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For more images from the project, see #bibliophilly on Twitter.
Contents

Foreword, by Charles Henry ................................................................. v

About This Publication ........................................................................ 1

Handing on the Splendid Torch: The Continuing Evolution of the Learning Commons, by Martin Tsang, Tamsyn Mahoney-Steel, Jodi Reeves Eyre, and Christa Williford ................................................................. 5

Creating Contact Zones in a “Post-Truth” Era: Perspectives on Librarian–Faculty Collaboration in Information Literacy Instruction, by Bridget Whearty, Marta Brunner, Carrie Johnston, and Ece Turnator ........................................ 32

Exploring How and Why Digital Humanities Is Taught in Libraries, by Hannah Rasmussen, Brian Croxall, and Jessica Otis .......................... 69

Current Use and Prospective Future of the University Map Library: A Case Study of Multiple Perspectives From One Institution, by John Maclachlan, Jason Brodeur, Brian Baetz, Patrick DeLuca, Julia Evanovitch, Rebecca Lee, and Supriya Singh .............................................................. 89

New Opportunities for Collaboration in the Age of Digital Special Collections, by Erin Connelly, Anne Donlon, Dimitrios Latsis, and Dawn Schmitz ................................. 107

Shiny Things: 3D Printing and Pedagogy in the Library, by Jennifer Grayburn, Veronica Ikeshoji-Orlati, Anjum Najmi, and Jennifer Parrott .............................. 125

Afterword, by Lauren Coats and Elliott Shore ........................................ 143

About the Authors ............................................................................. 145
This essay explores the impact of digitized and born-digital special collections on teaching, learning, and research, and, through institutional case studies, considers the variety of collaborative opportunities made possible by the digitization of special collections. Given that there is likely to be an increasing demand for using special collections in learning and an increasing number of collections will be born digital, it would be advisable for academic libraries to determine methods to make learning with digital collections as engaging as learning with physical materials, and to create space and staffing to accommodate the greater use of physical collections. Both digital and physical collections offer their own particular opportunities for users to look closely at unique, primary source materials and engage with them in ways that support cross-disciplinary research and collaboration in teaching.

To begin, it is helpful to query what we mean by special collections. The term resists compact precise definition. It carries a variety of interpretations, some specific to individual institutions. Additionally, it may refer to either (or both) physical and digitized/born-digital collections (i.e., digital collections). Donald J. Waters (2009), in reference to a working group report on special collections in Association of Research Libraries member institutions, summarized special collections as “those materials containing primary evidence for scholarship that require special treatment in their description or handling.” Along those lines, some prefer the term distinctive collections in recognition of the features that set these collections apart from others (e.g., they are primary evidence, they are also vulnerable, require specific care and treatment, and are not readily available), as well as to encompass digitized materials and emerging born-digital materials (Association of Research Libraries 2009). It is beyond the scope of this essay to offer a comprehensive definition of special collections,
but we note certain shared themes in regard to physical and digital materials, including preservation, accessibility, innovation, and value as a bridge to research, scholarship, and pedagogy for a wide audience.

**Inter-institutional Collaboration on Digital Collections**

Collaborations between institutions to digitize materials can have the important benefit of bringing topically similar but geographically dispersed special collections together online. Such projects allow digital resources to be made available to scholars who may not be able to travel to multiple locations to conduct their research. CLIR’s Digitizing Hidden Collections\(^1\) grants seek to foster strategic partnerships of this kind. All types of collaborative initiatives that provide easier ways for researchers to discover and use materials—whether digital or physical—are crucial for the future of special collections research. The success of the metadata aggregator Digital Public Library of America (DPLA) depends on close collaboration between libraries, hubs, and the DPLA to harvest and submit metadata in ways that are as interoperable as possible given the disparate milieus in which it was created. A recent initiative from RightsStatements.org\(^2\) seeks to standardize copyright statements among contributors to make them more understandable and useful for students and scholars.

An in-depth look at linked data and other metadata initiatives designed to help researchers discover materials, make connections between them, and understand relationships between them is outside the scope of this essay. However, the ability of researchers to use sophisticated but user-friendly and accessible tools and platforms to find materials on a given topic—and to find materials related to other materials by topic, creator, or format—could potentially transform research with manuscripts and archives. Given the complexity of archives and manuscript collections, these types of sophisticated data initiatives will allow what was never possible before, permitting scholars to understand during the discovery phase of their research the complex web of relationships between other individuals and institutions.\(^3\) Additionally, linked open data and other metadata initiatives offer potential new ways to analyze and understand collections across institutions.

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1. [https://www.clir.org/hiddencollections](https://www.clir.org/hiddencollections)
3. One way in which linkages can be created between collections is through the use of emerging standards such as Encoded Archival Context: Corporate Bodies, Persons and Families (see [http://socialarchive.iath.virginia.edu/](http://socialarchive.iath.virginia.edu/)). For an example of a highly collaborative project to create EAC-CPF records, see Addonizio and Case 2015.
Collaboration with Faculty and Students: Supporting Teaching and Learning

Special collections, both digital and physical, offer opportunities for collaborations between academic information professionals, teaching faculty, and students through their special capacities for engaging students in active learning experiences. While the use of archives, manuscripts, and rare books in college and university curricula is not a new phenomenon, the trend since around the turn of the century is toward an ever-increasing level of student engagement with special collections services and materials (Tomberlin and Turi 2012).

Some attribute the increase in students’ and researchers’ exposure to special collections to digitization, which results in more demand for use of original physical materials as well as digital surrogates (Mitchell, Seiden, and Taraba 2012). Others credit an ethos of access, as opposed to an overwhelming emphasis on preservation, on the part of librarians and archivists (Seal 2012). These two explanations are closely linked, since the trend toward digitization is itself closely tied to the ethos of access.

Others point to the report of the Boyer Commission on Educating Undergraduates in the Research University (1998). The report recommended research-based and inquiry-based approaches to teaching that can be facilitated with unique primary source materials (Rockenbach 2011). Indeed, the distinctiveness of special collections materials and the thrill of discovery they facilitate make them ideal for approaches in which students are invited to engage their curiosity, ask questions, and learn through discovery, rather than absorbing static knowledge. In special collections, these processes often involve the use of original, physical primary sources, but this is not always the case. For some, encountering a web page preserved in 1996 can provide the feeling of being transported back in time just as an old letter does; for others—including some faculty members who bring their students to special collections—nothing compares to paper-based sources. In either case, students are often fascinated when they encounter primary sources in their original format and experience a sense of awe in the presence of a document that has survived over time and was once created and handled by a historical figure.

Trends in academic library instruction have encouraged efforts to identify a range of information-related literacies and competencies that pertain to archives and special collections. Many librarians and archivists embrace concepts such as archival literacy, artifactual literacy, and archival intelligence, in addition to subject knowledge, as ways of framing an understanding of the several types of knowledge and skills required for a person to interpret and contextualize original primary source materials—as well as to form and execute a research strategy using manuscripts and archives informed by a basic

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4 Writing in 2001, Marcus C. Robyns observed that many archivists did not see teaching as their role, but he already saw that attitude as beginning to change (Robyns 2001). However, as far back as 1972, archivists were addressing the use of archives by undergraduate students (Taylor 1972).
understanding of archival practice (Nimer and Daines 2012, Yakel and Torres 2003).

Recently, library and archival professional organizations have responded to these efforts by providing resources and compiling guidelines for primary source literacy. These who promote a common set of concepts and standards for teaching with primary sources do so in part out of a recognition that a framework shared by both librarians and teaching faculty makes collaboration easier (Carini 2016). These guidelines pay attention not only to the use of physical originals but also to basic questions about how students and researchers can understand and profitably use primary sources in the digital age, distinguishing between online tools that provide information about sources versus those that contain the sources themselves, and suggesting ways of understanding the not-always-clear relationships of original sources to their physical or digital surrogates.

As noted earlier, the increased instructional use of special collections, both online and in the classroom, is related to greater attention in higher education to pedagogical approaches that incorporate theories such as constructivism, which is closely related to inquiry-based learning and is premised on the idea that students can create their own learning experiences under the guidance of a teacher. This approach involves engaging students in the learning process by providing hands-on experiences and inviting them to reflect on their learning. Special, distinctive collections can be powerful resources to engage students in classes that use this approach, inviting them to make connections between new information and prior knowledge, develop their skills of inquiry, contextualize knowledge by completing a real-world task, and reflect on their experiences (Vong 2016).

Inquiry-based learning models can form the groundwork for close and fruitful collaborations between special collections librarians and teaching faculty. These collaborations provide the repeated exposure to research materials that allows students to model the iterative approaches that scholars take in examining and using primary sources. Moreover, librarians’ familiarity with the materials and with information literacy concepts allow them to work with faculty on designing research-based exercises and assignments that further critical thinking skills and advance their disciplinary knowledge (Mazella and Grob 2011).

This realization has prompted many librarians and archivists to move beyond the most basic level of engagement between students and special collections in many libraries: the “show-and-tell” session,

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5 The SAA-ACRL/RBMS Joint Task Force on the Development of Guidelines for Primary Source Literacy was formed in 2015 to develop guidelines to provide competency standards for primary source literacy (see http://www2.archivists.org/groups/saa-acrlrbms-joint-task-force-on-primary-source-literacy). For a discussion of the ideas that went into the formation of the task force, see Daines and Nimer 2015.

6 The volume *Teaching with Primary Sources*, edited by Christopher Prom and Lisa Janicke Hinchliffe, was published in 2016 by SAA as part of its series *Trends in Archives Practice*, and it was adopted by the organization as its One Book, One Profession offering for that year (Prom and Hinchliffe 2016).
in which students are brought to the reading room by their instructor to see materials and hear a librarian or archivist talk about them, sometimes with no related class assignment and no direct student interaction with the materials. At the same time, given the reality that, in many cases, one trip to special collections is all that will be provided for on the syllabus, teaching with special collections is becoming increasingly pedagogically grounded, whether or not the instruction is one-shot or course-integrated (Bahde, Smedberg, and Taormina 2014). Archivists and librarians may offer activities such as “speed dating,” in which students move from one station of special collections materials to another and at each they are given a few minutes to examine the materials and fill out a worksheet before coming together as a class to discuss what they have learned (for an example, see Walworth 2012).

At times, these types of activities are offered by archivists and librarians in response to requests for show-and-tell sessions by faculty who may not realize information professionals are prepared to provide more active learning experiences. Such sessions can sometimes serve as a gateway to discussions of richer collaborations down the road. These sessions can also lead to fruitful discussions about the learning objectives of a given assignment or class exercise using special collections, and whether these objectives can be aided by the digitization of relevant materials and perhaps the creation of an online learning resource featuring these digital surrogates.

While the creation of online learning resources has often been associated with support for K–12 teaching, collaborations between special collections librarians/archivists and university faculty have brought such resources into higher education classrooms. Course guides can link directly to digital resources or to relevant finding aids for students to use in particular assignments. Students can also be involved in the digitization of materials or other digital projects related to special collections, such as the creation of Wikipedia entries based on archival research (for an example, see Chute, Swain, and Morris 2016).

Course-integrated projects can include a range of types of assignments in addition to research papers and presentations. They can include the creation of physical or online exhibits, or other types of digital projects that may involve digital history websites, digitization of collections, or similar projects. Other types of digital and nondigital projects might involve students in collection development. Such projects can sometimes bring another level of collaboration with the community outside of the university. Whether helping individual community members or community groups digitize their materials or working with archivists and curators on the collection of physical or digital materials, these types of projects can provide meaningful service learning or community engagement experiences. They can also advance collection development objectives aimed at diversifying...
the archival record when such activities involve collaborations with under-documented communities.

There is widespread need to digitize more collections in order to provide primary sources for students (both near and far), as well as for scholars, community historians, and other researchers. As more collections are born digital, there will also be a growing need to provide infrastructure for students who work on projects with born-digital collections, particularly collections that cannot be made openly available on the Internet because of copyright or other concerns. Whether through the provision of sufficient technology support in reading rooms or classrooms, through virtual reading rooms that limit access to particular researchers who agree to comply with copyright laws, or through other mechanisms, archivists and manuscript curators need to find ways to provide both open and restricted access for teaching and learning as well as research (Light 2014).

Expanding the capacity of academic libraries to collaborate on teaching requires an investment of resources in several key areas. New ways of accessing and using digital collections requires more sophisticated digital infrastructures. At the same time, libraries should anticipate increased demand for instruction using physical collections, not only because of the particular kinds of hands-on experiences they provide, but also because, in some courses, one of the learning objectives may be to teach students how to use and understand physical collections. Both physical and digital infrastructures will need expansion to accommodate teaching with digital collections as well as physical collections.

Even more importantly, libraries and archives must invest in professional development, not only in areas such as digital archives and digitization, but also in areas such as pedagogy and curriculum development. Libraries can help meet the demand for more collaborations with teaching faculty by providing professional development opportunities for special collections librarians and archivists to learn how to become better teachers. Librarians and archivists should take advantage of opportunities offered by teaching and learning centers at their colleges and universities as well as through their own professional organizations. In addition to these efforts, libraries should use open positions as opportunities to enrich and diversify their special collections departments by recruiting and hiring candidates who have teaching experience with primary sources—whether or not this experience was gained in a library or in an academic department. The increased incorporation of special collections in the university classroom in a variety of disciplines suggests the value of advertising job postings where recent graduates with master’s or doctoral degrees and teaching experience will see them. While a new member of a special collections department who lacks library or archival

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8 Beginning in 2015, as a way for librarians and archivists to share information, tools, and techniques related to their teaching responsibilities, an unconference on teaching with primary sources has been offered the day before the SAA annual meeting (see http://teachwithstuff.org/). ACRL’s Guidelines: Competencies for Special Collections Librarians (2008, rev. 2017) lists the ability to engage in teaching and research among the core competencies.
experience will need help from current staff to understand these professions—including their administrative and bureaucratic components—an experienced teacher could return the favor by enriching the department in a host of ways. Expertise in pedagogy and experience in teaching should not be dismissed as a skillset that can easily be picked up on the side, nor can it reasonably be acquired in a two-year graduate degree in library science. Moreover, hiring a candidate with experience creating syllabi and teaching courses could enhance and ease collaborations with teaching faculty.

Increasing the amount of physical space, digital infrastructure, and expertise in the realms of both pedagogy and technology will require advocacy efforts by those who administer special collections units in academic libraries. To support these advocacy efforts, assessment programs will be essential in demonstrating to funding allocators the ways in which teaching with special collections achieves student success objectives for the institution. Assessment tools are currently being created and shared for just such purposes (Horowitz 2014).

Although special collections are increasingly digital thanks to both the digitization of physical collections and the collecting of born-digital resources, librarians, archivists, and teaching faculty are collaborating as never before on the use of physical and digital materials alike. An increasing amount of digitized material has brought a greater appreciation of the physical aspects of books and manuscripts even while taking full advantage of the incredible affordances of the digital.

Collaborations on Community Archives

Manuscript curators, particularly in major academic and research libraries, are collecting born-digital manuscripts like never before, a process that can involve the application of digital forensics techniques, tools, and software to do so safely when working with obsolete file formats and media. Yet the special fragility of digital information—and the reality that preserving it requires ongoing attention—leads to a concern that some valuable papers may be lost before they can become part of a library’s collections. In part to address this problem, archivists and special collections librarians offer training and workshops in personal digital archiving as part of their community outreach activities, an initiative that the Library of Congress began planning in 2009 (LeFurgy 2014). Such activities help raise awareness of archives and digital preservation while helping individuals and organizations meet their immediate needs.

See also TeachArchives.org, which exemplifies the trend toward assessment, as it included a range of evaluative measures showing increased rates of academic success among those students participating in a large, grant-funded project. Students and Faculty in the Archives (SAFA), a three-year, $750,000 grant project funded by the Department of Education from 2011–2014, was a multi-institutional close collaboration between an archivist, Robin M. Katz, and a historian, Julie Golia, that reached thousands of students (Katz 2015). TeachArchives.org offers best practices and resources such as model assignments and exercises.
initiatives can also help ensure that important records are preserved for future historical purposes.

Guidance with digital archiving can be part of community archiving initiatives as well. Many archivists and manuscript curators working in academic libraries see it as an ethical choice to work in partnership with communities documenting their own histories by preserving records both digital and physical. In some cases, this work requires ceding some level of control over the donor relations, acquisitions, and appraisal processes to members of those communities being documented. Most often, it also means that the records will stay within the communities themselves and not be transferred to a separate collecting institution at all. To some, this support of community archives is critical to an ethos of social responsibility, since it can permit traditionally marginalized communities to control how their own histories are documented and shared. A related type of community archiving initiative is the provision of digitization resources and expertise to community organizations, families, and individuals; sometimes, an institution digitizes materials and adds the digital surrogates to its collections, then returns the originals to the community.

Case Studies

The Ancientbiotics Team: An Interdisciplinary Collaboration Between the Arts and Sciences Using Medieval Medical Manuscripts
Erin Connelly, Schoenberg Institute for Manuscript Studies, University of Pennsylvania Libraries

The rise of antimicrobial resistance and the lack of new drugs in development to combat this resistance has been called one of the most pressing threats to global health at the present moment (WHO 2016). In response to this threat, the Ancientbiotics team was formed in 2014, originally based at the University of Nottingham. The team is an interdisciplinary and international collaborative effort between the arts (medievalists and historians) and the sciences (microbiologists, parasitologists, medicinal chemists, and data scientists). The team, co-led by Christina Lee and Freya Harrison, found that a mid-tenth-century recipe, Bald’s eyesalve, contained in a medieval medical manuscript (British Library Royal MS. 12 D XVII, f. 12v) kills one of the most common causes of modern eye infection, the bacterium *Staphylococcus aureus* (Harrison et al. 2015). Additionally, this 1,000-year-old remedy was shown to be a potent antibacterial agent with great potential for treating a range of antibiotic-resistant soft tissue pathogens, including the “superbug” Methicillin-resistant

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10 Archivists have been writing about community archives for at least 10 years (Flinn 2007). A recent event in this vein is *The Liberated Archive: A Forum for Envisioning and Implementing a Community-Based Approach to Archives*, held in conjunction with the Society of American Archivists annual meeting, Portland, Oregon, July 2017.
Staphylococcus aureus (MRSA) (Harrison et al. 2015, 2016). Relevant to our discussion in this essay is the team’s use of a special collections document to bridge the disciplines and yield remarkable outcomes. This successful and ongoing cross-disciplinary and international collaboration yielded results greater than single disciplines acting in isolation could have accomplished; expertise from both the arts and the sciences was essential in the interpretation and testing of the eyesalve. The manuscript containing Bald’s eyesalve was digitized and made available online by the British Library shortly after the results of the Ancientbiotics pilot study were published (British Library 2016).

The exact number of digitized medieval manuscripts from special collections is unknown. Quoting research by Tim Stinson, Jesse McDowell (2015) stated that “less than 2% of the entirety of medieval manuscripts in the world have been digitized.” Medieval scientific and medical manuscripts are often a low priority for digitization, making them difficult to access and creating a barrier to such collaboration as the Ancientbiotics project. The lack of priority accorded to medieval medical works is due in part to a longstanding assumption that these texts are irrelevant to present-day research (as shown by the popular label of the medieval period as an unscientific, irrational “Dark Age”). That many are not as beautifully illuminated or as well-known as medieval literary and religious works and may show signs of practical use (damage, staining, disordered folios) makes them less visually compelling to a wide audience. The digital world is extremely visually oriented. An encounter with a physical medieval manuscript engages other senses, but digital encounters rely upon the visual. It makes sense for institutions to prioritize their striking and heavily illuminated manuscripts before practical text-based medical manuscripts. However, from the perspective of the Ancientbiotics team and other researchers looking into the medical past to inform future research, the potential antimicrobial content of a medieval medical manuscript is far more beautiful than the objects traditionally considered to be the greatest treasures. Like Bald’s Leechbook, which was not made available online until after the lab tests of the eyesalve, there may be other potent antimicrobial recipes in medieval medical texts. Digitization can aid the discoverability and accessibility of these data. A reconsideration of digitization priorities to emphasize the content of “un-beautiful” texts will be of great benefit for collaborative efforts sharing the ethos of the Ancientbiotics team.

Digitization at Scale: Unlocking Audiovisual Libraries
Dimitrios Latsis, Assistant Professor of Film Studies, School of Image Arts, Ryerson University, Toronto, Ontario

If non-print materials have always formed an integral part of most university libraries’ special collections, and librarians and conservators have always been aware of the particular needs and opportunities

11 See also: DMMapp (http://digitizedmedievalmanuscripts.org/); Echard 2017; Fabian 2014; Scase 2015, 310–322 at 313.
offered by time-based media, the same cannot be said of the place that such materials have within the broader discourse of digital humanities (DH). Early DH projects were, by and large, text-based; even nowadays collaborations focusing on collections of a visual or aural nature are the exception rather than the rule. Yet CLIR, among other organizations, has started to promote a more inclusive interpretation of collections, skills, and tools that librarians and archivists (including in special collections departments) have to possess in a twenty-first century context. The Mellon Foundation-funded postdoctoral fellowships in data curation in visual studies, the more recent program for the preservation of recordings at risk, as well as numerous reports and relevant scholarship that the organization has commissioned in recent years in the field of audiovisual preservation, point the way forward with respect to the place of media within the broader conversation about digital methodologies in special collections libraries (for examples, see Pierce 2013 and CLIR 2010).

It is instructive to look at one such example of a DH project that aims to digitize more than 10,000 reels of educational, industrial, and amateur films and develop tools that facilitate pedagogical and research use of this collection. In doing this, the Internet Archive has striven to follow guidelines and specifications accepted within the archival community and consulted with partners on best practices and workflows in order to develop a more customized approach that best serves the needs of each project (figure 1).

A customized approach is necessitated by the fact that digitization of physical assets held by archives, libraries, and museums has thus far been construed as the production of preservation-quality digital surrogates that can serve a number of potential needs: restoration, exhibition, and online distribution among them. Setting the bar this high has understandably hindered progress and made archivists and librarians reluctant to invest the time, personnel, and equipment needed to plan such a complex project. The result has been enormous backlogs, widespread neglect—especially in genres and modes of filmmaking such as non-theatrical films where there is no immediate incentive for distribution and commercial exploitation—and overwhelmed grant makers (National Film Preservation Foundation, Council on Library and Information Resources) trying desperately to prioritize from a sea of equally worthy projects.

Granted, this situation cannot be solely attributed to the insistence for high standards and the costs of film preservation; nor is this a call for the bar to be lowered on these fronts. Instead, the

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The archival community should replicate what has been a very successful and continuously updated set of guidelines for preservation into the realm of digitization, which currently lacks national, disciplinary, and scholarly guidance (Melville and Simmon 1994). We desperately need a set of shared practices that can serve a wide variety of institutions while keeping in mind the primary reason we are striving to preserve our shared audiovisual heritage in the first place: to put it (back) in the hands of the public, on as global and open-access a basis as possible.

The Internet Archive as a whole is driven by this philosophy and thus it is no surprise that, in its film digitization activities, too, emphasis has been placed on scale and access.

Instead of following the example of other major archives that are frequently constrained by scanning a maximum of 100 reels of home movies a year out of a collection that numbers in the tens of thousands, the Internet Archive has chosen to take a nuanced approach into what the National Archives and Records Administration calls “distribution/reproduction” masters.

![Image](http://blog.archive.org/wp-content/uploads/2015/12/IA-Poster-page-001.jpg)

**Fig. 1.** Internet Archive Film Digitization Workflow, Tools and Partnerships (Also available at [http://blog.archive.org/wp-content/uploads/2015/12/IA-Poster-page-001.jpg](http://blog.archive.org/wp-content/uploads/2015/12/IA-Poster-page-001.jpg)).

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16 Internet Archive: About IA: [https://archive.org/about/](https://archive.org/about/).

This digitization workflow is grounded on the following assumptions:

1. The Internet Archive’s role is to provide digital surrogates of films that have long been unavailable, buried in archives, or destroyed through de-accessioning and chronic neglect.
2. The films in its collections are often many generations removed from camera originals and thus not fit to be used as preservation masters.
3. Copies of most of these films exist in many other archives and libraries, nearly none of which has a plan or the resources to digitize them in the near future.
4. The Internet Archive aims to build an extensive collection (in breadth and depth) in a single genre—educational films—that can serve as a proof of concept and example for future work of a similar nature (in terms of digitization and metadata).
5. The Internet Archive does not want to restrict access to digitized films because of lack of clarity in rights issues; it rather aims for the widest availability possible.

In implementing these principles, the Internet Archive has for the past two years been digitizing, uploading, curating, and making publicly available (in most cases for the first time in many decades) upwards of 40 hours of content every week.\textsuperscript{18} That corresponds to almost 100 reels of 16mm film and 1.5 terabytes of audiovisual files. This roughly corresponds to the amount of original programming that the NET (National Educational Television) was providing weekly to its viewers during its heyday. This is being accomplished with a limited staff, enthusiastic volunteers, one 16mm film scanner, and optimum coordination from the physical to the digital to the online curation realms.

While numbers do not tell the whole story, it is certainly hard to argue that an access-based model of digitization should not be part of the (inter)national conversation about the preservation of our audiovisual special collections.

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**Born-Digital + Instruction Pilot Project at Emory’s Rose Library**

*Anne Donlon, Humanities Commons, Modern Language Association*

As a postdoctoral fellow at the Emory Center for Digital Scholarship and the Stuart A. Rose Manuscript, Archives & Rare Books Library, I worked on a pilot project with Dorothy Waugh, digital archivist, and Gabrielle Dudley, instruction archivist, to develop an assignment for undergraduate students to explore born-digital drafts of poetry from one of the collections, using the text analysis tool Voyant.

We had multiple goals for the pilot project: (1) to promote the use of born-digital materials, particularly among Emory students and faculty; (2) to explore what DH tools would provide interesting possible applications to born-digital materials; and (3) to assess what changes

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\textsuperscript{18} The collection can be found at https://archive.org/details/educationalfilms.
to policies and infrastructure would be needed to implement this pilot project in instruction and to extend the kinds of access the library might provide to researchers more broadly.

Whereas traditional paper materials need to be digitized and OCR'd, or transcribed, to allow the use of digital text analysis tools, born-digital materials are already in an electronic form. Researchers could theoretically use DH tools to read and analyze these materials without much extra intervention. However, archives generally do not offer a level of access that would allow researchers to transform the files to the necessary data form and then apply their chosen tool. At Emory, researchers access born-digital files on a pared-down laptop or iPad. To preserve the files and keep them secure, researchers cannot run any programs or connect to the Internet on the device. The born-digital materials are normally made accessible to researchers as pdfs, images, audio files, and video files. Researchers interact with them similarly to their physical counterparts, looking at them one at a time. Most of the conversations about born-digital materials among archivists (understandably) have to do with the formidable technological challenges of processing and preserving born-digital archival materials (for an example, see Redwine et al. 2013). However, as born-digital materials become more familiar and established, archives may find ways to offer different kinds of access that would allow researchers to take advantage of the electronic form of these materials and to analyze and interact with them as data.  

For this pilot project, we chose a collection and selected a subset of the born-digital materials for students to work with—a folder from the poet’s file directory that included a few hundred files. Then we created plain text versions from the pdfs for use with text analysis tools. We installed the Voyant Server locally (to avoid security risks associated with uploading files to a server we did not have control over) on laptops reserved for instruction.

Through this assignment, students would learn about the principles of text analysis, become familiar with the concept of born-digital materials, and practice literary analysis. In a class session, we would introduce born-digital materials and the types of text analysis the Voyant dashboard presents. Next, in groups, students would begin by loading the drafts into Voyant and exploring the dashboard to see what words were used most often. They would then make appointments to return to the reading room to explore the corpus individually. Based on the visualizations of word frequency across the corpus, before they have looked at the drafts in full, we ask students to speculate about what kinds of themes they would expect to see in the poetry. Then, students test their hypotheses, seeing how certain words appear in context, and

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19 Matthew Kirschenbaum’s *Track Changes: A Literary History of Word Processing* (2016), which explores the impact of word processing technologies on writers’ work, provides one model for what kinds of questions scholars might want to ask of born-digital personal archives. Another project I contributed to at Emory explored possible ways to analyze the text and metadata of poet Turner Cassity’s born-digital materials, by isolating proper place names in the corpus and mapping them, and by creating a timeline of files according to each file’s date of creation. See [http://cassity.digitalscholarship.emory.edu/](http://cassity.digitalscholarship.emory.edu/) .
eventually choosing one poem to close read. The text analysis tool offers a different way to generate critical questions. Ultimately, we ask students to bridge the “distant reading” made possible by text analysis tools with traditional close reading and analysis skills.

The project is still underway, but already it has pushed the Rose Library to thoughtfully revisit its policies on providing copies of born-digital materials to researchers, to consider what kinds of access researchers may ask for in the future, and to think about what kinds of technological support can be offered within the reading room (from what programs can be safely installed on the reading room laptops or iPads, to future processing workflows, to training of staff to offer troubleshooting).

Conclusion

In 2002, Peter Hirtle wrote of the potential pitfalls of the drive to digitize special collections materials, suggesting on the basis of his own experience with such groundbreaking projects as The Making of America collection (University of Michigan and Cornell University) that scholars would find digital surrogates satisfying and fail to seek out original materials. His solution to this potential demise of special collections was fourfold. He advised libraries to (1) emphasize their holdings that are truly unique, such as manuscripts and archives; (2) stress the artifactual value of rare books and manuscripts; (3) take a leadership role in digitization efforts, rather than leaving for-profit enterprises to take the lead; and (4) look toward new collecting areas, including digital materials (Hirtle 2002).

Academic libraries have indeed changed in the ways Hirtle advised, or perhaps predicted, and special collections are increasingly a vital component of their scholarly and teaching missions. It is now widely understood that special collections allow academic libraries to distinguish themselves from their peers. Judging from the continued and growing interest in using physical and born-digital special collections in the reading room as well as those that are digitized and online in the curriculum, there is clearly an understanding that special collections have both artifactual and informational value. Special collections have begun to add new formats over the past 15 years as well, and, as this chapter has tried to demonstrate, special collections may act as a bridge between disciplines for new and unique collaborative and pedagogical enterprises.

References


