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Collaborating on Surveys: Reflections from an Archivist and a **Technical Metadata Archivist**

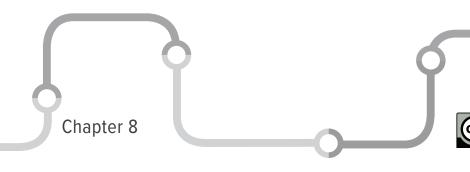
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Collaborating on Surveys:

Reflections from an Archivist and a Technical Metadata Archivist

Michelle Sweetser and Alexandra A. A. Orchard

INTRODUCTION

After spending over a decade as university archivist at Marquette University, I (Michelle) moved to Bowling Green State University (BGSU) in November 2016 to head its Center for Archival Collections (CAC). I had held faculty status at Marquette, but it was not a tenure-track position, and while publication and presentations were encouraged, they were not generally compulsory. At BGSU, my position is tenure-track, and I am required to develop a portfolio of publications and presentations in order to maintain my job.

Many librarians at my institution publish and present work that reflects upon their day-to-day work experiences and the projects in which they are engaged. As the head of an archival unit, however, my involvement in project work often takes a less hands-on form; and I struggled to figure out what I might write about that contributes something new to the professional discussion. At the same time, I was busy orienting myself to a new institution, collections, policies, practices, systems, and colleagues while adjusting my own expectations of myself and what it means to be a good manager, leader, and archival professional.

A faculty member from our Cataloging and Technical Services Department was assigned to do cataloging work for the CAC as well as to manage and develop our Rare Books Collection. We met regularly to discuss her work and what she called the "cataloging problem" in our unit. I quickly learned that I did not have sufficient background in the nitty-gritty of cataloging to make informed decisions in response to many of her

questions. I moved from an institution where archivists had little direct access to the back-end tools of cataloging to one where it was assumed I understood the differences between brief and full bibliographic records, how to run reports in Sierra (an Innovative Interfaces product for managing an institution's holdings, including functionalities related to circulation, acquisitions, and cataloging), and workflows for updating records in the local catalog versus OCLC. My past experience relied on the expertise of a library cataloger, where I passed finding aids, serials, and other works along to a cataloger situated in another unit who made the magic of the MARC record happen; this did not serve me well in my new institution. This was frustrating and caused me to wonder which of these work practices was more reflective of the profession at large. I realized that herein was the core of a research project: the current state of archival descriptive practices and who is involved in creating archival description.

After seeking and receiving positive feedback from current and former colleagues about the value of my evolving research idea, I believed that I needed a research partner to move forward in finding an answer to my question. In my mind, the project would be stronger if I worked with someone who had more hands-on experience in cataloging archival materials and who had a different set of professional experiences. However, no one in my immediate circle of close professional contacts seemed a good fit. I thus needed to identify and select a research partner somewhat blindly.

To develop a list of potential partners, I began by examining the websites of sections within the Society of American Archivists (SAA) that involved or were related to cataloging and description, including the Description Section, the Encoded Archival Standards Section, and the Metadata and Digital Object Section. Specifically, I considered individuals' involvement in section leadership, section projects, or mention in section newsletters as I generated my list. I also searched for individuals who had "metadata," "technical services," or "cataloging" and "archivist" as a part of their job titles. Unfortunately, the SAA membership directory does not allow for this sort of search, so I had to rely on Google searches to identify potential research partners in this way. Finally, I looked at who had been writing and presenting on archival description within the profession to finalize my list of potential research partners.

I ranked my list based on what I could discover about individuals online as well as my assessment of how well we might work together—a very inexact science, to be certain. Eventually, I decided to email Alexandra to invite her to work with me on the developing project. She responded positively and we agreed to an initial telephone call followed by an in-person meeting over lunch at the SAA Annual Meeting.

From the outset, we talked through our expectations for the project and timelines in terms of our own professional research portfolios and time and energy available for the research project. As we both work in academic institutions (Michelle is in a tenure-track position and Alexandra has Employment Security Status (ESS)), we each hoped to show concrete progress within a year's time. Together we developed a list of tasks that we viewed as critical to the writing of an article based on the research we were envisioning. Specifically, we knew that the broad categories of work included those to be done prior to the survey (review literature, create the survey instrument, obtain the Institutional Review

Board (IRB) approval, and identify the survey population) as well as the post-survey tasks (analyze the data, identify publication venue, and write, edit, and submit the article). Once we had identified these broad categories of work, we agreed to rough timelines for completion and who would be responsible for various subcomponents. As we work at different academic institutions, we also discussed whose institutional accounts we would use for survey software deployment and IRB approval; the IRB reviews the research proposal in order to make sure that the proposed research is ethical.

Another important discussion at the outset centered on our preferences for communication, collaboration platforms, and the strengths and skills we each brought to the project. We had a shared preference for Google Drive as a document storage and sharing platform and agreed that our work could not be accomplished solely through email and commenting features, particularly in the early stages of developing and testing the survey instrument. As a result, we established a regular series of telephone calls to talk through the complicated decisions that must be made in the survey design stage. The calls also served as a way to hold ourselves accountable for task deadlines. We also communicated regularly via email and by commenting on documents in-between formal check-ins.

RESEARCH QUESTIONS AND LITERATURE REVIEW

We conducted a literature review to understand the landscape relative to our topic and to help inform some of the more specific questions that we believed we wanted to ask. This involved identifying and reading secondary sources and eventually synthesizing and analyzing them within the body of our article. We spent several months researching the literature. As academic archivists, this time frame was realistic given our other professional commitments at the outset of our project. Establishing an attainable initial deadline was key to our partnership, as it generated positive momentum from the beginning and ensured successful time management and task completion.

The information gleaned from the literature was useful in developing a shared definition of the various aspects of archival cataloging to better articulate our research question and the goals of our research related to archival cataloging. "Cataloging" is often thought of as what we learn in library school: the process of entering bibliographic description into fields within a flat MARC structure, thereby enabling findability and user access. While archival cataloging has the same goals (findability and accessibility), the differences are significant. Archival cataloging involves describing a single collection containing multiple unique, primary source materials within a hierarchical structure that is related to other collections. While MARC (and variations like MARC AMC²) was and continues to be used for archival cataloging, it is not an ideal structure given its limitations (non-hierarchical structure, and lack of relationships).

We clarified the individual and shared questions that we believed our research project might attempt to answer, and our review of the published literature helped inform and refine our understanding and revealed gaps in the literature related to responsibilities for archival cataloging. As a result, our research question evolved to include aspects of archival cataloging that we had not initially thought to include, such as authority control, resulting in our final version of our research question: What is the current state of archival descriptive practices, and who is involved in creating archival description, specifically for overall descriptive practices, embedded and linked item-level metadata,³ and authority records?

We also discussed how to keep our study variables manageable and our results meaningful. We understood cataloging responsibilities and resources vary between sizes and types of institutions. For example, many archives in college and university settings are affiliated with a university library and have partnerships with established cataloging or technical services departments and IT departments, and they have a desire to share information about collections in library catalogs (via MARC records) and on websites (via finding aids or inventories in some form). On the other hand, corporate archives may not employ the MARC standard if they do not seek to share their products of archival description with others (i.e., their archives are closed to the public) and are less likely to have an internal unit focused on cataloging services. Similarly, smaller historical societies may not have the expertise or resources to create MARC records or to post finding aids for their collections online. In order to focus our study and limit variables, we ultimately decided to limit our scope to repositories affiliated with academic institutions.

IDENTIFYING THE STUDY POPULATION

To create a distribution list for our research population, we decided not to scrub and clean results from the Society of American Archivists (SAA) online member directory or "rent" the member list from SAA for one-time use (the SAA office provides an encrypted Excel file that can be customized to specific parameters) We did not have a budget, and these options were not ideal since they allowed for multiple responses from individuals working in the same repository, provided little context about the respondents' familiarity with the subject area (or their institutional settings), or they excluded too many potentially qualified respondents. As a result, we considered alternate archival and special collections member organizations. We ultimately opted to use the list of Association of Research Libraries (ARL) member institutions as the basis of our survey population, recognizing that this particular group of institutions was probably more generously funded and that the data we collected on archival description practices may not be as broadly reflective of the profession as a whole. While using the ARL list was significantly more effort than recruitment via listservs, the list was more efficient than manually reviewing individual SAA members for inclusion.

To create our distribution list, we reviewed the ARL member list and removed all non-academic institutions (e.g., Boston Public Library, National Archives and Records Administration) and then divided the list in half so we could each review institutional websites to obtain respondents' contact information. However, before we could move to the contact information collection stage, we had to agree on who was the appropriate recipient and what counted as a repository. Recognizing that individuals who do archival descriptive work do not have a uniform job title, may not be situated within the archival

unit itself (i.e., they may appear on the web page for a technical services unit), and that descriptive work may be concentrated in one or a few individuals or distributed across all members of a unit depending on local practice, we decided that we would distribute our invitation (and thus capture the email address) to the individual listed on the website as the head or director and ask that individual to distribute the response to the most appropriate individual. This approach relies on one person passing along the survey link to a colleague, which is somewhat risky, but we took comfort in knowing that as a result, it would be directed to the right person.

We knew that some larger institutions host multiple archival repositories and understood that descriptive practices and workflows could vary among repositories within a single ARL institution. Thus, we agreed to identify and include individual units holding archival materials within the larger institution if they were listed on the member organization library's website and also appeared to hold archival material (even if it seemed that archival services were but a small part of its mission). Through this review, we generated a distribution list of 211 repositories in 114 different institutions.

While identifying this head or director was generally straightforward, it became complicated in a number of instances, particularly at larger institutions. At institutions with multiple special collections or archives repositories, it was difficult to determine who the correct contact was or to choose from multiple potential contacts (i.e., should we contact the head of the library system or the individual department heads?). In some instances, individual contact information was not listed, which required further internet research or contacting the department via a generic email address. We maintained our list as a Google Sheet and included notes to one another about instances where we were uncertain of the individual contact we had identified through our review and the category the reviewer assigned that individual. These notes facilitated conversations about how to handle more complicated organizations and helped ensure that we were identifying the appropriate respondents in our distribution list. In hindsight, we believe this was still the most efficient, inclusive, and cost-effective process of all the options we reviewed because we directly contacted a targeted and defined survey population, obtained responses from multiple units within a single institution, and eliminated the possibility of unwanted duplicates while expending zero dollars.

SURVEY DEVELOPMENT

To determine current description practices and responsibilities at archival repositories in ARL institutions, we considered using quantitative (like surveys) or qualitative (like focus groups and interviews) approaches. Our literature review revealed that there were limited data available about current archival descriptive practices and responsibilities. In order to understand the broad landscape relative to current archival descriptive practices and to better inform subsequent research projects, we sought a methodology that would allow us to collect data from a larger number of participants with minimal investment of time and other expenses. Therefore, using an online survey distributed over email was the natural choice for data collection.

Before creating the survey, we researched the literature, which was useful both to prepare the survey design and the final paper's literature review. We prepared a bibliography. While most of the works provided background information on archival, bibliographic, and authority description methodologies or were case studies, several articles were similar in intent to our work: previous research and surveys of archival descriptive practices or aspects of descriptive practices. These works provided referential baselines in the course of writing our article as well as useful input for our research and survey design, particularly their data which factored into our hypotheses. In particular, we were curious as to whether there might be relationships between the size of an organization's archival and cataloging departments and the way in which archival descriptive work was distributed, as well as the kinds of archival descriptive work in which the unit engaged. For example, we wondered whether repositories with larger archival departments were more likely to employ an individual with a significant portion of time devoted to archival work and whether larger, more-resourced units (or those that outsourced archival cataloging to another unit) might undertake varying types of archival description.

We often referred to these surveys and used them as examples for questions to include in our own survey, taking into consideration the format of individual questions (Likert-scale, open-ended responses, ranking) and the implications of those questions on our workload for analysis (for example, open-ended questions would take more time to categorize), keeping the questions focused to ensure a high survey completion rate. In particular, Gracy and Lambert's⁴ survey served as a template, given similarities between their research and ours—specifically, the overlapping goal of determining current description practices in the profession. Since it was written recently, the data could potentially be used as a reference point for our own; therefore, using some of the same questions made sense for points of direct comparison. Our intent was to ask questions resulting in descriptive and inferential statistics so we could describe what our survey population was doing and to statistically generalize our findings to a broader population.

We also reviewed the Society of American Archivists' (SAA) 2015 Employment survey⁵ for demographic question assistance. Since both of us were new to survey writing, it was helpful to refer to relevant sample questions, to verify we were writing survey questions properly, and to ensure consistency that would allow us to compare our data to other studies.

After determining which questions to include in the survey, we again looked at the sample surveys to assist us in grouping our questions into logical categories. Since surveys we reviewed tended to begin with demographics questions, we did so in our survey. We broke out the remaining questions by description type into the following categories: background on descriptive practices, MARC records, embedded metadata records, linked metadata records, and authority records. Each category included questions key to determining the type of description created, e.g., "Does your institution create [record type]?" as well as ascertaining the depth of collaboration between archivists and catalogers, with queries focused on where within the institution records were created, who created records, and workflows. We reviewed the questions and then added additional questions to each group when necessary to secure consistency across the categories. This ensured that the

same types of questions were asked in each question group, e.g., "I am satisfied with the current workflow for creating [type] records at my institution." Our survey design also relied on branching and skip logic (some of the questions that respondents were presented depended on their answer to the previous question; see appendix: Branch and Skip Logic Examples). In this way, each respondent takes a custom path through the survey depending on their answers. Getting all respondents to certain key questions while allowing different paths in response to other questions was tricky and complicated for new survey designers. Part of the challenge was hiding these complexities from our potential users, designing a seamless survey experience.

While most of the questions were straightforward (yes/no, select one/many options, fill in the blank, Likert scale), we wanted to collect information on respondents' workflows for creating MARC records, linked and embedded item-level metadata, and authority records. A key component of our research question is both current and potential collaboration between catalogers/technical services departments and archivists in areas of archival description. To capture respondents' workflows, we sought a solution that provided quick and easy coding and analysis. Fortunately, our survey software included a question type that allowed us to provide a list of options that respondents could select and order, solving our workflow question issue and facilitating consistently worded responses for analysis.

Throughout the question design phase, we continued using Google Docs for easy collaboration. We used Google Docs' export functionality to create a Word version of the survey questions to share with colleagues for external feedback. Once we incorporated these small changes, we finalized the survey and Michelle entered it into our survey distribution tool, Qualtrics, which we chose because both of our institutions had access. We used BGSU's instance because we were following BGSU's IRB protocol. While Qualtrics did not cause any issues, there was an initial learning curve because we had not used the software before and we had not collaborated on survey distribution involving multiple institutions. For example, what appeared to be simple things, like renumbering questions after editing question order in Qualtrics, were not intuitive, and we did not find resolutions until the project was nearly concluded. Most of the early work in Qualtrics had to be completed by Michelle because we could not figure out how to share the survey between institutions, and because Alexandra could not initially access Qualtrics, any proofreading or editing work had to be completed by exporting updated copies of the survey and emailing it or sharing it via Google Drive. Finally, we discovered the correct individuals in our respective institutions to adjust configurations that allowed Alexandra to access the survey within Qualtrics. The lack of access to Qualtrics caused minor delays in the data analysis process.

When the survey was programmed into Qualtrics, we each took the survey to test the logic, ensuring it made sense for all respondents. This meant taking the survey multiple times, given that respondents could be taken through many different paths, depending on their answers. Once we were certain the survey worked as intended, we enlisted the assistance of colleagues on each of our campuses to take the survey to verify its usability. The size (fifty questions) and scope of our survey were in line with that of our research question: What is the current state of archival descriptive practices, and who is involved

in creating archival description, specifically for overall descriptive practices, embedded and linked item-level metadata, and authority records. Our survey also collected demographic data.

Because some of our developing questions asked respondents to describe their satisfaction with certain processes and procedures, we needed to seek Institutional Review Board (IRB) approval for our research once we had a finalized survey design. Academic institutions have IRBs in place to protect the rights and welfare of human and animal subjects who participate in research projects. IRBs review and approve research proposals. As researchers, we were subject to their processes and procedures. It is important to factor in time for the IRB review process and the necessary pre-IRB paperwork and training they require. As we are at two different academic institutions, we had to decide whose review board to gain approval from and ultimately determined that we would run the study through BGSU.

This decision had a number of workload implications as Michelle, who had the home base at BGSU, and as principal investigator, became responsible for uploading documents to the IRBnet website, corresponding with the IRB and the Office of Research Compliance with questions and the like. It also meant that we needed to complete or provide verification of completion of a series of training modules offered by the Collaborative Institutional Training Initiative (CITI) Program within the past five years. As a new faculty member, Michelle had to complete all of the required modules, which took the better part of a day; fortunately, Alexandra's credentials from Wayne State University met BGSU requirements for IRB proposals. However, it took some additional communication with the BGSU IRB to verify Alexandra's certifications and to provide them with the required proof. (BGSU staff had been unable to see and verify Alexandra's qualifications from within the system.) The process of applying for IRB approval was very useful as it required us to articulate concisely and for a non-librarian audience our research goals, questions, and hypotheses, to discuss the importance and relevance of the study, to describe our recruitment strategies (in addition to forcing us to develop our email invitation), and to create an informed consent document that addressed university and ethical concerns.

DATA COLLECTION

Michelle loaded email addresses into Qualtrics so that we could manage survey invitations and track responses from the same system. We waited over a month after IRB approval to distribute our survey because we feared a request to participate in an optional survey at the end of the academic semester was likely to get overlooked due to other work priorities or in the comings and goings of vacations, closings, and intersessions. The survey was open for a one-month period beginning in January; we sent a reminder invitation to those who had not responded two weeks after the initial invite.

Even though contact information for both of us was contained within the body of the invitation, the email appeared to come from Michelle because it was associated with her Qualtrics account and the reply-to email address was hers. Thus, all but one email from respondents was directed solely to Michelle, who looped Alexandra into the process so

that we could make mutually agreed-upon decisions. We had not anticipated receiving many questions from participants. Several wrote to indicate that they had received the message and shared the name of the individual who would be completing the survey on their institution's behalf. These were quick and easy to acknowledge. Other communications required more time and attention and included issues such as

- requesting a copy of the survey so they could best gauge who could answer it;
- requesting a retake link because they went all the way through the survey to read
 the questions and accidentally submitted a blank response (a feature we had to
 discover and learn how to implement);
- requesting guidance because they had been forwarded the survey from two different repositories on their campus and wondered whether they should respond more than once; and
- reporting an issue with the set-up of one of our questions which had intended for recipients to select all responses that applied but was only accepting one answer.

As the survey was now open, we felt it was important to respond to participants in a timely fashion lest we lose their interest in participating. For the first half of the survey response period, we had many email exchanges regarding participants' questions and how to best handle them. Fortunately, we were both at work during this time and could make the decisions jointly.

DATA ANALYSIS

We approached the data analysis segment of our research project by first reviewing the data together in person. While we are at different institutions, they are not so far away that we cannot get together periodically. We felt it would be beneficial to conduct an initial review of the data and determine next steps face-to-face, and our supervisors agreed to our requests for time out of the office. We chose to meet at a Panera restaurant (with access to sustenance and Wi-Fi) mid-way between our workplaces. This meeting was particularly important because Alexandra did not have access to the Qualtrics tool at that point. We prepared for the meeting by reviewing our larger research questions and hypotheses as well as developing more granular questions specific to the survey and the responses we had collected (e.g., "What standards are used?" "How many institutions use each workflow?" "Is the use of X standard more common at institutions with Y or more staff members?"). Michelle brought the raw data exported into a CSV file, which we both reviewed on our laptops.

We received eighty-one survey responses; however, this included several entirely and partially incomplete responses. We started by copying the raw data into a new spreadsheet and did some initial data clean up, including removing incomplete responses. We normalized some data that had been inconsistent due to our own design inexperience (e.g., accidentally formatting a question about the number of individuals employed in the archival department as text, rather than as a number, which allowed some respondents to qualify answers with narrative). We also walked through how to handle free-text answers, particularly those who selected "other" in response to standard multiple-choice questions

(e.g., a respondent whose "other" response was reflected in one of our supplied answers). By meeting in-person, we were able to directly discuss how we normalized our data; this was more efficient and effective than telephone, email, or document commenting would have been, though we could have employed those strategies at this stage. We did use these strategies later as we continued to work through the data analysis process from separate locations.

While Google Docs worked well for managing our project files (particularly our literature review, notes, question development, and draft versions of the article itself), we struggled at times to manage all of the versions of the data files we created throughout the process, probably because we downloaded copies of the master file to our individual machines and forgot to upload them immediately or we failed to include enough context in the filename to allow ourselves and our partner to easily see what had been changed between versions or how to use a particular file. In the future, we suggest using very specific file names to make clear differences between files or keeping a list that specifically documents the purpose and changes made to each named file. A version control tool such as Git may also be useful.

After the initial review of data, we discussed next steps, including further analysis to be conducted individually. The initial categorization of questions by theme lent itself to easily distributing them between ourselves for further analysis by description type (general, embedded item-level metadata, linked item-level metadata, and authority records) and demographics. Since only Michelle had access at the time, she completed further analysis in Qualtrics (e.g., crosstabs)⁶ along with editing the data in the system to match our spreadsheet edits. Alexandra proceeded using Excel, focusing particularly on the four workflow questions; we could not determine a good way to work with these in Qualtrics but found they could be more easily analyzed via Excel given its sort features.

Recognizing our own inexperience in data analysis and seeing some confusing outcomes from our initial cross-tabulations, we sought additional assistance from institutional resources available to us. To this end, Michelle arranged a meeting with BGSU's Center for Business Analytics (CBA),7 a College of Business initiative that provides free consulting sessions to faculty who desire support in survey design and interpretation of results. Upon meeting with their staff (Michelle in-person and Alexandra via conference call), we learned that because of the smaller response rates and a large number of variables or possibilities for many questions, we could not run inferential statistical analysis on our data (e.g., chi-square,8 which would have allowed us to test our hypothesis). We could only report descriptive statistics, which were data summaries on how people responded, and this type of data could not be generalized to the larger professional population we aimed at in our study. Also, given the inadvertent survey design of some number-based questions as text, we were unable to run cross-tabulations9 in Qualtrics. The CBA guided us toward reporting our results in narrative form, focusing on numbers, percentages, and comparisons—what is known as descriptive statistics (versus inferential statistics). 10 Now that we had an expert's opinion on our data and their limitations, we felt more confident moving forward with our data analysis and made a final round of assignments for writing it up directly into the article.

We took a similar approach to writing the data analysis as we did to analyzing the data. After an initial phone call discussing logistics and the areas to focus on based on our preliminary analysis, we divvied up the sections based on the description-type categories we used in the survey: general, MARC records, linked item-level metadata, embedded item-level metadata, and authority record data. In writing up each section of results, we focused on providing data for the big picture that would address segments of our overall research question. For example, we honed in on data about descriptive practices (descriptive systems, tools, records, and standards), workflows (to determine who does what), and satisfaction. And although our analysis methods were limited, we did dig deeper than what was provided by Qualtrics by doing some of our own calculations; for example, for questions where multiple selections were possible, we recalculated the results to obtain percentages that reflected the total respondents rather than the total number of responses selected.

Experience using Excel in our day-to-day work was helpful in examining the data for our analysis and reporting. In particular, we used the Sort and Filter functionalities to analyze completed responses to the questions that required respondents to drag, drop, and order their activities for workflows related to MARC record and metadata creation. Qualtrics' reporting of this data focused on the number of responses overall or by groups (numbers who selected a particular task first, second, third, etc.), whereas we were more interested in considering the workflows as a whole and knowing how the combination and recurrence of activities ordered into workflows.

D31	- Groups	
#	Field	Choice Co
1	Archivist creates finding aid	20.24%
2	Cataloger reviews finding aid	4.45%
3	Archivist drafts MARC record	7.69%
4	Cataloger drafts MARC record	4.86%
5	Archivist shares draft MARC record with cataloger	2.83%
6	Cataloger shares draft MARC record with archivist	1.62%
7	Archivist suggests changes to draft	2.02%
8	Cataloger suggests changes to draft	2.83%
9	Archivist exports draft MARC record from an archival information system	6.88%
0	Cataloger exports draft MARC record from an archival information system	2.43%
11	Archivist edits draft MARC record, compiled into final MARC record	6.88%
2	Cataloger edits draft MARC record, compiled into final MARC record	6.07%
3	Archivist imports final MARC record into union catalog (e.g., OCLC)	5.26%
4	Cataloger imports final MARC record into union catalog (e.g., OCLC)	10.12%
5	Archivist imports final MARC record into local catalog	6.48%
6	Cataloger imports final MARC record into local catalog	9.31%

Figure 8.1. Qualtrics' default view of answers to Q30, which asks respondents to order the steps in their workflow by dragging and dropping relevant tasks from a supplied list. This view does not provide an option to portray the activities and order involved in each respondents' workflow, which is what we wanted to consider.

Table 8.1. Please describe the workflow for the creation of catalog (MARC) records used by your insti-
tution (drag and drop only those activities that apply):

Response	Frequency (%)
Archivist creates finding aid, Archivist exports draft MARC record from an archival information system, Archivist edits draft MARC record, compiled into final MARC record, Archivist imports final MARC record into union catalog (e.g., OCLC), Archivist imports final MARC record into local catalog	3 (5.8%)
Archivist creates finding aid, Cataloger drafts MARC record, Cataloger imports final MARC record into union catalog (e.g., OCLC), Cataloger imports final MARC record into local catalog	3 (5.8%)
Archivist creates finding aid, Archivist drafts MARC record, Archivist edits draft MARC record, compiled into final MARC record, Archivist imports final MARC record into localcatalog	2 (3.8%)
Archivist creates finding aid, Archivist drafts MARC record, Archivist imports final MARC record into local catalog, Archivist imports final MARC record into union catalog (e.g., OCLC)	2 (3.8%)
Archivist creates finding aid, Cataloger reviews finding aid, Cataloger drafts MARC record, Cataloger imports final MARC record into local catalog, Cataloger imports final MARC record into union catalog (e.g., OCLC)	2 (3.8%)

Table 8.1. The table we created from Excel analysis to present the most frequently cited workflows for creating MARC records. As there were forty-five different workflows reported by fifty-two respondents, the data could not be represented succinctly in any form, so we chose to present in table form only those workflows that appeared more than once.

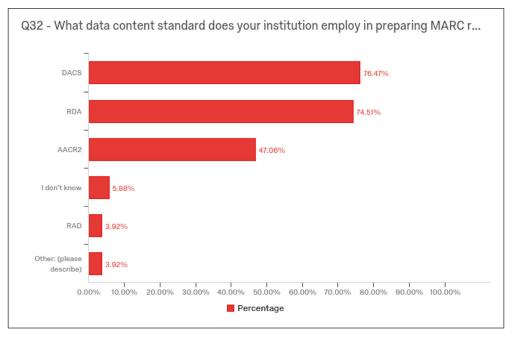


Figure 8.2. Survey data reporting results by percentage of respondent, as exported as a .png from Qualtrics. Note that the title has been truncated and no information is presented about the number of respondents.

We also employed the Text to Columns feature to separate questions with multiple responses so that we could calculate the number of times a response was selected among respondents instead of the number of times it was selected among all responses. While Qualtrics had the ability to filter the data in this way, we found we often wanted to present our data in a slightly different way than the program allowed. There were also problems with Qualtrics' export feature that resulted in the cropping of critical chart data; we were able to have more control over the formatting of charts in Excel and spent time massaging data to obtain the desired presentations.

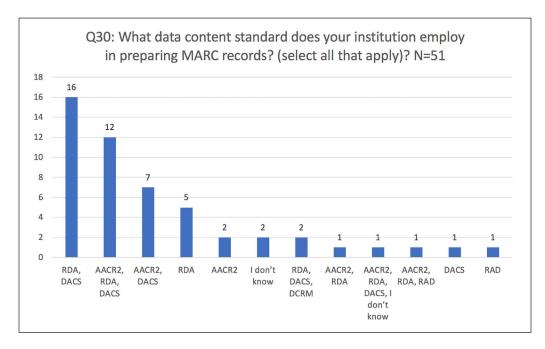


Figure 8.3. Chart created in Excel to present the number of respondents who selected the same combination of responses, which was another view of the data that we also wanted to include. Note that the chart has a complete title and the number of respondents is presented.

Other functionalities in Excel that we found useful were conditional formatting features that allowed us to highlight or color cells based on certain criteria and functions that allowed us to count or sum column results.

Writing the analysis in Google Docs allowed us to review each other's work in real time, ensuring consistency among our analysis across sections. It was also helpful when one of us had a question, as we could leave a question as a comment, which the other person could answer prior to our next call, increasing efficiency.

STUDY LIMITATIONS

As mentioned above, we were largely limited to descriptive analysis and unable to conduct multivariable analysis of our data, an unintentional result of the number of response options provided for each question combined with the relatively low (in statistical terms) total number of survey responses. Increasing our survey population and thus generating a larger pool of responses might have elucidated relationships between some of our variables (e.g., size of archival staff and adoption of certain descriptive standards). However, expanding our survey respondents would have necessitated increasing options for some questions to account for the broader variation in cataloging practices that are employed by non-academic organizations, thus distributing the responses among more possibilities and counteracting what we would be trying to achieve.

Multivariate data analysis might also have been possible had we used alternate formats for some of our survey questions. In the case of a basic demographic question such as "How many individuals (FTE) are employed within the **archival department** in your institution?" (Q2), we provided an open-text response field instead of a finite list of numbers or number ranges. This allowed some respondents to enter textual responses instead of or in addition to an actual number, making it impossible to analyze and filter the data within Qualtrics. We had discussed providing options as a range of numbers but felt that we did not know enough about the size of the departments within our survey population to make informed decisions about ranges or upper limits of size. Additionally, we desired the specificity that the open-text field provided. Given our inexperience with survey writing, it did not occur to us that an open-text field asking for a number might be completed using text, thus complicating data analysis.

PUBLISHING OUR FINDINGS

Our intention throughout the process was to share our research via publication. As each journal has its own preferences for length, citation style, and subject matter, it was important that we investigated the requirements of our selected venue. These stipulations factored into the creation of our article. Similarly, as two individuals with unique writing styles, we had to determine how to tackle authorship and allow time to give the writing and editing a clear and consistent voice. We submitted our article for review to a professional journal, and while this task may get overlooked from a planning standpoint, the process of submitting an article for publication involves time and effort. This may include removing identifying author information for anonymous peer-review, setting up an account to use the journal's publication software, creating appropriate metadata as required by the individual journal (e.g., an abstract or suggested keywords and categories to describe the article's intellectual content), and communicating with the editor). Our article, "Are We Coming Together? The Archival Descriptive Landscape and the Roles of the Archivist and the Cataloger" is available in The American Archivist. 11 The timeframe from submission to publication was about thirteen months, and involved the initial round of peer review, additional revisions from the editor, and a round of copyediting.

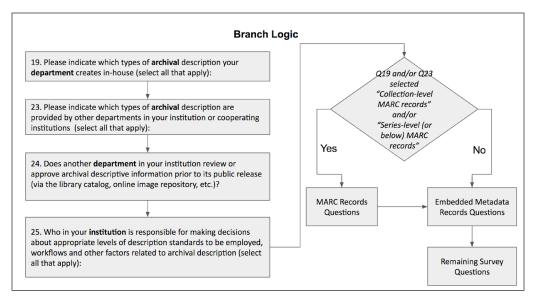
REFLECTIONS

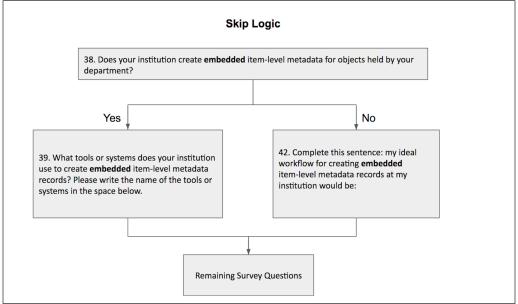
By utilizing a wide variety of resources available to us (including people, services, and technology), keeping open lines of communication and sticking to agreed-upon timelines, we completed a draft of our survey research article within the initial timeframe we set for ourselves. Over the past year, we learned a lot about one another, the research design and analysis process, and how to successfully manage a collaborative project. Below are some reflections that we would like to share.

- Seek expertise in the survey design process. Do not be afraid to ask for help, especially if you are interested in applying inferential statistical tests to your data (e.g., chi-square, T-tests, 12 tests for associations). If you are new to the research process, to the processes and procedures used on your campus, or the technologies available to you, look for others who have used similar methods, who have subject expertise, or who have used the same software and seek their guidance. If you cannot identify individuals locally, search the web for FAQs and how-tos or look for books that can assist you.
- Communicate openly about expectations. When working with a research partner, communicate openly about your expectations for the project timeline as well as preferences for communication methods and frequency, collaborative workspaces and workflows, and personal skills and preferences.
- Embrace the learning process. Recognize that sometimes you will discover a better way to accomplish a task after you have already completed it. Do not beat yourself up over this. While you are ostensibly working to shed light on the subject of your research, you are also building skills and knowledge that will serve you well in future research. Your next project will be better because of the lessons and experience you have gained through this one.
- Seek balance among partners. Recognize that individual partners may contribute
 more during certain phases of the project due to available time, skills, or access to
 technological resources. Unless agreed on in advance, seek ways to find balance
 between research partners over the course of the project and communicate about
 your perceptions and experience of that balance.
- Ask administrators for assistance in removing technological barriers. The choice
 of technologies used to implement your research project and your campus default
 settings within these programs can have a serious impact on the ability of a remote
 partner to contribute to significant phases of project development and analysis.
 Check with your institution's administrators of these technologies. What appear to
 be roadblocks to collaboration may, in fact, be parameters for access and sharing
 that can be changed upon request.

APPENDIX: BRANCH AND SKIP LOGIC EXAMPLES

We used what Qualtrics refers to as "Branch Logic," where, for some of our questions, users were taken down a different survey path based upon the answer they selected. For example, Question 27 was only displayed if Question 19 and/or 23 were answered in a specific way. We also used "Skip Logic" which will skip certain questions based on how a user answers. For example, for Question 38, if a user selected "Yes," they went to Question 39, and if they selected "No," they skipped Questions 39-41 and went directly to Question 42.





NOTES

- At Wayne State University, archivists are classified as academic staff rather than faculty. Academic staff usually follow ESS-track, which is similar to tenure-track for faculty.
- 2. Machine Readable Cataloging Archives and Manuscripts Control.
- 3. Linked item-level metadata refers to a description (metadata) about a single, discrete element within a collection that is contained in a separate file that is linked to the element—for example, an Excel file with columns providing descriptive information and a filename to match. In contrast, embedded item-level metadata has the description contained with the item itself, such as an image file that when opened with an appropriate program contains descriptive information within.
- 4. Karen F. Gracy and Frank Lambert, "Who's Ready to Surf the Next Wave? A Study of Perceived Challenges to Implementing New and Revised Standards for Archival Description," *The American Archivist*, 77, no. 1 (Spring/Summer 2014): 96–132, https://doi.org/10.17723/aarc.77.1.b241071w5r252612.
- 5. Society of American Archivists, "2015 SAA Employment Survey" (raw survey data, closed February 18, 2015).
- 6. Cross-tabulation (also known as crosstab, contingency table, or two-way table) shows the frequency of responses to two (or more) variables.
- Leigh Devine, Associate Director for Internal Projects, Bowling Green State University Center for Business Analytics, in discussion with the authors, April 6, 2018.
- 8. Bruce B. Frey, "Chi-Square Test," in *The SAGE Encyclopedia of Educational Research, Measurement, and Evaluation*, 4 vols. (Thousand Oaks, CA: SAGE Publications, Inc., 2018), doi: 10.4135/9781506326139.
- 9. Michael S. Lewis-Beck, Alan Bryman, and Tim Futing Liao, "Cross-Tabulation," in *The SAGE Encyclopedia of Social Science Research Methods* (Thousand Oaks, CA: Sage Publications, Inc., 2004), doi: 10.4135/9781412950589.
- Sarah Boslaugh, "Inferential and Descriptive Statistics," in Encyclopedia of Epidemiology, 2 vols. (Thousand Oaks, CA: SAGE Publications, Inc., 2008), doi: 10.4135/9781412953948.
- 11. Michelle Sweetser and Alexandra A. A. Orchard, "Are We Coming Together? The Archival Descriptive Language and the Roles of Archivist and Cataloger," *The American Archivist* 82, no. 2 (Fall/Winter 2019): 331–380, https://americanarchivist.org/doi/pdf/10.17723/aarc-82-02-18.
- 12. Paul J. Lavrakas, "t-Test," in *Encyclopedia of Survey Research Methods* (Thousand Oaks, CA: Sage Publications, Inc., 2008), doi: 10.4135/9781412963947.

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