

Radical Collaboration: Making the Computational Turn in Special Collections and Archives

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Introduction

Librarians and archivists have historically coexisted in related but oft separated fields of practice ([Blouin, 1986](#); [Wakimoto & Bruce, 2015](#)). Indeed, in many academic libraries, employees working with research data and digital scholarship often reside in different departments as well as different physical locations than those employees who work with archives and special collections. Some aspects of this separation are the result of the physical and climatic needs of special collections. Nevertheless, the conceptual schism that often separates research data and digital scholarship from special collections and archives is the result of historical and cultural factors.

As more archival collections are digitized or born-digital, the work of archivists increasingly overlaps with the work of librarians who are responsible for research data and digital scholarship. Bolstered in part by the vision and outcomes set forth in the [Collections as Data](#) project ([Padilla et al., 2019](#)), the idea that digital archival collections can be framed “as data” is sweeping through the library community. To support the collections as data concept, libraries are working to optimize digital collections for computational analysis and provide services that support theories and practices of digital scholarship (see [Collections as Data Facets](#) for several examples). Data management and data publishing practices are also closely related to archival practices such as archival processing, archival description, and digital preservation.

New practices around data and digital collections have sparked renewed interest in the overlap between librarianship and archival practice ([Given & McTavish, 2010](#)). Rekindling relationships and building collaborative projects that involve librarians and archivists creates a collaborative culture that more comprehensively supports library collections and more holistically serves library users.

This collaborative culture aligns with the concept of *radical collaboration*, defined by Nancy McGovern as:

“coming together across disparate, but engaged, domains in ways that are often unfamiliar or possibly uncomfortable to member organizations and individuals in order to identify and solve problems together, to achieve more together than we could separately” ([2018, p. 6](#)).

Using McGovern’s definition as a framework, this editorial presents a case study of radical collaboration within [Montana State University \(MSU\) Library](#). With some temporal distance and a measure of critical reflection, we discuss the process of bringing together library employees from the domains of data, digital scholarship, archives, and special collections. New ideas can be incubated and library and archives projects can be strengthened in a unified, co-located, cross-domain environment. Next, we review the need for a multi-pronged approach to

internal and external education in order to address the discomfort involved with realizing radical collaboration. Thereafter, the editorial emphasizes how radical collaboration creates new space that encourages research endeavors pertaining to research data and digital scholarship. We conclude with some thoughts regarding the potential of radical collaboration and the future of academic libraries, research data, and digital scholarship.

“Coming together across disparate, but engaged, domains”

Prior to 2017, Archives and Special Collections at MSU Library collected archival and published materials on “Montana and related subjects.” Materials in the archive have historically been in analog formats such as manuscript materials, photographs, books, and some audio/visual materials. Archives and Special Collections was a small department, employing two faculty archivists, two classified staff members, and occasional student employees hired into special projects. These employees conducted traditional archival practice such as acquiring and appraising collections, arranging and describing collections, providing reference service and library instruction, and digitizing materials on-demand. The mission of the department was largely focused on building collections and providing access to archives and special collections

In 2017, the MSU Library department formerly known as Archives and Special Collections was reimagined as Special Collections and Archival Informatics (SCAI), in response to evolving archival formats, a computational turn in archival research, and an initiative to support new kinds of teaching using special collections and archival materials. As more born-digital materials began to be acquired and as library-initiated digitization projects and researcher/patron-originated requests for digitization increased in number, the department needed to grow in both scope and expertise to address these computational needs. In addition to the longstanding activities involving collection development and archival arrangement, new faculty, staff, and students joined the department to support programs in archival informatics, instruction and outreach, digital scholarship, and data services. Education and outreach activities in the department grew to include archival instruction, community outreach relating to

archival collections, digital scholarship consultations and instruction, data management planning consultations, and data science workshops. By bringing new faculty, staff, and students into the department, we merged several “disparate, but engaged domains.”

McGovern suggests that “the most productive and sustainable collaborations begin with common interests and responsibilities, by defining problem statements together” ([2018, p. 8](#)). As discussed above, librarians in the domains of data and digital scholarship as well as archivists in the domains of archives and special collections have different areas of expertise, different scopes of interest, different professional communities, and different bodies of literature.

Acknowledging the uniqueness of the various domains, SCAI was established when the various domains identified “common interests and responsibilities” related to the access and preservation of digital collections. In deciding to co-locate these diverse individuals, MSU Library purposely enabled the commingling of various expertise and disciplinary perspectives. Organizational charts and reporting lines were reconceptualized. Personnel and offices were relocated. Research, teaching, and services roles were reconsidered. These changes not only enrich activities that already exist within each domain, but also create entirely new spaces where research data, digital scholarship, and archives and special collections interact to generate new intellectual and technical expressions.

Co-location of personnel was only one aspect of realizing radical collaboration at MSU Library. Sustaining this particular expression of radical collaboration requires confronting challenges associated with the unfamiliarity of this newly created domain and championing the successes directly enabled by the co-location of previously disparate individuals and expertise.

“In ways that are often unfamiliar or possibly uncomfortable”

The merger and co-location of research data and digital scholarship with archives and special collections was not without its challenges. The transition from *Special Collections and Archives* to *Special Collections and Archival Informatics* sought to accomplish more than changes in name and organizational structure. SCAI was

(and remains) a concerted effort to develop and implement a novel vision of what is possible within the expanded world of special collections and archives. While SCAI is about more than a new acronym, the titular change is representative of significant conceptual changes involved with the transition. In order to overcome the unfamiliarity and capitalize on the potential of this new vision, it was necessary to first develop a shared understanding of departmental identity and goals.

Conceptual Challenges

In describing the path to radical collaboration, McGovern emphasizes the important role that *working definitions* play in facilitating fruitful cooperation. “Developing working definitions to build and ensure a shared understanding of core concepts is an effective tool...for engaging in radical collaboration...When a new collaboration starts, members bring their individual and often idiosyncratic definitions with them, often unaware that others may understand these terms very differently” ([2018, p. 7](#)). The diversity of expertises contained within the new department is an undeniable strength of SCAI. Nevertheless, the various individuals who coalesced to create SCAI brought their various idiosyncratic definitions with them. As a new and unfamiliar endeavor, it was critically important for SCAI to first internally articulate working definitions and then externally communicate SCAI’s purpose and activities.

To be sure, the convergence of diverse expertise and perspectives created a rather steep learning curve for everyone involved in SCAI. Practices, priorities, values, and language in academic libraries can deviate widely from those more common within archives. There has been much discussion within the library and archival professions regarding the importance of clear communication and proactive outreach when working with external partners. These principles are equally important when striving to foster healthy internal communication. SCAI personnel were forced to puzzle out how new collaborative relationships and technical expectations modify existing responsibilities and lead to new priorities. Before SCAI personnel could fruitfully collaborate, they had to first agree upon the

boundaries that delineate the new space and clearly articulate practices, priorities, values.

Rather than a singular departmental space with boundaries that rigidly include or exclude, SCAI is inherently permeable and dynamic in order to enable collaborative relationships to be established and dissolved as needed. SCAI personnel exist in a multitude of overlapping circles that are in constant motion. The responsibilities, expertise, and interests of particular individuals may overlap for a particular project. As a project (e.g., research, teaching, outreach) concludes, those individuals' circles may no longer overlap and everyone moves along onto their next collaboration. Or circles may continue to overlap and even integrate the participation of additional circles. For example, MSU's CLIR Postdoctoral Fellow and Data Librarian created overlapping space to collaborate on digital scholarship research. As that collaboration evolved it has expanded to overlap with a digital scholarship teaching collaboration that includes two additional circles (MSU's Humanities and Outreach Librarian and Assistant Archivist). The processes of describing practices, defining priorities, identifying values, and translating language are multifaceted and iterative. SCAI personnel operate in a dynamic department that thrives thanks in large part to a culture of participation and inclusion.

Logistical Challenges

Beyond articulating shared practices, priorities, values, and language, there has also been a logistical challenge that factors heavily into the implementation of SCAI programs and research. The computational turn inherent to the formation of SCAI brings new requirements for technical staffing. In addition to developing fluency in technical language, there exists a simultaneous need for the cultivation of technical skills to accomplish departmental goals. Faculty and staff internal to SCAI are required to rethink what it means to be an archivist in a computational environment as well as a technologist in the archives. The co-location of diverse (and previously disparate) individuals created new intellectual and organizational terrain for the co-production of knowledge via peer-to-peer information sharing and exploration of methods and software. Additionally, it has been important to

encourage personnel to pursue professional development opportunities to enrich their technical skillset and recognize time required to learn new technical skills.

Although SCAI is made possible by the integration of computational thinking, methods, and expression, SCAI is not home to MSU Library's technical staff. The library's software developers, system administrators, and other technical experts are housed within another department and are already responsible for a multitude of projects. The research, teaching, outreach, and other projects originating from SCAI increasingly require involvement from these technical experts and therefore necessitate strong inter-departmental collaboration. Consequently, the prioritization and planning of SCAI projects requires the consideration of external departmental workflows and functions. The involvement of software developers, system administrators, and other technical experts is absolutely necessary for realizing SCAI's goals. Therefore, SCAI personnel are aware of the need to account for technical personnel when writing grants, applying for special funding (e.g., [CLIR Postdoctoral Fellowship](#)), and requesting additional students employees. Thus far, this approach has proven sufficient in the short-term. However, serious questions remain regarding long-term sustainability of soft-funded positions as a means to achieving SCAI's goals.

“Identify and solve problems together, to achieve more together than we could separately”

The integration of data services and digital scholarship into special collections and archives expanded the scope of what was possible for each of the individual components. Moreover, this integration created a new collaborative domain space that provides great promise for advancing the various activities and goals (e.g., education, service, outreach, research) of academic research libraries. Much of that potential comes from the co-location of special collections spaces and research data activities as well as the co-production of research about data and data about research. To realize the potential inherent in the formation of SCAI requires moving from abstract organizational and ideological goals to more tangible academic outcomes. Recognizing the need to actualize its own ambition,

SCAI has focused its collaborative and co-located power on enriching existing and cultivating new forms of teaching and research.

Educational Successes

As education and instruction became more focused within SCAI, a new program emerged to support digital literacies, data management, data ethics, and archival methods. Within this program, traditional instruction on archival work and practices was taught by our archivists and instructional staff. These classes were usually guest lectures in courses under the umbrella of MSU's [Department of History and Philosophy](#). SCAI broadened and revitalized these instructional networks and allowed the library to connect more closely with the teaching mission of the university. An initial pilot course with the [American Studies Program](#) at MSU involved our Data Librarian, Humanities and Outreach Librarian, as well as our CLIR Postdoctoral Fellow in Digital Scholarship. The pilot course introduced digitization methods, metadata work, data management techniques, and digital scholarship projects over the course of the semester to present a sandbox opportunity for students looking to understand and practice cultural heritage work. Within this revised educational setting, students at the undergraduate and graduate level were also given space to understand and apply new computational methods to the archives. We sponsored a graduate practicum on web archiving that introduced new competencies for the students as well as the department. Grant funding secured by our Data Librarian led to campus-wide data management workshops following a "train-the-trainer" model where a graduate student taught the community about best practices for storing and managing data. Additionally, SCAI worked routinely on special projects with undergraduates from MSU [Gianforte School of Computing](#) on topics including natural language processing of archival collections, Yellowstone National Park digital diaries, and digital literacies such as "Algorithmic Awareness". Beyond the university community, four high school teachers from around Montana were sponsored (via grants) during a two-week summer learning institute to work with the [Ivan Doig Archive](#) and create lesson plans and syllabi for high school courses exploring Ivan Doig and other Montana writers. In each of these learning moments, the SCAI educational vision was recentered on praxis and giving

students, researchers, and/or teachers the chance to connect archival materials and methods with pedagogical outcomes.

Research Successes

With the transition to SCAI, MSU Library created a physical and intellectual space that provides infrastructure, facilitates collaboration, and promotes scholarship that advances the publication and preservation of research data and digital scholarship. Individual faculty continue to maintain their own research agendas, but as research within SCAI continues to evolve, a series of interconnected research streams centered on data services, dataset discovery, and data ethics are emerging. SCAI faculty and staff continue to pursue grant funding and submit publications that directly support these research streams. Moreover, the research goals of SCAI are particularly well suited to digital scholarship. Our CLIR Postdoctoral Fellow housed within SCAI is researching communication networks and public spaces represented in Ivan Doig's fictional worlds and the current networks for information exchange in our non-fictional physical and digital-lived spaces in an effort to understand how sociotechnical dynamics influence information availability, accessibility, reliability, and shareability. Within these research streams, our SCAI researchers are connecting data services, text analysis, and computer programming to larger questions of ethics, communication, and scholarship. As these research streams mature, we expect SCAI to become one of the premier research centers for computational analysis of cultural heritage materials as well as ethical questions about data and data applications. SCAI's research streams address topics of increasing sociocultural significance. Furthermore, these topics are not currently covered by computer science or data science research initiatives already active on campus. Spearheading these research streams provides opportunities for SCAI to establish partnerships and enrich spaces (both physical and intellectual) for a proactive, articulated, and interdisciplinary research agenda.

Conclusion

Changes within the professional landscape of special collections and archives coupled with more localized needs at MSU Library led to the ideation and implementation of this vision. While rooted in the experiences at MSU Library, the example of SCAI emphasizes the ways in which this vision of radical collaboration is relevant to contemporary academic research libraries and presents an opportunity to rethink divisions among library personnel, spaces, and activities. Co-location and co-production provide great promise for advancing the various activities and goals (e.g., education, service, outreach, research) of academic research libraries.

Radical collaboration holds great promise for envisioning and realizing a dynamic, team-oriented future for academic libraries. The novel vision we've discussed is conceptually important to the theory, practice, and future of both academic libraries and special collections and archives. SCAI at MSU is one example of what radical collaboration among data services, digital scholarship, special collections, and archives looks like in practice. To be sure, this example is contextually specific — local context matters with envisioning and implementing radical collaboration. Still, the example of SCAI and the lessons embedded within its challenges and successes offer a broadly applicable model that is flexible enough to be tailored to the unique contexts (e.g., personnel, financial, technical) of a given institution.

Ultimately, SCAI's goal is to utilize radical collaboration as a framework for integrating computational approaches into research, teaching, and service aspects of special collections and archives. In order to realize its potential, SCAI must maintain a multifaceted and dynamic identity. Organizational structure must be stable, but also open to renovations in order to adapt to changing interests and capacities. So too, responsibilities, practices, goals, and language must be able to adapt to changing technical capabilities, patron needs, teaching responsibilities, and research interests.

Radical collaboration is not a one-size-fits-all approach. There are various strategies and outcomes that express radical collaboration. If organizational restructuring seems daunting, then start smaller. Develop avenues for informal

radical collaboration. Redrawing the organizational chart is not prerequisite for fostering radical collaboration. When considering radical collaboration, it is necessary to determine (as early as possible) the desired outcome and to design and implement an achievable approach to radical collaboration to realize the desired outcome.

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