Heather McCullough

Developing digital scholarship services on a shoestring

Facilities, events, tools, and projects

Libraries and academic technology divisions are increasingly developing and offering digital scholarship services. Yet, the term *digital scholarship* itself is quite fluid and seems to offer many interpretations depending on a particular university's culture, institutional organization, and environment. This article will outline how one university addressed a need for digital scholarship services at its campus.

Digital scholarship at University of North Carolina-Charlotte

J. Murrey Atkins Library has long provided support services to faculty and graduate students for the production of digital scholarship but knew there was a need to expand support for research. In fall 2010, the library leadership team began exploring through discussion and formal meetings how to address university researchers' needs for advanced digital scholarship support. In late fall 2011, the Digital Scholarship Lab (DSL), a unit whose charge is to provide support to faculty and graduate students in the production and management of digital scholarship, was created.

Staffing

The new unit was created using existing positions, librarians, and technologists from the Information Commons unit that subsequently hired new reference librarians. Positions included:

- **digital scholarship librarian** who acts as head of the unit charged with project management for digital scholarship projects, including publishing production, program development, and usability testing;
- **data services librarian** who provides support in data management planning, data curation, and support in locating and accessing numeric, geospatial, and statistical data, and with managing and preparing those data for analysis;
- **usability specialist** who provides support to usability projects by assisting in identifying, developing, and implementing assessments for library and for faculty research projects;
- **media support technologist** who manages the media lab and teaching space for the DSL, as well as provides consultation and training in the creation and use of digital images, video, and audio for research projects; and
- the **library's scholarly communication librarian** reports directly to the university librarian but has an office in the unit and is closely affiliated with it.

Facilities

As part of the library's regular space plan-

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ning, architectural designs were created for space slated for future redesign. The envisioned space includes labs, classrooms, conference rooms, as well as staff space. While funding is secured for newly designed space, it was deemed important for the new unit to have its own space with offices, a lab, and a classroom in close proximity.

Space is always at a premium in any university building, and DSL benefitted from another campus group vacating its office space in the library at the time the unit was formed. Staff were moved to the newly vacated space, and temporary lab equipment was secured from the university surplus.

At the end of the first funding cycle, the classroom was prioritized and a smart instructor station, capable of automatically capturing and archiving lectures and classes, was purchased. At the beginning of the next funding cycle, two new media creation stations, including MacPro computers, scanners, and software for media creation, as well as a powerful PC for the data services station were purchased. The next funding cycle included 20 computers for the classroom (16 PCs and 4 Macs) and peripherals for video production, including sound and lighting kits.

Events and publicity
Meeting them where they are
Getting the word out about the new unit, its services, and support has been accomplished through a variety of events and outreach efforts. Informational presentations to academic administration, faculty, and graduate student groups as well as working with subject liaisons for discipline-specific messaging has been essential and on-going. Many of the presentations were as a result of self-promoting and asking for time at standing meetings.

Promoting our expertise
Each staff member creates and leads workshops related to his or her area of support. Workshops are scheduled at the beginning of each semester and run throughout the fall and spring semesters. These workshops are listed on several calendars, including DSL, library, and university calendars. At the beginning of the semester, the Office of Academic Affairs e-mails all faculty the workshop schedule and description.

In addition to providing training and development in various digital scholarship tools for faculty and graduate students, the published workshop descriptions have served to publicize the expertise of each DSL staff member. A YouTube channel was created and features short (two- to-four minutes) informational videos about projects created in DSL.[1] The videos are shared with the university's communication office which frequently includes those videos on the university's YouTube channel.

Leading through collaborative efforts
Digital humanities has been a growing interest at UNC-Charlotte, and partnering with the College of Liberal Arts and Sciences has provided additional opportunity to publicize services and capitalize on affinity areas. In December 2011, the library hosted a Digital Humanities Symposium with notable national figures. In March 2013, DSL cohosted a regional Digital Humanities Un-Conference, a THATCamp, with our College of Liberal Arts and Sciences and Davidson College, another local college that is expanding its digital humanities focus. Both of these events provided valuable returns by publicizing DSL and by identifying interested faculty and institutional partners.

Tools and projects
Faculty feedback during the planning phase revealed several key areas that needed support: data management planning, data archiving, and support for online scholarly publication. DSL focused on these three services which were not available elsewhere on campus and which logically belonged in the library.

An environmental scan and study of available technologies revealed that open

source software for managing online publications and collections would be the best solution for our situation. The same scan revealed that partnering with an established data repository within our university system would be the best solution for data archiving.

Journals: Open Journal System
The library supports faculty and academic departments who edit or wish to edit open access journals. Open Journal System (OJS), an open source journal management and publication system, was installed on library-owned servers. OJS facilitates every stage of publishing a peer-reviewed journal, from submissions, communicating with reviewers and authors, to publication and indexing. The scholarly communication librarian provides best practices and guidance in developing each journal's copyright statement and authors' rights statements. The library's webmaster and graphic designer provide support for regular back ups, server maintenance, and customizing the design of the system and individual journals.

To date, three journals have been published by the library.

• ***Dialog: The Research to Practice Journal for the Early Educational Field.*** Richard Lambert, editor, professor in the Department of Educational Leadership, and director of the Center for Educational Measurement and Evaluation. This quarterly journal originated as a publication of the National Head Start Association was previously published by Taylor and Francis.

• ***Urban Education Policy and Research Annuals.*** Chance Lewis, Belk Distinguished professor and endowed chair of Urban Education, executive editor. *Urban Education Research and Policy Annuals (UERPA)* is a graduate student journal that is published annually by the Urban Education Collaborative at the University of North Carolina-Charlotte.

• ***Undergraduate Journal of Psychology: A Journal of the Psychology Department of the University of North Carolina at Charlotte.*** Kim Buch, editor, professor of Psychology. This journal has been an annual publication of the Department of Psychology since 1999.

Digital collections and exhibits: Omeka
The library supports faculty and graduate students who wish to produce digital collections and exhibits. Omeka is an open source web-publishing platform that is flexible and easy-to-use. Omeka was selected for its ease-of-use, ability to create multimedia exhibits that incorporate social media, and strong metadata capabilities. During DSL's first year, a Platinum-hosted subscription was used. Since the first year, the library installed Omeka on its own server, which allows for even greater customization and installation of plug-ins. Projects have included collaborative exhibits with local cultural institutions, exhibits with individual departments and faculty members, exhibits from the library's Special Collections, and projects with graduate public history courses.

Data repository: Dataverse
It was decided that partnering with an established data repository provider within our university system would allow expeditious support for data curation and sharing to occur. While our library's technical team had the expertise to create and manage a system, they also had numerous high-priority and support-intensive projects underway. We therefore worked with the Odum Institute at UNC-Chapel Hill that provided us with space on their secure and backed-up Dataverse server. Like the other publication platforms provided by DSL, Dataverse is an open source application. The Dataverse Network Project is housed at the Institute for Quantitative Social Science at Harvard University and there are instances at universities around the country, including UNC-Chapel Hill.

Dataverse allows for the publication, sharing, citation, and analyzing of research data via a web interface. The data services

librarian works directly with faculty and graduate students who wish to deposit data into the repository, helping them de-identify it, complete the required data deposit form, and ensure that the data's codebook is complete. The scholarly communication librarian reviewed the data deposit form that was customized for UNC-Charlotte researchers.

This service is targeted for social science researchers, and we have provided informational sessions to all grants officers on campus, including creating a boilerplate statement about the data repository that can be used in grant applications.

Faculty feedback and reactions

Faculty have responded enthusiastically to the new services. We deliberately rolled out the services slowly by limiting publicity to ensure that we could manage any unexpected bugs and technical or procedural issues that might arise. We targeted several projects for each new service to test software and procedures and now aim to expand on our initial success by publicizing more actively and broadly.

Our initial faculty partners have provided positive feedback to our services and indicated they see the services as essential to the university and to exposing their research to a wide audience.

In an e-mail message on August 27, 2013, Rich Lambert writes of the journal publication support, "Our experience has been nothing but positive and much easier and smoother than working with a commercial publisher and their online manuscript management system. [...] Thanks so much to all of your staff for all of the wonderful help we have received. I have a vision for UNC-Charlotte becoming a center for digital scholarship and hope our Center can be a big part of it."

Paul Fitchett, assistant professor in the Department of Middle, Secondary, and K-12 Education, writes in an e-mail message on August 27, 2013, that the "data repository has allowed me to share secondary data and survey materials with colleagues across the country. It has been a valuable tool for disseminating data and enhancing research in my field."

Next steps

We continue to plan for new, more modern space that includes collaborative and conference workspace for faculty members. We seek partnerships in exploring and creating innovative uses of information tools in our Innovation Lab. We seek partnerships and funding that will allow us to bring faculty in as fellows, visiting scholars, and researchers. We also find that outreach and publicity about new services are essential. Active promotion via subject liaisons, marketing materials such as flyers and a web presence, as well as regular news releases to the university and via social media are all methods we are using to promote our new services.

Conclusion

The yearlong series of conversations, informal and formal, among library leaders and with faculty and administrators, was essential to defining services for our campus. *Digital scholarship* is a term that can easily be considered fluid or even vague. Digital scholarship services may take different forms at different institutions, due to institutional culture and needs. Therefore, using specific services to define scope can be a useful practice. Identify needs and available skill sets and resources as well as potential partners and collaborators.

Note

1. The Digital Scholarship Lab YouTube channel is available at www.youtube.com /user/digitalscholarship. ⁊⁊

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