods, and services, including:

- Data Visualization Society Fireside Chats (2020 – 2021)
- Research Data Access and Preservation Summit (2020 – 2021)
- Visualizing the Future Viz and Tell Discussions (2020 – 2021)
- Southeast Data Librarian Symposium (2019 – 2021)
- Storytelling with Data Challenges and Exercises (2019 – 2021)
- UNCG's Quantitative Methodology Series: Introduction to R for Data Analysis (2019)

GIS Day

I planned and coordinated the first GIS Day at UNCG University Libraries, held the week of November 17, 2021. GIS Day is a national event first started by leading GIS software company,

Esri, in 1999 to celebrate GIS and encourage exploration of how GIS can be used in research. I conducted outreach for this event through University Libraries social media, flyers, and a [post on the UNCG Reddit forum](#) and the official [esri GIS Day website](#), as well as on campus via flyers in buildings and outside Jackson Library. I also set up a continuing asynchronous interactive activity at Jackson Library using a print map that I created in ArcGIS Pro using data from the Campus Facilities GIS Unit, a magnetic whiteboard, magnetic markers, and a Google Form for students to submit a picture of their favorite places on campus as marked on the map and worked with the School of Education's SELF Studio to design and print keychains with Jackson Library's coordinates to give out to students.

- [Favorite Places Map \(OSF\)](#)
- See folder: *A.I. Teaching/GIS and Data Visualization/GIS Day* at <https://osf.io/56fys/>.

I planned two synchronous virtual workshops and an asynchronous activity for this event:

I set up a geocaching challenge to encourage students to learn more about GPS navigation and geographic coordinates, which form the basic technology behind real-world GIS applications. The challenge involved using GPS coordinates to navigate to and find three containers (called geocaches) hidden on campus, which contain stickers, keychains, and other swag. Nine players registered with a Google Form, were sent the coordinates via email, and had seven days to locate all three geocaches. The first three students that found the geocaches received gift cards to the campus bookstore, and gave positive verbal feedback about the challenge, indicating that they would like to do it again next year and that the challenge got them interested in the geocaching community. Two of the three geocaches are also live on the geocaching.com site, where they continue to do GIS Day outreach to the campus visitors and residents who find them. [GIS Day Trio #1 – Foust Park](#) and [GIS Day Trio #3 – The Tunnels](#).

I also coordinated a panel of six UNCG faculty, graduate students, and staff from across campus who use GIS in their work. I invited panelists who use GIS in different disciplines, for different types of projects, and in different capacities. Panelists introduced themselves and an example of how they use GIS in projects, and then answered and discussed questions I created about their experiences getting started with and learning GIS. I received very positive feedback from both the attendees and panelists:

“So interesting to hear all of the work and experiences people at UNCG have been bringing to the table”

“I think I've always been intimidated by GIS because I didn't really understand the language, but hearing them talk about it in a variety of ways and answering some of the "why" questions really helped. Like I always thought of GIS as just being tools so it was good to hear how it applies to theory and research and practical application... this gave me a lot to think about! Great job!”

- [GIS Day Panel Discussion and Q&A: GIS at UNCG Slides \(OSF\)](#) (see folder: *A.I. Teaching/Instruction/UNCG Workshops and Webinars*)
- [UNCG events calendar: Virtual Panel and Q&A: GIS at UNCG](#)

Finally, I taught a 30-minute Research & Applications Webinar on getting started with GIS, coordinated by Sam Harlow, which had 9 attendees from English, Communication Studies, and

other departments in the School of Education, Bryan School of Business and Economics, College of Arts & Sciences, and elsewhere on campus. In the webinar, which is aimed at graduate students and faculty seeking to learn more about library resources for research, I defined and gave examples of GIS, then described tools and learning resources available to students and faculty at UNCG, including free resources, and how to get started.

- [Research & Applications Webinar: Getting Started with GIS Slides \(OSF\)](#) (in folder: *A.I. Teaching/Instruction/UNCG Workshops and Webinars*)
- [UNCG events calendar: Research & Applications Webinar: Getting Started with GIS](#)

Digital Methodologies Bootcamp

In Summer 2019 I worked with Vaughn Stewart, Director of the Digital ACT Studio, and Armondo Collins, Head of the Digital Media Commons, to coordinate the Tools & Tech Track of the Digital Methodologies Bootcamp, put together by the University Libraries' and the Graduate School's Graduate Student Professional Development Working Group. I created a flyer and program for the Bootcamp, contributed to discussions of when and where to host it, and developed a workshop on designing and developing effective data visualization.

- [Digital Methodologies Bootcamp Flyer \(OSF\)](#)
- [Digital Methodologies Bootcamp Program \(OSF\)](#)
- [Designing and Developing Effective Data Viz Slides \(OSF\)](#) (in folder: *A.I. Teaching/Instruction/UNCG Workshops and Webinars*)

Interim Data Services

When the former Data Services Librarian, Lynda Kellam, left UNCG in July 2019, I took over responsibility for several data services. This started with research data consultations and assisting other liaisons in finding data, but as time went on, I also became the point of contact for data management questions and for researchers seeking to deposit data into the UNCG NCDOCKS Dataverse. Between July 2019 and August 2021 when the new Data Services Librarian, Lindsay Gypin, started I conducted 26 research data consultations for 28 students and faculty, attended and shared information about webinars and summer instructional opportunities as the institutional representative for the Inter-university Consortium for Political and Social Research (ICPSR) database, facilitated one dataset deposit into the UNCG NCDOCKS Dataverse, and took ownership of the two data LibGuides, [Data Services: Finding Data](#) and [Data Services: Research Data Management \(RDM\)](#).

- Anastopoulos, Arthur D; Labban, Jeffrey D, 2021, "RCT Examining Efficacy of ACCESS Intervention (IES Grant R305A150207)". <https://doi.org/10.15139/S3/DA2E5G>

I also customized a presentation from DMPTool with UNCG examples and embedded it on the RDM guide to help UNCG researchers access the tool to create data management plans and created a Google Doc guide to depositing data in the UNCG NCDOCKS Dataverse in collaboration with Anna Craft, Coordinator of Scholarly Communications, which I linked along with updated information about the Dataverse on the RDM guide as well. In Spring 2021 I taught a data management workshop for the Responsible Conduct of Research workshop series at the

request of the Office of Research Integrity, adapting previous research data management presentations given by Lynda Kellam and Anna Craft.

- [Getting Started with Data Management and DMPTool at UNCG \(OSF\)](#) (in folder: *A.I. Teaching/Instruction/Learning Objects/Other*)
- [Uploading Your Data to the UNCG Dataverse \(OSF\)](#) (in folder: *A.I. Teaching/Instruction/Learning Objects/Other*)
- [Research Data Management Slides \(OSF\)](#) (in folder: *A.I. Teaching/Instruction/UNCG Workshops and Webinars*)
- [Research Data Management Poll Responses \(OSF\)](#) (in folder: *A.I. Teaching/Instruction/UNCG Workshops and Webinars*)

Liaison Work

As liaison to 4 academic departments, I:

- Send emails to departmental contacts at the start of each semester with instruction offerings, reminders to request materials, upcoming library workshops and changes to policies.
- Provide consultations and information about scholarly profiles, citation management, copyright issues, publishing and open access publishing options and library support, and other scholarly communications topics.
- Attend conferences and professional development opportunities to build knowledge of resources and services for liaison areas.

Geography, Environment, & Sustainability (GES), starting January 2019

In addition to the above, I redesigned the [GES Resources subject LibGuide](#), attending department meetings and colloquia, gave 13 instruction sessions on information literacy topics and library resources and 56 consultations on information literacy and scholarly communication topics, worked with the Environment & Sustainability Program Director to create a subject LibGuide focused on information literacy topics specific to the program, and worked with a new faculty representative to get him set up with library collection development tools and workflow. I served as co-liaison to the Geography Department with Steve Cramer until Fall 2019, at which point I took over as sole liaison for Geography and the Environmental Studies program, which were combined to form the Geography, Environment, & Sustainability Department around the same time.

Informatics & Analytics (IA), starting August 2019

In addition to the above, I created the [Informatics & Analytics Resources subject LibGuide](#), worked with the Masters in Informatics & Analytics Program Coordinator to identify collection development areas and library services applicable to the program, gave 3 research consultations on finding library resources, and consulted with the department's new faculty representative on library collection development tools and workflow.

Computer Science (CSC), starting August 2021

In addition to the above, I consulted with the department's faculty representative to identify collection areas and learn more about the department's library resource needs. I plan to update the [Computer Science subject LibGuide](#) in Spring 2022.

Nanoscience & Nanoengineering (NAN), starting December 2021

I recently became the liaison for this department and plan to meet with the department's faculty representative and update the [Nanoscience and Nanoengineering subject LibGuide](#) in Spring 2022.

Liaison Teams

As a liaison to a variety of departments in science and social science areas and with interdisciplinary GIS and data visualization resources in mind, I work with other liaison librarians on the liaison Science and Social Science Teams. These teams meet regularly to instruction and collection development needs of our areas and develop and give workshops on relevant topics such as library databases, scholarly profiles, and open access resources.

Library Databases

I worked with Steve Cramer and the liaison teams to identify data needs for liaison areas and then evaluate whether databases SAGE Data Planet would meet those needs. Steve and I set up a trial period of the Data Planet database, consulted with database representatives and the library collections management team to purchase access, and led training for liaisons, primarily in the Social Science Team. I also worked with Lea Leininger to deliver training for the Science Team.

Steve and I also worked on retaining partial access to SimplyAnalytics when it was removed from NC LIVE databases in January 2021, and work with the database representative to expand our access for classes and workshops.

Instruction

As a liaison librarian in the Research, Outreach, and Instruction (ROI) Department at UNCG University Libraries, one of my primary responsibilities is to provide instruction in the form of in-class instruction sessions, learning resources including research guides and video tutorials, library workshops and webinars, and internal training sessions.

My instruction falls into two major categories: 1) topics in GIS and data visualization, and 2) topics in library resources, general research, and information literacy for my liaison areas and as requested for other areas by their liaisons.

Data Carpentry Instructor Training

I became a certified Data Carpentry instructor in May 2021 after attending four training sessions, contributing to Library Carpentries lessons on GitHub, giving a demonstration instruction session, and participating in a Carpentries community discussion. I took the instructor training to develop my skills as an instructor, and currently implement the techniques and concepts I learned in my instruction.

- [Carpentries Instructor Training Certificate \(OSF\)](#)

In-Class Instruction Sessions (Non-credit guest lectures for UNCG students)

I have taught 51 in-class instruction sessions since joining the UNCG Libraries in January 2019, reaching approximately 1,064 students over more than 54 hours of both face-to-face and virtual instruction (not including time spent outside of class on preparing materials, developing learning resources, assessing instruction, and conducting follow-up consultations with students). Most of my in-class instruction is at the undergraduate level, although I deliver instruction sessions to graduate level and cross-level courses as well.

Sixty-three percent of my in-class instruction sessions are on GIS or data visualization, and include topics like data literacy (e.g., finding, evaluating, and citing data), general tools and tutorials (e.g., how to use library databases for demographic data exploration), and tool-specific instruction (e.g., how to create a custom Google Map); fifty percent of my total in-class instruction is on GIS or data visualization topics for Library and Information Science (LIS) classes. Topics covered for liaison-category instruction include library resources (e.g., databases like PolicyMap, eBooks, and journals), information literacy (e.g., finding, using, or citing information), and research (e.g., developing a thesis statement).

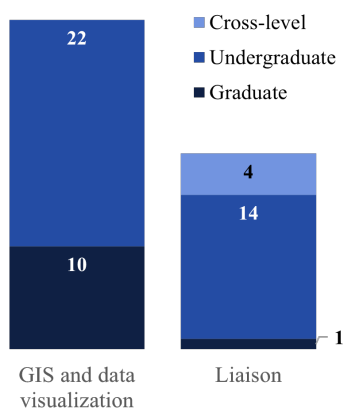


Fig. 2: In-class instruction by course level, 2019-2022

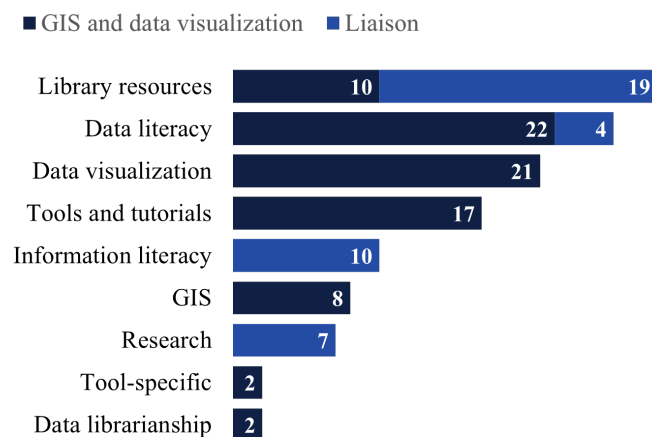


Fig. 3: In-class instruction by topic covered, 2019-2022

Most sessions have been directly solicited by instructors, usually at the suggestion of my fellow liaisons in the ROI department, when there are GIS- or data visualization-related assignments in their courses. For other instruction sessions on topics in information literacy, using library resources, or other research activities, I conduct outreach to instructors in my liaison areas with quarterly updates and reminders of instruction offerings via email, and pre-COVID-19, through attendance at face-to-face departmental meetings. These efforts have resulted in at least 4 instruction sessions in Geography, Environment, & Sustainability (GES) classes on library resources and other research topics.

- [Thank you card from the instructor of Educational Research Methodology \(ERM\) 400X \(OSF\)](#)
- See [Appendix A](#) for a list of in-class instruction sessions.

I've highlighted three courses below:

Information Literacy Development Award: IAR 124

In August 2019 I served as a library partner, alongside Mark Schumacher and Kathelene McCarty Smith, with instructor Maruja Torres Antonini in her class Interior Architecture (IAR) 124: Introduction to Sustainable Design, which was awarded funding for implementing information literacy in the syllabus as part of the University Libraries Information Literacy Development Award. I worked with Maruja, Mark, and Kathelene to develop two instruction sessions on information literacy and sustainability topics, worksheets for in-class activities, a calendar and form for required group consultations with a library partner, an information literacy Canvas module adapted from the University Libraries tutorial modules, a course LibGuide, and a rubric for the information literacy portion of the final research paper assignment adapted from the ROI information literacy rubric, pre-survey, and post-survey to assess student learning and effectiveness of our instruction.

92% of students (n=13) reported an increase in confidence in applying information literacy skills after IAR 124 coursework:

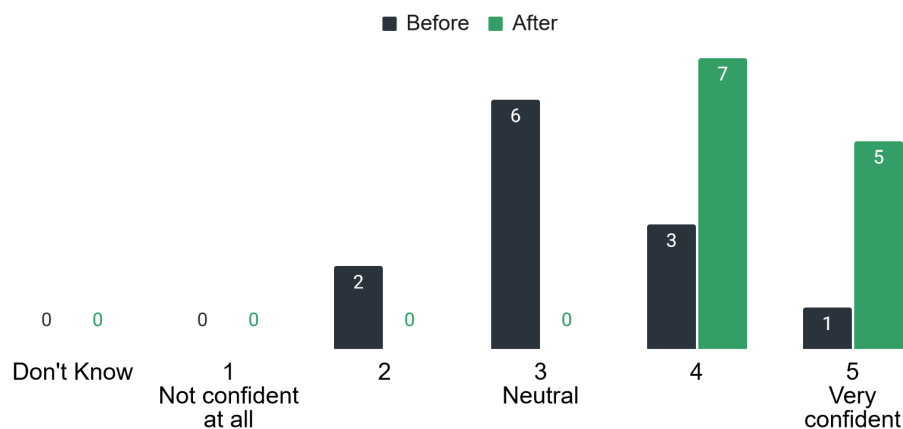


Fig. 4: Student responses to question 1 of the IAR 124 post-survey in 2019, showing that overall student confidence in applying information literacy skills improved.

- [Interior Architecture 124 LibGuide](#)
- [Research Strategies Worksheet \(OSF\)](#)
- [Learning Goals & Outcomes and AB Rubric \(OSF\)](#)
- [Information Literacy Exit Survey \(2019\) \(OSF\)](#)

In August 2020, Maggie Murphy and I returned as library partners for this class. In response to feedback from the previous year's post-survey and anticipating a virtual course, I worked with Maggie and the instructor to develop a series of information literacy assignments to be combined into a larger final portfolio instead of a research paper, and accompanying rubrics, and redesigned the two in-class instruction sessions and pre- and post-survey. Maggie and I received the following note from the instructor:

“I want to sincerely thank you both for your wonderful contribution to the IAR 124 course but mostly for your personal kindness, spirit of service, and your willingness to lend your outstanding talents to my class.”

- [Slides \(OSF\)](#)
- [ABCD Worksheet \(OSF\)](#)
- [Short Assignments #1-2 \(OSF\)](#)
- [Short Assignments #3-5 \(OSF\)](#)
- [Rubrics for Canvas \(OSF\)](#)
- [Information Literacy Exit Survey \(2020\) \(OSF\)](#)

Library and Information Science (LIS) 200: Information Use in a Digital World

This is my most taught class, with 18 sessions of this class for four instructors from July 2019 to November 2021. In this class, I introduce students to data visualization for use in an infographic assignment. I started by redesigning presentation materials developed by Lynda Kellam to include more data visualization best practices, and regularly update content to meet the requests of specific instructors. In October 2021, Lindsay Gypin joined me in co-teaching sessions for this class. We worked with instructor Rachel Olsen to create a new presentation and learning goals; I added content introducing the role of data visualization in communicating research, data visualization best practices, and tools for creating infographics.

- [Finding Evaluating and Presenting Statistical Information \(2021, March 23\) Slides \(OSF\)](#)
- [Data and Infographics \(2021, November 8\) Slides \(OSF\)](#)

Library and Information Science (LIS) 631: Emerging Technologies

This is my second-most taught class, with six sessions taught for two instructors from September 2019 to September 2021. In this class, I introduce graduate students in the MLIS program to GIS concepts, tools, and how GIS can be used in libraries for assessment, programming, and research services. From the instructor:

“I really appreciated that you took the time to speak to my class and share your experiences”

- [GIS and Mapping Tools \(2021, January 27\) Slides \(OSF\)](#)

UNCG Workshops and Webinars (instruction for UNCG students, faculty, and community)

I’ve taught 21 UNCG workshops and webinars for students, faculty, and UNCG community members on topics including creating story maps and other GIS products, using Zotero for citation management, data visualization tools and best practices, research data management, and more, reaching more than 180 learners. In February 2021 I gave three workshops for the McNair Scholars program, including two on writing for research and proposal writing strategies with Megan Carlton, and one on using Zotero for citation management with Amy Harris Houk. I’ve also given four webinars as part of the University Libraries Research & Application Webinar Series, coordinated by Sam Harlow to provide faculty and students with tools and resources for research.

- See [Appendix A](#) for a list of UNCG workshops and webinars.
- See folder: *A.I. Teaching/Instruction/UNCG Workshops and Webinars* at <https://osf.io/56fys/>

Internal Trainings (professional development for UNCG Libraries colleagues)

I've taught 10 internal trainings for UNCG Libraries colleagues, including workshops on Leaflet for interactive webmaps, library databases like PolicyMap and Data Planet, data visualization of quantitative and qualitative assessment data, and LGBTQ+ inclusive and supportive library events.

In Summer 2020 I reconvened the Data Science Learner's Group, which was started in 2019 by myself, Deborah Caldwell, and Brown Biggers to lead professional development in data science topics. I organized a trial of SAGE Campus, a data science learning platform, and led a training session introducing the platform. Although SAGE Campus didn't meet the Libraries' needs, I continued with Data Science Learner's Group meetings and welcomed new Data Services Librarian Lindsay Gypin to the group in August 2021.

- See [Appendix A](#) for a list of internal trainings.
- See folder: *A.I. Teaching/Instruction/Internal Trainings* at <https://osf.io/56fys/>

Library Tours and Orientations

I have led and attended 14 library tours and orientations for faculty and graduate, undergraduate, transfer, and international students, including online orientations, tours of the library and tabling for the Summer Orientation and Academic Registration (SOAR) program, and international student tours of the library for the International Programs Center. Tours and orientations involve a tour of library spaces, both physical and virtual, and of the library resources and services available to faculty and students.

- See [Appendix A](#) for a list of library tours and orientations.

Research Consultations

I have given over 160 consultations on research, information, and GIS and data visualization topics in face-to-face meetings, phone calls, email, and virtual meetings, for 158 faculty, staff, undergraduate students, graduate students, and researchers external to UNCG. These consultations equal over 120 hours spent working with patrons on research one-on-one. After most consultation meetings, I send follow-up emails with zoom recordings, tutorials, links, and summaries of the topics discussed. My email consultations often include videos, gifs, walkthroughs, and pictures that I create to help patrons with their research. Over half of my consultations (59%) are on information literacy, library resource, or other liaison-related topics; 29% are in GIS and data visualization-related topics, and 12% are in data-related topics (e.g., finding, downloading, analyzing, or depositing data).

Recurring consultations include:

- Brian Robinson and graduate students on creating maps and data visualizations related to his research with the "People Not Property" project.

- Melody Rood and Sam Harlow on creating visualizations for and organizing data from the Open Educational Resources Mini Grant program, for which I co-consult with Brown Biggers.
- Somya Mohanty, Fred Sadri, Rick Bunch, Richard Cox, and graduate students, with Evan Goldstein, on creating an interactive digital map for the “Leveraging Twitter and big data analytics for natural disaster management and recovery” Giant Steps Research Development Grant project.

Learning Object Creation

LibGuides

I have created and worked on 10 LibGuides that have been viewed over 6,860 times since I created or took ownership of them, including subject and course guides. My most viewed LibGuide is the [Data Services: Finding Data guide](#), which I took ownership of in July 2019. I also created a [GIS and Data Visualization Librarian LibGuide page](#) to use as a profile and landing page for patrons looking for information about me and the services I offer, which is my third-most viewed LibGuide with over 1,450 views.

Total LibGuide views from date of creation/ownership transfer to November 2021



Fig. 5: Views of Libguides from date of creation or transfer of ownership to me, to November 2021. Note that GES 367: Research in Environment and Sustainability, GES 432/632: Geography of Livable Cities, and Informatics & Analytics Resources were created or transferred to me in Fall 2021.

I also have ownership of several guides in Computer Science, Nanoscience and Nanoengineering, and Geography, Environment, & Sustainability, not included in the 10 mentioned above; I’ve made minor edits to these to keep them updated, and plan to revisit them and make larger revisions as necessary.

- See [Appendix A](#) for a list of learning objects, including LibGuides.

Other

I have created 21 digital learning objects, including videos, step-by-step tutorials, presentation slides, a flyer, and a Canvas module. Most are published online and are accessible via YouTube,

Canvas Commons, or on my LibGuides, but some are shared directly with learners in instruction sessions or via email consultations. They range in topics, including citing maps, GIS layers, and reports in APA or Chicago, using databases like PolicyMap, the Census data explorer, and the Civil Rights Data Collection, creating story maps and other digital products using tools like StoryMap JS, QGIS, and Mapbox, navigating the library catalog search and selecting databases to search, and choosing an ArcGIS tool and creating an account.

- See [Appendix A](#) for a list of learning objects.
- See folder: *A.I. Teaching/Instruction/Learning Objects* at <https://osf.io/56fys/>

General Reference

As a reference librarian, I staff the virtual chat desk and assist with answering patron questions about research and library resources. I also work on the reference desk and help with UNCG Library Information Science (LIS) intern training as needed. As part of my duties in reference, I contribute my data about reference interactions, consultations, and instruction to datasets in LibInsight, to help with assessment and evaluation.

A.I.d. Summary of Advising Responsibilities

McNair Scholars Program Library Mentor

The UNCG McNair Scholars Program is a federal TRIO program funded by the U.S. Department of Education. This program is designed to encourage students from diverse backgrounds to work towards graduate school. Each student McNair scholar is assigned a faculty and librarian mentor, completes a Summer Research Institute project, and presents at the UNCG McNair Summer Research Institute Symposium.

From Spring 2020 to August 2021, I served as library mentor to three undergraduate students in their research for the UNCG McNair Scholars Program, meeting regularly with them and their faculty mentors to provide library resources and research support. I also taught three workshops for the Summer Research Institute, including two on writing for research and strategies for writing grant proposals with Megan Carlton, and one on using Zotero for citation management with Amy Harris Houk.

- See [Appendix A](#) for a list of McNair students mentored and their projects.

MLIS Practicum Student

In Spring 2022, I will co-supervise a practicum student from the UNCG Master of Library and Information Science program with Lindsay Gypin, on a project developing a tool to analyze and visualizing library collections data.

Semester	Number of Students Advised	Advising Duties
Spring 2022	1	Supervise a practicum student in a project developing a tool for library collection management; approx. 160 hours.
Spring – Fall 2021	2	McNair Scholar Library Mentor
Spring – Fall 2020	1	McNair Scholar Library Mentor

A.II. RESEARCH OR CREATIVE ACTIVITY

A.II.a. Statement of Research or Creative Activity

My research activity centers on helping learners engage with data throughout the research data lifecycle, from finding and collecting data to sharing and publishing it. My current primary research aligns with my teaching philosophy in its focus on data literacy and how we can use tools like citizen science to teach data skills to students from different disciplines and with different backgrounds and data needs. My work in this topic is largely done in collaboration with STEM Librarian Megan Carlton; we've presented our methods and ideas for using citizen science in data literacy instruction and student engagement at multiple levels from state to international, with presentations at the North Carolina Library Association (NCLA) 2019 Conference, Southeast Data Librarianship (SEDLS) 2021 Symposium, and Special Libraries Association (SLA) 2021 Conference.

When I first started at UNCG, my research focused on a specific aspect of data, data visualization. I was granted a fellowship to participate in the Visualizing the Future (VTF) Symposia, to explore how metadata associated with charts and graphs and the data used to create them can be used in data visualization instruction. With this project, I began to see the value in sharing concrete resources and examples for the library community to adapt and reuse. In addition to my own independent exploration, I participated in discussions and activities where we identified concepts important to the idea of tool-agnostic data visualization instruction and developed learning objectives, which I've used in instruction at UNCG. I also contributed code and design expertise to the Teach Viz by Example repository of example datasets and data visualizations for use in instruction. I looked specifically for presentation opportunities where I could share these resources and get the broader data librarian community involved with VTF Symposia projects, for example at the Research Data Access and Preservation (RDAP) 2020 Summit where I presented on VTF Symposia activities with two other VTF fellows. I also have shared a "recipe" for instruction in electronic lab notebooks and information management with example worksheets, activities, and learning goals as the coauthor of a chapter in the *ACRL Scholarly Communications Cookbook*, with Megan Carlton.

Another large aspect of my research is on GIS methods and techniques. Although most of my involvement in research using GIS is through research consultations where I help researchers find and use tools, I directly contribute to several projects. I was published as a co-author for three journal articles, for which I reviewed the GIS methods used by my co-authors, developed an application to select study participants (prior to joining the UNCG faculty), and led training in using specific GIS techniques and workflows. Although I laid the foundation for this research activity prior to joining the UNCG faculty, it was important to me to continue my contributions to GIS methods in epidemiology and environmental research in my current role. I also have contributed to development of an interactive map application for the UNCG Giant Steps grant project, *Leveraging Twitter and Big Data Analytics for Natural Disaster Management and Recovery*, led by Somya Mohanty with library collaborators Richard Cox and Lynda Kellam (and Brown Biggers in his role as a graduate student in Computer Science), and others. For this project, I worked with Evan Goldstein from GES and contributed code and design expertise to develop an interactive map using R, Shiny, and Leaflet.

Like with my instruction, I incorporate concepts relating to student success and diversity, equity, and inclusion throughout my research. After helping to organize the University Libraries Queer Café in 2019, I worked with Melody Rood to share what we learned about implementing inclusive programming for LGBTQ+ students and library staff; I've presented and led discussions at the department level for the Research, Outreach, and Instruction Department's Nontraditional Student Group (see *A.I. Teaching – Instruction – Internal Trainings*) and at the national level with a poster for the Association of College and Research Libraries 2021 Conference with Melody. We were recently granted funding for another Queer Café event in Spring 2022 through a UNCG iBelong Grant. I've also presented on the importance of concepts like equity, ethics, and empathy to effective data visualization design for an international audience with a webinar for the SirsiDynix Library Professional OnDemand Webinar Series.

My future research plans are to explore ways to increase access points to GIS for learners in different disciplines and at different levels, and to data visualization through activities and events aimed at disciplines in the arts and humanities. I would like to adapt assessment I conducted for Interior Architecture (IAR) 124: Introduction to Sustainable Design on information literacy to data literacy and specifically GIS and data visualization. I've begun work on this project by organizing and leading instruction sessions, a geocaching challenge, and other activities for GIS Day in November, and plan to collaborate with Sarah Dorsey, Maggie Murphy, and others on a workshop on data visualization in the performing arts in Spring 2022.

A.II.b. Chronological Lists of Achievements in Research and Creative Activity

Publications

Book Chapter

Carlton, J. M., Klein, J. (2021). Keeping track of your recipe: Moving from cookbooks to the web. In *ACRL Scholarly Communications Cookbook*. Chicago, IL, United States: Association of College and Research Libraries.
<https://libres.uncg.edu/ir/uncg/listing.aspx?id=36626>

Journal Articles

Prior to joining the UNCG faculty, I developed a GIS application to select study participants based on data availability for the area around their residences and created several GIS datasets as a Student Services Contractor for the US EPA. The research published in the three articles below used my application, data, and documentation; additionally, I was consulted to teach and review GIS methods as written in the articles below, in my current role as GIS and Data Visualization Librarian.

Styles, J. N., Converse, R. R., Griffin, S. M., Wade, T. J., Klein, E., Nylander-French, L. A., ... Egorov, A. I. (2020). Human cytomegalovirus infections are associated with elevated biomarkers of vascular injury. *Frontiers in Cellular and Infection Microbiology*, 10, 334.
<https://doi.org/10.3389/fcimb.2020.00334>

Egorov, A., Griffin, S., Converse, R., Styles, J., Klein, E., Scott, J., Sams, E., Hudgens, E., & Wade, T. (2020). Greater tree cover near residence is associated with reduced allostatic load in residents of central North Carolina. *Environmental Research*, 186, 109435. <https://doi.org/10.1016/j.envres.2020.109435>

Egorov, A., Griffin, S., Styles, J., Sams, E., Hudgens, E., Klein, E., Wickersham, L., Ritter, R., Jackson, L., & Wade, T. (2019). Greater residential tree-cover and time spent outdoors are associated with reduced allostatic load in residents of central North Carolina. *Environmental Epidemiology*, 3, 108. <https://doi.org/10.1097/01.ee9.0000606896.31619.ea>

Other

Klein, J. (2021, August 16). 2020 Census data update. *The Ref Desk*. <https://uncgreferenc.blogspot.com/2021/08/2020-census-data-update.html>

The Ref Desk is the blog of the Reference, Outreach, and Instruction Department, where we share updates with liaisons and other library employees, students, and patrons.

Klein, J. (2021, August 16). Worldcat Discovery error when searching. *The Ref Desk*. <https://uncgreferenc.blogspot.com/2021/08/worldcat-discovery-error-when-searching.html>

Klein, J. (2019). New maps and cartographic materials. *base line*, 40(3), 14–17. <https://www.ala.org/rt/sites/ala.org/rt/files/content/publicationsab/baseline/BL-40-2.pdf>

Base line is the periodical newsletter of the American Library Association Maps and Geographic Information Round Table (MAGIRT). I wrote and edited the New Maps and Cartographic Materials review column for two issues.

Klein, J. (2019). New maps and cartographic materials. *base line*, 40(2), 21–29. <https://www.ala.org/rt/sites/ala.org/rt/files/content/publicationsab/baseline/BL-40-2.pdf>

Presentations

International

Klein, J. & Carlton, M. (2021, August 4–13). *Learning data "naturally": Engaging communities in the scientific process with iNaturalist* [On-demand presentation]. Special Libraries Association 2021 Annual Conference, virtual. <http://libres.uncg.edu/ir/uncg/listing.aspx?id=35880>

National

Rood, M. L. & Klein, J. (2021, April 6–May 14). *Pass the button maker: Supporting LGBTQIA+ patrons and library employees with low stakes, high impact programming* [Poster], virtual. <https://libres.uncg.edu/ir/uncg/listing.aspx?id=35879>

Zoss, A., Klein, J., & Wilkinson Saldaña, C. (2020, November 9–13). *Using Wax and Jekyll to build minimal digital projects* [On-demand presentation]. Digital Library Federation 2020 Forum, virtual. <http://libres.uncg.edu/ir/uncg/listing.aspx?id=35883>

Klein, J., & Rood, M. L., (2020, March 13). *Role initiative* [Panel]. The Library Collective 2020, Knoxville, TN.

I contributed to planning discussions of panel outline, questions to ask panelists, and structured activity brainstorming as an accepted panelist, but did not attend due to scheduling conflict with RDAP Summit.

Grynoch, T., Klein, J., & Rod, A. (2020, March 11). *Connecting communities through a passion for data visualization in libraries: The Visualizing the Future Symposia* [Oral presentation]. Research Data Access and Preservation 2020 Summit, Santa Fe, NM.
<http://libres.uncg.edu/ir/uncg/listing.aspx?id=35882>

Goldstein, E., Sayedahmed, S., Mohanty, S., & Klein, J. (2020, February 4) *Visualizing the Twitter record from Hurricane Irma in Florida to investigate coastal storm impacts* [Oral presentation]. Gulf of Mexico Oil Spill & Ecosystem Science 2020 Conference, Tampa, FL.

- See [ejklein/TweetStorm on GitHub](#) for screenshots of an interactive webmap and R code I developed for this project in collaboration with Evan Goldstein.

Klein, J. (2019, August 7). *Behind the scenes: Metadata and data visualization* [Oral presentation]. Visualizing the Future 2019 Symposium, Ann Arbor, MI.
<http://libres.uncg.edu/ir/uncg/listing.aspx?id=28990>

Regional

Klein, J. & Carlton, M. (2021, October 14). *Crawfishing for data: Using iNaturalist for data literacy instruction* [Poster]. Southeast Data Librarian 2021 Symposium, virtual.
<http://libres.uncg.edu/ir/uncg/listing.aspx?id=36719>

Klein, J., Bird, N., & Crumpton, M. (2019, October 11). *Data librarianship at UNC Greensboro* [Poster]. Southeast Data Librarian 2019 Symposium, New Orleans, LA.
<http://libres.uncg.edu/ir/uncg/listing.aspx?id=29313>

State

Klein, J. (2020, July 17). *"Is anyone there?": Using Discord to facilitate networking and discussion at virtual conferences* [Oral presentation]. North Carolina Library Association 2020 Un-Cancelled Conference, virtual.
<http://libres.uncg.edu/ir/uncg/listing.aspx?id=35884>

Carlton, M. & Klein, J. (2019, October 18). *Two birds one stone: Supporting data literacy and encouraging civic engagement using framework-inspired library programming* [Oral presentation]. North Carolina Library Association Conference, Winston-Salem, NC.
<http://libres.uncg.edu/ir/uncg/listing.aspx?id=28833>

Klein, J. (2019, February 27–March 1). *"But I'm not a GIS person!": Teaching introductory GIS programming through an interactive web map workshop* [Poster]. North Carolina GIS 2019 Conference, Winston-Salem, NC. <http://libres.uncg.edu/ir/uncg/listing.aspx?id=28845>

Local

Klein, J. (2021, January 30). *Lessons learned: Data viz & communicating research* [Oral presentation]. ComSciCon-Triangle 2020 Workshop, virtual.
<http://libres.uncg.edu/ir/uncg/listing.aspx?id=35881>

Workshops

International

Klein, J. (2020, May 6). *Ethics and empathy in data visualization* [On-demand webinar]. SirsiDynix Library Professional OnDemand Webinar Series, virtual.
<https://libres.uncg.edu/ir/uncg/listing.aspx?id=35885>

- Invited workshop: [Invitation to present from SirsiDynix representative \(OSF\)](#)

Regional

Exner, N., Klein, J., & Gypin, L. (2021, October 13). *Data management planning with DMPTool* [Workshop]. Southeast Data Librarian 2021 Symposium, virtual. <https://osf.io/dkqbm/>

State

Klein, J., Carlton, M., & Yisak, R. (2021, May 13). *Engaging with STEM during COVID* [Webinar]. North Carolina Library Association STEM-LINC, virtual.
<http://libres.uncg.edu/ir/uncg/listing.aspx?id=35405>

Klein, J. (2020, February 25). *EnviroAtlas: A powerful tool for environmental justice and planning* [Webinar]. North Carolina Library Association STEM-LINC, virtual.
<https://libres.uncg.edu/ir/uncg/listing.aspx?id=35886>

Local

Klein, J. & Murphy, M. (2019, May 23). *Customizable leaflet maps* [Workshop]. Spring 2019 Triangle Digital Humanities Institute, Chapel Hill, NC.
<https://libres.uncg.edu/ir/uncg/listing.aspx?id=28865>

- Workshop materials: <https://github.com/ejklein/TDHI19-Leaflet>

Grants & Fellowship

Rood, M. & Klein, J. “Queer Café,” UNCG iBelong Grant. (Fall 2021 – Spring 2022).

In the Fall of 2019, a group of librarians at UNCG University Libraries held “Queer Café,” an event to promote visibility of LGTBQ+ library staff to students who share similar experiences through creation of a safe space for socializing and sharing of campus and library resources and activities. With this grant, Melody Rood and I will be holding another Queer Café, with funding used for space reservation fees, outreach, campus catering, materials for activities, and swag.

- [Queer Cafe iBelong Grant Proposal \(OSF\)](#)

Klein, J. "Behind the Scenes: Metadata and Data Visualization," Visualizing the Future Symposia Fellowship. (March 2019 – November 2021).

Abstract: Identifying and addressing existing metadata-related challenges, advocating for and applying metadata standards that follow FAIR data principles to data visualization, and creating or supplementing metadata-specific instruction will improve usability of data, supplement scholarly communication of research, and help connect library users with the appropriate support for their data visualization needs.

Description: [Visualizing the Future \(RE-73-18-0059-18\)](#) is an IMLS-funded national forum on data visualization in libraries, which aims to create a diverse community of praxis that will advance data visualization instruction and use beyond hands-on, technology-based tutorials toward a nuanced, critical understanding of visualization as a research product and form of expression, with a literacy-based instructional and research agenda.

As a fellow of this national forum, I previously received funding to travel to an in-person symposium meeting and other conferences to present on findings and symposium activities; the grant was extended to cover costs related to symposium activities, including costs of publication or equipment, until November 2021. In addition to developing data visualization literacy learning goals and implementing them in instruction at UNCG, I participated through monthly group meetings, the "Viz & Tell" series of monthly presentations and discussions on data viz topics, and service in the Examples Repository and Community Infrastructure & Outreach subgroups, where I contributed to the creation of the [Teach Viz by Example repository](#) of datasets and data visualizations in GitHub and moderated the VTF Slack channel, respectively. Also see: *A.III: Service*.

- [Visualizing the Future Fellowship Proposal \(OSF\)](#)
- [Behind the Scenes: Metadata and Data Visualizations position statement](#)
- [Visualizingthefuture/examples-repository on GitHub](#)

A.III: SERVICE

A.III.a. Statement of Service

Since I joined the UNCG faculty in January 2019, I've contributed service to both the university and my profession at multiple levels of scope from departmental to international. I've been a reviewer for two articles in the international journal *The Serials Librarian* and for the Geography bibliography in *Resources for College Libraries*, and have volunteered to help with registration at the NCLA 2019 Conference.

I have been active on several committees, from departmental liaison teams to the international Data Visualization Society Education Committee. In July 2019, I served on the Data Services Librarian Search Committee, which was cancelled twice before finally succeeding in 2021, contributing to the hiring of the new Data Services Librarian, Lindsay Gypin. From September 2020 to May 2021, I served on the Libraries' Equity, Diversity, & Inclusion (EDI) Initiative Team, leading one of five focus groups on EDI topics to discuss issues and solutions at the library and creating a diagram for the team's report to library administration and the Libraries' EDI Committee. I'm active in broader university-level committees including the Faculty Senate Scholarly Communications Committee; I've contributed to the planning of the RISE Network's

take-home STEM kit initiative with Guilford County Schools, presented and discussed data-centered research in the Institute for Data, Evaluation, and Analytics, and was a founding member of the Research Technology Facilitation Network along with members from UNCG ITS and various academic departments.

Contributing service to the data librarian profession is very important to me. Since January 2020, I've served on the planning committee for the 2020 and 2021 Southeast Data Librarian Symposium (SEDLS). As a committee member for the 3rd annual SEDLS – also the first virtual SEDLS and the first SEDLS with a registration cap above 50 – I collaborated with six other librarians and information professionals from the Southeast region on pre-event planning activities, including: drafting a timeline, sending the call for proposals out, reviewing proposals, and drafting and editing a commitment to accessibility and code of conduct. The 2020 symposium was a success with full conference registration at 237 and 66 attendees registered for the Discord; 95% of attendees responding to our post-survey rated the symposium overall as above average or well-above average, with 81% of respondents attending for the first time. We also saw an unexpected level of engagement from attendees from around the United States, with 207 attendees in 2020 and 138 in 2021. Although SEDLS began as a regional conference, we had presenters and attendees from around the country, and four international attendees in 2020. As the technology coordinator (initially the venue coordinator until we moved to a virtual format in response to the pandemic) and program co-coordinator, I secured financial sponsorship of the previously planned in-person event from UNCG University Libraries and upon moving to a virtual event with less financial needs, worked with UNCG ITS to set up Zoom Webinar sessions for symposium sessions, created a conference Discord server, coordinated Zoom hosts and co-hosts (i.e. moderators) for each session, coordinated and led meetings with poster and workshop presenters to facilitate their presentations in a virtual format, co-coordinated workshop registration and communication, coordinated editing and captioning of recorded sessions, and created a report of each year's planning activities.

I also have served on several committees for the Visualizing the Future (VTF) Symposium with colleagues from around the United States and Canada. In addition to serving on the Examples Repository Development Group, I served on the Community Infrastructure & Outreach Group, for which I moderated the VTF Slack channel and helped draft a call for proposals for an edited book on data visualization and social justice topics in libraries. In Winter 2020, I co-organized the VTF Data Librarian Social with Angela Zoss from Duke University and Jordan Wrigley from the University of Colorado Boulder. I created a custom event space using virtual meeting venue Gather.town, creating 8-bit art and assets to customize the space for VTF and a winter theme using Adobe Photoshop. During the social, I moderated the Gather.town space and created and moderated a Zoom meeting for early career data librarians.

Finally, I incorporate my identity and passion for the LGBTQ+ community into my service at the university level. Beginning in February 2021, I've gathered information about the exclusion of transition-related healthcare from coverage under the NC State Health Plan and have worked to educate the UNCG community, find support for our transgender colleagues, and advocate for change to this policy. As part of this grassroots initiative, I've created outreach materials to distribute to the UNCG community, led discussions on the topic with the UNCG Queer Caucus and Gender Diversity Working Group, and have created a collaborative Google Doc of action items for these groups and other folks interested in this initiative to contribute to. I've also met

with & presented to the Faculty Senate EDI Committee, and have identified future groups for outreach, thanks to discussions with and outreach by Stacey Krim on my behalf.

A.III.b. Chronological List of Service Activities

University Service

Service to the University: Committee Member

- Research and Instruction in STEM Education (RISE) Network Advisory Board. (September 2021 – Present).
- Faculty Senate Scholarly Communications Committee. (July 2020 – Present).
- Gender Diversity Working Group. (August 2019 – Present).
- Institute for Data, Evaluation, and Analytics (IDEA). (February 2019 – Present).
- Research Technology Facilitation Network. (October 2020 – June 2021).

University Libraries Service: Committee Member

- Convener, Data Science Learner's Group. (July 2020 – Present).
- Green Library Group. (April 2019 – Present).
- Digital Research & Scholarship Services. (January 2019 – Present).
- Equity, Diversity, & Inclusion (EDI) Initiative Team. (September 2020 – May 2021). [University Libraries Playbook and Team Initiatives](#), pp. 7-10.
- Data Services Librarian Search Committee. (January 2021 – April 2021).
- Co-Convener, Graduate Student Professional Development Group. (December 2019 – December 2020).
- Data Services Librarian Search Committee. (April 2020 – July 2020).*
- Graduate Student Professional Development Group. (January 2019 – December 2019).
- Program Co-organizer, Queer Café (October 2019 – November 2019).
- Data Services Librarian Search Committee. (July 2019 – October 2019).*

*The first two searches for the Data Services Librarian position were cancelled, and a new and ultimately successful search for this position began in January 2021.

Service to UNCG Libraries Research, Outreach, and Instruction Department:

- Sciences Liaison Team. (January 2019 – Present).
- Social Sciences Liaison Team. (January 2019 – Present).

Other University Service

Transgender healthcare coverage at UNCG. (February 2021 – Present).

- [Trans Healthcare Card \(OSF\)](#)
- [Trans Healthcare Flyer \(OSF\)](#)
- [Trans health coverage at UNCG: Goals and Actions](#)

Library and Information Science Student Association (LISSA) Career Day Panel. (2020, February 2).

- [Thank you note \(OSF\)](#)

Professional Service: Committee Member

International

Reviewer, *The Serials Librarian*. (October 2020).

I reviewed two manuscripts submitted to *The Serials Librarian*, an international journal focusing on scholarly communication and all aspects of serials and other continuing resources.

- [Reviewer profile on Publons](#)

Data Visualization Society Education Committee. (October 2019 – January 2020).

National

Southeast Data Librarian Symposium (SEDLS) 2021 Planning Committee. (January 2021 – December 2021).

Although SEDLS is traditionally regional in scope and by name, in 2020 and 2021 we saw attendees and presenters from across the United States attend the newly-virtual conference.

- [SEDLS 2021 website and program](#)

Visualizing the Future: Community Infrastructure & Outreach Group. (February 2021 – November 2021).

Geoscience Information Society (GSIS) Best Reference Resource Award. (July 2021 – October 2021).

- [Thank you email \(OSF\)](#)

Visualizing the Future: Examples Repository Development Group. (August 2019 – February 2021).

Visualizing the Future: Viz & Tell Data Librarian Social Organizing Committee. (November 2020 – December 2020).

- See folder: *A.III. Service/2020 Data Librarian Social* at <https://osf.io/56fys/>

Southeast Data Librarian Symposium (SEDLS) 2020 Planning Committee. (February 2020 – December 2020).

- [SEDLS Discord Screenshot \(OSF\)](#)
- [Discord at SEDLS 2020 Demo Video on YouTube](#)
- [SEDLS 2020 website and program](#)
- [Recorded sessions playlist on YouTube](#)
- [SEDLS 2020 Summary \(OSF\)](#)

Geoscience Information Society (GSIS) Best Reference Resource Award. (July 2020 – October 2020).

Reviewer, Choice & ProQuest's *Resources for College Libraries*, Geography bibliography. (August 2019 – September 2019).

- [Thank you letter \(OSF\)](#)

State

Volunteer, North Carolina Library Association 2019 Conference Registration. (October 16, 2019 – October 17, 2019).