

Survey Results

Executive Summary

Introduction

In November 2011, SPEC Kit 326 organized its analysis of digital humanities (DH) support in ARL member libraries by defining DH as “an emerging field which employs computer-based technologies with the aim of exploring new areas of inquiry in the humanities. Practitioners in the digital humanities draw not only upon traditional writing and research skills associated with the humanities, but also upon technical skills and infrastructure.”¹ This definition covers the pre-DH era of humanities computing that begins with Father Roberto Busa’s *Index Thomisticus* (started in 1946), moves through the first compendia and lexicons started in 1960s, the mid-1980s proliferation of DOS-based text-analysis programs such as WordCruncher, Text Analysis Computing Tools (TACT), and MicroOCP (the Micro Oxford Concordance Program), encompasses the start of the Text Encoding Initiative in 1987,² and applies to the steady growth of e-text centers to at least 20 by 1994. These are examples of predominantly text and language-analysis research, but by 2011 work with geospatial data, multimedia narratives, and data visualizations had added to the variety of DH projects and increasingly crossed disciplinary boundaries into the social sciences and life sciences. For many ARL institutions, supporting DH has become supporting digital scholarship (DS), yet this expansion of methods, approaches, tools, and disciplines has created its own tensions and uncertainties. Some of those who develop and use digital tools and methods resist applying too strict a definition to digital scholarship because they fear it will limit experimentation or adoption by faculty who may get bogged down in what “is” or “is not” within the bounds. This battle over definition can also be a battle for recognition and is one of the initial challenges for promoting and supporting DS in many of our institutions.

Understanding how ARL libraries support digital scholarship first involves developing a shared language for discussing DS and its constituent parts. Abby Smith Rumsey, former director of the Scholarly Communication Institute at the University of Virginia, describes DS as the “use of digital evidence and method, digital authoring, digital publishing, digital curation and preservation, and digital use and reuse of scholarship.”³ This is a very broad umbrella that covers familiar tasks such as digitizing analog media and reformatting a variety of media, creating metadata, creating digital collections and exhibits, and text-encoding and analysis, and encompassing not only geospatial information (GIS) and digital mapping, 3-D modeling, and digital publishing support, but also database support, software development, and interface design. This work helps produce new forms of hybrid and multimodal scholarship that can combine print and web-based text, video, audio, still images, annotation, and new modes of multithreaded, nonlinear discourse that can exist only online. The STEM fields have assimilated digital tools and methods into their research, so it is within the humanities and social sciences that big data, multimedia, interactivity, and data visualization are rapidly changing how research is envisioned and conducted, how data are

presented and shared, and how scholarship is integrated into teaching and the ongoing scholarly discourse in what historian Ed Ayers calls generative scholarship.⁴

This survey sought to gather data on how the librarians, faculty, and professional staff in research libraries support a great variety of multimodal research as collaborative scholarship, as collaborators, services, and in partnership with other units within and beyond the library. The earlier SPEC Kit found support for DH to be primarily ad hoc in nature, many institutions were waiting to determine researcher interest, faculty demand, and the need to integrate DH in teaching and learning before committing more resources. Today more ARL institutions have dedicated units if not also DS or DH centers or hubs in their libraries; many concentrate DS-oriented tasks in specific groups while also partnering with other campus units to increase their range and capacity. Even those libraries that do not have formal centers are creating virtual teams within the library, and often with faculty drawn from a variety of departments and disciplines, to advise and participate in this work. Some institutions also host postdocs who spearhead these efforts, including digital curation fellows supported by the Council on Library and Information Resources (CLIR) or the Andrew W. Mellon Foundation. As the research, tools, and methods to produce digital scholarship rapidly evolve and transform, research libraries strive to meet and anticipate the demand for support and collaboration.

The purpose of this survey was to explore how library roles are evolving in this research landscape and how the emergence of these newly identified roles influence the work of library staff. It asked about the types of support libraries offer researchers, how the individuals involved in digital scholarship activities are positioned within the library organization, their range of responsibilities, collaboration with partners inside and outside the library, how support for digital scholarship activities is funded, and how it is assessed, among other questions. The survey was distributed to the 124 ARL member libraries in January 2016 and 73 (59%) responded by the February 1 deadline.

Where can a researcher find digital scholarship support?

The survey identified 19 categories of digital scholarship activities and asked whether faculty, students, or other researchers affiliated with a project can find support for each activity in the library, elsewhere across campus, or beyond the institution. (See question 1 in the following Survey Questions & Responses section for details.) Support for all nineteen of these activities can be found within the libraries to one degree or another, although many that involve technical administration roles—including database administration, software platform support, and technical upkeep—remain more available beyond the library. Since a great deal of digital humanities activities began in the 1990s as text-mining and analysis, and projects to digitize special collections of medieval, early modern, and other cultural heritage materials, it is not surprising to see that digitization and imaging support have grown from several grant-funded projects to become one of the more prevalent forms of support available in libraries (71 responses or 97%), followed closely by digital preservation (95%), metadata creation and digital collections (94%), and digital exhibits (92%). More interesting is the strong rise in providing GIS and digital mapping, and data curation and management support (89%), as well as accommodations for digital publishing (85%) and project planning (84%) within the libraries. Yet even software development, once the province of computer science departments or staff, has become a task based within almost half of the survey respondents' libraries (48%).

Support for the full range of DS activities is also available elsewhere in these institutions, sometimes in cooperation or collaboration with the libraries, although in particular instances it is limited to faculty and students within a specific department, program, or college. Support for database development, visualization, and technical upkeep for digital research occurs almost as often outside the library as inside, typically from a campus-wide information technology or research computing unit or support department. 3-D modeling and printing, and statistical analysis are slightly more often available

elsewhere in the institution, primarily central IT or engineering or statistics departments. Twenty-nine respondents identified a variety of support that is also requested from vendors and virtual teams beyond the institution, in particular to develop DS software, digitally publish, make digital collections, and provide project planning. When asked to specify where support is available outside the library, respondents listed a number of academic departments and campus-wide multidisciplinary institutes; some pointed to large digital humanities centers as partners on grants and projects, such as Michigan State University's MATRIX or the Roy Rosenzweig Center for History and New Media at George Mason University; still others noted multi-institutional collaborations, including the Boston Digital Humanities Consortium, the National Center for Supercomputing Applications, and Calcul Quebec, a consortium of universities in Quebec for high performance computing. Some respondents also listed cloud-based vendors, independent developers and contractors, and fee-based services tied to specific repositories and platforms.

All but one of the respondents reported that digital scholarship support is available to all affiliated researchers (faculty, students, and other project members) (Q2). Some also provide support to researchers from beyond their campus (23%) or to the general public (15%). Respondents' comments point out that in some instances schools and departments only provide aid for students and researchers within those schools, but most respondents strive to support all affiliated researchers and meet this goal. However, resources remain scarce for many libraries and even those with digital scholarship centers sometimes have staff vacancies, limiting the volume of requests that can be accepted from the general public, independent scholars, and unaffiliated faculty. Some respondents pointed out that their digital scholarship program or center is still in its early stages. Others describe support as distributed across campus, but with little coordination or central location for researchers to collaborate in a coherent and consistent fashion. In these instances support can be more ad hoc in nature, and even when well coordinated faces challenges in scaling to reach more of the campus. Whereas most of the libraries do not operate under a cost-recovery model and provide their support for free, in some instances support for a greater variety of DS components is available across campus at a charge. It is also notable that the ethos of some library operations seems to be shifting toward partnership and collaboration rather than being seen as a service bureau.

Library Staff Who Support Digital Scholarship

Not every research library has a digital scholarship or digital humanities center, but more and more library staff within ARL institutions are becoming involved in providing DS services and support. Many librarians and professional staff are being recognized as not only active contributors, but also key collaborators on DS research projects. The survey asked for details on participation by a broad range of staff, from librarians and archivists, to other professional and support staff, to interns, graduate student assistants, and undergraduate workers (Q4).

All of the survey respondents reported that librarians support all DS activities, most frequently by making digital collections, creating metadata, and offering data curation and management support (90–95%), creating exhibits and project planning (85%), GIS and digital mapping (81%), digitization (79%), digital publishing (76%), and even project management (72%). In fact, the category least often reported—developing DS software—is still supported by librarians at 38% of the responding libraries.

Sixty-one respondents (85%) reported that archivists, other professionals, and support staff also provide substantial support to several DS activities. Unsurprisingly, archivists most frequently tend to contribute to digital collections and exhibits, digitization, digital preservation, and metadata creation (61–50%). Other professionals contribute along similar lines, but with a few marked differences such as technical upkeep (67%), interface design and usability (66%), database development (61%), and developing DS software (57%); this tends to strengthen the argument that information technology

professionals within libraries are a growing trend. Some respondents pointed out that IT might be better set aside as its own category given that contributions extend far beyond network, desktop, applications, and operating system support and should also consider the work of technologists who specialize in media creation, a variety of visualizations, instructional design, and programming, to name just a few examples. While the other professional category typically includes IT, HR, and financial roles, several respondents also chose this category for scholarly communications, publishing, and other activities. While the work of support staff echoes that of the other professional staff, it is at much lower rates. They most frequently contribute to digitizing and imaging analog materials (87%), making digital collections (59%), and creating metadata (57%).

At a significant number of the responding libraries graduate student assistants, interns, and undergraduate workers contribute to DS activities, particularly efforts in digitization and imaging, making digital collections, metadata creation, and digital exhibits. GSAs also provide GIS and digital mapping support. Some of the libraries have postdoctoral fellows (CLIR or Andrew W. Mellon Foundation) on their staff; some have or share with academic departments faculty who support DS and are not always listed as librarians.

The descriptions of “Other DS activity” that library staff support reveal that the work extends throughout the research life-cycle into teaching and the dissemination of research. Multimedia, video, and audio production are part of digitization efforts and also a modality to communicate research and data visualizations. Staff also help build specialized tools within and for the library that are used by some researchers and their students, while other staff contribute materially to digital pedagogy, some going far beyond just offering workshops and seminars on specific DS tools and methods.

Number of staff

Sixty-six respondents answered the question on how many staff support each of the 19 DS activities (Q5). At least half reported staff support in each of the categories, with a large majority for expected categories such as digitization and digital preservation (both 97%), digital collections and metadata creation (both 94%), and GIS/data mapping (92%). The number of library staff contributing in part or whole to digital scholarship support varies widely by activity and institution, from as few as a quarter of a person (.25 FTE) to as many as 30 contributors. At least one staff member, and up to groups of 9–12, support most activities, with an average of two to five individuals.

Broadly stated, when higher technical expertise is required to perform a task, lower numbers of staff are allocated: GIS/data mapping, software development, and interface and database development, and even statistical analysis are supported by at least .25 FTE, but only an average of two to three staff. Some activities are surprising outliers: one library reported 30 staff for visualization, another reported 30 for metadata creation, two others have 25 staff who support digitization or 3-D modeling, and yet another has 20 people involved in making digital collections and technical upkeep.

Some tasks are provided by an entire staff category, such as library liaisons, subject librarians, or special collections curators who are providing or being trained to provide an increasing volume of DS support, but not as their primary specialization. Other tasks are supported by specific groups—digitization teams, digital library teams, and dedicated digital center staff or digital project members. Respondents’ comments explain that these staff numbers are sometimes estimates that include either individuals (librarians, technical staff, library IT staff, or graduate students in some cases) or aggregate the contributions of several people. In addition, some libraries are training a broad range of staff to better support digital service requests in the future. Seven respondents reported staff who support other DS activities, including multimedia creation, conference/event planning and management, digital pedagogy and training, integrating archives and special collections, supporting the data life cycle, and copyright advice.

Staff organization

On a task-by-task basis, respondents report that the work of supporting digital scholarship is distributed across the library (69 of 70 respondents). At the same time, a significant number of activities are concentrated in a single department or unit (60 respondents). A smaller number of tasks fall to library DS teams (30) or DS/H centers and hubs (20). Of the tasks most heavily distributed across the library, making digital collections (58), metadata creation (54), digital exhibits (49), and surprisingly, project planning (48) rise to the top. The top contributions from single library departments/units are GIS and digital mapping (35), digitizing analog material (31), digital preservation (29), and digital publishing (24). DS team activities seem to cluster around project planning (14), making digital collections (13), data curation and management (13), computational text analysis (12), and digital publishing (12). DS centers/hubs/labs concentrate around computational text analysis (13), GIS and digital mapping (12), encoding content (12), and project management (11). Other notable support provided by specific units and hubs include copyright and intellectual property support for digital publishing, multimedia content creation, institutional repositories, and digital training and pedagogy (Q6).

This data suggests a trend toward complementing the work of dedicated DS/H centers with distributed support from special units. This work may or may not be coordinated by the center or hub, but capacity is expanded by including digital collections and special collections units that digitize analog materials; repository and scholarly publishing staff who work with metadata and related tasks; science libraries and research data services units that provide 3-D modeling; and map libraries, government document collections, and some science libraries and technology services that provide GIS and digital mapping. (See Q7 for more details.)

Faculty began approaching libraries to collaborate and bring scholarship to the Internet in the early 1990s. Efforts to create digital monographs or to digitize texts, images, audio, and video was widespread by the mid-1990s. Much of this work was started on a project-by-project basis, yet it required ever-increasing levels of technical expertise and technological support, leading to the creation of DH centers in some humanities departments and more coordinated, centralized activities in many libraries. More than half of the responding libraries have created or reorganized units and departments to provide specialized DS services and support (Q8). More of these have been established since 2010 (32) than all of those created in the preceding twenty years. Eight other respondents plan to create one within the next few years.

Several DS/H centers evolved over time and are jointly run by libraries and departments; others coalesced in the library by pulling together several smaller teams and projects by the early 2000s. The University of Nebraska–Lincoln started its E-Text Center in 1996, later to become the core of its Center for Digital Research in the Humanities in 2005; The University of Virginia’s Scholars’ Lab was formed in 2006 by combining three extant units including the E-Text Center (established in 1992) and GeoStat Center; Brown University’s Scholarly Technology Group (1994) was moved into the library and became the Center for Digital Scholarship in 2009 (Q9).

Staff Profiles

One of the more complex areas this survey attempts to assess is who inside ARL member libraries are performing digital scholarship tasks and supporting DS-related projects. As the range of tasks and activities has grown, so has the number of staff involved in supporting DS across a number of levels, from interns and graduates assistants, to professional staff, faculty, and even directors, university librarians, and assistant deans. The survey asked respondents to identify up to four library staff whose work is most closely tied to digital scholarship support and provide details about their responsibilities. Sixty-nine respondents provided profile data describing 231 positions. Forty-two institutions provided complete

profiles for four positions; 14 submitted three profiles each; eight defined two positions; and five added a single profile. Only four institutions could not or chose not to provide a staff profile.

By reviewing the position titles, some trends quickly become apparent (Q11). Those who provided a single profile seem to highlight a staff member who is responsible for coordinating or supporting a number of projects, sometimes with specific experience in archives or metadata. Those describing two positions tended to provide one in an upper-level administrative position, with the other in a more specific functional role. Standing out in the groups of three profiles are GIS and maps, digital analysts, and a variety of directors, as well as some developers, visualization specialists, and scholarly communications support. The 42 respondents who submitted four profiles provide a more robust and varied spectrum of roles and tasks—these range from senior administrators, faculty, subject matter specialists, and coordinators to unique positions including those working with eScience, maker spaces, visualization, and repository managers and workers. This breadth of position and function suggests some well-established cultures of support and engagement among a large number of respondents. The number of senior positions also indicates that DS support has become a core part of the research process and is no longer a niche service, suggesting that where such support remains ad hoc it is likely to become part of a more coherent service or support program in the near future.

The way these positions have been added or expanded and redefined from existing positions makes it clear that DS has become part of the strategic vision of library services and collaboration (Q12). Almost half of the positions described (106 or 46%) are new positions, repurposed from others, or newly defined, some only relatively recently. Many had already existed and use a number of DS-related skills and tools (87 or 38%), but have evolved with an eye toward provisioning DS. Only a minority of these profiles were described as being redefined with the addition of DS support to an established posting (38 or 16%). Respondents' comments explain that this has been most often due to a shift in emphasis to better incorporate DS or as part of a program to better integrate electronic resources and DS work into the core mission of the library—examples include repurposing catalog and reference librarians, adding responsibilities to liaison librarians, and enhancing digital preservation work.

That this strategic focus on DS is recent is substantiated by the time these staff have been in the libraries (67% for 5 years or fewer) (Q13) and the length of time they have supported DS activities (74% for 5 years or fewer) (Q14). Most of these positions have therefore been defined within the past five years or those filling them have only been recognized as specifically supporting DS in the past few years. Finally, 94% of these are permanent, full-time positions (217) and only 4% are limited term (10) and typically grant supported, factors that indicate DS support is now integrated into library staff hierarchies, roles, and a growing portion of library mission planning.

The department, unit, center, hub, or lab listed as the base for the positions in these profiles (Q16) indicates that those respondents with the most staff tasked to support DS also tend to host a DS center or hub, yet this work also falls to distributed support provided by specialized work done in more narrowly focused units, including scholarly communication, digitization services, metadata services, institutional repositories, and digital preservation departments. Many of those doing this work are also housed in specialized units, including map, science, engineering, and social science libraries; archives and special collections; multimedia or media libraries; and data services and support; and even makerspaces. Many of the primary responsibilities identified in the next question link to such units.

The survey asked respondents to identify the DS tasks that the profiled individuals provide and specify up to three of those that are their primary task (Q17). The results confirm that many of them continue to work on traditionally library-based projects, including making digital collections, data curation and management, digital preservation, and metadata creation. However, a surprisingly large number provide project planning (30%) and project management (29%), with a majority doing project

planning (79%) or project management (67%) as one of their three primary roles, yet another indicator that these libraries have moved toward understanding digital research and scholarship from a holistic perspective, and are considering its growth and development in their work plans and hiring.

The number of positions that have responsibility for each task reveals that these tasks are highly distributed—even the more technical and IT or administrative tasks are also provided by a substantial number of people in the libraries. That so many also support digital publishing (47% and 20% as primary task), visualization (37% and 10%), and interface design and/or usability (38% and 9%), shows that these elements of digital research output as part of online projects is being contributed by libraries where it had once been left to outside contractors. However, very few of these staff (10% or fewer) are reported to be primarily responsible for 3-D modeling and printing, database development, statistical analysis, technical upkeep, or software development, and those who do this work are likely concentrated in digital scholarship centers and hubs. Again, a significant fraction of these individuals contribute to work outside the 19 primary DS categories, many run outreach events and workshops, teach, or contribute to scholarly communications work, including advice on intellectual property, copyright, and author rights, as well as data consultations.

In terms of supervisory level and institutional hierarchy, a great number of these staff have a significant administrative role or are placed in mid-career ranks (Q19). Ninety-five of the 224 positions (42%) report to a dean/university librarian, or assistant or associate dean/university librarian. Another 42% report to a department or unit head, manager, or director. Unsurprisingly given the number of associate librarians and directors in the list of titles, 95 of these positions supervise staff that include students (27%), support staff (26%), professional staff (21%), librarians (17%), and a few graduate assistants (7%) or other post-doctoral positions (2%). The greater experience and education required for many of these positions is apparent in the breakdown of degrees held: 47 (20%) have PhDs, with the majority in the humanities, especially English, literature, and history; social sciences; or information and library sciences. Several have earned their degrees in geography, with a few that stand out in pathobiology and molecular medicine, computer science, and mass communication for example, but also a few in the hard sciences. Those with MA or MS scatter more widely across the disciplines, with similar groupings in the humanities and library and information sciences, but also a notable group of fine arts and design degrees (MFA, visual design, studio art), interdisciplinary work (area and cultural studies, ethnomusicology), and more diverse sciences or medical degrees (biology, psychology). All staff have a BA or BS with the vast majority in humanities and social sciences (Q21).

Skill Gaps

Responses to a question on significant DS skill gaps indicate that libraries offer the strongest support in the areas of digitization, digital collections and exhibits, and metadata creation with only a slight gap (5 to 15%) between demand and capacity (Q22). The greatest gaps remain in visualization (65%), computational text analysis and support (64%), statistical analysis support (60%), and in developing software (54%). There are also significant demands for other services that are only met between half and one-third of the time, from project planning, digital preservation, database development, content encoding, and 3-D modeling and printing, to digital publishing, interface design, and project management. Visualization (35%), data curation and management (35%), and computational text analysis and support (28%) were identified as the three areas most critical to improve to meet demand and emerging trends in research. Some libraries are not seeking to increase capacities—for example in 3-D printing—because it is available elsewhere on campus. A review of respondents' comments reveals that several libraries are concerned with both capacity and sustainability, growing services strategically, and refining assessment techniques to keep abreast of emerging trends, for example how demand rises and falls over the course of a semester or year. Others point out that related roles such as scholarly communications, legal and ethical

awareness of issues related to digital scholarship, and open educational resources must also be built into growing their support.

Partnerships

Where support for the digital humanities was offered in a largely ad hoc fashion five years ago, these tasks are now more systematic, if not yet entirely coordinated from within the library. The survey data suggest a few overarching patterns, many of which are borne out by the comments provided by respondents (Q23). Scholars in the humanities come to the libraries for DS support at all of the responding institutions, although the frequency varies: either “often” (58%) or “sometimes” (42%), although these are arbitrary distinctions. Comments suggest that humanists also require long-term collaboration across the life-cycle of a project, sometimes come for the special collections or digital collections more than other resources, and will make use of digital humanities centers when available.

Researchers from the social sciences come for support less often: while 36% of respondents answered “often,” the majority (61%) said “sometimes.” The two who answered “never” explained that their services are quite new. The type of support and collaboration is also more specific—typically GIS and digital mapping, data visualization, sometimes statistics, and more rarely research data planning. STEM researchers come to these libraries least often—only 15% of respondents answered “often” and another 78% said “sometimes.” Two of the four who responded “never” were the same new services as above. Several sets of comments explain that much of the support needed from libraries is phase specific and of limited term, and that a number of these DS roles are available and close at hand in the laboratory. Still, STEM do come to the library for help with data management, and sometimes grants and funding requests.

When it comes to the library partnering with other campus units and some entities beyond the institution (Q24), most of the respondents draw resources from beyond the library “often.” Specific partners that lead the field involve the institutional repository (50%), IT department/unit (50%), and archives (43%). Given the interest in aligning the work of the library, IR, and press, as well as DS/H center or hub in some places, it is surprising that the press ranked the lowest (8%) as a frequent partner. All but a few respondents partner with external groups “sometimes,” although this most often tends to be other libraries more than any other group (64%), followed by archives (49%), IT (41%), and the more generic “agencies and/or companies unaffiliated with your institution” (45%). Those who responded with “never” selected the university press as the least common partner (30 or 64%), with the archives only listed as such once.

Source of Funds

SPEC Kit 326 reported that the majority of active digital humanities projects through 2011 were funded from a combination of library operating budgets and grants; some received funding from academic departments, library IT, or special funds. In 2011, most DH researchers did not have funding when they sought library support, although some were writing or planned to write grant proposals. This 2016 survey revisited funding with greater granularity, yet found the majority of support libraries provide for digital scholarship continues to be drawn from their general budget (100%) or grants to the library (73%). However, researchers have their own grant-based funds almost half the time (48%), with (one-time) gifts often providing substantial support (42%). Endowments and general funds from the parent institution or dedicated digital scholarship budgets also help to support this work at almost a quarter of the libraries. Some respondents noted that specific tasks, such as scanning or digitizing materials, may be fee-based or part of a cost-recovery model (Q25).

Digital Scholarship Activity Assessment

Almost half of the survey respondents (49%) have evaluated or assessed their digital scholarship support activities, with more than a third (37%) planning to do so (Q26). Current efforts include documenting the number of projects supported, which activities were involved, how many faculty members, students, and departments engaged, and specific outreach and teaching activities completed. Beyond these measures, plans to assess DS support will include qualitative researcher interviews, faculty surveys, focus groups, quantitative tracking of consultations (number and time engaged), and user satisfaction surveys (Q27). Some institutions are looking to collaborate on assessment and evaluation practices with other ARL institutions, while others look to use data gathered to project the demand for support and its peaks and troughs over the course of the academic year. More than half of respondents (65%) have used their assessments to alter the services they offer, change their organizational structure, or shift staff responsibilities (Q29). Requests from faculty and students have become part of strategic planning, including identifying skill and role gaps (GIS and data support), the need to better coordinate requests and support (digital scholarship coordinator roles), or to alter and add new training opportunities for library staff, faculty, and students.

The Future Role of Library Support for Digital Scholarship

Although some respondents have reservations about the reliance on soft funding to begin projects (and in some instances DS centers and other units), and several reported specific concerns regarding scalability, the overall view of the future for library support of digital scholarship is strong and even enthusiastic in many cases. The majority of respondents (64) offered some view of this future; most only briefly sketched out an idea or two along the lines of greater collaboration with researchers and students, as part of offering a greater range of tools and services, or as the renewed center of research and scholarly dissemination. Several specifics are echoed in numerous comments, with the essential message being that the library operate as the center of research and dissemination, becoming the first point of contact in the research cycle and a source of full life-cycle and long-term collaboration. Some expect to develop this work and relationship more slowly, after greater periods of assessment and analysis, while gearing up to meet the increasing requests and demand for GIS and digital mapping, research data management, and becoming a more stable base for the stewardship and preservation of digital projects and research products. Others see a more immediate need to expand and support digital library development, make special collections more accessible beyond the campus and to the public and other interested parties. Still others see increasing the technological sophistication of the library and its staff to help define and create more suitable systems of storage and discovery, to better incorporate digital tools and methods not just earlier in the research process, but as partners with faculty to integrate them into the training process for graduate students and teaching of undergraduates. Visions include becoming the hub for future research that uses digital tools, not just “digital scholarship,” and to be an active part of regional consortia, virtual institutes, and entities such as the Committee on Institutional Cooperation (CIC) and Digital Public Library of America (DPLA). Also sharing research with the public as a foundational stakeholder by better supporting public history, public scholarship, and becoming a conduit for life-long learning and active citizen scholarship. The role of the library in many of these futures is to be the space—physical and virtual—to become the lab of not only the humanities, but all scholarship and research that stretches across the campus to involve multiple units and disciplines. This future is not one where the library supports digital scholarship, but where the digital is but one set of tools, methods, and expertise that the library affords the extended campus community to research and share scholarship.

Endnotes

- 1 Tim Bryson, Miriam Posner, Alain St. Pierre, and Stewart Varner, "Executive Summary," in *Digital Humanities*, SPEC Kit 326 (Washington, DC: Association of Research Libraries, November 2011), 11.
- 2 Susan Hockey, "The History of Humanities Computing," in *A Companion to Digital Humanities*, ed. Susan Schriebman, Ray Siemens, and John Unsworth (Oxford, UK: Blackwell Publishing, 2004).
- 3 Abby Smith Rumsey, *Scholarly Communication Institute 9: New-Model Scholarly Communication: Road Map for Change* (Charlottesville, Virginia: Scholarly Communication Institute and University of Virginia Library, 2011), 2, <http://www.uvasci.org/institutes-2003-2011/SCI-9-Road-Map-for-Change.pdf>.
- 4 Edward L. Ayers, "Does Digital Scholarship Have a Future?" *EDUCAUSE Review* 48, no. 4 (July/August 2013): 34, <http://er.educause.edu/articles/2013/8/does-digital-scholarship-have-a-future>.

Survey Questions and Responses

These results of the SPEC Survey on Supporting Digital Scholarship are based on responses from 73 of the 124 ARL member libraries (59%) by the deadline of February 1, 2016. The survey's introductory text and questions are reproduced below, followed by the response data and selected comments from the respondents.

One vision of the future research library is as a collaborative partner within a broader learning and research ecosystem, one that helps support interdisciplinary work and provide infrastructure for all disciplines to innovate their research and teaching. Over the past two decades an increasing amount of research has integrated digital tools, large data sets, simulations, visualizations, and even virtual environments. Once the bleeding edge of scholarship, these technologies have become an integral part of scholarly communications, as have the use of digital evidence and method, digital authoring, digital publishing, digital curation and preservation, and digital use and reuse of scholarship. Such activities have been collectively referred to as “digital scholarship.”

Research libraries are evolving along with these scholarly practices. They have made room for collaborative workspaces, invested in visualization technology, incorporated emerging tools such as text mining into collections decisions, and more actively collaborate across and beyond their institutions. They have also created and/or repurposed library positions to engage directly with “digital scholarship” as digital tools and techniques have become more and more attractive to a wider range of scholars, including those in the humanities and social sciences. These roles engage in a broad range of digital scholarship-related activities including, but not limited to, GIS, data curation and management, digital humanities, scholarly communications, institutional repositories, digital libraries, data analysis/visualization, online publishing, and collaborative scholarship. The library staff who take on these new roles may work within traditional departments such as research and instruction, or they may be part of new digital scholarship centers. They may also work with staff across and beyond their parent institutions.

The purpose of this survey is to explore how library roles are evolving as multimodal and collaborative scholarship become more visible in the research landscape and how the emergence of these newly identified roles influence the work of library staff. It asks about the types of support libraries offer researchers, how the individuals involved in digital scholarship activities are positioned within the library organization, their range of responsibilities, collaboration with partners inside and outside the library, how support for digital scholarship activities is funded, and how it is assessed, among other questions.

DIGITAL SCHOLARSHIP SUPPORT FOR RESEARCHERS AT YOUR INSTITUTION

In an article in the September/October 2015 issue of *EDUCAUSE Review*, Nancy Maron describes a life cycle for digital projects that includes:

- project planning (pre-project decision making),
- project management (end-to-end oversight and development),
- content creation,
- technical development (programming support),
- technical upkeep (ongoing maintenance, updates, and migration),
- storage and preservation, and
- dissemination (sharing the final product with its audience).

This section is intended to provide a high-level view of where a researcher can find support for these activities within (or outside) your institution.

Source: Maron, Nancy L., “The Digital Humanities Are Alive and Well and Blooming: Now What?” *EDUCAUSE Review* 50, no. 5 (September/October 2015): 28–38.

1. **Please indicate where a researcher at your institution (whether faculty, student, or other researcher) can find support for the digital scholarship activities listed below. Check all that apply.**
N=73

Digital Scholarship Activities	In the library	Elsewhere in the institution	Elsewhere outside the institution	N
GIS and digital mapping	65	45	9	72
Digitization/imaging of analog material	71	22	9	71
Making digital collections	67	20	11	71
Metadata creation	67	14	7	70
Digital preservation	69	13	8	69
Data curation and management	65	21	9	69
3-D modeling and printing	42	59	10	69
Statistical analysis/support	40	57	9	69
Digital exhibits	66	23	9	67
Project planning	61	40	11	67
Digital publishing	62	25	12	67
Project management	49	39	10	61
Computational text analysis/support	49	36	7	61
Interface design and/or usability	48	31	11	61
Visualization	49	41	7	60
Database development	40	41	9	58
Technical upkeep	45	38	8	56
Encoding content (e.g., TEI markup)	44	20	10	52
Developing digital scholarship software	35	28	16	51
Other DS activity	19	10	5	20
Total Responses	73	68	29	73

If you selected “Other DS activity” above, please briefly describe that activity(ies). N=17

Contribute to consortial digital scholarship projects.

Education: Instruction and workshops on digital scholarship methodology and tools

Grant development, collaborative partner matching, integrated/embedded with teaching as/for research, sustainability planning, promotion, outreach, training, etc.

High performance computing, consulting and advice for digital scholarship

Internet of Things, video, audio

Multimedia content creation

Network analysis and visualization; data harvesting and cleaning; bibliometrics and altmetrics; instructional support for teaching with digital methods and tools

Research support services in our Digital Humanities Center are staffed by humanities reference librarians. Training graduate students through formal and informal internships.

Support for copyright, licensing, open access, impact metrics, altmetrics, profile management, researcher identity management (i.e., ORCID), hosting, data storage and sharing

Teaching students, faculty, and staff broad knowledge about the different areas of digital scholarship, as well as developing skills for assessing, critiquing, and adapting existing projects for new purposes.

The Emory Center for Digital Scholarship (ECDS) and the Libraries support Digital Pedagogy, for example by assisting student researchers using digital scholarship tools and methods as part of course content. They also support text analysis, TEI, and developing digital scholarship software.

The Libraries support a significant number of digital pedagogy projects: the Alabama Digital Humanities Center has supported more than 50 such projects in over 12 fields in the past two years, ranging from helping faculty to work with undergraduate students to create websites to working with faculty and graduate students to make TEI encoded online editions of manuscript texts, as well as introducing students to a wide range of digital visualization techniques including network mapping, D3-driven visualizations, textual analysis tools, and digital mapping. The ADHC has also partnered with Rodgers Science and Engineering Library to introduce Clothing, Textiles, and Interior Design students to 3-D printing. The Sanford Media Center is a hub which supports students engaging multimedia techniques including creating videos, podcasts, and graphic design projects, and their faculty and staff regularly partner with faculty members across campus to introduce these approaches into the classroom.

The library supports and holds makerspaces, design labs, and innovation hubs for the campus.

Through our digital scholarship center, the Scholarly Commons, and other affiliated units and campus partners, we provide a wide variety of instructional activities around DS areas. For example, we teach workshops on building databases, creating digital exhibits using Omeka, GIS support, and much more.

We provide training and support with Mukurtu, a locally developed CMS.

Web Archiving of Sites that fit within our collecting scope. Processing these pages for data for analysis. Expert Finder, which is a collaboration between the library and DIT.

Web hosting (elsewhere on campus), data storage (elsewhere on campus, libraries), copyright questions (libraries), quick scripts/programming development (elsewhere on campus, elsewhere outside the institution)

If you selected elsewhere inside or outside the institution above, please identify where support is available. N=65

Project planning N=29

Academic departments, Institute for Scholarship in the Liberal Arts, Office of Research
Applied Technologies for Learning in the Arts & Sciences (ATLAS); Institute for Computing in Humanities, Arts and Social Sciences (ICHASS); National Center for Supercomputing Applications (NSCA)
Boston Digital Humanities Consortium
Center for Teaching and Learning
Center for Teaching Excellence (faculty only)
Central IT (5 responses)
Central Research Office and in the academic units
CIS (Central IT)
Dependent on deliverables
Distributed among units
Emory Center for Digital Scholarship
Hub for Innovation in Learning & Technology (HUB)
Humanities Digital Workshop
In the colleges, Office of Research, Research Institute
Institute for Advanced Technology in the Humanities (IATH)
IT units and staff (central, college, and department level)
Liberal Arts Technology and Innovation Services (LATIS)
MadLab (housed in the library, but a distinct unit); Webservices (university service: for pay)
Office of Information Technology, Research Support
Office of the Vice President for Research provides planning services through its Research Enhancement Unit.
Other academic departments
Professional societies
University Information Technology Services, Office of the Vice Provost of Research
University's Project Management Office, and Analytics & Technologies
Within departments, within discipline specific centers

Project management N=27

Center for Teaching and Learning
Center for Teaching Excellence (faculty only)
Central IT (7 responses)
Central Research Office and in the academic units

CIS: Academic Technology (hereafter AT)
 College of Business (project management course projects), Office of Information Technologies
 Dependent on deliverables
 Distributed among units
 Emory Center for Digital Scholarship
 HUB
 In the colleges
 IT units and staff (central, college, and department level)
 LATIS
 MadLab, Webservices
 Office of the Vice President for Research, and Business Management and Analysis Group provide project management training.
 Office of the Vice Provost of Research
 Other academic departments
 Professional societies
 Technology Services
 University's Project Management Office
 Within departments, may also be available from various centers.

Visualization N=34

Advanced Research Computer (ARC), research institutes
 Boston Digital Humanities Consortium
 Center for Computational Science; Center for Communication, Culture and Change
 Center for Creative Computing, Center for Research Computing, College of Science, Computer Science department, Design department
 Center for Research Computing
 Center for Teaching Excellence (faculty only)
 Central IT (6 responses)
 CIS: Center for Computing and Visualization (hereafter CCV), Data Science (hereafter DS)
 College of Science and Engineering
 Colleges
 Dependent on deliverables
 Hive (Creative & Technical Services), College of Arts and Sciences
 Humanities Digital Workshop
 Information Technology Services, College of Arts & Architecture, College of Education
 Innovation Studio
 National Center for Supercomputing Applications (NCSA)
 Office of Digital Humanities (College of Humanities)

Office of Information Technology, Research Support

Outside contractors

Possibly in Information Technology (IT)

Professional societies

SHANTI

Some specialized centers available (Advanced Center for Computing and Design) for a charge.

Spatial Information Design Lab (School of Architecture)

The Computational Graphics Lab of the Interdisciplinary Mathematics Institute

The Research Computing Center (housed in, but not reporting to the library)

University's Informatics Initiative

Various academic departments

Virtual reality lab and visualization group

Visualization lab (IT)

3-D modeling and printing N=46

3-D Modeling Service Bureau

3-D modeling/printing is embedded in the School of Arts, Media Performance and Design, and the Lassonde School of Engineering. We are in discussion with campus partners to set up a 3-D printing lab in the science library.

Center for Creative Computing, Computer Science department, Design department, local makerspace(s), local public library

Center for Engineering Innovation and Design (CEID); Library does not do 3-D printing, helps with modeling.

Central IT (7 responses)

Central IT, Advanced Media Studio

CIS: AT

College of Design, Art department, Engineering departments

College of Design, Architecture, Art, and Planning (DAAP) and College of Engineering & Applied Science (CEAS)

College of Engineering (2 responses)

College of Engineering, Center for the Enhancement of Learning and Teaching

College of Engineering, Architecture, and Technology

College of Engineering, STEAM Room Fab Lab

Colleges

Computer Science

Departments and student groups, professional societies

Engineering and Math department

Engineering School (3 responses)

Engineering School, Architecture School, Darden
 Faculty of Science
 HackArts Lab run jointly by the Computation Institute and Logan Art Center
 Illinois MakerLab
 In colleges
 MadLab; makerlabs/spaces
 Maker space
 Makers Space (School of Engineering)
 Many at other schools and colleges; also at Science and Engineering Library
 Natural Sciences & Mathematics, IT
 Office of Distance Education and e-Learning, specific departments provide access to their constituents or more widely to campus (mechanical engineering has available for a charge).
 Office of Information Technology, Research Support
 Oshman Engineering Design Kitchen
 School of Architecture
 Some academic departments maintain equipment, e.g., physics
 Specialized college and departmental labs on campus
 The university's Digital Media Center, which is part of Student Affairs, provides this for undergraduates. Various engineering departments have labs that include 3-D printing and modeling to support the work of their design teams.
 Various academic departments
 We do not yet have 3-D printers available in the library mostly because the campus copy center maintains the printers in our library and does not have a method yet for billing for 3-D printing. 3-D printing is available for faculty and students elsewhere on campus.

Computational text analysis/support N=28

Academic support units and academic departments
 Applied Technologies for Learning in the Arts & Sciences (ATLAS); Institute for Computing in Humanities, Arts and Social Sciences (ICHASS); National Center for Supercomputing Applications (NSCA), Graduate School for Library and Information Science (GSLIS)
 ARC
 Calcul Québec (Université Laval has a supercomputer that is managed by Calcul Québec, a consortium of universities in Québec for high performance computing.)
 Center for Computational Science
 Center for Digital Humanities
 Center for Second Language Studies
 Central IT (4 responses)
 CIS: DS
 College of Business, Computer Science department

Colleges

Department of Literatures, Cultures and Languages

Departments

Emory Center for Digital Scholarship

High performance computing centre; Professional societies

Hire outside programmers

Humanities Digital Workshop

Information Technology Services, Research Services

ITS Research Services

LATIS, Statistical Consulting Center

Linguistics department

Office of Digital Humanities (College of Humanities)

Office of Information Technology, Research Support

The Research Computing Center; The Knowledge Lab run by the Computation Institute

Within specific departments

Encoding content (e.g., TEI markup) N=16

Bentley Historical Archives

Boston Digital Humanities Consortium

Center for Digital Humanities

Center for Second Language Studies

Central IT (2 responses)

Emory Center for Digital Scholarship

English department

Graduate School for Library and Information Science (GSLIS)

Humanities Digital Workshop

IATH

Not sure, but am pretty sure there isn't support for it on campus!

Professional societies

Via our TAPAS membership, we may also send our researchers to Northeastern University for TEI support.

Within specific centers on campus

Workshops, etc. held by text encoding community

Statistical analysis/support N=43

Academic support units

Applied Technologies for Learning in the Arts & Sciences (ATLAS); Survey Research Lab

As I understand, there are several resources in various departments for this, but perhaps not for unaffiliated researchers. Outside programmers

BioMed: BioStats, Population Studies Training Center, Spatial Structures in the Social Sciences (hereafter S4)

Biostatistics and Epidemiology consulting service in the Milken Institute School of Public Health; Statistics Department provides support for statistics students.

Center for Social Research, Center for Research Computing

Center for Statistical Training and Consulting (CSTAT)

Central IT (3 responses)

College of Arts and Sciences

College of Arts and Sciences Social Science Info Lab; other research centers and institutes

College of Education, the College of Commerce

Department of Statistics, College of Arts and Sciences

Departmental units (2 responses)

Departments, professional societies

Distributed among units

Emory Center for Digital Scholarship

Information Technology Services, Research Services

Institute for Policy Research; Center for Clinical and Translational Science and Training; Institutional Research; College of Business' (COB) Business Analytics

Institute for Social and Economic Research Policy

International Institute for Qualitative Methodology

LISA

Math and Stats

Math Lab

Office of Information Technology - Research Support

Office of Research, Advanced research computing, ICPSR

Population Research Institute, Social Sciences Research Institute

Research Centers

School of Business, Department of Statistics

Statistical Computing Seminar, Department of Biostatistics

Statistical consulting center (workshops and one on one consultations)

Statistical Consulting Center, LATIS

Statistical Lab

Statistics Consulting Service run through the statistics department has this available for a fee. Central university IT is also considering offering it as a new service.

Statistics department (3 responses)

Students can find support in some of their classes.

Texas Institute for Measurement, Evaluation, and Statistics (TIMES)
The Research Computing Center
There is a center in the sociology department.

GIS and digital mapping N=39

Applied Technologies for Learning in the Arts & Sciences (ATLAS)
Boston Digital Humanities Consortium
Center for Geospatial Analysis and College of Natural Resources
Center for remote sensing (workshops and one-on-one consultations)
Center for Research Computing
Central IT
Central NY Humanities Corridor and the Maxwell School of Public Affairs
CGIT/OGIS
College of Arts and Sciences InfoGraphics Lab
Department of Geography (8 responses)
Department of Geography, College of Agriculture, Health and Natural Resources
Department of Geography, the Map Library
Departmental units
Departments, professional societies
Department of Geography's Think Spatial lab
Emory Center for Digital Scholarship
Geography and urban studies
Geography department supports geography faculty and students.
Geography department, College of Arts and Sciences
GIS Lab
GIS Outreach and Engagement Lab
GIS; IT
Map library, cartography lab
Outside programmers (python)
Pennsylvania Spatial Data Access
Remote Sensing & GIS (RS & GIS)
S4, EarthLab
Spatial Information Design Lab (School of Architecture)
The Geography department offers classes, various centers around campus (center for biodiversity, center for urban and regional analysis) offer this service for either center members or for a fee.
The GIS Center in the Social Science Division (but focused primarily on supporting faculty/grad students in the Social Science division). Support for others is spotty.
U-Spatial

Various departments

Making digital collections N=19

Boston Digital Humanities Consortium

Center for Digital Humanities & Social Sciences (MATRIX)

Center for Teaching and Learning

Central IT & Multimedia Learning Center

Central OIT and units within academic departments

Emory Center for Digital Scholarship

Herbarium, Digital museum group

Hive (Creative & Technical Services), College of Arts and Sciences

Individual faculty, schools, colleges, and various institutes across campus

Information Technology Services, College of Liberal Arts IT, College of Arts & Architecture Visual Resources Center

Inter-institutional partners, DPLA

LATIS

Museum and School of Art

Professional societies

Student Technology Resources Center (STRC)

The Visual Resource Center in the Art History department

The Wexner Center for the arts creates local digital collections.

TLOS

Webservices; Academic and Collaborative Technologies has a for-pay CMS program (Wordpress); private web-hosting and web development services.

Digitization/imaging of analog material N=16

Center for Creative Computing, Biological Sciences department

Center for Teaching and Learning, Institute for the Preservation of Cultural Heritage

Center for Teaching Excellence

Central IT and charge-based university service teams

CIS: AT (audio and video only)

Colleges

Digital Content Library

Distributed among units

External vendors/service providers

Information Technology Services, College of Arts & Architecture Visual Resources Center

Museum and School of Art

Professional societies

Scanners are available at several points across campus
The Visual Resource Center in the Art History department
TLOS
Various labs on campus

Metadata creation N=8

LATIS
MATRIX
Multimedia Learning Center
Museum and School of Art
Professional societies
Schools, colleges, and various institutes across campus
Texas Institute for Measurement, Evaluation, and Statistics (TIMES)
The Visual Resource Center in the Art History department for image collections

Developing digital scholarship software N=25

Boston Digital Humanities Consortium
Center for Computational Science
Center for Digital Humanities
Center for Research Computing, Computer Science department, Office of Information Technologies, School of Architecture
Center for Teaching Excellence (faculty only)
Central IT (3 responses)
Central IT & Multimedia Learning Center
CIS: CCV
Colleagues at peer institutions, online communities
College-level IT
Contractor
Emory Center for Digital Scholarship
Humanities Digital Workshop
IATH, College of Arts and Sciences
Institute for Computing in Humanities, Arts and Social Sciences (ICHASS); HathiTrust Research Center (HTRC)
Inter-institutional partners
IT Services & Colleges
LATIS
MadLab; Webservices
Office of Information Technology, other external resources and tools

Professional societies

Roy Rosenzweig Center for History and New Media (George Mason University Center), for example

Various third party contractors

Interface design and/or usability N=27

Central IT (9 responses)

CIS: WebServices

Colleagues at peer institutions, online communities

College of Arts and Sciences

College of Business, Computer Science department, Design department, Marketing/Communications, Office of Information Technologies, Psychology department

Colleges

Contractor

DELTA Instruction Technology

Digital Communications (central web group)

Disability Resources & Educational Services (DRES)

Emory Center for Digital Scholarship

Hive (Creative & Technical Services), College of Arts and Sciences

Humanities Digital Workshop/university IT

Information Technology Services Web Development

ITS Web Services

Professional societies

Some departments or colleges offer this service through their IT support.

User Experience Lab

Webservices

Database development N=33

Across university

Analytics & Technologies

Center for Research Computing, Computer Science department, Office of Information Technologies

Central IT (14 responses)

Children's National Medical Center; Division of IT with a contract

CIS

College-level IT

Colleges

Columbia University Information Technology (fee-based service)

Contractor

Emory Center for Digital Scholarship

Information Technology Services, Research Services
ITS App Development & Integration
LATIS
Office of Information Technology, academic departments (i.e., computer science)
Professional societies
Some departments or colleges offer this service through their IT support.
Various third party contractors
Webservices, independent vendors/web developers
Willson Center for Humanities & Arts

Technical upkeep N=31

Analytics & Technologies
Campus and local IT
Central and college-level IT
Central IT (16 responses)
CIS
Colleges
Emory Center for Digital Scholarship
Enterprise Information Technology Services (EITS)
ETech
Information Technology Services - Research Services, plus other areas of the university, e.g., Office of Marketing and Communication
Information Technology Services Web Development
ITS Web Services
LATIS
Professional societies
Various third party contractors
Webservices, independent vendors/web developers

Digital preservation N=14

Analytics & Technologies
Bentley Archives
Boston Digital Humanities Consortium
Center for Research Computing, Computer Science Department, Office of Information Technologies
Central and college-level IT
Central IT (4 responses)
Cloud-based vendors
Institute for the Preservation of Cultural Heritage

Library and central IT
Professional societies
University archives

Data curation and management N=19

Analytics & Technologies
Center for Clinical and Translational Science and Training (CCTST)
Center for Research Computing, Center for Social Research
Central and college-level IT
Central IT (4 responses)
High Performance Computing Center (HPCC)
ICPSR, Advanced research computing, medical school
Individual colleges on campus (e.g., College of Life Sciences)
iSchool and Maxwell School of Public Affairs with separate research data related projects
ITS; Research Administration
LATIS
Libraries, CIO, departments
Partnership among the University Libraries, the Office for Information Technology, and the Office for Research and Economic Development
Professional societies
SHARE
Texas Institute for Measurement, Evaluation, and Statistics (TIMES); Allied Geophysical Labs

Digital exhibits N=17

A&CT, Webservices, independent vendors/web developers
Central IT (3 responses)
College of Liberal Arts IT
Digital Media and Design
Emory Center for Digital Scholarship
History Department, Public History Program, College of Arts and Sciences
Hive (Creative & Technical Services), College of Arts and Sciences
LATIS
MATRIX
Multimedia Learning Center
Omeka
Professional societies
School/college IT groups
The Visual Resource Center in the Art History department

Vendor support for creating exhibits on the Islandora digital repository platform

Digital publishing N=20

A&CT, Webservices, independent vendors web developers

Arte Publico Press

Central and college-level IT, communication office, university press

Central IT (2 responses)

College of Liberal Arts IT

Distributed among units

Emory Center for Digital Scholarship

Hive (Creative & Technical Services), College of Arts and Sciences

Journal itself

MATRIX

Multimedia Learning Center & central IT

Professional societies

University press (4 responses)

University press & university information technology

University press, open access publishers

Vendor support for creating exhibits on the Islandora digital repository platform

Other DS activity N=8

Emory Center for Digital Scholarship

English department

Expert Finder

Faculty Resource Center, ETech

Licensing office

Local public library

Professional societies

Various academic departments

Additional Comments N=5

Depends on project type and aspects, can be with Informatics Institute, Research Computing, Center for the Humanities & the Public Sphere, others; the Libraries would almost always be the first place or a collaborative leader or partner on this.

Digital humanities is a priority of the university. It occurs in our Center, our departments, and through multi-institutional grants. Some grants include subcontracts for services.

School/college IT groups, research centers and institutes, central IT group

Schools, colleges, and various institutes across campus

There is decentralized expertise and support in departments, labs, and centers across the institute.

2. Please indicate whether digital scholarship support is available to all researchers affiliated with your institution, to researchers external to your institution, to the general public, or only to selected categories of researchers. Check all that apply. N=73

All affiliated researchers	72	99%
External researchers	17	23%
General public	11	15%
Selected categories	10	14%

If support is available only for selected categories of researchers, please briefly describe which categories. N=10

External researchers and the general public have access to training and other events. Project support would require partnerships.

In the list of 'Elsewhere Inside' support, only the Research Computing Center and campus IT have a mission to serve the entire university. All other services listed are focused first on supporting faculty and grad students inside that unit's academic division, and provide services to researchers from other divisions only as capacity permits.

Some departmental resources are not available to general undergraduate population.

Some researchers are graduate students; our faculty work with researchers outside of our institutions; collaborations across institutions.

State agencies and cultural heritage institutions (including archives, libraries, and museums, and historical societies)

Support and services provided by the Libraries are available to all affiliated researchers and students. Some schools and departments provide support only for researchers within their schools/departments. Geography provides support for geography students and faculty and limited support for others. The School of Public Health provides support for health-related research. The Statistics department provides support for statistics students only. Some departments have 3-D printers limited only to their research groups. Our School of Media and Public Affairs provides equipment and support to their students/researchers only.

We collaborate widely with folks at the university and in collaborative networks, so support is also available to/through/and with the collaborative communities of practice, as with the Digital Library of the Caribbean.

We do not have much experience yet serving the general public.

We don't have a formal DS support mechanism, so the few projects that have come through have each been examined individually. There is no policy of which I am aware including or excluding particular categories of researchers.

We provide direct support to affiliated researchers. However, our digital scholarship workshops are open to the general public.

Additional Comments N=11

At this point we extend these services within the library to affiliated researchers, including students, staff, and faculty.

Digital scholarship-related workshops are open to other researchers and in some cases the public.

Due to limited resources at present (Digital Scholarship vacancies), we focus on affiliated researchers and/or affiliated projects.

External researchers collaborating with affiliated researchers.

“External Researchers” may not be exactly right here, but I wanted to capture the fact that we have digital projects that include researchers from other institutions. So it is a formal relationship. We don’t support external researchers with whom we don’t have a project-based relationship.

Faculty and graduate researchers are the primary non-library clientele of the Libraries Digital Scholarship Center. However, advanced undergraduates researchers are also welcome. The DSC manages the institutional repository, which publishes undergraduate work with departmental approval.

In practice most support is given to affiliated researchers. Many types of support are also available to external researchers and the general public but we do not target those groups when advertising or promoting the services.

Publishing available to any faculty, staff affiliated with a Canadian Institution Digital Collection; management available to general public, based on research value of materials (and grant funding).

University-affiliated faculty, staff, and students

We are a land grant institution, therefore we serve the general public. We also have many collaborative relationships across institutions and countries, therefore we also serve external researchers.

We provide support for limited activities.

3. Please enter any additional comments you may have about available digital scholarship support for researchers at your institution. N=35

Developing regional digitization service; planning and digital humanities research education studio

Digital Scholarship support is intended to support the academic mission of the university and to provide the mechanisms for sharing products of research.

Digital scholarship support ranges from consultation on a project to creating a data visualization or a map.

For this service, we considered providing guidance and advice as a service. Many digital scholarship software and activities were created for in-house purposes (within the Libraries) but have been adapted by other institutions.

In the library: There is a lot of digital scholarship expertise distributed throughout the library, however, not one central place for researchers (or even other librarians) to know who to contact about what. Short of a digital scholarship center, we could perhaps maintain a list of folks’ expertise or have a shared email to direct patron questions to. The other issue is scale—while we are well equipped to point people to resources and provide basic training and outreach (i.e., workshops and activities like OA week) to introduce researchers to these concepts, there is a limit to how much we can help beyond that. As individual faculty members we can only collaborate in-depth on one or two projects at a time. It is also difficult to do outreach and share this expertise, as all of us have other duties, i.e., as liaisons, and there is no one person or group tasked with coordinating these activities (a sizeable task). Elsewhere in the institution: Here I am referring primarily to the Digital Arts and Humanities initiative on campus. In addition to being a loose network of interested parties, they collaborate more intensively with a number of scholars advising on a range of questions from project planning to development. The issue is that this does not scale well if demand is higher than availability. Support for all kinds of DS activity is available outside of the institution, ranging from free tutorials (i.e., DH Answers, Programming

Historian) to hiring digital humanities consultants to advise on a project or freelance developers to build portions of it. The question for us is our capacity to connect researchers with those resources.

It is scattered, and can be more limited than appears because some areas only work with subsections of affiliated researchers, e.g., faculty.

Many campus services require payment for development, while library services and the MadLab are free to university researchers. Additionally, many external supports would require payment, though I know they're available.

Much of our digital scholarship support is in its early stages and we are working to collaborate with other groups on campus to find the best roles. The Libraries, Office of the Vice President for Research, and Division of IT support tends to be for all researchers. Schools and departments generally provide services limited to their own groups. Some of our services are in pilot states and we are looking for partners to help us develop the programs and policies. Some activities we "can" do on a small scale, but don't have the staffing levels to provide as fully as we might like—hence the need to work in partnership across the institution. We can't afford to unnecessarily duplicate efforts.

No developed program with articulated support, objectives, etc.

Not all of the activities listed are formalized services. We often engage students, faculty, and staff opportunistically when a need arises. We seek to build first of a kind rather than one of a kind projects and services.

Not listed at all is any support provided to researchers in an academic division by the individual IT units within that division. I only listed divisional resources above in the cases where the division houses a center that at least occasionally provides services to researchers across campus instead of just to the researchers within that division.

Open university funds

Our library's organizational structure has been reviewed and some services still need to be defined and refined. We are at the beginning of digital scholarship support, but we wish to develop our services in that field to better support our researchers.

Priority & cost dependent for researchers

Since some of these terms (e.g., digital publishing) aren't clearly defined, it's difficult to say whether we provide support in that category. We do provide access to back issues of publications through our digital archive, but we don't currently run digital publishing systems such as OJS. Likewise, our Digital Media Commons helps researchers create simple visualizations, but they would go to the Visualization Lab run by IT for more sophisticated support.

Some availability may be granted to external researchers or the general public on a case-by-case basis.

The Alabama Digital Humanities Center is not a service bureau, we support projects only as far as the researcher is fully engaged, and function as a partner.

The College of Arts and Science IT group (CAS-IT) offers some DS support for faculty in CAS departments; this includes digital exhibits and web support. Other CAS-based DS-related work includes sophisticated GIS and digital mapping by the InfoGraphics Lab.

The Libraries at Emory are part of Libraries and Information Technology Services (LITS) organization. LITS also includes the Emory Center for Digital Scholarship, University Information Technology (including project management and software development), and Enterprise Applications Services. Scholarly Communication is part of the library. The Research Data Librarian position heavily supports certain aspects of digital scholarship. The position is part of the Libraries' Scholarly Communications division.

The library has tools and datasets that could support digital scholarship but that are not yet actively promoted. Recently a digital humanities working group was established to review and make recommendations on library services of this type.

The library supports the activities indicated above only if the digital scholarship is a direct use of library collections (GIS services and 3-D printing are an exception to this).

The Research Service Strategic Initiative is currently developing a formalized data management support service for all affiliated researchers. Since fall 2014, the Digital Humanities/Digital Scholarship Strategic Initiative Group has developed and implemented DH learning opportunities, such as the DH Speaker Series and THATCamp Cincinnati 2015. The Digital Humanities Strategist provides the library leadership to this group, comprised of 22 interdisciplinary faculty members and students. This group will shape the new campus-wide DH/DS Collaborative in 2016.

The Studio coordinates with the Office of Outreach and Engagement for many of its collaborations with community partners.

The support for various projects is unequal across the university. Basic advice is given to all. Some areas will provide services for free and others will be available for a fee. The amount of support for digital scholarship is somewhat dependent on grant funding, finding partners, or through center affiliation. The library, while trying not to duplicate services available elsewhere, is also providing all digital scholarship services to all constituents at no cost other than personnel. At this time there is not a charge-back mechanism in place in the libraries for digital scholarship services.

The units at our institution responsible for support to faculty (Library, Academic & Research Technology, Research Computing, College of Arts & Sciences computing & Multimedia Learning Center) coordinate our projects through monthly meetings. These meetings were started in order to forge a better understanding of what each unit does as well as coordinate a response to faculty requests for support.

The University Libraries partners closely with other units on campus to provide support for a broad range of digital scholarship services. For example, the Libraries partners with LATIS on support for digital humanities projects and courses.

There are many of the things listed above that we do internally as part of collections we are digitizing, but would not do as a service for our users. I have answered that we provide support in situations where we would have a more in-depth discussion or offer services, rather than have a casual conversation.

There is little coordination of marketing of these support services.

University affiliates are the primary audience of these services from the libraries.

We are actively working to develop the infrastructure and consultation capabilities at the library, and we are doing this in collaboration with a number of groups across campus.

We are in the early stages of enhancing our support. We hired a digital scholarship specialist in September. She is working on an environmental scan of campus needs; part of that scan is a survey that just closed. Data analysis will begin shortly. We were excited that she got responses from over 70 faculty and grad students in the humanities and social sciences. We will be happy to share results when available.

We do not have hard and fast policies across all services, especially as costs vary significantly from one service to another. For instance, we have offered support for unaffiliated scholars to add their preprints to the IR, because of a relationship with an affiliated faculty member. We have digital projects (Documenting Ferguson) that allow members of the general to submit content, but we do not typically offer broad support for digital projects to members of the general public.

We're in the process of doing a more comprehensive survey of digital scholarship support on campus and I imagine my answers to this section would be very different in six months.

While the Library and CIS support all affiliated researchers, some services outside the library (e.g., S4, PSTC, BioStats, etc.) provide service only for researchers affiliated with those departments.

While we serve the general public, we have not seen much, if any, uptake in needed services for those outside the university community. We are more than happy to provide broad support within the scope of our resources and would only turn down/redirect a community member if it kept us from being able to adequately support our affiliated faculty and students.

LIBRARY SUPPORT FOR DIGITAL SCHOLARSHIP: STAFF CATEGORIES

The remainder of the survey focuses on what staff in your library are doing to support digital scholarship activities.

4. Please indicate which categories of library staff support the digital scholarship activities listed below. Check all that apply. N=72

Activities	Librarian	Archivist	Other professional (e.g., IT, HR, financial)	Support staff	Interns	GSA	Ugrad student workers	Other staff category	N
Making digital collections	67	44	42	36	16	26	26	5	70
Digitization/imaging of analog material	57	37	33	53	16	31	40	3	70
Digital preservation	59	36	40	18	2	4	0	1	68
Metadata creation	65	37	22	35	13	23	17	4	67
Data curation and management	65	25	37	13	1	4	0	3	67
GIS and digital mapping	58	4	28	17	3	23	11	2	67
Digital exhibits	61	42	42	19	12	21	9	3	66
Project planning	61	29	37	16	0	6	2	5	63
Digital publishing	55	10	34	21	4	9	10	1	59
Project management	52	23	33	11	0	7	1	3	55
Interface design and/or usability	42	9	40	11	1	7	3	3	54
Visualization	43	1	30	10	5	12	6	2	50
Computational text analysis/support	43	1	24	4	2	10	2	3	50
Technical upkeep	32	10	41	12	1	6	5	2	49
Encoding content (e.g., TEI markup)	41	12	17	5	1	10	3	3	49
Statistical analysis/support	39	3	18	7	3	14	1	1	45

Activities	Librarian	Archivist	Other professional (e.g., IT, HR, financial)	Support staff	Interns	GSA	Ugrad student workers	Other staff category	N
Database development	34	9	37	6	2	7	1	2	46
3-D modeling and printing	32	0	23	23	3	12	9	3	45
Developing digital scholarship software	27	6	35	6	1	6	1	2	42
Other DS activity	17	8	12	4	0	4	1	2	21
Total Responses	72	61	61	61	31	53	46	10	72

If you selected “Other DS activity” above, please briefly describe the activity(ies) and identify the staff category that supports it. N=18

Community development & outreach is undertaken by librarians.

Consulting and advice for digital scholarship: librarian and archivist

Copyright is offered by JD with support staff.

Data consultations with faculty, staff, and students through the Digital Initiatives Advisory Group or through areas of specialization.

Data Life Cycle Consultation: librarian and archivist

Digital pedagogy projects are supported by librarians and IT specialists working collaboratively with faculty from departments across campus.

Education: Instruction and workshops on digital scholarship methodology and tools: librarian

Graduate student assistants: promoting digital scholarship activities; providing training in digital tools or skills; creating training documents; setting up hosting environments. Other = Library Science field experience students: assessment of digital scholarship programs and projects; promoting digital scholarship activities; providing training in digital tools or skills; creating training documents; setting up hosting environments. Librarians and other professional staff: Advisement on legal issues related to digital scholarship, e.g., copyright, fair use, privacy; participating in and organizing events—training, SCI, etc.—in support of digital scholarship.

Internet of Things, video, audio: librarian

Librarians, archivist, and IT professionals work on our Web Archiving and Expert Finder tools.

Maintaining and customizing our institutional repository platform, DSpace: librarian, archivist, other professional. This might be included in “developing digital scholarship software” (although it’s more focused on extending such software), as well as in digital publishing, database maintenance, technical upkeep, and digital preservation.

Multimedia content creation: librarian, other professional, support staff, student workers (undergraduate and graduate)

Outreach, promotion, integration with teaching for/as research, grant planning, etc.: librarian, archivist, other professional

Providing assistance to campus faculty who are teaching courses using digital scholarship techniques. Our involvement includes presenting to classes, helping develop syllabi, and assisting with assignment creation and research: archivist, other profession, support staff.

Research support services are provided in the Digital Humanities Center by humanities librarians.

Support staff (largely from technical services) may work only on selected projects, i.e., they are not dedicated to this work.

Teaching students, faculty, and staff broad knowledge about the different areas of digital scholarship, as well as developing skills for assessing, critiquing, and adapting existing projects for new purposes: librarian.

The Libraries and ECDS partner to create Open Educational Resources for higher education and K-12 learners. Specifically, three librarians and one educational technologist provide program management and other support.

If you selected “Other staff category” above, please identify the category and briefly describe the activities they support. N=9

3-D modeling: academic hourly support

Council on Library and Information Resources Postdoctoral Fellows

Faculty: text analysis, statistics support, 3-D modeling and printing. Office of the Vice Provost for Research: research funding, project planning, project management

Faculty in academic departments are involved in research grants.

Library Science field experience students: data curation & management; digital publishing. Other DS activity: assessment of digital scholarship programs and projects; promoting digital scholarship activities; providing training in digital tools or skills; creating training documents; setting up hosting environments. CLIR Post-Doctoral Fellow: 3-D modeling & printing.

Post docs have been involved in some digital scholarship projects.

Programmer

University press, parts of ITS and Communications

We have Fellows who help contribute to our digital collections research projects.

Additional comments N=4

IT professional\curator

Our developers in Systems are also librarians, and have thus been represented in that category.

Post doc, IT and R&D support

There is a range of technologists in our organization that go beyond the IT classification. We have media consultants, visualization specialists, programmer, instructional designers....

5. To give us an understanding of how many library staff contribute to supporting digital scholarship, for each activity listed below that your library supports, please enter an approximate number of staff who have some responsibility for providing support in that area. If a category of staff (such as library liaisons, catalogers, IT) support an activity, you may enter that information as well. A numeric estimate or a textual description is acceptable. N=66

Project planning N=57

Minimum	Maximum	Mean	Median	Std Dev	N
1	15	5.37	4.00	3.17	49

Comments N=4

Center for Digital Scholarship, Subject Librarians

Liaisons

Library liaisons, special collection curators—number involved varies by project

Team effort of Digital Scholarship, liaisons, Digital Library, Metadata

Project management N=51

Minimum	Maximum	Mean	Median	Std Dev	N
0.50	12	4.67	4.00	3.02	44

Comments N=3

Center for Digital Scholarship, subject librarians, Project Management Office

Digital humanists, research data management group, liaisons

When library materials are digitized there are anywhere from 15–20 individuals involved at some point in the process.

Visualization N=49

Minimum	Maximum	Mean	Median	Std Dev	N
0.25	30	3.77	3.00	5.32	46

Comments N=2

Center for Digital Scholarship

Data visualization exploratory group has 14 members looking at trends in libraries and needs at the institute. GIS team (4 members) supports some aspects of visualization.

3-D modeling and printing N=42

Minimum	Maximum	Mean	Median	Std Dev	N
.50	25	3.31	3.00	3.77	40

Comments N=1

Several librarians and staff members are in the process of developing a makerspace, with involvement from liaison librarians, Libraries information technology, and support staff.

Computational text analysis/support N=45

Minimum	Maximum	Mean	Median	Std Dev	N
1	5	2.42	2.00	1.40	43

Encoding content (e.g., TEI markup) N=44

Minimum	Maximum	Mean	Median	Std Dev	N
1	12	2.67	2.00	2.11	43

Statistical analysis/support N=44

Minimum	Maximum	Mean	Median	Std Dev	N
0.25	14	2.91	2.00	2.64	43

GIS and digital mapping N=61

Minimum	Maximum	Mean	Median	Std Dev	N
0.25	9	2.59	2.00	1.55	60

Making digital collections N=62

Minimum	Maximum	Mean	Median	Std Dev	N
1	20	6.55	5.00	4.03	56

Comments N=3

Digital Library and e-Scholarship

Digitization Team, software developers, subject librarians

The appropriate subject librarian partnered with several librarians in preservation, digital services, and cataloging. Support for making digital collections is only provided to faculty on a project basis for collections owned by the library that will become part of our library digital collections.

Digitization/imaging of analog material N=64

Minimum	Maximum	Mean	Median	Std Dev	N
1	25	5.27	4.00	4.49	59

Comments N=3

Archives, Digitization Team, Rare Books & Special Collections

Digital Library

DPS unit

Metadata creation N=62

Minimum	Maximum	Mean	Median	Std Dev	N
1	30	5.18	3.00	4.97	54

Comments N=7

Catalogers, archivists

Data Management and Access department, plus assistance from some liaison librarians and archivists

Digitization Team

Many individuals in tech services, publishing, special collections, etc. contribute.

Metadata, Digital Scholarship, e-Scholarship

Mostly in technical services and around the library

Support for metadata creation is scattered across a variety of functions: Archives, GIS, Data management services, Aga Khan Documentation Center.

Developing digital scholarship software N=37

Minimum	Maximum	Mean	Median	Std Dev	N
0.25	10	3.24	3.00	1.80	34

Interface design and/or usability N=51

Minimum	Maximum	Mean	Median	Std Dev	N
0.25	12	3.01	2.50	2.40	44

Comments N=4

Center for Digital Scholarship (CLIR postdoctoral fellow, support staff), Emerging Technologies Librarian, User Experience Analyst

Staff in Digital Library Services and Web Development

Web Services

Web Services and User Experience Workgroup

Database development N=43

Minimum	Maximum	Mean	Median	Std Dev	N
0.25	15	3.27	2.50	2.56	38

Comments N=2

Software developers

Staff in Digital Library Services and Web Development

Technical upkeep N=45

Minimum	Maximum	Mean	Median	Std Dev	N
1	20	4.14	3.00	3.45	37

Comments N=6

Center for Digital Scholarship (support staff, student workers), Library IT support
DPS unit

Staff in Digital Library Services and Web Development

Systems & Lib Tech staff

Systems and Digital Scholarship

Systems staff

Digital preservation N=63

Minimum	Maximum	Mean	Median	Std Dev	N
1	15	3.88	3.00	2.74	55

Comments N=6

Archives, Digitization Team, software developers

Digital Library and e-Scholarship

Digital projects librarian, special collections and archives staff

DPS unit

Most staff are responsible for pieces.

Preservation/Conservation staff

Data curation and management N=63

Minimum	Maximum	Mean	Median	Std Dev	N
0.50	11	3.99	3.00	2.71	58

Comments N=3

DPS unit

Members of the Data Management Curation Initiative and staff from across the Libraries are engaged in data curation work, including liaison librarians, DPRT staff, and archivists.

Systems staff

Digital exhibits N=60

Minimum	Maximum	Mean	Median	Std Dev	N
1	15	4.69	4.00	3.28	54

Comments N=4

Archives and Special Collections and the Aga Khan Documentation Center host and support digital exhibits.

Digital projects librarian, special collections and archives staff

Software developers, subject librarians

Varies but includes numerous staff across Special Collections, subject liaisons, etc.

Digital publishing N=56

Minimum	Maximum	Mean	Median	Std Dev	N
1	12	3.81	3.00	2.43	52

Comments N=2

Copyright Team (librarians)

Digital Library and e-Scholarship

Other DS activity N=17

Minimum	Maximum	Mean	Median	Std Dev	N
1	12	4.65	3.00	3.72	17

Please briefly describe the other DS activity. N=7

1 Digital Scholarship Librarian (running annual digital humanities conference, Digitarium; initiating collaborative digital projects for research and pedagogy across campus, and teaching for digital pedagogy projects)

2: 1 librarian, 1 support staff: multimedia content creation

2: programming + system administration

3: 1 associate dean, 1 archivist (Oral History), and 1 staff person from Special Collections and University Archives recently worked closely with several courses to develop digital humanities assignments.

3: Copyright

8: Data Life Cycle, training

12: Humanities libraries doing DS reference/consultations

Additional Comments N=19

All fifteen liaison librarians support digital scholarship. In addition, eight librarians and five technologists are directly involved in our DC center. IT professionals in the libraries provide support for data management, programming, 3-D printing, etc. Interns and graduate and undergraduate students work within the libraries in the Center, Archives and Special Collections, and grants as needed. Business Office staff provide financial support functions.

As reflected in the numbers above, the Libraries are part of the larger Library and Information Technology Services (LITS) organization. DS activities are jointly supported by areas within LITS. The Project Management Office works with library staff on repository development, for example, and software developers work with librarians to build applications to support library initiatives.

Insight into how this was calculated: We identified all individuals with some responsibility in the assigned areas and counted as a whole number. If there was graduate student assistant support, even if this is spread out across a unit with several trained GAs in a specific area, they were only counted as "1". Since the University Library heavily relies on the talent and skills of graduate students from the Graduate School of Library and Information Science, we are able to provide a wider scope of digital scholarship services and support than we might otherwise be able to do.

Most of the staff listed above only provide a small amount of their time on services for researchers.

No direct responsibility; Digital Humanities Library Group and Data Management/Curation Task Force all assist.

Numerous people perform this work (no one specifically dedicated), including liaison librarians, Digital Library Services, Publishing Services, etc.

Other DS activity and Data curation and management are served by the Digital Initiatives Advisory Group.

Projects and user needs vary greatly and may involve individual librarians or technical staff members, or teams that include disciplinary specialists librarians, IT or digital library staff, special collections/archives staff, GIS or copyright specialists, or student assistants.

Some aspects of DS (i.e., project management, planning, digital preservation) are only really accessible to researchers formally collaborating with librarians on projects (i.e., cases where the librarian is a co-PI) and not really to anyone on campus who is interested.

Staff could include librarians, library IT, archivists, non-MLS library management.

The number of staff who contribute to the service is not equivalent to the FTE effort invested in support. In many cases the activity supported represents a small portion of the staff's overall effort.

These activities are highly distributed across multiple departments and individuals.

These numbers do not represent FTE but people who may be partially involved.

This area touches a number of positions to varying degrees throughout the semester and throughout our organization.

This is hard to report—project to project and within departments there is variation.

This is very difficult to answer because everyone has some interaction with digital scholarship and support activities. This is an already transformed way of working, so the parsing into parts for these elements isn't a discrete or clean or concise way to report on activities.

Varies greatly, at least one subject specialist/liaison librarian is always the lead.

We function as a highly collaborative matrix organization and responsibilities for digital scholarship services are shared among a majority of staff members in some way, shape, or form. As a result it is nearly impossible to quantify the number of staff members engaged in digital scholarship.

While a number of Reference & Instructional Services staff possess or are developing expertise for contributing to digital scholarship projects and services, this is not part of their job responsibilities nor is it a regular feature of any liaison's work. We see this as an area in which we would like to evolve our services, and are actively working on how best to evolve librarians' roles into digital scholarship support, in ways that extend naturally from their current work. The high numbers of staff involved in project planning, project management, making digital collections, and metadata creation reflect, in part, the International and Area Studies department's involvement in proposing, managing, and helping develop digital collections. Metadata creation, in particular, is a defined area of responsibility for these librarians, who also regularly partner on projects with faculty and hold more advanced degrees in specific subject areas. The Digital Projects and Production Services department does not offer public-facing services in digitization and digital collection development. However, their work to digitize, describe, and publish digital collections has been done, in part, in collaboration with IAS librarians who in turn are partnering with faculty researchers. Finally, understanding the significance of these numbers is difficult without comparing to the overall size of these departments.

STAFF ORGANIZATION

6. To help us understand how staff are organized within the library to support digital scholarship, for each activity listed below, please indicate whether staff:

- Are distributed across library units,
- Are part of a DS team within the library,
- Are all part of a single library department/unit,
- Are centralized in a library DS center/hub/lab,

Check all that apply. N=70

Activity	Distributed across library	Library DS team	Single library department/unit	Library DS center/hub/lab	N
Making digital collections	58	13	14	10	68
Digitization/imaging of analog material	41	9	31	7	68
Data curation and management	40	13	21	7	66
Metadata creation	54	10	18	5	65
GIS and digital mapping	20	8	35	12	64
Digital preservation	38	6	29	4	63
Digital exhibits	49	11	14	8	62
Project planning	48	14	11	9	61
Digital publishing	27	12	24	9	58
Project management	38	10	14	11	54
Interface design and/or usability	34	6	18	7	53
Visualization	27	9	13	10	48
Computational text analysis/support	14	12	16	13	47
3-D modeling and printing	16	3	19	10	45
Technical upkeep	23	7	21	6	45
Database development	23	4	20	6	45
Encoding content (e.g., TEI markup)	16	11	15	12	44
Statistical analysis/support	17	5	20	9	43
Developing digital scholarship software	14	9	14	10	39
Other DS activity	11	2	4	4	17
Total Responses	69	30	60	20	70

If you selected “Other DS activity” above, please specify the activity(ies) and identify how support is organized. N=10

As part of dedicated digital scholarship team: coordinating and promoting digital scholarship activities and events; providing training in digital tools or skills and creating training documents; setting up hosting environments; assessing digital scholarship programs and projects. As part of single department: advising on legal issues related to digital scholarship (e.g., copyright, fair use, privacy). Both of the above departments are represented in the activities and staff of the Library DS center/hub/lab.

Copyright: Offering consultations through the digital scholarship center.

Data consultations with faculty, staff, and students are through the Digital Initiatives Advisory Group or through areas of specialization.

Digital pedagogy projects are run by the Alabama Digital Humanities Center: the Digital Scholarship Librarian liaises with faculty members and graduate students to create appropriate digital approaches for courses and puts together the team needed to bring these projects to life in the classroom. Most frequently these collaborations involve the faculty member or graduate student leading the course, the Digital Scholarship Librarian working with them to create feasible but innovative assignments

suitable for the scope of the course, and the ADHC's IT specialist to identify and implement the appropriate technological approaches in each case. For some pedagogy projects the ADHC has also drawn on expertise elsewhere in the Libraries, from our Metadata Librarians in text encoding projects and historical network mapping data schemas, to our Science and Engineering Librarian for 3-D printing projects.

Multimedia content creation: Shared between Emerging Technologies Librarian, Center for Digital Scholarship, and support staff.

Outreach librarians and Digital Humanities Center staff provide support for rights management, both digital and analog, including providing information about open access and open licenses for content (creative commons, MIT, Gnu, etc.)

Outreach, promotion, integration: Done in alignment with other activities.

Systems department: Application development and enhancement effort

The Digital Scholarship Services department develops and maintains our institutional repository, which hosts most of our digital collections.

We have informationists, a digital humanities strategist, librarians, and a digital collections team who all provide consulting and advice as needed.

7. If you indicated above that library staff who support DS activities are part of a single department/unit, please specify which activities and identify the department(s)/unit(s). N=52

3-D modeling: Health Sciences library; Statistical analysis and support: Geographic, Statistical and Government Information Centre; Digital publishing: Access

3-D modeling and printing: GIS & Data Services; Encoding content (e.g., TEI markup): Scholarly Publishing; GIS and digital mapping: GIS & Data Services; Digitization/imaging of analog material: Scholarly Publishing; Technical upkeep: Library Technology Services; Digital publishing: Scholarly Publishing

3-D modeling and printing: Digital Media Lab (part of Undergraduate Teaching and Learning Services); Digital publishing: Scholarly Communication

3-D modeling and printing: User Experience/Makerspace

3-D printing/modeling: Multimedia Lab; Developing digital scholarship software: Scholarly Communication Center; Technical upkeep: Integrated Information Systems (library IT unit)

3-D Scanning and printing in branch library. Text encoding and digitization in Digital Production & Publishing. Digital Initiatives develops databases and is responsible for technical upkeep.

All selected except digital publishing is in Special Collections Research Center.

BHSD librarians recruited for digital humanities expertise, although DS expertise exists in other departments as well. GIS: government documents and maps department.

Computational support and encoding: Institute for Digital Research in the Humanities; GIS: Center for Graduate Initiatives and Engagement; Digitization and data curation: Metadata, Data, Discovery Services

Computational text analysis/support, statistical analysis/support, and GIS: StatLab; Metadata creation: Metadata Analysis and Design; Digital preservation: Content Stewardship and Collections Access & Discovery; Data curation: Content Stewardship and Research Data Services; Digital publishing: Content Stewardship and Academic Engagement

Data and Visualization Services department: visualization, statistical analysis & support, GIS & digital mapping; Digital Scholarship Services: developing digital scholarship software, database development; Library Information Technology Services: 3-D modeling and printing (CLIR postdoctoral fellow)

Data Services: data curation/management; Scholarly Communication: publishing; Special Collections: digital exhibits

Data Services: visualization, quantitative, GIS, computational text analysis/support; Digital Scholarship Services: exhibits; Digital Library Technology Services: publishing, preservation, interface design, digitization.

Digital and Multimedia Center: computational text, metadata, software; Map Library and GIS: GIS; Makerspace: digital publishing, 3-D modeling/printing

Digital Collections and Repositories: Digital preservation

Digital Collections does all digitizing of analog content. Institutional repository staff do digital publishing.

Digital Initiatives unit in Preservation Department creates and manages digital collections, creates basic metadata, interface design, digital preservation, stats analysis. Preservation Department performs all digitization, including out-sourcing of analog materials. Metadata & cataloging department provides higher-level metadata for digital objects.

Digital Scholarship Services is responsible for supporting digital scholarship projects, but it works in collaboration with the library's archives/special collections department and Technical Services.

Digital Strategies Unit

DS activities at the university are focused *primarily* in the Digital Scholarship Center, which functions as both a department and a hub/lab. Other departments with extensive participation and roles in the DS activities listed include Special Collections and University Archives, Science Library, Architecture and Allied Arts Library, Portland Library and Learning Commons, and Collection Services (cataloging/metadata).

Encoding content: Kislak Center for Special Collections; Digitization/imaging: Schoenberg Center for Electronic Text & Image; Technical upkeep: Library Technology Services; Digital preservation: Kislak Center for Special Collections

Encoding content: Academic liaison; Statistical analysis and support: GIS and Data Unit; Digitizing: digitization unit (part of Special Collections); Developing digital scholarship software, technical upkeep, and digital preservation: Digital Research and Curation Center; Data curation and management: Data Management Services; Digital publishing: Applications Support

GIS: Maps and data services; Technical upkeep: library systems

GIS and digital mapping: the Map Library; Digitization/imaging: Preservation; Interface Design and Database development: Digital Services

GIS and digital mapping takes place in the Map and Government Information Library, which is recognized in the overall Libraries organizational structure as a department.

GIS and digital mapping: Map Library; Digital preservation: Digital Preservation and Repository Technologies; Digital publishing: Open Scholarship and Publishing Services; Technical upkeep: Computer Support and Networking; All remaining: Digital Library Services

GIS services: through Research Services as part of the Research Commons (our digital scholarship center); Interface design: Teaching and learning; Data curation and management: Research Services and offering consultations through the research commons; Digital Publishing: Digital content services and offering consultations through the research commons

Library Information Technology Services: 3-D modeling and printing, interface design and/or usability, database development; Conservation: Digitization/imaging of analog material; Archives & Special Collections: Digital exhibits, digital publishing

Many activities are most directly supported by a Digital Scholarship Services Unit. Publishing activities are most directly supported by an Office of Scholarly Communication and Publishing. However, both of these units are supported by a service “track” that includes librarians and staff from across the organization.

Maps/GIS: Cataloging, Libraries’ ITS, Department of Research and Scholarship (DRS), university press Metadata Librarians in the Digital Services and Metadata Department

Metadata templates are created in the Collections unit. Archivists creating digital exhibits are in the Archives and Special Collections unit. All other activities are in the Technology, Discovery, and Digital Services unit.

Most occur within Digital Initiatives, except: Statistical analysis/support (Reference and Instruction), Interface design and/or usability (Web Services).

Most of the digital scholarship services are located within the Digital Programs & Initiatives (DPI) unit within the Digital Services & Stewardship division in the Libraries. Included in DPI are the institutional repository, research data services, and the library’s publishing program. Depending on the project, subject librarians, special collections/archives, reference services, and/or metadata services might be involved.

Our DS activity has been led by our Digital Initiatives unit, in collaboration with Library IT and Bibliographic Services. Our new 3-D printing service has been a partnership with the Faculty of Science, and is provided within our Science & Technology library, and supported by our Library IT group. Our liaison librarians work closely with DS functional experts to provide DS education/outreach re: data curation, digital publishing, and to support digitization projects.

Preservation/Conservation department: digitization/imaging of analog materials, digital preservation, data curation/management. Cataloging/Metadata department: metadata creation. Library Information Technology department: developing digital software, interface design and/or usability, technical upkeep.

Project management: Research Data Services; 3-D modeling and printing: Grainger Engineering Library Informatics, Design, and Data Visualization Center; GIS and digital mapping: Scholarly Commons; Database development: A single subject liaison librarian; Data curation and management: Research Data Services

Project management is supported by many across library and within Center, but also supported by internal Library Project Management Office. Developing digital scholarship software is supported by software developers from the Digital Library Technology unit, as well as Center for Digital Scholarship. Database development is supported by library E-Research & Digital Initiatives unit. Technical upkeep is supported by Information Technology unit, as well as Center for Digital Scholarship.

Project management and training, making digital collections, digitization, digital preservation: Digital Initiatives & Services

Research Enterprise and Scholarly Communication

Statistical analysis and support and GIS and digital mapping are provided primarily by the Humanities and Social Sciences branch. Digital publishing and digital preservation are supported by the Digital Initiatives unit.

Systems; Special Collections & Archives

Text encoding in the Center for Humanities and Information; Statistical support in Data Learning Center; Metadata in Cataloging and Metadata Services; Database development in Libraries Technology; Digital preservation in Special Collections; Data curation in Publishing and Curation Services; Digital publishing in Publishing and Curation Services

The Digital Resources and Discovery Services Department houses the metadata unit, the scholarly publishing, and digitization units; however, those activities also take place in other library departments.

The library does not have a DS team per se. There are two service points that provide the bulk of the services in this survey: The Center for Science and Social Science Information (CSSSI), and the Digital Humanities Lab. The latter could be considered a DS team, however for the purpose of this survey they are both considered single library units.

There are two specific departments that support DS activities. Computing Operations & Research Services (CORS) provides data management, programming, and technical IT support. Digital Initiatives and Special Collections (DISC) encompasses archives, special collections, and Digital Commons. Liaison librarians work their departments on data management plans.

There is a central Digital Production Services unit, and then many core players throughout the libraries.

University Libraries is rather large and complex. Most digital scholarship work is done by a subset of staff within Information Technology Services at the central library, or by the Digital Scholarship Unit. That said, people from several departments are often engaged in DS work, particularly the Map and Data Library.

Visualization, computational text analysis/support, GIS and digital mapping: Liaison Services; Digitization/imaging of analog material, metadata creation: Metadata and Digitization Services

Visualization, GIS & digital mapping: Research & Learning Services; Database development: Repository & Digital Curation; Technical upkeep: IT Infrastructure

Visualization, 3-D modeling and printing: Student Digital Life; Digitization/imaging of analog material, digital preservation: Digitization; Metadata Creation, Database development: Content; Data curation & management: Scholarly Communications

We have interpreted the “Library DS Team” as the Center for Digital Scholarship.

8. Has any department/unit been created or reorganized specifically to support digital scholarship activities? N=70

Yes	41	59%
No	21	30%
Not yet, but we plan to	8	11%

If yes, please identify the department(s)/unit(s) and the year it was created/reorganized. N=40

Unspecified	Scholarly Communications and Digital Programs
1990s	ITS in the Central Library is a long-standing department that has supported digital scholarship in many ways since the early 90s.
2005	The university formed Electronic Text Center in 1997, which became the Center for Digital Research in the Humanities in 2005.
2006	Digital Initiatives

- 2006 Scholarly Publishing was originally created in 2006 as "Digital Library Services," to support library and faculty digital projects/scholarship, and reorganized as "Scholarly Publishing" in 2013 (to reflect a broader role for the institutional repository and original publishing. The GIS unit was created at the university in 2006. In 2013, it was brought under library management and reorganized as the GIS & Data Services unit.
- 2007 Center for Digital Research & Scholarship
- 2008 Digital Initiatives unit was created within Preservation Department from one existing support staff position and one support staff position from another department in 2008. In 2016, a full-time Digital Archivist was moved from SPCL to DI as the Digital Initiatives Archivist to oversee and manage DI, create collections, and perform digital preservation functions.
- 2009 Digital Curation – 2009. Makerspace – 2015 incorporating Copy Center and Espresso Book Machine
- 2010 Digital Humanities Center
- 2010 Digital Scholarship
- 2010 Digital Strategies Unit was reorganized in 2014 but was created prior to 2010.
- 2010 Scholarly Commons
- 2010 The Alabama Digital Humanities Center was created in 2010.
- 2010 The legacy "Library Technology Services" became "Digital Initiatives" around 2011 (I think) and grew to include digital scholarship services. Since 2013, these have been more of a focus.
- 2011 The library has a cross-departmental team called Center for Digital Scholarship (CDS) including members from Digital Technology, Research and Outreach Services, and Access Services. While none are 100% dedicated to digital scholarship, they function as a virtual department supporting digital scholarship in all areas (Humanities, SS, and STEM).
- 2012 Digital Learning & Scholarship
- 2012 Digital Production & Scholarship Services
- 2012 I believe that the department itself was created around 2012, although its core group and functions date back to the early 2000s. Digital Scholarship Services includes the team responsible for DSpace (our IR), scholarly communications and digital curation, as well as the Digital Media Commons, the government information/data/geospatial services department, and the GIS/Data Center (which is part of the government information department).
- 2012 The Digital Scholarship Center was established in 2012.
- 2012 The library's digital collections and institutional repository departments were merged in 2012 to create the Digital Programs & Initiatives unit.
- 2012 The scholarly communications team was developed in 2012 to advance digital scholarship. The members of the team are also members of the Library Digital Services unit, which includes Search and Core Services, too.
- 2013 Conservation & Digital Production – 2013. Digital Scholarship and Data Curation – 2013
- 2013 Digital Collections and Repositories – 2013. Digital Humanities Department and DH Strategist Position – 2014. Informationist Team – 2013. Scholarly Communications – Coming 2016/2017
- 2013 Digital Scholarship Services
- 2013 Scholarly Communication created in 2006. Digital Media Lab created in 2013.
- 2014 Digital Scholarship
- 2014 Digital Scholarship Services was created in 2014.

2014	Digital Scholarship Services — 2014. Data Services — 2008. Digital Studio — 2000. Digital Library Technology Services — 1997.
2014	In 2014, we created the Center for Digital Scholarship and Curation in partnership with the college of Arts and Sciences.
2014	The Emory Center for Digital Scholarship was created in 2014. It is a unit in the larger Library and Information Technology Services umbrella, which includes the Libraries.
2015	Digital Research Services created in 2015. Digital imaging and Preservation Services created in 2015.
2015	Digital Scholarship
2015	Digital Scholarship Lab (started August 2015), part of Technology Initiatives unit of the Libraries
2015	In the last year a Digital Humanities Lab was opened, headed by a librarian who began this position in January 2016. A Geographic Information Systems Librarian position was added to the Map and Government Information Library in the summer of 2015.
2015	On June 1, 2015, the Libraries with the support of the provost, launched the Digital Scholarship & Publishing Studio. The Studio maintains a physical presence in the Main Library and was created by merging the Libraries-operated Digital Research and Publishing department with the campus-operated center called the Digital Studio for Public Arts and Humanities.
2015	Open Scholarship and Publishing Services
2015	Scholars' Collaborative
2015	The Digital Scholarship Center was created in 2015.
2015	The Technology, Discovery, and Digital Services unit was created in 2015 and includes the following departments, Digital Media, Digitization and Repository Services, Discovery (which includes the Library Services Platform), Statistical and Numeric Data (which includes GIS and mapping), Data Management and Visualization, and Digital Initiatives.
2016	Digital Scholarship group formed from Digital Humanities & Digital Publishing & Data Services

Not yet, but we plan to N=1

The Digital Humanities Lab was created in 2014 specifically to address a gap in support for digital scholarship by humanists. The University Library is currently investigating the creation of a Digital Scholarship hub that would coordinate digital scholarship efforts across disciplines and build project management, digitization, and metadata services into more outward-facing services. Currently, these services have tended to be for library staff working on behalf of a project.

9. If you indicated above that library staff are centralized in a library digital scholarship center/hub/lab, please identify the center/hub/lab and the year it began operations. N=17

2005	Centre GéoStat (for Statistical analysis/support and GIS and digital mapping)
2005	Freedman Center for Digital Scholarship
2005	The university formed the Electronic Text Center in 1997, which became the Center for Digital Research in the Humanities in 2005.
2008	Scholars' Lab was created around 2008.
2010	Digital Humanities Center
2010	Research Commons
2010	The Alabama Digital Humanities Center was created in 2010.
2010	The Digital Scholarship Unit emerged in 2010–2011 and a director was hired in 2013.

- 2010 The Scholarly Communications and Publishing unit was created in 2015 and does work in monograph publishing for the humanities and journals. There is also a librarian assigned to the Scholarly Commons that works on publishing undergraduate research through journals and honors theses/capstone projects into the institutional repository. The two work together through the hub of the digital scholarship center, the Scholarly Commons, which was created in 2010.
- 2011 Digital Centers (Humanities, Social Science, and Science)
- 2012 Center for Digital Scholarship — funded 2012, opened 2013.
- 2012 The Digital Scholarship Center was established in 2012 and functions as both a department and a hub/lab.
- 2014 Digital Studio
- 2015 The Edge: The Ruppert Commons for Research, Technology, and Collaboration
- 2015 Research Commons. Started in a physical space in January 2016. Started offering workshops and created a virtual presence in 2015
- 2015 The Digital Humanities Lab was opened in 2015.
- 2016 The Center for Digital Scholarship described above began in 2011. The Digital Scholarship Lab (a visualization space) opened in 2014. The Digital Studio, a locus for all of the above-described activities will open in February of 2016.

10. Please enter any additional comments you may have about how library staff are organized to support digital scholarship activities. N=31

A cross-library team was developed in 2012—Digital Archives Repository & Collections (DARC) Team—to support/coordinate the activities of SPCL, Digital Repository, and Digital Collections, and digital preservation of born digital and converted digital objects. Representation from the following departments: Special Collections & University Archives, Preservation & Digital Initiatives, Digital Repository, Metadata & Cataloging, Information Technology, and subject specialist when necessary. Across several departments, library faculty and staff with relevant skills collaborate in many areas of digital scholarship.

As stated above, librarians and other staff in numerous departments are crucial to supporting digital scholarship, including Scholarly Communications and Copyright and the Map and Data Library.

Data Services and Digital Scholarship Services report under the umbrella of “Specialized Research Services.” Digital Library Technology Services report jointly to the Libraries and the university’s central IT.

Digital scholarship activities are embedded in outreach librarian practice through a consultation model; most of the curation, digitization, and website design/development activities involved in the creation of online projects, exhibits, and the publication of digital scholarship take place in the Digital Humanities Center (DHC) and the Departments of Rare Books, Special Collections, and Preservation (RBSCP), and the Robbins Library, a special library for medieval studies.

Digital scholarship is infused in the activities of our library staff and reflected in our job responsibilities.

Distributed model—across departments, libraries, campus locations. We do have a Scholarly Communication Center (SCC) that brings together some DS activities, but many additional DS activities happen outside the SCC so it’s not really a hub.

DS activities draw on expertise from across the Libraries with a history of collaboration. There are, however, challenges inherent to working in a fully decentralized mode: Accountability, organizational focus and priorities...

I should clarify that Digital Initiatives was mainly created to support internal digital projects (digitization and presentation of our rare and unique primary source materials), which serves scholars by making research materials more accessible. We have partnered with other academic units on some digital projects, and consulted on others, but due to limited resources have not taken on many of the activities listed on this survey.

In 2016, the library will engage in a partnership to lead the newly formed DH/DS Collaborative on campus. The Digital Humanities Strategist (faculty librarian) will assume the role of Co-Director of the Collaborative and provide leadership to this initiative in partnership with a newly hired Co-Director, a joint faculty hire between the library and the English Department. Working at a high level of interdisciplinary engagement, the DH/DS Collaborative will work together to plan the physical space in the library for DH/DS research and scholarship. A Libraries Digital Lab offering additional services has been determined to be a near-term priority. Digital collection building will continue to be supported in a matrix fashion across several units: Digital Collections and Repositories, our Archives and Special Collections units, our Metadata Librarians in tech support, and subject specialists working with their faculty and researchers. Whereas we support the digitization of library content, our focus increasingly includes direct support of the digital scholarship needs of faculty, researchers, and students, through our self-submission digital repository and support for digital humanities and digital scholarship. The Digital Lab may position us over time to offer more direct services to our faculty and researchers.

In addition to formal org chart roles, we encourage and foster the creation and development of what amounts to communities of practice. For example, a cross-division and cross-functional group, the Digital Scholarship Collaborative, formed in 2012. Makerspace activities transformed the Copy Center in 2015. We had previously added the Espresso Book Machine and now have 3-D modeling/printing. Activities co-located to achieve staff efficiencies, achieve a large number of open hours including evenings/weekends, and achieve secure, trained cash handling.

It should be noted that within the last year, the organization that supported statistical and GIS data services (significant overlaps with Digital Scholarship) was moved from central IT to the library.

Liaison librarians and our Research Commons team also participate heavily in most of these activities.

Most of our digital scholarship support activities are collaborations involving Library Information Technology, Scholarly Technology Group, Research and User Services librarians, University Archives, and Special Collections, with some contributions from our Content Management Department.

Much of our support of digital scholarship activities has evolved organically as we have responded to needs of our faculty and students. The most intentional example of digital scholarship support is the Digital Research and Curation Center, which had its origins in the Digital Knowledge Center in the late 1990s. This unit is responsible for the Roman de la Rose project and the Archaeology of Reading. In other cases, support for geospatial needs is divided between our GIS and Data Services department, and our Center for Educational Resources, who support a very specific mapping tool that they developed.

Our Centre GéoStat was created to specifically offer geographic, geospatial, and statistical support. It is not a center that offers support for all digital scholarship activities.

Six areas of the library provide digital scholarship support: (1) IT (2) Geographic, Statistical and Government Information Centre (GSG), (3) Digital Humanities Librarian and other Arts and Humanities liaison librarians, (4) Média Library, (5) Scholarly Communication Librarian, (6) Health Sciences Library.

Some digital scholarship work is library focused, such as digitizing special collections materials for preservation while simultaneously making it accessible for other researchers. Some special collections materials are digitized on demand. While both have digital scholarship implications for future work/research the process for support is different. Currently, staff are dispersed across units and divisions

within the library, though predominantly in Research Services and in the Scholarly Communications portion of Technical Services. There has been discussion on sharing knowledge across work areas with a listserv or regular meetings for those in the libraries consistently offering services that support digital scholarship.

Support is virtualized between the Libraries, campus Academic Technology, and departmental/college staff working in the DS space.

The area originally handled instruction as well; this was decoupled within the year.

The Digital Initiatives Librarian is a new position, starting February 1, 2016. This position will collaborate with faculty, provide additional project management and planning, and coordinate scholarly communication initiatives.

The Libraries are part of the larger Library and Information Technology Services (LITS) organization. Many activities noted are jointly supported by areas within LITS.

The Libraries takes a distributed approach to supporting digital scholarship with various departments engaging faculty in the course of their work. Hubs of activity are centered in our Copyright & Digital Scholarship Center and Digital Library Initiatives Department, but staff from throughout the organization collaborate with faculty and graduate students in support of digital scholarship. Examples include GIS librarians in public services areas; User Experience librarians working on 3-D modeling, scanning, printing; and liaisons from multiple departments supporting foundational needs in visualization, text mining, data curation, and use of our multiple high-technology, large-scale visualization environments.

The library is currently investigating organizational models for DS. This effort may lead to a unified team/unit/department, but this is unclear at this point.

This was an interesting exercise since much of how we staff cannot easily be confined to the categories as outlined. For example, many of our activities work together through the hub of the Scholarly Commons but are defined as separate units within the library organizational chart (e.g., Research Data Service and Scholarly Communication and Publishing).

We are pursuing the creation of a digital scholarship center and planning to hire a full-time faculty librarian to support this activity. Other positions within the library would also spend some time in support of DS activity.

We draw expertise as needed from a wide range of departments and units in the University Libraries and routinely partner with other units on campus.

We have a shared faculty appointment with the English department and three grant-funded librarians and curators.

We have been working to develop models to spread responsibility and expertise around digital scholarship across the organization, including liaison librarians, other librarian roles, and professional and paraprofessional staff.

We previously had a Center for Digital Scholarship. Those activities have since been distributed among other units as part of a staff reorganization.

While there is a department focused on digital scholarship, support for digital scholarship cuts across the library; multi-departmental collaboration is important.

STAFF PROFILES

In the next set of questions, we are asking for some more detailed information about a few of the library staff whose work is most closely tied to digital scholarship-related activities. Please identify up to four library staff whose responsibilities include significant support for digital scholarship-related activities and enlist their aid in completing the following profiles.

Sixty-nine respondents entered profile data for 231 positions.

11. Please enter the position title (not the name) of the staff member for the profile. N=69

One Position Reported N=5

- Digital Initiatives Archivist
- Digital Initiatives Coordinator
- Digital Projects Librarian
- Digital Scholarship Librarian
- Metadata Librarian

Two Positions Reported N=8

- Associate Dean, Research and Informatics
- Director Digital Research Services
- Associate Director, Center for Humanities and Information
- Head, ScholarSphere User Services and Digital Content Strategist
- Associate University Librarian for Digital Initiatives & Open Access
- Institutional Repository Librarian
- Digital Library Programmer
- Digital Scholarship Librarian
- Digital Publishing and Preservation Librarian
- Manager, Digital Library Services
- Director of the Digital Scholarship Lab
- Programmer
- Head, Graduate Library
- Institutional Repository Administrator
- Science Librarian/Liaison
- University Archivist

Three Positions Reported N=14

- Academic Information Support Technician
- CLIR Post Doc
- Librarian and Coordinator of Digital Scholarship Service Development
- Analyst
- GIS Analyst
- Statistical Computing Analyst

Associate University Librarian for Digital Services
 Director of the Digital Library Development Center
 Institutional Repository Manager
 AUL for IT
 Digital Programs Librarian
 Scholarly Communication Librarian
 Bibliothécaire - Communications savantes (Scholarly Communications Librarian)
 Bibliothécaire-conseil - Données géospatiales et documents cartographiques (Geospatial Data and Map Librarian)
 Bibliothécaire-conseil - Statistiques et données d'enquête (Statistics and Microdata Librarian)
 Coordinator of Digital Scholarship
 Metadata Librarian
 Postdoctoral Researcher and Visiting Assistant Professor
 Data Curation Librarian
 Digital Humanities Librarian
 Media Literacy Librarian
 Data Management Specialist
 Digital Scholarship Specialist
 Multimedia Development Specialist
 Digital Applications Librarian
 Sustainable Heritage Network Curator
 Tribal Digital Curriculum Coordinator-Librarian
 Digital Curation Coordinator
 Executive Director, Digital Scholarship Services
 Systems Developer
 Digital Humanities Librarian
 GIS Librarian
 Head of Digital Production and Electronic Records Archivist
 Digital Initiatives Librarian
 Research Data Services Librarian
 Subject librarian for English, Communication & Rhetorical Studies & Linguistics
 Digital Research and Scholarship Librarian
 Director of Visualization Services
 Director, Copyright and Digital Scholarship Center
 Director, Arts and Humanities Department
 Director, Digital Library Services
 Head, Map Library

Four Positions Reported N=42

Archivist, Digital Projects & Outreach
 Digital Assets Librarian
 Digital Initiatives Librarian
 GIS and Map Librarian

Assistant Dean for IT, Research and Digital Scholarship
Digital Humanities Programmer
Digitization Specialist
GIS Research Specialist

Assistant Director
Co-Director, Digital Initiatives & Scholarship and Head, Digital Outreach
English and Digital Humanities Librarian
GIS Librarian

Assistant Director for Digital Collection Strategy
Digital Curation Coordinator
Director - Scholarly Communication Program
Director, Library Application Development

Assistant Director for Digital Scholarship
Digital Humanities Specialist
Digital Humanities Specialist Librarian
Repository Services Manager & Analyst

Assistant Professor and Digital Services Librarian
Coordinator, Digital Resources and Discovery Services
Head Digital Resources and Discovery Services
Head, Oral History Research Program

Associate Dean, Digital Initiatives
Coordinator, Digitization & Delivery
Coordinator, User Experience & User Support
Repository Administrator

Associate Dean for Branch Libraries and Digital Student Services
Digital Scholarship Librarian/Asst. Prof. of English
IT Technical Specialist II
2 Metadata Librarians

Associate Librarian for Faculty Initiatives, Co-Director Institute for Digital Research in the Humanities
Data Services Librarian
Digital Initiatives Coordinator
GIS Specialist

Coordinator, Digital Library Program
Director of Library Technology and Digital Strategies
Metadata Librarian/Analyst
Research Data Librarian

Coordinator for Scholarly Communication Technology
Data Visualization Coordinator
Digital Humanities Technology Consultant
Head, Digital Scholarship Services department

Coordinator, Research Data and Visualization
Digital Initiatives and Scholarship Librarian
Manager, Digital Media, and Public and Staff Computing
Manager, Digitization and Repository Services

Data and Statistics Librarian
Digital Initiatives Librarian
Digital Projects and Technologies Librarian
Geographic Information Systems (GIS) and Map Librarian

Data Curation Specialist
Digital Scholarship Liaison and Instruction Librarian, Assistant Professor
English and Digital Humanities Librarian
Geographic Information Systems (GIS) Specialist

Data Librarian
Digital Archivist
Digital Humanities Librarian
Repository Collection Manager

Data Librarian
Digital Humanities Librarian
GIS and Geography Librarian
Head of Media and Accessibility

Data Librarian
Digital Preservation Manager
Director, Digital Humanities Lab
Director, StatLab and Technology Programs

Data Management Librarian
Digital Humanities Librarian
GIS and Data Analyst
Head, Digital Scholarship

Data Management Services Librarian
Head of Copyright Resources Services
Manager of the Research Commons and GIS specialist
Publishing and Institutional Repository Librarian

Data Services Librarian
Digital Services Manager
Software Development Librarian
Technology & GIS Specialist

Data Services Software Developer
GIS Assistant
Humanities & Media Librarian
Scholarly Communication Services Manager

Data Services Specialist
Digital Scholarship Specialist
Research Data Management Librarian
Senior Manager, Digital Library Infrastructure

Data Specialist
Digital Media Lab Supervisor
Digital Project Manager
University and Digital Archivist

Data Visualization Coordinator
Digital Humanities Librarian
Scientific Data Management Specialist
Social Sciences Data Librarian

Data Visualization Librarian
GIS Librarian
Research Data Librarian
Scholarly Communications Design Studio Coordinator

Digital Archivist
Digital Library Architect
Director of Digital Scholarship
Head, Science Library & eScience Initiatives

Digital Archivist
Digital Scholarship Librarian
Collection Development/Digital Repository
Research Data Librarian

Digital Archivist/Records Manager
Digital Humanities Strategist
Head of Digital Collections and Repositories
Research Informationist

Digital Development Manager
Digital Initiatives Librarian
Metadata Encoding Specialist
Professor and Director

Digital Humanities Coordinator
Director, Digital Library
GIS Librarian
MakerSpace Manager

Digital Humanities Librarian
Digital Scholarship Librarian
GIS Specialist
Senior Developer

Digital Imaging Manager
Digital Preservation Program Manager
Geospatial data librarian and statistics specialist
Library Fellow for Research Data Management

Digital Initiative Applications Librarian
Digital Preservation Officer
GIS Librarian
Metadata Coordinator

Digital Initiatives Librarian
Head, Web Services
Imaging Manager
Open Access Repository Coordinator

Digital Learning & Scholarship Librarian
 Digital Research Services Librarian for the Humanities
 Digital Research Services Librarian for the Sciences
 Geographic Information Services Librarian

 Digital Scholarship Coordinator
 Digital Science Librarian
 Production Manager
 Research/Scholarship Initiatives Manager

 Digital Scholarship Librarian
 Director for Creative Applications
 Learning Design Specialists
 Visualization Librarian

 Digital Scholarship Librarian/Bibliographer, English
 Digital Scholarship Librarian/Bibliographer, History
 Head of Digital Scholarship
 Senior Digital Scholarship Librarian

 Digitization Services Coordinator
 Metadata Coordinator
 Research Support Coordinator
 Social Science Data Librarian

 Director, Scholarly Communications
 Institutional Repository Coordinator
 Postdoctoral Fellow for Data Curation
 Senior Consultant for Educational and Interpretative Programs

 GIS Specialist
 Manager, Digital Production Group
 Manager, Research & Development
 Software Engineer for Scholarly Works

 Humanities Librarian (Librarian II)
 Librarian
 Specialized staff - Administrative, Professional, Technical (APT)
 Specialized staff - APT

12. Please indicate whether this is an existing position that already had the right skills to support DS activities, an existing position that was redefined by adding DS support responsibility, or a new position created specifically to support DS activities.

New position	106	46%
Existing with right skills	87	38%
Redefined by adding DS support	38	16%

If the position was redefined, please briefly describe how the job responsibilities, skills, expectations, etc. changed from the previous to the current position. N=42

New position N=7

Digital preservation began as an explicit program area in 2012 as a unit with the Curation and Preservation Services department, and was separated out as its own area in January 2016. Digital preservation has always included data curation and preservation and digital scholarship in its scope.

Formerly the e-Science Librarian, this current role works across disciplines to support faculty and student researchers' writing and executing data management and sharing plans as new funder public access mandates emerge. The current incumbent has worked to provide a multitude of uses for the IR (including data peer-review, data sharing deposits) and disciplinary repositories.

More focus on support for Mukurtu and CDSC technology.

Redefined responsibilities to support open access and digital publishing efforts.

The current position, "Digital Publishing and Preservation Librarian," was redescribed from a previous position "Metadata Librarian" (when the previous incumbent left that position). However, that prior position was itself already dedicated to supporting digital scholarship (and existed since the creation of the unit in 2007).

The current position, "Manager, Digital Library Services," was redescribed from a previous position "Digital Projects Librarian" (as the result of a promotion of the incumbent) that was itself already dedicated to support of digital scholarship (and existed since the creation of the unit in 2006).

This was a new position (created in 2012) but filled by someone who had been providing similar support in different positions and reporting structures in the past.

Existing with right skills N=2

Position was initially scoped as a supervisor of development staff. In recent years the position has evolved to become more highly collaborative on faculty and student DS projects.

This position formerly resided with a central IT unit focused on Academic Technologies.

Redefined by adding DS support N=33

A prior version of this position did not explicitly include responsibility for the Digital Library Program. The position now oversees Library Core Systems (ILS, discovery services, etc.) and the Digital Library Program.

A re-organization at the assistant/associate dean of the library level established a new portfolio drawing digital scholarship and research into the existing IT portfolio to capitalize on the relationship between IT and digital scholarship and to bring all of the programmers and designers together into one administrative unit.

Added digital humanities support and liaison duties.

Added DS skills.

Added responsibilities related to digital scholarship and GIS.

Added scholarly communication activities and institutional repository management responsibilities.

Data management support had been the primary responsibility of a working group, but with the arrival on staff of a person with a research data management background, the data specialist has taken on the implementation of the Libraries' data management strategies. The working group continues to provide support to the Data Specialist.

Digital humanities program responsibility was added to this department head position at time of hire.

DS added.

Formalized the availability of collaborative work services in the area of computational text analysis/text & data mining.

Greater emphasis given to project support.

Grew from general website management to include more consulting and outreach.

In 2014, job responsibilities changed from Head, Circulation & Multimedia Services to new position title with leadership responsibility for the DH/DS strategic library initiative.

In addition to existing liaison duties (reference, instruction, and collection development), DS skills were explicitly recruited for and the position responsibilities include DS-related outreach with the liaison departments and teaching DS-related open workshops.

Job evolved from a position that was helping students with finding and analyzing data to a broader digital scholarship/data management support role.

Job evolved from an electronic resources leadership position in a different team. E-resources responsibilities were partly redistributed among staff. New responsibilities are in line with others in the technology group, doing software development on projects and providing support to students and faculty in coding and working with data.

Management and oversight of the institutional repository were added to the position.

Modified previous departmental liaison job to include DH support.

Moved from digitization to IR support, then added support for digital publishing.

Moved from more traditional IT management to also include a DS portfolio.

Position changed from primarily internal (metadata support for library-created digital collections) to hybrid of internal and external responsibilities. External responsibilities include providing metadata expertise and consultation for faculty and student digital projects and instruction. New internal responsibilities include metadata support for research data management. Additionally, this position is a member of the Digital Scholarship Services unit and as such participates in a number of other general DS support work, including, for example, consultations on digital humanities project work.

Position was originally hired as Digital Archivist in SPCL but need for DI coordinator and digital preservation librarian, along with interest and skills of the Digital Archivist led us to redefine and move position to Preservation and Digital Initiatives.

Previously was reference librarian.

Previously was a metadata and catalog librarian position, redefined to provide overall management of digital collections.

The Head of Science Library part of this position pre-existed the inclusion of DS responsibilities. When this position opened up, it was re-written to include the following DS responsibilities: Participate in leadership of university eScience and research data management initiatives for the library system; provide data management training and facilitation, in-depth research consultation, and support for the writing and management of research grants.

The librarian was previously an instruction librarian with more traditional instruction-related responsibilities (e.g., course-integrated instruction for English as a Second Language, managing online learning objects, library tours, open workshops). Over time, the librarian took on support for undergraduate research publishing efforts that came out of liaison work to undergraduate research programs. New skills were learned through professional development (e.g., formal training, professional conferences, research). New responsibilities: Develops partnerships with faculty, research groups, and units around courses or research methods, integrating Scholarly Commons resources and services into research and/or teaching. Assesses Scholarly Commons partnership programs, working

collaboratively with the Head of the Scholarly Commons and with partners. Engages technologies emerging as critical to research and teaching to meet the evolving needs of faculty, students, and staff. Leads Scholarly Commons and Office of Research educational initiatives and instructional programs that focus on digital scholarship resources, methods, and services.

The position originally managed the institutional repository and duties were expanded in 2012 to include publishing.

The position was redefined to include management of the institutional repository as well as outreach to faculty.

The repository manager position was made out of a reassigned staff member. After a couple years managing the repository, the position title changed to Digital Scholarship Librarian. The digital scholarship focus has been increasing through time.

This person is a computer programmer. Additional responsibilities have included teaching and supporting Omeka, participating on a DS Advisory committee.

This position evolved from a library assistant position with primary duties to support multimedia course reserves to a full-time professional digitization specialist to support the creation of digital assets and surrogates for online exhibits, publications, and projects. This position also assists faculty members with the production of images for traditional publications.

We added a software development team—first with 2 FTE developers and now with 3 FTE developers—deciding to do in-house, agile open-source software development for our repository. We added a Digital Content Specialist to coordinate a matrix approach (archivists, metadata librarians, etc.) to digital projects.

We created this position by redesigning a traditional academic liaison position. We kept some liaison duties, but shifted the focus to be 80% digital scholarship support. We had a CLIR post-doctoral fellow who had honed her skills during her post-doc with the DRCC; we were fortunate to be able to move her into this position.

13. How long has this person worked in this library?

Minimum	Maximum	Mean	Median	Std Dev	N
1 month	36 years	6.51	4.00	6.74	227

14. How long has this person been supporting digital scholarship activities in this library?

Minimum	Maximum	Mean	Median	Std Dev	N
1 month	21 years	4.60	3.00	4.37	227

Years	In Library	Supporting DS
<1	25	25
1+	25	35
2+	35	42
3+	22	27
4+	18	19
5+	15	18
6–9	31	25
10–15	32	28

Years	In Library	Supporting DS
16–20	13	7
>20	11	1

15. Is this person’s current position permanent or term?

Permanent full-time	217	94%
Permanent part-time	4	2%
Term	10	4%

If the position is for a specific term, please enter the length of the term. N=9

Annually, fiscal year (July 1 to June 30)

One year renewable

Renewable yearly

2 year grant funded

2 years

2 years

3 year IMLS grant

3 years

Ongoing

16. Please identify which department, unit, center, hub, or lab this person works in. N=69 respondents, 212 positions

One Position Reported N=5

Digital Collections

Digital Initiatives unit

Metadata Services

Preservation and Digital Initiatives Department

Scholarly Resources & Services

Two Positions Reported N=23

Academic Liaison

Center for Educational Resources

CDSC (2 positions)

Center for Graduate Initiatives and Engagement

Metadata, Data, Discovery Services

Center for Humanities and Information

Publishing and Curation Services

Centre GéoStat

Direction du soutien à la recherche et à l'apprentissage (Direction of Learning and Research Support)

Collection Management
Digital and Multimedia Center
Data and Technology Division; Digital Library Services
Research and Learning Division/ Access and Information Services Department/ Map Library
Department of Research and Scholarship
LITS / Digital Initiatives
Digital Initiatives
Digital Initiatives & Open Access
Digital Library Initiatives (2 positions)
Digital Library Services
Digital Systems and Preservation
DRS
Research and Informatics Division
Digital Scholarship Center (2 positions)
Digital Scholarship Services (2 positions)
Digital Scholarship Services
Digital Scholarship Services (50%), School of Information Sciences (50%)
Digital Services Division (2 positions)
Digital Strategies Unit (2 positions)
Graduate Library (2 positions)
Reference and Instruction
Special Collections Research Center
Research Enterprise & Scholarly Communication (2 positions)
Scholars' Collaborative (2 positions)
Scholarly Publishing (unit) (2 positions)
Technology Initiatives (2 positions)

Three Positions Reported N=3

Digital Library Technology Services (2 positions)
Digital Scholarship Services (department)
Digital Programs
IT
Scholarly Communication
Science and Engineering Library (2 positions)
Special Collections and University Archives

Four Positions Reported N=38

Academic Engagement (2 positions)
Collections Access & Discovery (1 position)
Library Experience (1 position)

Administration (1 position)
 Alabama Digital Humanities Center (1 position)
 Metadata and Digital Services (2 positions)
 Archives (1 position)
 Bibliographic Services (1 position)
 Map Library (2 positions)
 Archives and Rare Books Library (1 position)
 Health Sciences Library (2 positions)
 Main Library (1 position)
 Archives & Special Collections (3 positions)
 Library Administration (1 position)
 Arts and Sciences Library (2 positions)
 Geographic, Statistical and Government Information Centre (GSG) (1 position)
 Media Library (1 position)
 Bibliographic and Information Technology Services (2 positions)
 Digital Initiatives (2 positions)
 Business, Humanities, Social Sciences (BHSD) (2 positions)
 Desktop Network Services (2 positions)
 Center for Digital Research & Scholarship (1 position)
 Digital Humanities Center, Humanities & History Division (1 position)
 Science & Engineering Library (2 positions)
 Center for Digital Research in the Humanities and Department of Digital Initiatives and Special Collections (CDRH/DISC) (4 positions)
 Center for Digital Scholarship (3 positions)
 Digital Initiatives & Scholarship (1 position)
 Center for Science and Social Science Information (CSSSI) (3 positions)
 Digital Humanities Lab (1 position)
 Copyright Resources Center (2 positions)
 Research Services (1 position)
 Research Services- Research Commons (1 position)
 Curation and Preservation Services (1 position)
 Data and Specialized Services (2 positions)
 Data and Specialized Services - Data Management Services (1 position)
 Data and Visualization Services (2 positions)
 Digital Scholarship Services department (2 positions)
 Department of Digital Scholarship (2 positions)
 Special Collections Research Center (2 positions)
 Digital Humanities Center (3 positions)
 Library Administration (1 position)
 Digital Initiatives (4 positions)
 Digital Initiatives & Services (4 positions)
 Digital Learning & Scholarship (3 positions)
 Digital Learning & Scholarship; Research Services (1 position)

Digital Library (1 position)
 Map and Government Information Library (1 position)
 Science Library MakerSpace; Access Services Department (2 positions)

Digital Programs & Initiatives (2 positions)
 Special Collections & University Archives (2 positions)

Digital Resources and Discovery Services (2 positions)
 Oral History Research Program (2 positions)

Digital Scholarship (3 positions)
 Research & Learning Services (1 position)

Digital Scholarship (1 position)
 Teaching, Research & Learning (2 positions)
 Teaching, Research & Learning Services, Researcher Services (1 position)

Digital Scholarship and Data Curation Unit (4 positions)

Digital Scholarship Unit, UTSC (1 position)
 Map and Data Library (3 positions)

Humanities Department/Public Services Division (1 position)
 Science Department; Public Services Division (1 position)
 Web Services; Information Technology Division (2 positions)

Learning & Teaching (3 positions)
 Research (1 position)

Liaison Services (1 position)
 Metadata and Digitization Services (3 positions)

Library Technology and Digital Strategies (1 position)
 Library, Scholarly Communications Office (2 positions)
 This is a division-level director position reporting to the University Librarian (1 position)

Public Services (3 positions)
 Special Collections (1 position)

Research and Outreach Services (4 positions)

Research & User Services (1 position)
 Scholarly Technology Group (2 positions)
 Special Collections (1 position)

Research Data Service (1 position)
 Scholarly Commons (3 positions)

Scholarly Communications, Library Digital Services (3 positions)
 Scholarly Communications; Library Exhibitions (1 position)

Technology, Discovery and Digital Services (4 positions)

The Digital Scholarship & Publishing Studio (4 positions)

17. **In the first column, please identify the DS activities this person supports. In the second column, please identify *up to three* of those activities that represent the person's primary DS support responsibilities. Check all that apply.**

Activity	Supports	Primary Responsibility
Project planning	182	70
Project management	153	60
Making digital collections	141	41
Data curation and management	129	47
Digital preservation	120	24
Metadata creation	119	23
Digital Publishing	107	40
Digital exhibits	91	15
Interface design and/or usability	87	19
Visualization	86	21
Digitization/imaging of analog material	85	17
Technical upkeep	77	15
Database development	72	11
GIS and digital mapping	69	26
Computational text analysis/support	67	14
Developing digital scholarship software	64	17
Encoding content (e.g., TEI markup)	61	13
Statistical analysis/support	51	11
3-D modeling and printing	29	8
Other DS activity	64	32
Total Responses	229	204

If you selected “Other DS activity” above, please briefly describe that activity. N=62

Primary Responsibility N=32

Collaborating with faculty, researchers, and students to advance digital research initiatives and partnerships such as the Digital Scholars Lab, in conjunction with Digitization and Repository Services, Research Data and Visualization, Spatial and Numeric Data Services, the Copyright Office, the Prairie Regional Research Data Centre, liaison librarians, and other subject specialists.

Consulting, support, and advocacy for copyright and licensing issues, open access, repository deposit, faculty profiles, impact metrics and altmetrics, research identifiers, and other issues related to the evolution of the scholarly communication ecosystem.

Coordinating DS activities across campus. Bringing together stakeholders and making sure the Libraries are involved in discussions across campus about DS and digital humanities.

Copyright consultations, author’s rights, and image management

Creating materials (primarily video tutorials) around topics related to the curation of cultural heritage (analog and digital).

Data ethics

Data finding/reference; data acquisitions and collections building

Data Life Cycle Management, Instruction

Data Life Cycle Management, Instruction, Outreach and Marketing

Develops and implements new DH/DS learning opportunities on campus. Provides leadership for the DH/DS strategic initiative, building a new interdisciplinary community.

Digital Arts, Sciences, and Humanities (DASH) program development

Education: Instruction and workshops on digital literacy, data lifecycle management, preservation, planning and analysis

Education: Instruction and workshops on digital scholarship methodology and tools

Event planning, community building

Information architect and grants for own projects

Intellectual property/copyright

Manage digital scholarship center.

Manages all educational initiatives that come out of the digital scholarship center, including workshops, brown bags, seminars, day conferences, national speakers, etc.

Needs assessment

Outreach and instruction for DI to promote collections, support curricular needs of faculty and students, develop partnerships and collaborative programs/projects, grants and fundraising.

Planning for DS support, administration, communication & outreach to university community

Primarily responsible for managing our tribal stewardship cohort program, developing the curriculum, and supporting Mukurtu.

Promotion of DS across the university

Research Data Management instruction

Referral to other expertise inside and outside the library. Showcasing research output is a primary focus for this position so providing venues, coordinating speakers, and highlighting research output.

Research management, DS consulting, grant writing, supervision of DS faculty and staff, liaison with administration at college level, and long range planning.

Running all outreach events for the ADHC including the annual DS conference and THATCamp, and presenting the ADHC's research at external venues including DS conferences and as a visiting speaker at other institutions. Additionally, collaborating with faculty members to design curriculum-appropriate digital projects for their courses and providing instruction for these classes including whole-class sessions and small group mini consultations; also teaching introductory Digital Humanities sessions to undergraduate and graduate classes not necessarily for a specific project, but to introduce students to these approaches at different junctures in their careers and campus experiences.

Supervision and training of DS students; teaches metadata in academic classes as needed.

Supervision of technologists, works with Digital Initiatives Librarian and tech team to investigate new technologies and to determine frameworks and open source solutions.

Support for the creation of educational materials.

Teaching

Web-based database instruction

Supports N=30

Author rights, Open Access advocacy & outreach, support scholarly reputation services & management

Consultations with faculty, staff, and students

Coordinating events and training to develop skills in and awareness of digital scholarship, for faculty, students, and staff, including libraries personnel. Supervision and mentorship of students working on digital scholarship projects.

Daily operation and programming for the Center.

Data consultations

Developing training and programs to increase researcher skills in digital scholarship

Develops and hosts Wikipedia edit-a-thons with campus faculty, the scholarly communications team, community partners from Wikipedia, and other area cultural organizations. Develops and presents digital scholarship workshops.

Digital media design and production

Expert Finder

Exploration of potential new services such as data visualization support

Foster digital humanities across campus. Create opportunities for faculty, staff, and students to gain skills and start projects. Create a digital humanities community.

Grant writing

Instructional support for teaching with digital methods and tools

Instructional support for teaching with digital methods and tools; network analysis and visualization

Metadata Librarians have partnered with the Digital Scholarship Librarian and faculty members on campus to provide instruction in metadata creation and encoding content using TEI for the School of Library and Information Studies, and also to teach a graduate class in Modern Languages and Classics how to markup encoded text for a digital edition of an eighteenth-century spiritual autobiography using TEI.

Multimedia content creation

Organizes DH events and workshops

Outreach: community/network building

Outreach to departments, library-wide instruction planning, collections development and purchasing data sets.

Outreach, promotion, collaboration support (for all activities listed above), and integration support

Participates in instruction activities related to Digital Humanities projects and labs, including developing and teaching several modules for introductory courses in Digital Media Studies. This position also does a lot of faculty consultation on digital methods and tools.

Research Data Management planning

Research on data curation and preservation and broader digital scholarship issues. Monitoring developments in digital scholarship that impact curation and preservation.

Supporting teaching and learning using digital tools (i.e., editing Wikipedia or creating digital games as classroom assignments)

Supports authors' rights on campus, including open access support. Develops and presents digital scholarship workshops.

Teaching workshops, delivering presentations

This person has worked closely with several campus faculty members to help develop course syllabi and assignments, and has also provided course lectures.

This position supports the technical implementation of digital pedagogy projects, including working closely with the Digital Scholarship Librarian and faculty members and graduate students leading classes to identify appropriate technological approaches and platforms to achieve teaching goals. This position involves significant innovation in identifying and adapting digital approaches and platforms to fit with innovative digital scholarship research projects.

User needs analysis, service design and rollout, multimedia creation and production

Workshops

18. Please briefly describe the significant non-DS job responsibilities this person also has. N=154

Administration and supervision of staff, leading the IT portfolio

Administration, budgeting, IT oversight, copyright

Administration, accessibility service, collection development

All of the work is related to digital scholarship but is not included in the list above: Develops partnerships with faculty, research groups, and units around courses or research methods, integrating Scholarly Commons resources and services into research and/or teaching. Assesses Scholarly Commons partnership programs, working collaboratively with the head of the Scholarly Commons and with partners. Engages technologies emerging as critical to research and teaching to meet the evolving needs of faculty, students, and staff. Leads Scholarly Commons and Office of Research educational initiatives and instructional programs that focus on digital scholarship resources, methods, and services.

All work touches on digital scholarship in some capacity.

Also supports use of educational technology in the classroom and provides graphic design support.

Archival processing, including born-digital content supervision of staff and students performing a variety of duties across special collections, systems maintenance and management, collection management.

As coordinator they also work with the DH steering committee to define strategic goals of the center and DH on campus and serve as the liaison between faculty, students, and researchers on digital projects.

As the department head for the library's oral history research program, this person has the attendant administrative responsibilities for faculty, staff, and project development, as well as advocating for the program and providing outreach. All of the resources developed through the oral history research program are born digital, so there is some overlap with digital scholarship in many areas.

Center administration, managing libraries' web presence (temporary)

Chair of the Scholarly Communication Committee—currently heads the outreach and marketing efforts for the Open Access initiative, promotes ScholarSpace, and collaborates with faculty and staff to deposit materials in our institutional repository. Heavily involved in meeting with faculty departments to provide presentations on open access and its importance to faculty. Also involved in the Workshop Toolkit Team at the Libraries, which provides workshops on data, GIS, data management, as well as WordPress and developing engaging presentations.

Chairperson in Libraries responsible for Archives & Special Collections, collection development, publications permissions, copyrights, long range planning, donor relations, mentoring of faculty through reappointment, promotion and tenure.

Collection development, training

Collection development, training, economics librarian, university representative towards Statistics Canada and vice versa

Collection development (data), instruction (data)

Collection development and reference (maps)

Collection development, basic library instruction, subject liaison for computer science, spatial literacy, and academic services.

Collection development, instruction, and reference

Consults on areas like document delivery or other services that involve scanning and imaging equipment.

Contributions to library committees, etc.

Coordinate workflows, best practices, and development of an operational digital library program; contribute to IT governance processes; supervise one research fellow

Coordinates the collaborative institutional repository efforts for our library. Works with the bibliographic management software by providing technical support and instruction as needed. Supports LibGuides and administration of the library website.

Coordination of the Map Library, liaison with faculty and students, information literacy, develops and renews online tools and resources for map and geospatial resources

Copyright research

Current incumbent also is liaison to Computer Science Department.

Data analysis, bioinformatics, data management instruction

Department administration (budget management; personnel management, including supervision and mentorship of graduate students; representation of department on libraries and campus groups)

Design/implementation/supervision of metadata provision for libraries' digital collections; supervision of three Metadata Services support staff who create non-MARC metadata, catalog electronic resources, and create metadata for the institutional repository; project management for digital collections; management of digital library software; participation on task forces and working groups related to digital initiatives; consultation with departments and other campus bodies on digital initiatives' issues; faculty research and service responsibilities.

Develops and curates library exhibitions (digital and gallery), manages 1–2 students in connection with our Dean's Fellows project (generally one semester projects combining the digital humanities, library collections, and exhibits), develops public programs for exhibitions.

Develops digital collections from analog materials.

Digital preservation of vendor data

Directly supports grant management and planning. Serves as institutional representative for public data repositories and archives. Coordinates data acquisition, publication, and citation policies for university.

DS activities happen on top of traditional liaison role (reference, instruction, and collection development for seven collections).

Education of subject librarians about data management, connecting with other data service providers on campus in order to more effectively refer researchers to other expertise/services.

Electronic records archiving

English department liaison

Faculty support, instruction, event/workshop planning

Federal agency OA policy support, institutional repository, electronic theses and dissertations

General software support for selected analysis packages; in some cases, this person may also hold subject liaison duties.

Grant management, reporting, supervision

Grants, reporting, events, teaching, curriculum development, program-specific (dLOC Digital Scholarship Director), etc.

In 50% with iSchool, teaching and research

Information technology for the library including staff and public computers

Instruction, liaison to campus GIS technical advisory committee, CIC geospatial data discovery project, consults with students and faculty on research related to GIS, spatial informatics.

IR management

Liaison librarian for Classics

Liaison librarian to Physics and Computer Science

Liaison to the English department

Liaison to the English department

Liaison to the History department

Liaison work with faculty and students, teaching/workshops

Liaison librarian for College of Architecture & Design and data services

Libraries' liaison to College of Information and Computer Science, Department of Astronomy, Department of Physics

Library technologies, metadata services, electronic resources, open access initiatives

Library website, user needs assessment, technical project management

Library working groups & committees

Manage institutional repository

Management

Management & leadership

Management of all technical aspects of our digital library activities

Management, professional development, community outreach (providing workshops and assistance on archives-related topics for the university and larger community), and curating collections (including materials not of digital formats).

Managerial responsibilities

Manages two professional and one assistant position, contributes to library web site management.

Manages department of 10, participates in library leadership activities, program sponsor for Libraries' Teaching and Learning and Diversity programs, involved in space planning efforts.

Manages the library's open access publishing fund, assists with copyright issues, open access education campus-wide.

Manages The Studio, a digital media lab. Liaison librarian for Art Department and for Journalism and Electronic Media.

Managing all aspects of the repository, archiving university content in repository, some work with website archiving, some social media responsibilities.

Managing facility, overseeing library operations.

Managing institutional repository staff and supporting our researcher information pilot project.

Managing the English physical and digital collections.

Managing the institutional repository and advocating for open access on campus.

Managing the staff and public computers for the library system.

Managing university archives, archival collection development, manuscript processing, donor relations, physical exhibits, and instruction.

Managing/updating all Libraries websites.

None (11 responses)

Office of Research liaison, programmatic/administrative leadership

One of three associate deans

ORCID project manager

Organizing the Scholarly Communication Institute (this is arguably still in support of digital scholarship, but involves activities and skills sets beyond those already indicated, such as budget management, publicity and promotional activities, event logistics, etc.)

Outreach and reference for GIS and data projects; hosts workshops and open labs for interested students, faculty, and staff; instruction for courses upon request.

Oversees the Ask Us desk on the entrance floor, includes hiring, training, and scheduling students.

Oversight for Center's personnel, including 9 FTE and 1 CLIR Postdoctoral Fellow.

Oversight of staff for the research commons, coordinating with partners outside the library who are offering services in the space, oversight of the physical space and technology in the space.

Oversight of systematic library collections digitization, supervision, library digital project management.

Part of the senior management team of the library. Divisional responsibilities also include development and maintenance of library websites & discovery tools and library digital & archival collections.

PI on grant, maintenance and support for library software applications

Preparing for migration to Hydra and Fedora 4 via research into RDF mappings for current XML-based metadata that the library has; standardizing/normalizing/QC'ing metadata in our current library repositories; teaching classes on data cleanup/metadata/data management.

Processing records in a wide variety of media; development, management and maintenance of the departmental web presence; show leadership in the development and implementation of a communications/outreach plan for the Clara Thomas Archives and Special Collections; assists the head with securing grants and other funding to support digital projects; appraisal, acquisition, arrangement, RAD-based description, and physical processing of private papers and university records.

Producing images for orders by patrons and for exhibits, curating exhibits.

Project management internal to the Libraries digital projects, management of institutional repository (currently only containing ETDs, reference desk shifts, maintenance of departmental website

Project planning and project management.

Promotes MakerSpace and teaches students how to use all equipment in the lab (3-D printers, laser cutter, vinyl cutter, Arduino.) Writes grants to expand the lab and get more equipment. Schedules a group of four student workers.

Provides research support for faculty and students in the Humanities Center and German and Romance Languages and Literature. Teaches a semester long class once a year that incorporates DS. Also does collection development for the Humanities Center.

Provides support for teaching and research programming in the Faculty Center.

Public services

Reference support, subject liaison

Reference, departmental liaison responsibilities

Reference, student supervision

Repository ingest

Research consultation, library instruction, collection development

Research poster consultation & printing, reference, student supervision

Responsible for the development and application of descriptive metadata standards and best practices for library's print and digital resources.

Room management for the Digital Scholarship Lab and the Hecker Center (library teaching space).

Running server infrastructure, supporting software licensing, hardware/software support

Running the institutional repository, developing partnerships with key constituents and editor groups, soliciting content for publishing and the institutional repository.

Scholarly communication

Selector & liaison to the Romance Languages and Literatures Department. Responsible for reference services, collection development/budget.

Serves as American History subject specialist.

Serves as co-director of Institute for Digital Research in the Humanities. Provides support for teaching and research programming in the Faculty Center.

Significant non-DS responsibilities include management of the Science Library, including approximately three librarians, 10 staff, 15 students, one GA. Also the subject liaison for Earth & Environmental Sciences.

Social Sciences data collection development, collection development for Urban Studies and Environmental Studies, map collection responsibilities, Population Studies and Training Center liaison, ICPSR rep for university

Some staff management, grant reporting, and library committee work unrelated to digital scholarship. Otherwise, the job responsibilities for this position do not include significant non-DS job responsibilities.

Subject liaison for Economics, academic services and collection development

Subject liaison for geography, cartography, and GIS; supervises three full-time staff; acquisitions related to geography, maps, cartography, and geospatial data; campus and community engagement and partnerships; research services

Subject liaison for Information Studies Program, academic services and collection development

Subject liaison responsibilities for Media Arts, Journalism, and Humanities

Subject liaison to academic departments, co-chair of the e-science working group

Subject liaison for art history & art department

Subject liaison, reference

Subject librarian for Anthropology

Subject specialist for Romance Languages & Literatures

Subject specialist/library liaison

Supervise student employees.

Supervises Digital Scholarship and Data Curation Unit, which includes graduate assistants, undergraduate interns, staff with focus on data visualization, digital scholarship, and digital services.

Supervising five full-time staff in DS department, coordinating with other library department units

Supervision

Supervision and mentoring of graduate students undertaking digital scholarship activities

Supervision of software developers

Supports in-house web services development (resources/tools for library use, not necessarily for campus use).

The Center is not a digital scholarship center and it supports fellowships and programming around the topic of humanities and information. The associate director is involved in the general administrative work: selecting, and liaising with, fellows; managing the budget; overseeing tasks associated with lectures and other programming.

The majority of the digital content the DPM is responsible for falls within scope for digital scholarship. DPM is responsible for ensuring that the digital collections are preserved and available as long as needed, including strategic planning for DP, ongoing DP research and planning, collaborative management and monitoring of the technical environment for DP, and outreach and instruction.

The metadata librarians create and maintain metadata records following the Metadata Object Description Schema (MODS) for all formats in special collections and research materials created by the university's students including electronic theses and dissertations. They exercise authority control over multiple vocabularies and establish names using the rules established by the Library of Congress's Name Authority Cooperative Program (NACO). They ensure that these records are sharable and reusable.

The position is .25 FTE and all of the this time is dedicated to digital scholarship.

The position is dedicated 60% to DS, and 40% to non-DS research and teaching responsibilities in the Department of English, where this person teaches two courses per year and carries out research in their field of specialization, writing books, articles, and presenting their work at conferences in English literature.

This is a division-level director position reporting to the university librarian. A prior version of this position did not explicitly include responsibility for the Digital Library Program. The position now oversees Library Core Systems (ILS, discovery services, etc.) and the Digital Library Program.

This is an administrative position overseeing the operations of the graduate library.

This is an administrative role, focused on operations management.

This person educates the university community about author rights, fair use, open licensing, researcher identifiers, alternative research metrics, open educational resources, and research funders' public

access policies. He also manages the institutional repository, creates and maintains online profiles for faculty members, oversees the Department of Digital Scholarship, and supervises a senior library technician and a student assistant.

This position also oversees electronic resources, cataloging print and electronic materials, and management of print serials.

This position leads a software development team that supports the self-deposit IR, a platform for faculty & researchers to store their digital output of all forms. The position also supports the matrix approach to digital collection building, which focuses on library holdings, but increasingly also supports faculty & researchers own digital scholarship.

This position runs the University Archives.

Visualization space support

Wider copyright consultations, particularly as they relate to course reserves, digitized content, and creation of online objects.

Working with born-digital archives from donors and university offices, record retention scheduling, educating university on public records matters.

19. Please enter the title of the position this person reports to. N=224 positions

Head/director/manager, department/unit	95	42%
Assistant/associate dean/director/university librarian	74	33%
Dean/director/university librarian	21	9%
Librarian	11	5%
Head, branch library	10	5%
Coordinator	7	3%
Team leader	4	2%
Deputy university librarian	2	1%

20. If this person supervises other staff who support digital scholarship activities, please enter the number of individuals supervised and their staff category. If they do not supervise other staff, please enter NA. N=162 positions

Of the 162 positions reported, 67 do not supervise other staff and 95 do supervise staff. Respondents specified the staff category for 253 individuals supervised by 71 of those 95 supervisors.

Students	67	27%
Support staff	65	26%
Other professional	53	21%
Librarian	43	17%
Graduate assistant	19	7%
Post doc	6	2%

Number of Staff Supervised

Minimum	Maximum	Mean	Median	Std Dev	N
1	25	4.11	3.00	4.21	95

21. What academic degree(s) does this person hold or is working towards? Check all that apply. N=228 positions

BA/BS	228	100%
MLIS/MSLIS	152	67%
MA/MS	121	53%
PhD	50	22%
Certificate, other credential	42	18%

Please indicate the subject area of their degrees (other than MLIS), certificate, or other credential.

BA/BS N=157

- Ancient History and Greek Language
- Anthropology (2 responses)
- Anthropology; Classics minor
- Anthropology/Marine Science
- Anthropology & Near Eastern Languages and Civilizations
- Applied Economics and Management
- Archival studies
- Art History (3)
- Art History & Religious Studies
- Asian Studies
- Bachelor of Fine Arts (5)
- BFA in Design
- Biology (6)
- Biology, computer science
- Biology/Chemistry
- British & Canadian Literature, History
- Business Administration
- Business/Accounting
- Civil Engineering
- Classics (2)
- Classics, English, Theatre
- Communication Arts (4)
- Communication Studies, media studies and production
- Comparative Literature
- Computer Science (5)
- Computer Science specializing in software engineering
- Economics (2)

Engineering (2)
English (24)
English and Communication Studies
English and history
English; History
English/Music History
Environmental Policy
Environmental Science
Environmental Studies and Geography
Film Studies
French
French and Mathematics
French Literature and Cultural Studies
Geography (3)
Geography and Environmental Studies
Geography and Urban Studies
Geography, Earth Science
Geography/Art History
Geography/GIS
Geological Engineering; Mathematics; Multidisciplinary/three minors: History, Theology, Philosophy
Geological Sciences (3)
Graphic Design
History (12)
History (second BA in Theology)
History/Business
History and Anthropology
History and English
History and Journalism
History and Literature
History and Political Science
History and Sociology
History, Education
History, English
History, German
History/political science
Humanities (2)
Humanities, English and Music emphasis

Humanities (Language and Communication)
Humanities w/minor in Anthropology
Information Computer Science
Information Science
Italian
Italian Studies, Art History
Journalism, Graphic Design
Liberal Arts
Medical Sciences
Molecular Biology
Music
Music Education
Near Eastern Studies
Philosophy (2)
Philosophy and Politics
Physical Geography, GIS, Biology
Physics
Political Science (3)
Political science, environmental policy
Psychology
Psychology, Computer Applications
Russian Language and Literature
Sociology (2)
Sociology and Human Development
Spanish, Portuguese
Statistics related field, and/or Social Sciences field, and/or geographic field
Theater

MA/MS N=113

American and New England Studies
American Studies (2)
Archaeological Sciences (2)
Arts
Biology (4)
Business Administration (MBA)
Chemistry
Classics

Communication and Culture
Communications Studies (3)
Computer & Information Technology
Computer Science
Continental Philosophy
Creative Writing
Curatorial Studies
Curriculum and Instruction
Digital Design
Digital Humanities
Digital Studio Art
Divinity
Early American Culture
Earth Sciences
East Asian Studies
Economics
Economics, Statistics
Education
Educational Technology
English (16)
Environmental Science
Ethnomusicology
Forestry
Geographic Information Science
Geography (5)
German Literature, MA and Humanities Computing, MA
GIS & Remote Sensing
History (9)
History, Library Science
Humanities/Creative Writing
Information Design and Technology
Information Systems
Interactive Technologies (in progress)
Journalism
Library and Information Science, Geography
Library Science
Library Science/Educational Technology

Literature
Management Information Systems
Master of Fine Arts
MFA, Creative Writing
MFA in Film and Media Arts
MFA Photography
Mathematics
Medieval and Byzantine Studies
Medieval Studies
Music (2)
Philosophy of Science
Philosophy, Masters of Library and Information Science
Political Science (2)
Political Science and Psychology
Psychology
Psychology, Biology
Psychology, minor Biology
Public Administration
Public Communication
Public Health
Public History (Archives Concentration)
Religion
Russian Linguistics
Science Education and Library Science
Science Journalism
Slavic Languages and Literatures
Sociology
Statistics related field, and/or Social Sciences field, and/or geographic field
Theater & English
Theology (2)
Working toward an MA in Geography

PhD N=47

ABD in Anthropology
Archaeology
Communications
Comparative Literature (2)

Comparative Studies
Computer Science
Digital Humanities
Digital Preservation
Ed. D. Higher Education Administration
English (9)
English Literature
English/Media Studies/Digital Humanities
European History
Geography
Geography, with concentration in GIS
History
In progress
Information Science (4)
Information Studies
Information Systems
Learning Design - Technology
Library and Information Science (3)
Literature
Mass Communication
Medieval French
Pathobiology and Molecular Medicine
Philosophy (2)
Public Administration
Slavic Languages and Literature
Sociology
Theology (2)

Certificate, other credential N=39

Archives Administration
Certified Archivist
Certified Scrum Product Owner
College Education
Copyright
Digital Archives
Digital Archives Specialist certificate
Digital Public Humanities (in progress), Reader, Folger Shakespeare Library

Film Preservation
Geography
Geography, Environmental GIS
GIS (4)
GIS Professional Certification (GISP)
GIS, Certificate in Real Estate & Economic Development
Graduate Certificate in Applied Statistics
Graduate Certificate in Nonprofit Management, Graduate Certificate in Digital Humanities
Intellectual Property Law
JD (3)
MBA
Media copywriting
Mini-MBA
Museum Studies, Science and Technology Studies
Neuroscience
New Media and Culture
Nonprofit Management
Photographic Preservation and Collections Management
Post- Baccalaureate Classics; Bepress IR Manager Course
Post-Baccalaureate Certificate, Museum Studies
Publishing and Communications
Spatial Analysis (GIS)
State Technology Institute, Degree in Secondary Education, Major: Art
Textual Studies Certificate
Unix administration
Web Development

Please enter any additional comments about this person's responsibilities for supporting digital scholarship that will help us understand how library staff roles are changing to meet these new demands. N=60

A percentage of two metadata librarians' time is allocated to supporting digital scholarship, and this plays a vital role in enabling large-scale digital projects to come to fruition, as the metadata structures underpinning these, from large databases of digitized material being made searchable to the creation of dynamic historical network maps, and TEI-encoded digital editions of transcribed manuscripts, are paramount in making these projects functional and usable. The metadata librarians have to bring real innovation and creativity to their work in these projects, as frequently materials being documented are highly idiosyncratic, or the purpose for which they are being documented introduces complications, questions, and challenges which are best answered through expert metadata support.

About 25 percent of her job is spent educating colleagues about evolving data needs.

Administration, strategy, planning, direction setting, hiring, personnel planning

Collaborates with academic departments, other library units, and postdocs in various campus institutes for project development and consultation, as well as for student/faculty training and outreach programming.

Coordinating outreach and instruction within the library as well as partnering with central IT, research computing, multimedia lab, and university schools and programs.

DS support fits with aspects of this individual's regular responsibilities. This person assists with DS efforts as possible alongside regular responsibilities.

Focused on long-term preservation of digital environments for recreation of digital scholarship in its native environment via emulation for years to come (i.e., digital artwork/code rendered in a windows95 application in the year 2020).

Four years ago this area had two staff. With the push for online class development and rights management questions the department has grown to three staff and some student assistants and interns.

He's flexible and willing to learn new systems for digital scholarship support.

Her graphic design skills have been key to furthering our work with digital exhibits in Omeka.

I am not trained as a librarian, I am an anthropologist and programmer who has worked closely with the library in the past.

In 2014, a tenured library faculty member at a senior level had an 80% job responsibility change from a traditional access services leadership role to new leadership for DH/DS initiative in support of key area in new library strategic plan.

In 2015, several library staff roles were created to meet increasing demands for digital scholarship. This position brings together digitization, repositories, and digital publishing to better handle projects with scholars, as well as open access publishing requirements.

In addition to supporting the digital resource Credo and other archives-related digital initiatives, this position has supported several faculty digital humanities projects.

It is helpful in this new position to have the combined background in both humanities research and teaching, and the MLIS, to make collaborations work harmoniously. This enables the Digital Scholarship Librarian to understand the different facets necessary in digital projects and to liaise effectively between experts in the Libraries and experts from a wide range of departments across campus, from English to History, Modern Languages and Classics, Music, Geography, and Clothing, Textiles, and Interior Design. Having experience of designing and teaching courses in English at both the undergraduate and graduate level is useful in enabling the development of nuanced pedagogical collaborations between the ADHC and faculty members and graduate students in digital pedagogy projects.

Manages various staff with differing expertise in supporting digital programs life cycle.

Need for GIS support has expanded to new areas/disciplines.

One side effect of working with students/faculty on digital scholarship is the necessity for increased collaboration with other departments in the library, whether that is digitization or most commonly with Scholarly Communications Office for copyright as well as with other libraries on campus (Pitts, Health Science, etc.) This has lead to the revision or creation of new workflows, some of which are quite complicated and require some time to evaluate how useful they are to the data providers (students, faculty, library staff, etc.) and to the library staff who assist with their DS needs.

Part of a new team assigned to Research Data Service that includes another specialist, the director, and a research programmer. As services grow, will need to reevaluate how positions support ongoing work for data curation and management but still in the infant stages.

Provide/supervise copyright/permissions process for determining what, how, and where previously published material can be posted online.

Serves on cross-departmental team that helps coordinate and strategize digitization workflows.

Supports and builds software for researcher workflows, data collection and web scraping, API consultation

Text mining, data management, data visualization

The digital humanities librarian's responsibilities were part of the responsibilities in a term position. The library was able to make the case for new funding for a permanent full-time digital humanities position due to the amount of requests from faculty for support of their digital projects.

The digitization specialist manages a very busy hub for digital photography and scanning. The equipment is used by students and other visiting scholars. This person is responsible for digital asset creation across library departments. A high degree of technical knowledge is required, both in digital photography and collections management. This person is also responsible for the technical upkeep of equipment, including calibration, etc.

The GIS research specialist also teaches a full semester course for students that is open to students in all disciplines. This person also does a lot of individual consultation with graduate students (economics, history, classics, earth and environmental science, etc.) and faculty and participates in a virtual service point, Numeric, Spatial and Data Services, with the data librarian.

The librarian doesn't see any category that fits his tasks for now. He's devoted to scholarly communications issues, such as open access and our institutional repository (IR is not yet operating, a pilot project is about to start). He's planning to soon take part in digital preservation, data curation and management, and digital publishing.

The majority of programming activities that support digital scholarship interfaces and projects are the responsibility of this person, for example, writing the scripts that display TEI markup embedded in texts for users to click on and get more information about a text online, or creating an application for film analysis for film studies students to create visualizations related to the narrative structure.

The research informationist has developed web-based workshops that instruct researchers on methods to abstract molecular information from various databases. She has also assisted in the development and opening of the Informatics Lab at the Health Sciences Library.

There are others who support digital scholarship—mainly librarians and other professionals in the Technology Initiatives unit, but this is the only staff member dedicated to digital scholarship.

This individual will foster the development of the Scholarly Communications Design Studio.

This is a new position created to help the library offer services in data management to the university.

This is a new position, created and funded specifically to support digital scholarship at our institution. This reflects a change in staffing and signals that roles are changing from traditional liaison. The position will work collaboratively with liaison librarians to introduce digital scholarship activities and initiatives to faculty, and provide support services for faculty wanting to use digital scholarship methods.

This is a representative composite position based on any of 4–6 specialists of this type, all of whom support either quantitative, geospatial, qualitative, survey research, or data finding and acquisition. These positions are a mix of librarians and other staff.

This is an administrative role, focused on management of personnel, acquisition of funding, and creation of programming to support digital scholarship services.

This is another new strategic initiative position created specifically to support research data management and visualization in March 2015. The position provides functional support to liaison librarians to introduce research data management concepts and manages research data management services, in addition to supporting scholars with visualization of their research.

This job is about learning new technologies (digital and physical) that revolve around the “maker movement” and to teach these findings to the university community.

This person also develops and teaches a range of workshops on digital methods/tools and scholarly communication.

This person has been one of the primary library faculty members that is interacting with campus faculty who are trying to include digital scholarship in their pedagogical practice. She has provided important support to two faculty members who were just venturing into digital scholarship and helped them design their digital scholarship-specific courses.

This person is sometimes called up to scan materials for use in digital scholarship projects, and/or to consult on scanning.

This position has represented a shift from previous “data librarian” positions that were more focused on statistical analysis support and developing secondary data collections. The new position is focused primarily on working with data producers on campus. The change in emphasis has at times been difficult to convey internally within in the libraries.

This position in part is to provide support for members of the university community to effectively engage with digital scholarship technologies, but in part is also to promote broader change in the scholarly communication ecosystem by advocating for and implementing policies and processes that effect changes that are in the interest of scholars, universities, and the general public. Thinking globally, acting locally.

This position is centered around the production of knowledge/research, and primarily supports undergraduate student projects.

This position is still primarily internally focused on services and needs of existing library collections but with a digital focus. Increasingly, we are working with donors and units on campuses on digitization projects/electronic records issues prior to donation or as part of the access platform for collections.

This position plays a key role in bringing IT innovation to collaborative digital scholarship projects, coming up with ways of using existing software to achieve research and teaching goals, blending multiple existing softwares to achieve those goals, and introducing cutting-edge techniques to address digital scholarship questions in the humanities and farther afield.

This position provides stand-alone and in-class workshops on software used in social science and GIS research.

This position supports visualization for a variety of purposes, including public display of research and scholarship on the library’s large display walls.

This position was a repurposed reference librarian position to support DS. The primary responsibility of this staff member is to liaise with faculty, graduate students, and staff interested in DH and DS projects.

This position was created specifically to support digital media and work with scholars to implement digital media into research.

This position was created to help move our institutional repository forward into the realms of faculty scholarship, open access publishing, and, one day, data management.

This position was one of the first digital scholarship positions in the Libraries. Initially created to oversee the digital library and digitization efforts, it has changed according to Libraries' needs and the person's interest and specialties.

This position was originally created as "Digital Projects Library Manager" as part of the Libraries Technologies division. The major responsibilities were to oversee and facilitate digitization efforts and online access to digital primary source resources. Two years ago the Libraries Technologies division was split and merged with other existing divisions, so the DPLM and related staff (including three imaging technicians and three programmers) were moved to the Special Collections Research Center. At this time the DPLM changed her title to Digital Archivist and began working more closely with digital preservation efforts and management of born-digital primary resources.

This position's consultations with researchers and requests for instruction has grown significantly in a very short amount of time. The individual collaborates closely with the geography department and was requested to teach a semester course already but declined (not enough time). The Scholarly Commons supports this position with the assignments of a .25 FTE graduate student assistant and expects to increase this support over time, however finding graduate assistants from the library and information science program (from which the library usually hires) with GIS experience has not been an easy task. This individual has been working the past year to build community on the campus related to GIS.

This role involves a high degree of engagement with faculty and grants administration staff at the university in support of digital scholarship activities, including foundations.

While I provide direct DS support for faculty, staff, and students in the sciences and engineering, I am working with a team in the library and with external constituents to determine how the Libraries can better support digital scholarship on campus.

While initially she focused on production work, recently the scope has changed to include more public-facing services, as well as education of other librarians about the publishing process and its implications on the scholarly research lifecycle.

While the position does not supervise staff, it is considered the coordinator for certain digital scholarship services and so collaborates and coordinates support being provided by subject librarians.

Will soon be hiring a Data Visualization Librarian.

With hire of new Head for Scholarly Communication and Publishing, established a new relationship in the library structure to provide increasing support for undergraduate publishing. Also experimenting with alternate forms of publishing (e.g., GitHub, WordPress, Omeka).

Works with faculty who want to create digital exhibits using Omeka. Sets up shell, trains students, and provides additional graphic design as needed. Also developed an interactive mapping tool that supports digital field assignments.

SKILL GAPS

Library support for digital scholarship activities is a relatively new and still evolving enterprise. To provide the desired level of support, libraries need to identify which skills staff need, which are weak or missing, and where additional training and practice are needed.

22. Please indicate where the most significant digital scholarship skill gaps are in your library. Check all that apply. Then select up to three skill areas that you think are most critical to improve at this time. N=70

Activities	Skill Gap	Most critical to improve
Visualization	46	24
Computational text analysis/support	45	19
Statistical analysis/support	42	12
Developing digital scholarship software	38	11
Project management	33	18
Data curation and management	31	24
Interface design and/or usability	29	10
Digital publishing	29	12
3-D modeling and printing	28	3
Encoding content (e.g., TEI markup)	28	3
Database development	26	3
Digital preservation	25	13
Project planning	24	9
GIS and digital mapping	22	9
Technical upkeep	19	3
Digital exhibits	10	1
Metadata creation	9	3
Making digital collections	8	2
Digitization/imaging of analog material	5	0
Other DS-related skill	7	4
Total Responses	70	67

If you selected “Other DS-related skill” above, please briefly describe the skill. N=7

Most Critical N=4

Advisement on legal and ethical issues related to digital scholarship, not just related to publishing.

Collaborative building, marketing, outreach, promotion

Programming

We really need to better address scholarly communications at an institutional level. Several staff members have strong personal interests in this increasingly important area, however there is no position or charge at this time.

Skill Gap N=3

Examining impact of digital scholarship work. This is a big area of interest on campus that the library could step into and contribute, but it’s not an area that is being developed in the library (or on campus) at this time. This would involve looking at creation and impact and promotion of materials created on campus.

Multimedia content creation

We are working towards a reorganization to better leverage support for digital scholarship.

Additional Comments N=20

3-D modeling isn't covered by the library currently, yet we are not looking to develop it because it's available elsewhere on campus.

By and large our circumstances are less well described as "skills gaps" than limitations in capacity.

Even though there is a great deal of expertise in data curation and management here, it's a growth area that we're definitely committed to expanding.

For the above, the "most significant digital scholarship skill gaps" indicate the lower numbers of public-facing Libraries personnel who provide or have expertise in these areas. While we would like to have more librarians involved in digital scholarship project management and planning, this is an area where we have relatively more librarians already undertaking than others. The "most critical to improve" areas were selected from among those where there were also significant gaps. They are identified as critical to improve because they are areas where we perceive both a growing and broad need for advisement and assistance in these areas, and where we also see the Libraries as uniquely positioned to provide this support and capable of developing or extending these skills from existing expertise.

In addition to actual gaps, we see related challenges in capacity and sustainability, e.g., if even one person has the skills to offer a particular DS service, you don't have a skill gap per se, but the service can't grow (capacity gap). Furthermore, if that individual leaves the organization, you have an immediate skill gap (sustainability).

In some cases, we have one or two individuals who are very skilled in areas such as digitized exhibits but we anticipate that these skills will be cultivated more broadly across other librarians/archivists and staff. Ensuring all staff are up to speed on project management is a priority. To that end we are coordinating with the Talent Management Office on campus to roll out a library-wide training program.

Nearly all of these skills exist, but the more important staffing issue is having more staff who hold these skills, rather than improving the skills our organization does have.

Often we have internal skills for these areas but we are not organized in such a way that these people can work collaboratively together on a project. People tend to wear multiple hats and these areas are not always relevant to digital scholarship.

Some of the areas outlined above are services where we are very strong (e.g., digital exhibit support, data curation—albeit growing) but other areas like technical upkeep and database development are boutique-like services that we are consciously choosing not to actively support. It takes too much energy so we are trying to provide education support for researchers so that they can learn how to do much of this work themselves. It would be interesting to think about cross-institutional collaboration to develop educational initiatives for activities like metadata creation or making digital collections. It was also difficult to separate out what we do for the library for how we directly support researchers as some of this is deeply intertwined (e.g., digital preservation).

The library is beginning to take steps to bolster the technical ability of staff and faculty, including planning to hire programmers/developers who could spend part of their time supporting DS-related efforts.

The question is tricky in that we feel we have the skills, but not the time, so we need more staff with more skills. We've selected the three areas above because we feel these are areas where we are at a tipping point where more skills could push us to make the most difference in digital scholarship support right now.

This is another area where I would likely answer differently after our needs assessment has been completed. Except for project management, which is a clear area for improvement.

This was a difficult question to answer in some ways because it's not clear to us that all of these areas should be the sole or primary responsibility of the library, as opposed to other areas or departments on campus.

We are hiring a digital archivist and a second data curator to handle the growing number of digital objects being created or collected. As research grants increase, the second data curator will help fill a gap.

We are hoping to develop digital publishing expertise moving forward, as there are many opportunities for digital scholarly collaborations in this arena on campus. The University Libraries have a remarkable skill base that we have blended and adapted to support an extensive range of digital scholarship, from large-scale research endeavors, to semester-length undergraduate research initiatives in the classroom, none of which would be possible without our library faculty and staff's expertise in the areas outlined in this survey, in particular in relation to IT and metadata support. In many ways the challenge is less that of a skills gap (this is a burgeoning environment, and as such all of us strive to keep ahead of the curve in our fields, learning new softwares, techniques, and so on frequently to meet our community's needs), than it is a challenge of personnel in terms of availability. Many of our faculty and staff collaborating in these projects are doing so as a subset of their larger work for the University Libraries, and as such there are necessarily limits as to the amount of time they can devote to a project (though all go above and beyond in terms of their contributions).

We do have an opportunity for a project involving metadata creation and data curation and management. We hope that this project will be realized and that we'll learn from it in order to develop our skills.

We do not currently have a programmer on our staff in the library.

We have prioritized hires in the three critical areas indicated. These positions have been either posted or approved for posting.

We need more people with appropriate skills more than we need to provide current staff with more skills in order to properly offer services to our entire campus in many of the areas specified above.

While we seem to have the skills we need at the moment, as future demand increases, the need to broaden our in-house skills among a wider range of library staff will be necessary. In particular, the project planning and management skills necessary to prevent gridlock will need to be widely understood.

PARTNERSHIPS

23. How often do researchers from the disciplines below come to your library for support with digital scholarship activities? Please make one selection per row. N=69

Disciplines	Often	Sometimes	Never	N
Humanities disciplines/departments	40	29	0	69
Social sciences disciplines/departments	25	42	2	69
STEM-based disciplines/departments	11	53	4	68
Total Responses	44	69	4	69

Comments N=19

Emory Center for Digital Scholarship often receives faculty from the humanities.

Frequency is relative, and disciplines vary based on which library unit or person researchers are approaching. For example, STEM researchers approach most often for data support; humanities are seeking support from our SCC or special collections. In general, we are not overwhelmed with requests for DS support or partnerships.

It would be more often if we marketed our services, but that is not a priority now because we don't have enough resources to do so.

Many of the STEM and social science departments have in-house technical staff to support database development, data analysis and visualization, and other foundational technologies.

Often, but the needs expressed are different. STEM: data management and finding funding; humanities: primary sources and items that can be digitized from the collection in order to analyze trends; social sciences: data sets to use as primary sources, how to visualize data.

Science-related support most often happens outside the library in labs. We have a very active digital humanities center and digital social science center in our libraries.

Since founding the Alabama Digital Humanities Center in 2010, partnerships have been forged with faculty and graduate students in over 15 different disciplines and departments across the university, ranging from English, History, Modern Languages and Classics, to Art and Art History, Religious Studies, Music, and Clothing, Textiles, and Interior Design. Our philosophy is very much one of partnership and collaboration: this is not a drop-off service center, but rather seeks to establish consultative teams to work on projects, bringing together subject-specific expertise of faculty members alongside specialized IT, metadata, and project management expertise from within the University Libraries to bring a wide range of projects to life in a collaborative environment. We have supported more than 70 projects of varying scale, from long-term research endeavors to more immediate pedagogically rooted work. The long-term research initiatives have involved establishing partnerships not only across campus but also with other institutions including Somerville College, Oxford, to make a searchable online archive of nineteenth-century materials, and St. Louis Public Library to digitize rare twentieth-century newspaper holdings. On campus, we have worked with over 30 different undergraduate courses in 12 fields; most recently the DH Center worked with faculty in our Engineering Library to provide 3-D printing instruction for students in a quality control course in Clothing, Textiles, and Interior Design, whilst at a graduate level the ADHC has supported classes involving textual encoding (TEI) and digital visualizations in Modern Languages and Classics, and in the Department of English.

Social sciences served most often due to GIS, research data, and statistics needs.

The digital scholarship support in the libraries is brand new this academic year, and has focused at first on the humanities and will build out from there.

The DSC's non-library clientele represents all disciplines, but to date projects are sourced primarily in humanities, social sciences, and professional schools (journalism, media studies, etc.). Other DS activities occur in branch locations for Science, Architecture and Allied Arts, etc.

The frequency may be more of a reflection of perceived resources than actual demand.

The kind of support required varies—for example, scientists and social scientists are more likely to seek GIS support, whereas humanists tend to be more interested in working on digital collections.

The Libraries tracks only general use statistics; we don't have concrete knowledge about where researchers are coming from.

The library has only had a few DS-related requests, but is moving towards being more supportive and able to support such efforts.

The needs of researchers vary greatly by discipline. STEM-based researchers tend to want short-term guidance whereas in the humanities and arts, they want longer-term collaborations.

The selection is based on the three categories for which we support DS: GIS and digital mapping, statistical analysis/support, making digital collections.

Wanted to answer “rarely” on all (less than sometimes, but more often than never).

We are in the process of identifying prospective research partners and planning for associated infrastructure requirements.

We work closely with the Center for Digital Humanities.

24. How often does your library partner with or draw resources from the following units/entities to fulfill requests for digital scholarship support? Please make one selection per row. N=70

Units/Entities	Often	Sometimes	Never	N
Information technology unit/department	35	29	3	67
Other libraries	13	45	9	67
Archives	30	34	1	65
University press	5	28	30	63
Institutional Repository	35	18	8	61
Agencies and/or companies unaffiliated with your institution	10	32	18	60
Historical societies	6	29	24	59
Other digital scholarship centers in your institution	10	24	22	56
Other unit/entity	13	8	8	29
Total Responses	58	67	47	70

If you selected “Other unit/entity” above, please specify which unit/entity. N=21

Often N=13

Academic support units (e.g., interdisciplinary institutes) and individual faculty

Businesses, vendors, individuals, scholarly agencies, publishers, etc.

Consortia, PKP, listservs, Ontario Council of University Libraries, Canadian Association of Research Libraries, Association of Research Libraries, Canadiana.org, Islandora Foundation, DSpace

Cultural heritage institutions: Bishop Museum, Museum of Art

DPLA

DPLA, Minnesota Digital Library

Graduate School; University Teaching and Learning Center; College of Arts and Sciences; School of Public Health; University Communications

Office of Research

State-wide consortium of Archives and Libraries

The College of Arts and Sciences ETech

The Department of Art and Art History and the Graduate Program in Visual and Cultural Studies

The Research Computing Center

We have partnered with other academic support units, such as the Office of Undergraduate Research, Computing Services and System Development, the Clinical & Translational Science Institute, the Pittsburgh Supercomputing Center, the University Center for Social and Urban Research, and others. The relationships and level of support among these partners varies but continues to develop.

Sometimes N=8

Center for Creative Computing, Center for Research Computing, Center for Social Research, Center for Study of Languages and Cultures, Design department, Kaneb Center for Teaching and Learning, Office of Digital Learning, Office of Information Technologies, School of Architecture

Center for Teaching and Learning

Digital Scholarship Centers at other institutions.

Granting agencies (e.g., Mellon)

Institute for Advanced Technology in the Humanities (IATH), Shanti, Department of Computer Science

Libraries partner with Harvard University's Institute for Quantitative Social Science for delivery of expertise with statistical software and analysis.

Other institutions/individuals

Philly, DH, PACL

Additional comments N=19

Archives and Institutional Repository fall within the Libraries organization

Archives and MIT Institutional Repository (DSpace@MIT) are part of the Libraries organizational structure. MIT Press and Libraries have joint leadership.

Archives, and the university press are part of our library. The Institutional Repository is part of the Technology, Discovery, and Digital Services Unit.

In addition to public-facing project support for researchers, the DSC serves as the Libraries digital library development and support department.

It's unclear to me how often the libraries end up partnering with other entities that support digital scholarship. We work with HathiTrust and DPLA, but I don't know with what amount of frequency or whether it supports specific projects.

Our institution currently does not have any digital scholarship centers or a university press.

Our institutional repository is being implemented, this is why no selection is made for this line. A pilot project will start this winter as mentioned in an earlier comment.

Our library and archives is one and the same.

Partnerships with other entities and units are primarily around training, programming (events and other public activities), and occasional consulting.

The archives is part of the library. We have no other digital scholarship centers at the university.

The institutional repository is a part of the library and actively involved with digital scholarship through our Center for Digital Scholarship.

The library has its own IT department, which includes the IR.

This is not a statistic we track, but we do partner with others.

University press and the IR are part of the library.

We are currently co-hosting a CLIR Postdoctoral Fellow in Metadata Creation for Visual and Material Culture with the Graduate Program in Visual and Cultural Studies who provides support for digital scholarship.

We are expecting to begin a university press within the next year.

We maintain the institutional repository—it's an important part of our digital scholarship operations.

We partner as needed.

We typically draw from the “other unit/entity” for core IT supplies, network, and non-preservation storage. Archives and institutional repository are library units.

SOURCE OF FUNDS

25. Please indicate the source(s) of funds that support library digital scholarship activities. Check all that apply. N=71

Library general budget	71	100%
Grants to the library	52	73%
Grant funds from the researcher	34	48%
Gifts	30	42%
Funds from the parent institution—general funds	19	27%
Endowment	18	25%
Dedicated DS budget	16	23%
Funds from the parent institution—academic department funds	13	18%
Fees paid by institutional researchers	7	10%
Fees paid by external researchers	6	9%
Other source of funds	8	11%

Please briefly describe the other source of funds. N=8

Facilities and Administrative (Indirect)

Funds from the central campus IT and the Research Computing Center

Included in some of the support is the Student Technology Resources Center (STRC), funded by student fees.

Individual library faculty members' endowed professorship funds

Patron request for digitization of materials is a fee-based, primarily cost-recovery model.

Scanning services are in part a cost-recovery unit.

The library and the college of arts and sciences each pay for a graduate student. Arts and sciences also provides funding for programming (workshops, lectures, summer faculty stipends, etc.)

University President's Circle funds

DIGITAL SCHOLARSHIP ACTIVITY ASSESSMENT

26. Has your library assessed or evaluated its ability to support digital scholarship activities, for example by collecting project data, interviewing individuals, conducting focus groups, surveying users, etc.? N=70

Yes	34	49%
Not yet, but we plan to	26	37%
We are not yet at the assessment stage	10	14%
No, and we have no plan to do so	0	0%

Comments N=20

Yes N=12

A team formed to investigate potential models for offering more robust digital scholarship services.

But not a comprehensive assessment

Every year since its inception the ADHC has produced an annual report documenting both project activities and also outreach initiatives. We document the number of projects conducted in a year; the number of faculty members and graduate students engaged; the number of departments engaged; the number of classes engaged in digital scholarship with the Center; the number of class sessions taught. In terms of outreach, we measure how many and what types of event we have held in a year; number of attendees; and for our digital humanities conference, the range of places and institutions from which people come to participate (in 2014, this included 80 participants from more than 12 different states and provinces in the USA and Canada). These measures help us to gauge our ability to support and engage scholars in digital work in a quantitative way. We also conduct surveys following our workshop sessions to understand their utility, and to establish what future offerings might be useful to our community. Going forward, we plan to extend these efforts to include larger-scale surveys of faculty members and students with whom we are working to understand how we are meeting their needs, and where we could helpfully expand our offerings. We did a survey of participants in the community in Spring 2012. Results have driven our focus in events, content, and scheduling.

Faculty surveys include questions about support for digital scholarship.

The university conducted extensive user research prior to establishing the DSC in 2012.

We are currently collecting survey data from all workshops that are offered.

We are currently engaged in an informal needs assessment, as well as ongoing formal interviews conducted by liaison librarians with the faculty in the departments that they support. More formal assessments will be forthcoming.

We are just now starting a full-scale assessment project, but there was a smaller, humanities-oriented assessment project in the past year or so.

We collect data on user interactions and held a focus group at the Graduate College a few years ago. We have user satisfaction surveys live now. We also rely on bigger data such as LibQUAL+.

We have done some preliminary assessment and plan to do more rigorous studies in the future.

We held two focus group sessions this semester. We are just getting started, but are developing policies for how long we will support faculty and class digital sites. We are looking into reclaim hosting.

Yes, in the context of data management and digital publishing, but not “digital scholarship” broadly. We also plan to conduct additional assessment.

Not yet, but we plan too N=5

Have online and data needs and planning digital scholarship assessment.

The library has an assessment librarian since November 2015. We are starting the assessment stage, but we first need to determine our needs, select assessment activities, write an assessment plan, etc. Therefore, we plan to assess our digital scholarship activities, but it is a little too early to know more.

The library is working to bolster its ability to support DS efforts, and once more mechanisms and resources are in place it will solicit DS projects from campus researchers more vigorously.

This is an area we have talked about and have often thought a collaborative approach with other ARL institutions would be helpful for assessing DS.

We just finished an initial survey of our current services in this space (November 2015). We are now starting the assessment phase to determine gaps and resources needed to close those gaps.

Not yet at the assessment stage N=2

Informal assessments are made by way of monthly statistical reports, and feedback from librarians, archivists, and staff involved in digital scholarship activities.

We have done some assessment of and collect data on individual projects, but have no comprehensive assessment program across our organization.

Additional Comment

For specific projects, we’ve run usability tests and done a survey. We also monitor Google Analytics data.

27. If yes or you plan to, what assessment method(s) does/will your library use? Check all that apply.
N=60

Collect and analyze data on number of projects	43	72%
Collect and analyze data on number of consultations	43	72%
Interviews with individual researchers	42	70%
User satisfaction survey	32	53%
Conducting focus group	30	50%
Other assessment method	17	28%

Please briefly describe the other assessment method. N=17

Assessment on all trainings and activities, facilitated discussions

Benchmarked staffing, services, and equipment at peer and aspirational institutions.

Benchmarking against other (peer) institutions

Collect and analyze data on type of project, intended audience, and type/content of consultations.

Collect information on digital scholarship services offered by other campus units (environmental scan).

Develop strategy to measure scholarly impact of research and teaching enhanced by digital scholarship tools and methods; for research projects: exploring measuring number of times a work is referenced by

other scholars; for pedagogy projects: blending qualitative data from faculty and students with level of success in reaching course outcomes.

Digitization policy group is evaluating library's capacity to support digitization projects, but not digital scholarship as a whole.

Look at our peer institutions who have recently or are currently undergoing similar transitions.

Looking ahead, we will be conducting a number of additional planning and assessment efforts that will involve DS services and other educational technology and digital library development efforts.

Needs assessments

Participate in a cross-campus group that shares knowledge about research data management issues.

Solicit input and web statistics

Space utilization tracking application (SUMA)

To date most significant assessment efforts have been related to research data management services to identify needs of faculty.

Tracking attendance and enrollment for skills-based workshops and courses offered within the library.

Various library administrators and library faculty participate in regularly scheduled meetings on digital scholarship with key stakeholders from the College of Arts and Sciences. Conversations from those meetings have helped guide some of our digital scholarship work.

We don't yet have a concrete plan.

28. Of the assessment methods already used, which has been most useful for evaluating the library's digital scholarship support efforts? N=30

All methods provide data important to measuring the impact of our digital scholarship efforts.

Analyze data on number of consultations

Assessment to date has been planned in relation to specific projects and activities, but not as programmatic as would be ideal. The Libraries have a new Assessment Librarian starting January 2016 and we hope to have a program for evaluation in place soon, with the new evaluation plan for the next three years currently in draft, which we will review in consultation/collaboration with the Assessment Librarian.

Coffee & Viz Evaluations (event at which faculty member and researchers describe their work with visualization), high-tech space usage records

Collect and analyze data on number and type/content of consultations.

Collect data regarding numbers of collections and usage in repository.

Consultation data

Faculty surveys

Focus groups

Focus groups and individual interviews

For forecasting: individual interviews; for in-progress development: focus groups including project partners and stakeholders

Interviews and discussions with researchers

Interviews and ongoing conversations, developing new relationships with campus stakeholders, and tending to existing relationships.

Interviews with faculty and students provide ongoing opportunities to evaluate the breadth and depth of our support.

Interviews with individual researchers (2 responses)

It would be very helpful to hear what our peer institutions have done in this area.

It's quite difficult to choose one of these as most useful, as different departments tend to use different methods, based on the nature of their digital scholarship work. Our department of Assessment and User Experience Services conducts annual user surveys, which include questions related to digital scholarship services and spaces, and has followed up with focus groups to better understand responses. This is very useful for helping to secure support for new or enhanced spaces, services, collections, and initiatives. Individual departments, especially Data and Visualization Services and Research and Instructional Services, have tracked the frequency and length of consultation sessions over several years; this data has helped them to discern trends (such as increases not just in the number of consultations over time, but also the length of those consultations, which in turn has informed decisions about staffing service desks and providing alternative consultation services. Digital Scholarship Services, which primarily partners with students and faculty on digital projects, has tracked information on the nature of these projects, to better assess the landscape of interest and need in digital scholarship. While all the assessment methods above help us gauge researcher needs and interests in digital scholarship and the value of existing services, focused discussions with different user groups (administrators, faculty, students)—whether as part of focus groups or interviews—arguably are most indispensable in helping us to better understand the context of digital scholarship work and thus take a longer view of the ways the Libraries can effectively transform scholarship. For instance, an increase in the frequency and length of repeat digital research consultations at a service desk might suggest a need to provide more staff and longer hours. But an interview or focus group with these same students might reveal that class assignments require the use of digital tools and approaches but don't include that training as part of the course. A more successful intervention, then, would be to involve ourselves in curricular discussions at the university level or, minimally, to offer a series of workshops that can help scaffold learning in these areas and share those workshop schedules with faculty. In essence, we cannot rely on one form of assessment; rather, we benefit from regular and thoughtful assessment in a variety of ways, to get a fuller picture and make more informed choices about how we direct our work.

Library User Survey: includes questions on relative importance, satisfaction, usage, etc.

Number of consultations

Project data and discussions with patrons

Survey

The assessment activities focus on individual services and not the program as a whole, so the assessment activities are all useful.

The LibQUAL+ survey and faculty interviews conducted for a "Future of the Libraries" study.

Too early to say. At this stage, we see all these methods as useful in different ways.

Usage data, interviews, and focus groups

User research

User satisfaction survey

We have just completed a survey, and will be analyzing it soon. That will likely lead us to do some focus groups and individual interviews.

We have used interviews with key constituents, which have informed positions, services, and future workshop offerings.

We rely much more on ongoing relationships with key actors (faculty members and centers) and responding to changing priorities, than formal instruments.

29. Has any assessment of your library digital scholarship support efforts led to changing services, organization, staff responsibilities, etc.? N=52

Yes 34 65%

No 18 35%

If yes, please briefly describe what changed. N=31

A major assessment and information gathering project in 2014 led to many changes and development of new spaces, staffing, and services.

A new position and department was created to launch an institutional repository.

Added a GIS specialist to staff by analyzing (in part) requests from users. Also changed hours based on activity within space as recorded by user interactions.

Added training for activities, especially data management and visualization.

Additional training and evaluation of existing future positions.

As stated above, assessment at our institution is frequent and varied, and is used on a regular basis to help inform decisions, whether large (like creating a new research commons space) or small (like changing office hours). The decision to create a research commons came after a few years of interviews and focus groups with campus stakeholders and of explorations of these kinds of services and spaces at other institutions. Smaller decisions, like the frequency and topical coverage of digital scholarship programs in this space, have been driven by post-event surveys of participants and comparison of attendance at these events over time.

Assessment has at least indirectly influenced changes to support for digital scholarship. Digital support is of long standing and continuously improving.

Changes in programming. The addition of a permanent, dedicated technical position in the Alabama Digital Humanities Center. The conversion of a post-doctoral position to a tenure-track faculty position in the Alabama Digital Humanities Center.

Created digital scholarship librarian position.

Discussions with patrons indicate interest in particular fields and therefore service gaps.

High-tech spaces operations. Strategic planning and alignment of library and university goals pointed toward greater investment in all forms of research and advanced scholarship support. A new library facility in 2013 offered new opportunities in physical spaces that are configured for collaboration around data analysis and visualization, as well as interactive computing.

Hiring of first post-doc, then permanent librarian to coordinate digital humanities work

In the spring of 2015, the provost's office assessed the landscape of support for digital scholarship and subsequently invited the Libraries to submit a proposal for the merger of a provost-funded digital scholarship unit with the Libraries Digital Research and Publishing department. As a result, the two units were merged as of June 1, 2015. The new unit (as detailed in this document) consolidates

considerable staff resources within the Libraries and allows digital scholarly projects to be entered into Libraries workflows from inception to archive.

Interest in data visualization has spurred the formation of both an exploratory group and a service experiment. A similar experiment in supporting media creation activities is also being planned. Digital scholarship responsibilities are being incorporated into open positions.

Library reorganization included developing digital learning & scholarship team.

New and reorganized positions have been created.

New hiring for a Digital Scholarship Coordinator, position re-titled from Agriculture Librarian to Agriculture & Digital Initiatives Librarian, updates to positions to specifically include mention of digital scholarship and data activities, changes to master training calendar for trainings within the libraries, creation of the new Committee on Strategic Digital Directions, and more.

Our strategic planning discussions have led us to begin developing a new faculty position for digital scholarship support.

Plan to form a unit to support digital scholarship services, as well as physical space for support and collaboration.

Really in very preliminary stages but offering data management workshops and support, trying to identify more people to have a hand in these activities. Still investigating what other activities we want to offer.

Services realignment, new software support, research storage infrastructure.

Some positions redescribed.

Staff were re-positioned via re-organization.

Strategy for promotion/outreach

This data will be used as part of our strategic planning process, with some of the recommendations in the strategic plan focused on expanding digital scholarship services.

We are developing more capacity for digital preservation.

We are embarking on a reorganization that is anticipated to result in organizational changes.

We are shifting more efforts toward digital scholarship support in connection with our strategic plan, which calls for more activities related to educational technologies.

We did do some hiring and some staff reallocations to support this work based on early efforts to support digital scholarship.

What we initially planned to offer in the physical space has changed some as we've been slower to ramp up services. We have also toyed with offering digital storytelling in the space, which would be a new service.

Yes. Support for digital scholarship is provided by many entities across the Libraries and Information Technology Services (LITS) enterprise. New partnership pathways are being defined and refined to better accommodate this blended support model.

FUTURE ROLE OF LIBRARY SUPPORT FOR DIGITAL SCHOLARSHIP

30. What do you expect research libraries' role in supporting digital scholarship activities will be in the future? N=64

A mixture: access to content and tools, training, and longstanding research collaborations. Research libraries have a strong role in helping to prepare graduate students to engage in digital scholarship.

A wide range of roles from introduction to digital methodologies to project collaboration to preservation activities.

Academic research libraries who play a major role in digital scholarship (not just support but actually have their own digital projects) will be the most visible and most successful.

As seen in the most recent strategic plan, digital scholarship activities are growing and strongly supported, in addition to growing partnerships that are central to our strategic planning. Deeper collaboration, partnership, and engagement across campus are central to our current efforts.

DS activities and services such as those listed in this survey are core to the future of research libraries. Examples: expanding and supporting digital library development and use of unique collections in research and instruction; encouraging and facilitating open access in the digital scholarship workflow—this include research data management; active collaborations with research centers, institutes, VP of research offices; collaborations with archives and museums on our campuses and beyond (GLAM initiatives) to develop shared platforms, tools, and encourage use of unique cultural assets across the disciplines and across the curriculum.

Educational: offering more training and instruction on new tools, technologies in digital research. More project management support. Digital research design support. More support for building digital collections for teaching and research needs. More facilitating of conversations around digital scholarship issues. More computation/analytics support.

Exploring innovative ways to enhance public scholarship, including partnering to lead efforts in determining sustainable pathways for storage, sharing, and visualizing data. Also, our organizations are uniquely positioned to empower faculty, graduate students, and undergraduates with knowledge of tools and methods used in digital scholarship.

Going forward, research libraries have a tremendous contribution to make in terms of being hubs where innovative librarians can engage in effective outreach to forge cross-campus partnerships with subject specialists in departments across the university, and expertise in IT and in metadata which may well be housed within the library itself. The Libraries at the University of Alabama are a prime example of the ways in which these places can become a locus for this kind of scholarship, in particular in working with scholars to create collaborative teams in which faculty and staff are all working together to contribute to digital scholarship on the front lines. The Alabama Digital Humanities Centers is testimony to the capacity of libraries to play a leading role both in creating collaborative teams for digital scholarship, but also crucially in bringing key expertise to the innovations and original contributions which those teams are making to the scholarship itself. In the past two years the ADHC has grown from having six projects to over 70 through concerted, focused outreach engaging scholars in over 15 departments in digital scholarship for both research and pedagogy purposes, and this has been possible in large part because of the central role which the Libraries occupy in the university. These are spaces explicitly available to everyone, which have enabled extensive interdisciplinary collaboration and interdisciplinary conversation to spring up between faculty members from different departments on campus who now have shared academic ground due to their shared approaches of their digital scholarship. In the future, we expect libraries to capitalize on the fact that they are open to everyone on campus, and to leverage that openness to introduce more scholars from different departments to the kind of collaborative work key to large-scale digital projects. Librarians are well positioned to play a leading role in this, as much of our work is collaborative in nature, involving the pooling of expertise and the sharing of knowledge freely, as well as the negotiations inherent in the collaborative process, and this is a great asset we can share with faculty members across campus. Moreover, libraries can be excellent sources of the kinds of expertise needed for digital scholarship,

including metadata creation and IT specialization. And empowering faculty and staff to devote portions of their time to digital scholarship is a way in which libraries can provide excellent support for this kind of academic endeavor without doing so in a purely service capacity. Rather, taking on an active collaborative role as equal contributors within digital scholarship initiatives is a great way for librarians to employ their expertise in different areas to work with faculty from across campus to work at the forefront of digital scholarly developments. One important factor in making this kind of collaboration possible may be hiring new librarians or empowering current librarians to make use of their own experience as researchers to assist with digital scholarship in a tangible way. It is really helpful to have someone in the libraries coordinating projects who has experience of conducting their own research and teaching, and who can adapt that knowledge to give the best possible support to other faculty members engaged in digital scholarship, so there may be some adjustments to make in terms of distribution of personnel, or in the kinds of roles which librarians take on, as they have a leading contribution to make in this area.

Greater emphasis on data management

I expect that digital scholarship activities in research libraries will continue to evolve within a disciplinary framework and that the majority of DS publishing activities in the humanities will be centered in the library—especially in the creation of born-digital scholarship. In STEM and the social sciences, who have already created disciplinary repositories and built support into their professional networks for publishing, the type of support research libraries can offer in these areas are support based: consultation on licensing, copyright and rights management, open access, data management, and grant writing.

I expect that research libraries will be important partners in digital scholarship activities, offering expertise in areas such as programming, project management, data curation, and metadata, as well as access to collections. They will also play an important role in preserving digital scholarship projects.

I expect that we will continue to see research libraries' support for digital scholarship activities grow in both the near and long terms as more traditional activities become automated and/or de-emphasized.

I see it as a growing area but am unclear as to how significant a role the libraries will play in terms of scaling support for this type of scholarship.

I think it can be very, very rich and a great opportunity for the library—but the researchers need to know the library can offer the services and not already have a place to get the support.

I think libraries will play an increasingly larger role in publishing, as open access journals grow in number.

I think that it will continue to grow as scholarship and teaching evolve.

I think that research libraries' role will grow with regards to supporting digital scholarship activities. We know how to organize, manage, and share information; the methods for doing so are changing and so will our roles.

Integrated, core, and first-partner/connector for connecting with and across other groups and communities

It will continue to be strong with great support from campus and administration.

It will continue to grow and evolve. We have done well with less planned organic development; the challenge is rationalize that a bit over the next few years.

It will increase, unless these sorts of activities migrate away from or outside of the libraries. Already many institutions have set up separate centers or institutes to support what we refer to as DS activities.

Libraries have the unique and historic privilege of being the holders of university scholarly collections. Indeed, for years libraries have been acquiring books, journals, maps, and other objects to support scholarship. The ability to interrogate these holdings using digital methods has the potential to lead to new interdisciplinary understanding and potentially deeper discoveries within current bodies of knowledge. Libraries and librarians will need new tools and skills to realize this potential, including data management, multi-media digitization, curation, and deeper understanding of non-traditional literacies. Along with the tools and skills, libraries will need to increase inter-library collaborations that allow for scholars from various disciplines and schools to work on projects together. Libraries' holdings special collections will be veritable treasure troves of information waiting to be accessed from beyond their own institutions walls.

Libraries will continue to be a site of centralized and interdisciplinary expertise and resources to support digital scholarship. Physical space will continue to be an important component of the library's value in supporting digital scholarship, and special-use spaces will continue to be developed. Libraries will play a growing role in teaching and instructional support around digital scholarship and digital methods (i.e., less of an exclusive focus on digital scholarship support for research and publishing activity). As both the practice and capabilities for digital scholarship grow within libraries' parent institutions, the library will have to continually re-evaluate how it partners with other DS entities (e.g., departmental DS units, regional centers, emerging curricular and degree programs), as well as consider how to design services that scale in a sustainable way. Hiring, training, and developing staff to support digital scholarship will continue to be a challenge.

Libraries will continue to engage with digital scholarship in all disciplines. Libraries provide neutral ground for researchers. They have a long tradition of housing and preserving information (data). Libraries understand the significance of metadata. They will continue to hire the staff needed to support these efforts and remain a vital resource for the entire university. This is the primary area for growth, without it the academic research library is likely to wither down to a collection of print repositories and e-resource managers.

Libraries will focus on scholarly communication and/or publishing.

Lots of outreach and instruction, since bespoke projects are unsustainable in the long run; service-development rather than project completion; infrastructure building.

More and more.

More strongly thinking about data/digital collections as part of library collections, more importance put on data literacy across the disciplines, digital preservation will be a central library activity.

Much larger, though we have to figure out issues of scale.

Once we have a more robust infrastructure and staffing model in place to support DS activities, we hope to play a very active role in DS efforts on campus. We would ultimately want to be viewed as the "go-to" source of DS support on campus.

One of the major issues we've encountered is that digital scholarship has not been widely accepted as part of the faculty tenure process, especially in the humanities and social sciences. The library will play an important role in educating faculty on the importance of digital scholarship, specifically how it can have an increasing presence in junior faculty dossiers.

Our copyright consultation services have grown dramatically, which is a service still only found at a handful of organizations. We expect to see this adopted at more libraries going forward. We also expect publishing efforts to continue to grow significantly, and expand, i.e., from faculty to graduate students, undergraduates, and local communities.

Our library will continue expanding our offerings and capabilities. We plan to become a clearinghouse of information, connector across campus for services, and collaborator with researchers and other support units. To paraphrase a speaker at the North Carolina State University's Designing Libraries for the 21st Century Conference, we do not need to be a one-stop shop for everything related to digital scholarship, but we want to be the first stop.

Our role will be in building tools to enable access and preservation of the products of digital scholarship, as well as consulting with faculty on the sustainability of the products of their digital scholarship.

Provider of space for consultation with experts and connection with peers/colleagues. Expert collaborator in the many areas described within this survey. Neutral facilitator of DS service development and provision for the whole system; key stakeholder in success of projects. Collaborative partner in grants to support digital scholarship. Continued developer of new technological infrastructure and tools that support DS ecosystem.

Providing access to data (corpora, etc.), tools (e.g., GIS tech, text mining software), and expertise to assist students and faculty.

Research libraries must become integral players in the total extent of the college/university scholarship activities. Digital scholarship is simply one avenue for research libraries to integrate themselves into these activities and processes. Too few research libraries have taken advantage of the digital scholarship openings at their institutions.

Research libraries will provide leadership in new forms of publishing and dissemination of scholarship. We have the expertise to help our institutions respond to funder's requirements for data management plans and open access. Libraries are neutral spaces so have the opportunity to make new technologies, from 3-D printing to large-scale visualization, available to any scholar in any discipline. Digital scholarship support is the research library's future role.

Research libraries will develop their expertise and services in DS support according to the work of their researchers in order to offer them the tools they need to achieve their goals. They will be integrated partners in research projects and other initiatives and be leaders on their campuses in research data curation and management.

Research libraries' role in supporting digital scholarship activities in the future will be: becoming more of a publisher of scholarship, identifying resources and supporting end architecture, and providing digital preservation.

Research libraries' future support of digital scholarship will likely focus on utilizing the technological, organizational, and instructional expertise of existing staff. Whether it is assisting with GIS, text mining, metadata, preservation, or web development, research libraries provide a focal point for researchers in need of these skills. University presses and institutional repositories will enable further dissemination of digital scholarship and facilitate the continued development of digital publishing.

Service models will continue to transform in order to facilitate deeper collaboration between library faculty/staff and researchers, enabling deeper involvement in such research activities as grant seeking and data curation and management.

Should take data curation and preservation seriously and provide resources to support this endeavor. DS is increasingly going to be part of the work of academic research librarians, in institutions of all types and sizes. However, not all libraries will be able to dedicate resources to formal DS centers. Unfortunately, this often means making DS the job of just one or two individuals or adding DS responsibilities to already overburdened positions. This leads to difficulty in prioritizing DS and making the library's DS expertise broadly accessible to campus. It would be good to see some models for 'making DS work' at institutions with resource constraints.

Supporting digital scholarship inserts libraries at different stages of the research lifecycle than what was traditionally supported. There is still an adjustment period for libraries where support of digital scholarship is becoming more institutionalized. Digital scholarship will become (or already is) just scholarship, and will be less of a novelty to libraries.

The Libraries hopes to expand its support of digital scholarship activities and increase collaborative projects with faculty across campus. We also hope to form a solid partnership with university Analytics and Technologies in order to provide supports that meet current digital preservation standards and best practices.

The Libraries will continue to offer key services in support of digital scholarship. We anticipate becoming a hub for connections and referrals, offering expertise and technology that enables digital scholarship. The Libraries already works with graduate students and faculty and will continue to facilitate greater interdisciplinary work and access to resources that support digital scholarship endeavors.

The Libraries will have an expansive role supporting all aspects of the research life cycle. Libraries will continue to serve as a place for longitudinal support and archiving over time. In addition, the Libraries will draw on expertise throughout the organization and partner with other units in the university and external to the university to provide a distributed model of support.

The libraries' role in supporting digital scholarship activities will only increase, as "digital" becomes an assumed aspect of scholarship rather than a qualified one. At our institution, there are some areas of concentrated expertise (like metadata creation, digitization of analog materials, creation of digital collections, and digital preservation) that are already well developed but not yet fully available (if at all) to researchers. It seems quite likely that over the course of the next few years we will begin to see more staff devoting their expertise to support user services in these areas. Among those staff who are already public-facing but lacking sufficient expertise in digital scholarship work, project planning and management, digital publishing, and data curation and management are obvious areas for role development, given the growing and broad needs in these areas and librarians' already well-established value as guides in the research process and the libraries' position in all areas of the research life cycle, from inspiration through creation of scholarly works, to the management of these works and their long-term preservation.

The University Library is and will continue to be a leader in support for digital scholarship.

This area will only grow. We are realigning our resources and staffing to ensure adequate support in this area. We will need to continue to balance this support with our other services, but this is a significant area of investment for our libraries.

Through expanding DS services, the library will become a partner in the creation of knowledge. It will also continue its role as an agent of knowledge dissemination through analog and digital means.

To foster, preserve, and support digital scholarship by faculty, student, and staff across the university. To help members of the university achieve—and model—the technologically enabled potentials of a university degree in the 21st-century. To build bridges among the various units that offer digital resources/tools or support digital scholarship across campus.

To some extent, I wish to mitigate against the sense of these activities being new or different. Libraries have been the enablers of teaching, learning, and research and continue to do so in the digital age. However, a recalibration of library staff's meaningful collaboration in the provision of services, such as crafting software to parse large data or producing visualizations, will demand dedicated and sustained communication and demonstrated successes.

We anticipate the continued rise of digital scholarly projects among undergraduate and graduate students, as well as among the ranks of all the faculty. As those projects increase in number and

complexity, we see research libraries becoming a both a point of first contact for research needs and a long-term collaborator in the development and storage of that work.

We believe that the role of digital scholarship support from libraries will grow exponentially as scholarship moves increasingly into the digital realm. It will depend much on whether or not the academy in general starts to accept digital scholarship for tenure and promotion. Our library is anticipating growth by making a number of recent hires and creation of two new units: Research Data Service (in partnership with the Office of the Vice Chancellor for Research) and Scholarly Communication & Publishing (started with a Mellon grant). Much, but certainly not all, of our digital scholarship support comes from a new addition to our library's structure with the creation of the Office of Research. A question may be to ask, should digital scholarship support be siloed within a specific space or should it be spread throughout the library? A way to envision this change would be to think about this as a new narrative for libraries and the type of support they can provide for researchers, teaching faculty, and students.

We believe that there is great potential for research libraries' role to grow, as librarians add new skill sets and partner and collaborate actively and deeply with scholars at all stages of the research and scholarship life cycle. Library spaces and services are being reconfigured to engage and support scholars and researchers with technology, visualization, and advanced tools that are often not available elsewhere on campus. Library collections, including rare and unique materials, will continue to be essential in the digital age.

We envision expanding and deepening collaboration with faculty on specific research projects and with the integration of digital scholarship materials into the undergraduate learning environment. We are about to select our first two faculty research fellows, from a pool of 20 applicants across four colleges and we expect to use the set of applications as a database to identify the current range of faculty interests in need of support and specialized skills within our evolving center. In addition, we will work toward the integration of liaison librarian role into center projects and activities, especially as our librarians retool their skill set in relevant technical areas to become more complete partners with faculty and grad students in the digital scholarship enterprise. We are also exploring now with our university press any available path toward publication in some vetted manner of the non-traditional scholarly products emanating from center projects and activities. We are looking forward to greatly expanded capacity to support new modes of digitally mediated scholarship as we move into a new building with many new resources—including an immersive visualization studio—in the summer of 2018. Many of our efforts at this time represent a buildout of our capacity to work in that new environment.

We expect the Libraries' role to continue to grow as the Libraries serve as a natural hub for scholarship on campus. We expect the form of support to shift in ways we are not always going to be in a position to anticipate.

We hope to become the campus center and hub for DS activities including: project consultations, hands-on assistance, metrics. More importantly, we wish to facilitate conversations and activities around these, as well as creating a sense of community.

We plan to be a key service hub for researchers and the center for preservation and access.

We see support for digital scholarship activities as essential as we redefine libraries role to support scholarship now and in the future. As scholarship moves increasingly into digital realms, libraries' roles in creating, collecting and organizing digital scholarship tools; helping researchers to most effectively use those tools; and aiding researchers in the new digital publishing environments, will make libraries more an embedded, integrated, collaborative part of the research team.

We see this as a critical new arena that libraries could have primacy over.

While we fully expect our library to play a substantial role in supporting digital scholarship on a variety of fronts (including but not limited to working with individual researchers, as well as collaborating with academic departments), we do not think that a specifically bounded role can be fully defined. This question is so dependent on local factors that we are strongly reluctant to try and provide a specific and concrete answer.

With the changing nature of scholarship we only see an increase in the library's role in advancing scholarship in the digital era. To that end we will need to shift resources, understand knowledge gaps, and address them accordingly.

ADDITIONAL COMMENTS

31. Please enter any additional information regarding support for digital scholarship activities at your library that may assist us in accurately analyzing the results of this survey. N=17

As mentioned, support for digital scholarship at Emory is provided by many entities across the Libraries and Information Technology Services (LITS) enterprise. The Emory Libraries and the Emory Center for Digital Scholarship partner closely on many projects and provide joint support for a range of services. In addition to the library-specific positions noted in the document that support digital scholarship, positions from ECDS that heavily support digital scholarship include a Digital Text Specialist and a GIS Librarian position.

At a meta-level: As a fairly new AUL, I found that there was no single internal source of information for me for this survey—mirroring the scattered nature of our activities. I asked three different departments for input to this survey, and found the differences in their perspectives quite interesting as I compiled them. (You may have noted different voices in our comments.) Thank you for the opportunity to contribute!

Clear visions and goals are needed to let go of legacy library services to embrace digital scholarship projects and partnerships. People are wearing too many hats to focus on DS. To build capacity, provide a structure to allow staff to rotate in and out of digital scholarship projects.

DS skills are in high demand, and are transferable to other organizations and sectors. As a result, staff turnover and recruitment are an ongoing challenge for sustainability and continuity of DS services.

I think it's important to note that support does occur across the library, and that has served us well. We could use some better coordination, which will be provided by the digital scholarship specialist.

Lessons learned: Libraries can be a neutral ground for discussing, learning, and producing digital scholarship. 'Tis better to frame digital scholarship engagement as research/pedagogy partnerships, rather than service or support. Digital scholarship is scholarship, not service—faculty have fought long and hard to gain this ground. We need to change our mindset and language to reflect such. If the library is viewed as a service bureau (particularly if there are fees for services), there can be no true collaboration or scholarly partnership. Libraries will miss opportunities for growth and development and academic engagement in the community. Engage the anticipated community early in the thinking process. This generates ownership, buy-in, and advocacy. Do not wait until you have the perfect design or plan. Look for opportunities to involve people from around the library—spread knowledge and expertise. Do not immediately seek ways to spend a lot of money. Technology, methods, and space are all great as far as they go, but nothing trumps building community. Seek and use grants and external funding for specific projects (or portions thereof) or seed money to achieve a new level or expansion. Fund everything else with regular budget. Be creative. Doing the previous entry moves any effort in digital scholarship into a sustainable future. Consider using parts of people's time rather than creating

yet another silo in the organization. Ensure that you are doing what your website and promotional materials state. That leads to legitimacy. Growing pains are normal.

Our support for digital scholarship relies heavily on a number of librarians and staff wearing multiple hats, and although their chief duties may lie in DS support, they are not devoted to it. At the moment our Center for Digital Scholarship is a little unusual in that it does not have faculty leadership.

Some of the key roles the library plays on this campus that aren't addressed by the survey include building strong partnerships with other units around campus. We have relied on partnerships with subject librarians as well to serve as marketing channels and expertise in supporting digital scholarship discipline by discipline. Finally, we have made a concerted effort to not duplicate services available elsewhere on campus. This has been a conscious choice and will continue to inform services and referrals to other expertise available to researchers.

The directorate for digital scholarship is very new, so our documents and plans are being created. Please excuse the sparseness of our responses!

The Libraries have significant resources to provide as "raw material" for DS through its strong collections, in particular historic audio, photographs, video, and film.

The responses in this survey do not incorporate the activities of the Libraries' Program on Information Science. This program is deeply involved in a number of ways in various aspects of digital scholarship. It wasn't included, because it doesn't directly develop or support services to the community. That doesn't detract from the value of the research, but noting those activities in the body of the survey might have painted an inaccurate picture about organizational support for DS.

There is a trend across academic institutions that sees some of the organizations that formerly lived in central IT moving into provostial or library organizations. These include centers for teaching and learning, instructional technologies, research technologies, academic media resources, and educational technologies. As IT units focus on infrastructure, cloud sourcing, and business systems, those services that face faculty and students will be less central to the core IT functions. Libraries of the future should be prepared to incorporate these services, many of which are essential tools for digital scholarship.

We are a very fragmented, decentralized institution. As such, a large and wide variety of activities may be taking place with little or no knowledge outside the small circles of directly impacted individuals and entities.

We are growing in this area, and it's clear that librarians and other professionals from across the library have been supporting facets of DS over the years. Coordinating those efforts is something we're keen to do.

We have a joint faculty position in digital humanities that will be recruited and hired in the near future. The Research Services Strategic Initiative is moving from an initiative into the implementation of a formal research data services group. We have a team of developers who work on our institutional repository and other digital projects within the library.

We have many pieces of the digital scholarship puzzle in place. The recent recruitment of a Digital Initiatives and Scholarship Librarian will help us bring these pieces together into a cohesive program to support our students and scholars, initially creating a virtual space while planning and developing a physical space.

We use the librarians in systems for development work, and there is a need for dedicated development to support DS activities. Our "Digital Library" area covers much of what is referred to as DS activity (scanning, metadata, digital collections, digital preservation), and as these positions were not highlighted via the four position descriptions, that work is not reflected in that section.

Responding Institutions

University of Alabama
University of Alberta
Boston University
Boston College
Brigham Young University
University of British Columbia
Brown University
University of Calgary
Case Western Reserve University
University of Chicago
University of Cincinnati
University of Colorado at Boulder
Columbia University
University of Connecticut
Duke University
Emory University
University of Florida
George Washington University
University of Georgia
University of Guelph
University of Hawaii at Manoa
University of Houston
University of Illinois at Chicago
University of Illinois at Urbana-Champaign
University of Iowa
Iowa State University
Johns Hopkins University
University of Kansas
Kent State University
University of Kentucky
Université Laval
Louisiana State University
University of Louisville
McGill University
University of Maryland
University of Massachusetts, Amherst
Massachusetts Institute of Technology
University of Miami
University of Michigan
Michigan State University
University of Minnesota
University of Nebraska—Lincoln
New York University
North Carolina State University
Northwestern University
University of Notre Dame
Ohio University
Ohio State University
Oklahoma State University
University of Oregon
University of Ottawa
University of Pennsylvania
Pennsylvania State University
University of Pittsburgh
Rice University
University of Rochester
Rutgers University
University of South Carolina
University of Southern California
Southern Illinois University Carbondale
University at Albany, SUNY
Syracuse University
Temple University
University of Tennessee
University of Toronto
Vanderbilt University
University of Virginia
Virginia Tech
Washington State University
Washington University in St. Louis
University of Wisconsin—Madison
Yale University
York University