

Demystifying Digital Archives: Undergraduates, Active Learning, and a Path to Outreach

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This article outlines the development of a three-credit digital archives course designed for undergraduates. In it, students study basic archival and digital archives terminology and learn about how these concepts can help them understand current events. This course strives not only to help students develop critical thinking skills by engaging with primary source content; it also helps familiarize students with archives, archivists, and the importance of archival work. In addition, the course relies heavily on active learning techniques, which allow students to participate in decision-making activities in archival work, giving them an appreciation for the labor involved. The course therefore fulfills an outreach function: It shows students why archives are relevant to their lives and to the world around them. The article places this course in the context of archival education for undergraduates and non-professionals, highlighting the benefits this approach offers for students and for the professional archival field.

Keywords: active learning, archival education, archival outreach, digital archives, undergraduates

Very few archives classes, and, indeed, very few semester-length library science classes, are directed at undergraduates. Most archives education is designed for graduate-level students in library schools who are interested in becoming professional archivists. While most undergraduates do not need to learn the ins and outs of reference requests, arrangement and description, and preservation, many would benefit from learning about what archives do and how archivists' work influences their life and world affairs generally. Most undergraduate students experience archives via special projects or research projects in a class, such as when undergrads are brought in to do primary source work for a history project, or when they encounter exhibits (Wagner & Smith, 2012).

However, as many library and archives scholars have discussed, we are living in a time where information literacy instruction is a key function of libraries, and terms associated with digital archives and electronic records are uniquely important in helping students understand the world we live in today. For many current news stories, an understanding of digital archives terms and methodology would help students read with more nuance and clarity: The Edward Snowden leak of NSA metadata collection,

KEY POINTS:

- A course in digital archives can be a valuable addition to undergraduate curriculum because it can help familiarize students with the role that digital archival material plays in how we study current events, history, and culture.
- Digital archives coursework can also help students understand instances when digital materials become a key part of a news story, as with WikiLeaks, troll social media accounts, or police body-camera footage.
- Active learning techniques can help students role-play archival decision making, helping them understand and value archival labor and realize the necessity of investing in preservation and access of digital materials.

protests being galvanized on social media (such as actions around Black Lives Matter; the Women’s March in Washington, DC; and protests during the Arab Spring), and Hillary Clinton’s email server all spring to mind.

In order to allow students to study these concepts in a more in-depth way, I developed a three-credit course titled *Digital Traces: Memory in an Online World*. In it, students study basic archival and digital archives terminology and learn about how these concepts can help them understand current events. The class also discusses digital archives terminology and methods to help students understand how they interact with the digital world around them. Other topics include personal digital archiving, ownership of content that they also share on social media, migrating content from obsolete formats or storage media, how to ensure long-term access to events they’ve documented, and what to avoid sharing on social media. This course strives not only to help students develop critical thinking skills by engaging with primary source content; it also helps familiarize students with archives, archivists, and the importance

of archival work. In addition, the course relies heavily on active learning techniques, which allow students to participate in decision-making activities in archival work, giving them an appreciation for the labor involved. In the end, students learn that “digital” does not mean “automatic”; archivists must actively work with content to maintain and preserve it, and the decisions they make when doing so require both skill and resources. The course therefore fulfills an outreach function: it shows students why archives (and archivists) are relevant to their lives and to the world around them.

Literature review

The history of library and information science (LIS) education in North America has been written about at length. This literature review will summarize some of the major threads in this discourse, to place the present undergraduate course in context, particularly with respect to archives coursework.

Until the 1970s, archives education was taught primarily as an outgrowth of history graduate programs. Prior to this period, the Society of American Archivists (SAA) stuck to a recommendation that archives education should be affiliated with history training and not be offered as a stand-alone program. The educational program for archivists should focus on the practical aspects of the job, with an emphasis on practical and limited coursework taught by practitioners (Duranti, 2000, p. 238). There were, however, ongoing dialogues about whether and how archivists should be trained.

Over the course of the 1970s and 1980s, many archives educators and practitioners began to support stand-alone archival degree programs with standardized curricula (Duranti, 2000). The Association of Canadian Archivists was first to endorse a stand-alone program for graduate education in archives in the late 1980s, and the Society of American Archivists followed suit starting in 1994. SAA conducted research and developed a fully realized plan to advocate for standardized and separate archives curricula beginning in 1999–2000 and including a focus on doctoral education for archivists (Duranti, 2000, pp. 237–242). Most of the literature outlining the history of archival education programs, however, highlights the push for professional training for archivists; few of the resources I consulted addressed the potential benefits or opportunities of teaching archival content to undergraduates or those not pursuing a career in the profession.

Other coursework in library science, however, has often been taught to undergraduates and graduate students alike, in programs housed in LIS departments or schools (or, occasionally, in schools of education). Although the presence of these programs has risen and fallen according to demand, there have been some periods in which LIS coursework has been taught to undergraduates and those not pursuing a career in librarianship. For example, in the 1990s and 2000s, there was a large expansion in LIS education in tandem with the development of partnerships between LIS programs and information technology, communications, informatics, information management, and other programs. In this period, the iSchools movement, which focused on the “relationship between information, technology, and people,” coalesced and became a prominent force in LIS education (Larsen, 2008). According to advocates of this approach, “a number of schools that were offering degrees in the library and information sciences realized that their teaching and research programs had capacity to reach a broader audience of students and to prepare professionals for work beyond libraries” (Bruce, 2017). LIS schools thought that they could expand their offerings and showcase the relevance of their discipline by working with these adjacent disciplines.

In this context, LIS coursework was offered as part of a combined “information science” or “information studies” program to both undergraduate and graduate students. In their 2002 study, Colin Koteles and Caroline Haythornthwaite survey these programs and argue that “IS programs can

use this interdisciplinary approach to create a revolutionary discipline that produces graduates who understand not only the technology, but also the people who use the technology” (p. 149). They studied a total of 32 information studies majors and minors available to undergraduates, focusing on course requirements and program goals. In addition to the study by [Koteles and Haythornthwaite \(2002\)](#), several other studies describe the period of LIS/information studies overlap. For example, a study by Thomas P. [Mackey \(2005\)](#) focuses on ways in which information literacy education squares with web development skills. Similarly, a study by [Ceceilia M. Brown and Teri J. Murphy \(2005\)](#) discusses the value of internships in undergraduate information studies programs that had emerged in the context of library and information science departments.

However, my current preliminary research suggests that most of the programs mentioned in [Koteles and Haythornthwaite \(2002\)](#) and at institutions with major library schools no longer offer a major or minor for undergraduates in LIS that features substantial coursework in library subjects. Some universities with iSchools or library schools offer related information studies majors/minors to undergrads with coursework in the related fields, like informatics or information technology. However, in these contexts, coursework in traditional library science subjects (such as reference, school librarianship, cataloging, etc.) and coursework in archival subjects are offered primarily to graduate students only. While it is difficult to determine whether credit courses are developed and taught by librarians or archivists outside of the more formal structure of a major/minor, my review of available course offerings suggests that these courses are not commonly available to undergraduates.

Instead, archivists and librarians frequently teach archives orientation sessions or partner with subject faculty to develop projects that integrate primary source content into coursework in a variety of other disciplines ([Duff & Cherry, 2008](#)). Marcus C. [Robyns \(2001\)](#) highlights benefits accrued to undergraduates who study with archivists and librarians. Students are able to use the archives as a laboratory to study primary source documents and develop critical-thinking skills in history and many other disciplines. Many sample projects and syllabi are outlined, for example, in the collection *Past or Portal? Enhancing Undergraduate Learning through Special Collections and Archives* ([Mitchell, Seiden, & Taraba, 2012](#)). However, while these approaches do help teach critical thinking, they do not tend to focus on learning discipline-specific content about archival work.

Engaging undergraduates with archival content serves to enrich their understanding of primary source documents and help them explore history and develop critical thinking. In addition, archives-related coursework supports a larger project of archival outreach: Studying archival theory helps teach students about what archives are, what archivists do, and why they are important. This outreach and advocacy have become essential to

archival professionals, given the field's ongoing concerns about funding and institutional support.

Recent scholarship has shown that undergraduates tend to have a very limited understanding of what archivists do and of the holdings of university archives and special collections departments (Wagner & Smith, 2012). Many articles and initiatives point to ways to bring the archives to students' awareness: from archival orientations to exhibits to public programs and National History Day. In a broader context, archivists and the scholars who utilize archives have contributed creative and inspiring outreach ideas to the literature. For example, Canadian historian and digital humanist Chad Gaffield (2014) places archives in both a wider scholarly context of digital humanities and librarianship as well as a wider commercial context of genealogical products like Ancestry.com and television programs showcasing celebrities' family histories. Gaffield explores the ways in which archivists might capitalize on this wider commercial interest to broaden support for the field. Similarly, historian Craig Heron (2014) discusses ways to help explain and clarify the role of archives in a nation's sense of memory and identity, specifically highlighting how students can be enriched by their experiences working with archival content: "The relationship between archives and the school system, especially at the secondary and postsecondary levels, is immensely important and needs to be cultivated as the seedbed for deeper appreciation of the kinds of sources that will illuminate the past and the importance of preserving them" (p. 150).

I propose that teaching undergraduates about archival theory and practice, through the lens of contemporary digital archives issues, could be an additional method to advocate for our profession and help demystify our work for those who do not intend to pursue careers in the field. Working with archival content in a classroom setting can help students develop their critical thinking skills, and tying the content to students' current daily lives can help them see the ways, large and small, in which archival work is relevant in the world at large.

The course: *Digital Traces: Memory in an Online World*

Course rationale

I had several goals for developing this course. First, as I described above, I wanted to teach digital information literacy using digital archives concepts to help students understand the world around them. For example, when news reports broke surrounding Hillary Clinton's email server and its security, very few mainstream news sources devoted attention to relevant archival concepts such as the collecting and retention policies on cabinet officials' emails. When I presented this topic in the course, students were surprised and interested to learn about how the National Archives collects government emails and how those collecting and retention policies have changed over time. Learning about these concepts helped students think

differently both about the issue itself and about how it was covered in the media.

I also sought to highlight the archives profession in the course and to identify for students who was doing the often invisible work of maintaining and preserving digital content. Much of how users experience and access digital materials is meant to be seamless and to make invisible the work that goes into putting content online. People are encouraged to borrow and remix content with little awareness of copyright, for example. The only time people are aware of maintenance is when things break: when, for example, a user encounters a dead link.

My perception was that students frequently used digital media without thinking much about how (or whether) items stayed on the web, who was maintaining them, and whether they were being saved for the long term, as well as the various reasons for doing so (technological, records management, legal, archival, etc.). Readings and assignments were designed to illuminate the fact that this work that had to be done by people and that it can be quite labor- and resource-intensive work as well. It was my hope that this might ultimately be an avenue for advocacy for our profession.

Third, in addition to focusing on library labor, I sought to highlight the fact that decisions around what to keep and what to discard, as well as where to spend resources, can be political: Any decision to put money toward some work is the decision not to invest in other work. Digital content is at risk due to benign neglect, but also due to corporate owners who choose not to safeguard content or invest in maintaining outdated formats, or government owners who decide to make it easier to access some content than other. Students would be encouraged to think critically about the information being made available to them and about the actors choosing what gets saved and what does not.

Course logistics

Digital Traces is taught as part of our college's Information Studies minor, which features classes and curricula developed and taught by library faculty. Our college is a Bachelors- and Masters-awarding institution, though we do not offer a graduate-level library or information studies degree. Our minor includes several required courses in topics such as information retrieval, as well as several special topics courses offered as electives; these courses can be developed by library faculty according to interest or need, and they are approved of via the library's curriculum committee. *Digital Traces* was offered as one of these special topics courses. While we do have one regularly taught archives course on our schedule, it focuses on historical manuscripts and does not address issues around digital materials. We also have courses that touch how digital information is shared in society, but these do not include an archival theory element. *Digital Traces*, therefore, was designed to incorporate both of these components.

The course meets twice a week for an hour and fifteen minutes per class session. It is open to all undergraduates and has no prerequisites; some students in the class are enrolled in the minor but most are not. Enrollment is capped at 25 students. The course has been conducted twice so far: once in fall 2017, and once in fall 2018.

Developing the syllabus

The course was developed around six learning goals, which were approved by the library's curriculum committee:

1. identify types of electronic records and their respective longevity (with and without active maintenance);
2. explain theories and best practices of data migration;
3. discuss how our creation and use of electronic records impacts society differently than our creation and use of analog records;
4. describe how records are generated, stored, and accessed;
5. discuss the pros and cons of electronic records, with respect to concepts like ease of access, ease of records creation, and data security; and
6. explain the impact of inexpensive, widely available digital-media creation tools on citizen journalism, social movements, and the historical record.

During syllabus development, I realized that there was no textbook tailor-made for the course as envisioned: first, because most educational resources in the archives world are targeted toward graduate students, and second, because the current-events focus of the class meant that few textbooks could keep up with developments in each case. Therefore, course readings focused on library journal articles and widely available popular publications. Students were not required to purchase course materials.

To compile units for the course, I researched and listed recent current-events topics that might showcase areas where digital archives concepts permeated the news. Several topics were selected: the NSA metadata surveillance initiative and Edward Snowden whistleblowing; the Hillary Clinton emails and server issue; social media-based protests, in particular for Black Lives Matter; and the issue of police adopting body cameras. In order to put these examples into context, students would need a grounding in the basics of archival theory and format obsolescence. Introductory concepts and the current events listed above were crafted into the following units of study:

- I. Intro to Archives
- II. Format Migration and Obsolescence
- III. Photos, Correspondence, and the Documentary Record
- IV. Metadata and Surveillance
- V. Citizen Journalism
- VI. Social Media, Privacy, and Copyright

Next, the course reading list was developed. Relevant sources were gathered about the key current events topics selected, using popular resources like *The New York Times*, *The Atlantic*, and *The New Yorker*. Colleagues working in relevant government agencies and nonprofits were asked to guest lecture, either in person or via Skype. They were able to provide useful readings on several key topics as well. The WNYC podcast *On the Media* provided several useful reports about the permanence of digital records and the power dynamics in recordkeeping; students were assigned these podcasts during our format migration unit.

To add to the source list, I also sought out syllabi in library/archives courses that were posted online and asked colleagues for introductions to any faculty who taught similar courses at any level. In addition, courses in digital media and communications sometimes had useful readings. When it came to introductory information on archives, few sources were available that were pitched to a level appropriate for undergraduate students. Some pamphlets and glossary definitions provided by the Society of American Archivists were included as a starting point, but I ultimately chose to deliver the bulk of the information on archival basics via lecture, with occasional readings to supplement, where available. The class sessions were structured primarily around lectures delivered with supplementary PowerPoint slides. As many of the readings were not specifically about archives, readings gave students a grounding in each topic, and then I tied the readings to archives concepts in class. For example, students read an article by Lawrence Lessig (2010) about Google Books and copyright and used that as an entry point to discuss copyright in the age of digital access to archival and library content more broadly.

These learning goals and units were developed with the goal of showcasing the ways in which students use digital content in their daily lives, and how this content can be at risk if not cared for using archival techniques. The coursework then broadens to show how these themes of use, reuse, and fragility play out on a global stage. Finally, throughout the course, students are shown how archivists participate in collecting, maintaining, and preserving content; students are also given the opportunity to role-play this work through the deployment of active learning techniques.

Active learning

Active learning refers to a body of instructional techniques that encourage student participation or collaboration and allow students to help steer the direction of the course.¹ Instead of following a more traditional model, in which students read materials on their own time and then listen to a professor lecture—an approach that places the student in a more passive role—students may be asked to actively engage with the material via different methods of collaborative note-taking, question answering, group and in-class discussion, or preparing presentations and speeches. Students may also be asked to help create grading criteria, evaluate their classmates' work, or select topics for study.

Advocates for these techniques suggest they have many benefits: They require more attention and engagement for students; they help students apply and integrate course content into broader ways of thinking; and, importantly, they may help support Universal Design for Learning, which is an approach that helps all students with a variety of capabilities and learning styles to engage more fully with the coursework. Some students may have trouble engaging with large amounts of text at once; some might not learn well when listening to a lecture; some may not feel comfortable presenting in front of a large group or talking in class; some may have disabilities that limit their ability in any one type of assignment (Price, 2011, pp. 87–102). By providing students with a variety of opportunities for engagement and assessment, and by allowing students to contribute their thinking, preferences, and background to the course, an instructor can attempt to set up a situation where as many students as possible can get something out of the coursework and deliver strong results in their assignments (Prince, 2004). In addition, an active learning approach can help students from a variety of racial, ethnic, gender, religious, and economic backgrounds participate more equally in their coursework, overcoming structural inequalities in the dynamics of a more traditional classroom. For example, one study showed that a university chemistry class taught in a “flipped” format, where in-class time was devoted more to activities than lectures, improved the grades of all students but disproportionately improved the grades of female students (Paul, 2015).

Active learning in an archives course

Archivists have successfully integrated archival materials and active learning assignments into coursework in other subject areas, in partnership with faculty colleagues, to accomplish a variety of learning goals. For example, at Yale University, archivists helped several history professors develop assignments and activities to encourage students to learn how to understand and interpret primary source documents and model ways to analyze and teach historical events (Rockenbach, 2011). Just as archival documents and active learning can be used to teach students about how to do the work of a historian, similar active learning techniques can be used to help students role-play the work of an archivist.

Therefore, in addition to wanting to introduce the benefits of an active learning environment described above, I chose to include active learning elements in the course because they support the curriculum particularly well. Because library and archives work centers on practical decision making, I wanted students to be able to apply what they were learning to specific examples so they could understand the practicalities of the work itself. As a result, students could come to understand the kind of resources and investment of time and thinking that it takes to perform archival tasks in a real-world setting.

Since most students are unfamiliar with library and archives work, active learning tasks would highlight the realities of library labor for them, particularly with respect to digital archives. For example, digital content does not magically get saved but must be deliberately selected and maintained. Both preservation concerns and access concerns are paramount and require hands-on work. From an archival advocacy perspective, this could highlight what library labor actually looks like, in the hopes that students would have more of an appreciation for what archivists do and why it is essential and fundamental to (though often hidden from) their day-to-day lives.

Activities

A number of in-class activities were designed for students to complete in groups and individually, to help them learn to apply archival concepts to real-world scenarios. For example, after discussing format obsolescence and long-term access and preservation issues for digital content, students were divided into groups and given a worksheet with the hypothetical contents of a CD delivered to our archives: a series of files related to a fictional campus musical performance. Students were asked to consider whether and how to keep each of the files, based on their fragility, their value to our archives, the relative cost, the file format, and so on. Students enjoyed applying the lessons we were learning in abstract to a more concrete-use case, and subsequent class discussions showed that students had a better grasp of this decision-making process after completing the exercise.

During the course, discussions often focused on how digital archival content was relevant to them in their lives, both personally and in the wider world. Lectures frequently addressed how archival content is used, not just by scholars but by researchers of all kinds: business owners, lawyers, genealogists, journalists, detectives, and so on. In addition, assignments and projects highlighted how digital archives concepts can be found in their daily lives.

One of the most popular assignments in the course was the body-camera debate. To start, students were asked to think about the suggestion, frequently discussed in the current American climate, that all police officers should wear body cameras. Students filled out a worksheet considering their point of view and were asked some preliminary questions about how they think video evidence is stored and used. Next, students were randomly split into two teams: pro-body camera and anti-body camera. They were asked to evaluate a real-life scenario: Should a sample city adopt body cameras for its police officers? Over the next several weeks, students read and discussed content about whether footage is effectively used in courtrooms; the cost of implementing such systems; where video footage is stored, how it is labelled, and how much storage capacity is required to house such content; how long it should be kept for; issues around authenticity and security, such as which police officers should be able to view or

edit the footage; and issues around access and privacy, such as whether the public should be able to access footage in its raw or redacted form. Students selected some of these issues to research for a short paper, and then they presented their results in an in-class debate format, where they tried to convince the opposing side to adopt their position. In this way, students were able to see how issues of access, storage, cost, authenticity, privacy, and active use versus long-term storage play out when implementing a popular solution that they have read about in the news. Students found this experience eye-opening and reported frequently changing their mind during the course of the project.

Assessment and outcomes

In an early class session, students were asked informally to discuss their understanding of what archives are, and also to explain what they were particularly interested in learning from the class. Responses made it clear that most students, unsurprisingly, had a limited and superficial understanding of archival work at the start of the course: Most responded that they felt archives were “old” or “historical” items that are stored for future generations. They wanted to learn about information systems and databases, information retrieval, and the ways in which archives were related to the digital world. Most did not make an explicit connection between archival work and collecting current digital material. This information helped to structure the class and helped me identify how to ensure that learning goals were met throughout the class.

To assess outcomes, students were assigned an in-class cumulative midterm exam and a final research paper, along with two to three shorter paper projects. In the midterm exam, students were asked to define and discuss several vocabulary terms and concepts in short paragraphs, focusing on key themes in the coursework. For example, they were asked to describe several types of bit rot that we had studied as part of our format obsolescence and migration unit. They were also asked to write two short essays, in which they had to apply archival concepts to a scenario presented or talk about ways in which archival collecting can highlight the voices of some populations while erasing the voices of others. These questions were designed both to test whether students could apply decision-making techniques to a real-life situation and whether they could discuss the theory behind these approaches.

Each paper was designed to test students’ ability to see digital archival concepts in the wider world around them. For example, one paper asked students to research and identify obsolete media formats in the context of imagining finding a box of old media in a grandparent’s home. The final paper asked students to select a digital records/archives/media topic of interest to them and consider how major themes in the course, such as digital privacy, obsolescence, copyright, and metadata might apply to that topic.

Students were also graded on their attendance and participation, which included how actively they engaged with class discussion during lectures as well as their engagement with small-group discussions and activities. In addition, students were assigned to write a number of short blog posts over the course of the semester. These blog posts were designed to be responses to readings; students chose which readings they wanted to discuss.

Digital Traces: Memory in an Online World received favorable evaluation scores from both students and library colleague peer reviewers. Peer reviewers reported being engaged and intrigued by the content and found that students seemed invested in the course content and classroom activities. Students also provided anecdotal evidence that they were learning to see the world with an archival perspective. They regularly mentioned ways in which course content came up in situations they encountered in their day-to-day lives. For example, students described interacting with friends on social media through the lens of issues around privacy and copyright; they discussed the security and portability of their own medical records; and they considered the longevity of their own photographs and school assignments that were saved on devices to which they no longer had access. At the end of the semester, when students were asked to select a topic for their final paper, several chose topics that were personally relevant to them.

Analytical themes

Based on the responses that students provided in their exams and essays, students clearly grew more comfortable using digital archives vocabulary to discuss concepts and situations from class. However, there were certain concepts that were very hard for students to grasp, or erroneous assumptions that were hard to displace. This was perhaps the most challenging, but rewarding, portion of teaching the class: identifying and countering student assumptions and biases about archivists, archival work, and digital content. For example, many students had trouble understanding how digital content could be harder to maintain and preserve in an archives setting than print content would be. Perhaps because students use digital content every day, and it can be much easier for them to access than print content, many students felt sure that print content required more staff time and resources to maintain than digital content did. Even after walking students through several examples of how paper content could be stabilized and stored securely, versus how digital content could require a lot more hands-on work, I still received midterm answers suggesting students believed paper was harder for archivists to preserve than digital content.

Another example of surprising student assumptions pertains to resources. Many students did not have a concept of the resources required to maintain digital archival material in storage, to maintain web access, or to digitize print resources. Because students are used to accessing content

via a public user interface, they often have trouble thinking about what it takes for content to be presented to them in that way. And often, by streamlining access to digital content, institutions, businesses, and corporations have hidden from users the work that goes into making that content available. Users are not meant to see the amount of work it takes to present digital content to them.

I did encounter some other challenges with respect to creating the course. Establishing a new course is always labor-intensive, requiring the instructor to select readings, build assignments, and craft lectures. In this case, given that the course was not built to follow a textbook, it relied on examples from the news, which meant that events and readings that were current as recently as two years ago needed to be refreshed or replaced with other examples that would illustrate similar concepts.

In addition, developing a course without a single guiding text required me to rely heavily on lectures to tie readings together and relate them to larger archival concepts. As there were few appropriate readings that taught archival concepts at the appropriate level, the assigned readings often provided case studies illustrating the value or significance of particular digital archival content or situations. However, as the readings did not explicitly illustrate the same major themes we discussed in class, many students expressed that they were unsure how the readings fit in the greater context of the course and felt the readings were supplementary. A digital archives textbook geared toward undergraduate or beginning archives students would have been highly useful as a departure point; creating a resource like this could be an area for future scholarly endeavor.

Conclusion

Exploring assumptions like these with undergraduates, I came to realize why coursework in digital archives is so important. Students interact with digital content daily but are rarely afforded the opportunity to think through these issues around power, resource allocation, history, politics, culture, and memory. Archivists engage with these issues every day, both in the context of theory (“what should we save, and why?”) and practice (“what resources do we have to deploy to save what we’ve chosen, and why?”). But students, and the public generally, do not have reason to grapple with the issues behind the digital content right in front of them. When given the opportunity, students were eager to think critically about these issues, and lively discussions ensued.

Active learning techniques proved to be key to improving outcomes for students, particularly with respect to on-the-ground decision making. Students had to grapple with implementation questions, as with the body-camera debate, as well as with archival collections decisions, as with the CD accession question. Students reported realizing the complexity of putting theory into practice and came away with an appreciation for some of the labor involved in digital archives work. Importantly, students came

to understand that archival work generally, and digital archives work in particular, were not done automatically or robotically: instead, people were required to design systems to collect content and make decisions about its longevity. They also saw how these decisions were not always easy or clear but required thought, research, and disciplinary expertise to weigh each course of action.

Development of coursework directed toward undergraduates in library and information sciences generally, and in archives in particular, serves institutions and the public more broadly as well. Information literacy is taught widely in academic institutions by librarians, most commonly as single-session guest lectures in classes taught by other professors. News reports routinely express concerns over public acceptance of “fake news” and viral social media content as fact. While information literacy curriculum is indeed essential, longer-term archives and library coursework such as *Digital Traces* can encourage students to develop a more nuanced understanding of the role of information in their world.

Further, if we are going to help students (and the public generally) understand what we as archivists and librarians do, and why it requires resources and support, we need to help them understand the labor required to keep the information universe running. As both an outreach project and a critical thinking initiative, a digital archives course can help students understand and value the digital world around them, and the work required to keep it there.

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References

- Brown, C. M., & Murphy, T. J. (2005). Understanding student learning in undergraduate information studies internships. *Journal of Education for Library and Information Science*, 46(3), 234–247. <https://doi.org/10.2307/40323847>
- Bruce, H. (2017). The iSchool Movement. Retrieved from <https://ischools.org/The-iSchool-movement>
- Duff, W., & Cherry, J. (2008). Archival orientation for undergraduate students: An exploratory study of impact. *The American Archivist*, 71(2), 499–529. <https://doi.org/10.17723/aarc.71.2.p6lt385r7556743h>
- Duranti, L. (2000). The Society of American Archivists and graduate archival education: A sneak preview of future directions. *The American Archivist*, 63(2), 237–242. <https://doi.org/10.17723/aarc.63.2.1417x9l3840qn07l>
- Gaffield, C. (2014). Making an archival golden age in the changing world of digital scholarship. *Archivaria*, 78, 179–191. Retrieved from <https://archivaria.ca/index.php/archivaria/article/view/13505/14851>
- Heron, C. (2014). Archives: Public awareness and engagement. *Archivaria*, 78, 149–152. Retrieved from <https://archivaria.ca/index.php/archivaria/article/view/13499/14828>
- Koteles, C., & Haythornthwaite, C. (2002). Undergraduate programs in information science: A survey of requirements and goals. *Journal of Education for Library and Information Science*, 43(2), 144–154. <https://doi.org/10.2307/40323975>

- Larsen, R. L. (2008). History of the iSchools. Retrieved from <https://ischools.org/resources/Documents/History-of-the-iSchools-2009.pdf>
- Lessig, L. (2010). For the love of culture. Retrieved from <https://newrepublic.com/article/72706/the-love-culture>
- Mackey, T. P. (2005). Web development in information science undergraduate education: Integrating information literacy and information technology. *Journal of Education for Library and Information Science*, 46(1), 21–35. <https://doi.org/10.2307/40323856>
- Mitchell, E., Seiden, P., & Taraba, S. (Eds.) (2012). *Past or portal?: Enhancing undergraduate learning through special collections and archives*. Chicago, IL: Association of College and Research Libraries.
- Paul, A. M. (2015). Are college lectures unfair? Retrieved from <https://www.nytimes.com/2015/09/13/opinion/sunday/are-college-lectures-unfair.html>.
- Price, M. (2011). *Mad at school: Rhetorics of mental disability and academic life*. Ann Arbor, MI: University of Michigan Press.
- Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education*, 93(3), 223–231. <https://doi.org/10.1002/j.2168-9830.2004.tb00809.x>
- Robyns, M. C. (2001). The archivist as educator: Integrating critical thinking skills into historical research methods instruction. *The American Archivist*, 64(2), 363–384. <https://doi.org/10.17723/aarc.64.2.q4742x2324j10457>
- Rockenbach, B. (2011). Archives, undergraduates, and inquiry-based learning: Case studies from Yale University library. *The American Archivist*, 74(1), 297–311. <https://doi.org/10.17723/aarc.74.1.mml4871x2365j265>
- Wagner, J. L., & Smith, D. A. (2012). Students as donors to university archives: A study of student perceptions with recommendations. *The American Archivist*, 75(2), 538–566. <https://doi.org/10.17723/aarc.75.2.u916q7p35x315062>

Note

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