**Building a Digital Archive of American Passenger Railroad Holiday Art**

Introduction

What happens when a boyhood fascination with trains and vintage artwork meets an aspiring digital archivist? A vision forms to create an engaging digital experience based on non-digital, locomotive-related artwork among the collections of railroad heritage organizations. A remarkable aspect of Christmas art is its ability to transcend time and place. These vintage objects have the power to evoke universal themes of love, hope, peace, and joy that celebrate the holiday season. My initial survey of extant artwork in this genre spans from 1890-1967; however, the highest concentration lies between 1935-1955. Primarily found among advertisements, posters, broadsheets, employee magazines, it is also seen in sundry ephemera. (e.g., ticket envelopes, dining car menus, flyers, matchbooks, etc.) I was prompted to begin research into railroad art after reading Chuck Blardone’s comprehensive visual anthology [**Pennsylvania Railroad Advertising Art 1859-1968**](https://www.amazon.com/Pennsylvania-Railroad-Advertising-Art-1859-1968/dp/0982148569) featuring the Ed Lied collection.[[1]](#footnote-1) Lavishly illustrated with previously unpublished posters and advertisements, the volume is a superb contribution to railroad history that is meant for the serious railfan. However, there are many more fans who have a casual, but *reliably seasonal* interest, and who seek out tourist railroads and museums at the same time each year. My project will gratify and monetize this dependable audience while also serving to advance preservation goals.

Thesis Statement

I propose to not only enlarge Blardone’s area of study to include *all* American passenger railroads, (i.e. beyond the PRR) but also to narrow the theme to artwork pertaining only to the period from Thanksgiving Day to New Year’s Day, known colloquially as “the holidays”. Following this literature review, I will create a digital archive that will evolve into an exhibition that utilizes Augmented Reality (AR) to create an *annual* seasonal display at museums and libraries. A print publication will eventually serve as a companion piece to the digital exhibition. My literature review will help me to craft the right approach for such a digital preservation/exhibition project within a modern preservation context. I seek to make currently inaccessible artwork, owned by dozens of repositories on isolated servers or filing cabinets, available to the public via a digital archive. I also seek opportunities to re-conceptualize those images in an engaging format. This literature review will provide eight texts to attain a working familiarity with the issues involved in undertaking such a digital project.

Methods of Selection

I selected two core texts that combine to provide strategic and tactical understanding of how to build a digital collection: Owens’ *Cultivating Craft in Context (2018)* andCorrado and Moulaison’s *Digital Preservation for Libraries, Archives and Museums* (2017). My thematic review flows from these two landmark contributions to digital archiving as I explore additional texts to meet my project goals within Owens’ paradigm. I use a narrative format that is organic, logical, and engages the reader. Synthesizing these texts will guide my selection of a platform in which to aggregate the visual materials currently spread across dozens of collections.

I define the three-year period (2022-2025) as the “most current” literature. The Library of Congress (along with most other institutions e.g. Smithsonian, etc.) went “masks optional” as of March 1, 2022, so that seemed to be a reasonable approximate time to date the beginning of our present epoch within the digital era. Literature in the three years before the pandemic (2017-2020) is “current” but diminished due to the sea change that followed the pandemic disruption to most facets of academia. Literature from 2021 remains a gray area. I confined my review to the past eight years (2017-2025) except for a single article from 2008.

I selected literature that was a variation on the theme of Owens’ craft-approach understood within Corrado’s Digital Preservation Triad. My citation chain is not linear but rather like a radiating star with Corrado providing the conceptual framework for Owens’ theoretical foundation. Each element of the digital triad contains two articles plus two in the core for a total of eight texts.

The following roadmap shows the reader how to conceptualize my literature review.

A diagram of a diagram

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Core Texts

Although not one of my primary texts for the literature review, *Theory and Craft of Digital Preservation* (2018)influenced the selection of this review’s co-pivotal text. Owens provides the animating philosophy behind my project’s creation methodology described as the “craft” of digital preservation. His approach aligns with my desire to create a boutique, hand-crafted digital collection. My strategy has a practical result of boosting users of repositories to attain a monetary benefit for host institutions. Owens’ 16 digital preservation axioms are crucial to understanding a theoretical basis of digital preservation that resonates with me when he writes,

“Digital preservation requires the work of craftspeople who develop approaches that match the resource, material, and conceptual constraints of a given setting.”[[2]](#footnote-2)

I further appreciate Owens’s background at the Library of Congress and where he sits in the middle chronology of digital preservation thought leaders. He may actually be considered a second-generation digital scholar having only joined NDIIPP in 2010, yet benefited from mentorship by two of the [LOC’s digital preservation pioneers](https://www.digitalpreservation.gov/series/pioneers/): Martha Anderson and Caroline Arms, whom he cites in his acknowledgements. It is worth noting that the LOCs Digital Preservation Program only began in 2000.[[3]](#footnote-3)

As I explored Owens’ body of work, I was delighted to find his 2018 article ***Cultivating Craft in Context***[[4]](#footnote-4) to be a natural linchpin from which to begin my review. He encourages the creation of partnerships between graduate students and small heritage organizations. Under his plan, students would conduct a survey based on the “Levels of Digital Preservation” developed by the National Digital Stewardship Alliance (NDSA). Staff interviews and resource verification would combine to create a digital preservation policy. This novel approach to leverage graduate students to support local heritage organizations is similar to my project’s framework. Much of the railroad art that I seek will be found in small libraries and archives.

I was also intrigued that both Owens’s book AND article cite Dan Chudnov’s 2008 article the Emperor’s New Repository.[[5]](#footnote-5) Owens claimed in his 2018 introduction that Chudnov’s then 10-year-old article “remains one of the best pieces of writing on digital preservation.” Any document that Owens described as foundational had to be cited within my literature review. Accordingly, Chudnov establishes a historic floor for how far back I would go in my review. Literature reviews by their nature can become unwieldy if covering too broad a period.

Chudnov advises one not to overthink software solutions or make content too complex. Instead, he urges optimization of access to get material available to users in any format and then responds to user critiques. Owens’ call for tailored, context-specific craft solutions seem to originate with Chudnov’s warning to avoid the loss of fundamentals such as access while becoming bogged down discerning the “perfect” software solution.

To undergird Owens’ theory, I needed a practical framework from which to create an actionable blueprint for my research. Documents owned by small repositories must be scanned and archived with high metadata standards as a contribution to a unified resource for passenger rail holiday art. Specifically, I needed to fill the gap in *Theory and Craft of Digital Preservation* when Owens wrote, “…it is not a how-to-book…” or “…a set of step-by-step instructions…”While my project is a boutique, craft-oriented effort, I must move beyond the theoretical to engage with a “how-to” manual to guide the writing of a coherent, practical policy that prescribes specific actions to create and maintain a digital archive.

With multiple handbooks/guides to digital preservation in print, I needed to narrow the field. First, I eliminated any title written prior to the establishment and dissemination of the NDSA digital preservation matrix (2013). I also wanted a guide that was popular enough to elicit a second edition. I found such a guide in Corrado and Moulaison’s Digital Preservation for Libraries, Archives and Museums (2017).[[6]](#footnote-6) The guide introduces the concept of “The Digital Preservation Triad” which is the subject of a focused article, “Bringing Content into the Picture: Proposing a Tri-Partite Model for Digital Preservation” (2017).[[7]](#footnote-7)

Corrado provides a scalable preservation framework to ensure my digital collection’s longevity across varied repositories. Moreover, he provides practical preservation tools that small cultural heritage organizations can adapt, per Owens’ craft focus, for museums to digitize posters, menus, and other objects. Corrado also offers digitization specifics – (e.g., TIFF for posters) which is applicable to the objects of my project. Corrado supports Owens’ craft theory with practical tools that allow small archives to meet basic preservation standards while large repositories explore more robust solutions.

With this strong foundational material to conceptualize the core challenges in the digital archive landscape around software and access, I returned to the Owens article and noted that his recommendation for a graduate survey, report and policy documents hinged on evaluating a repository against the NDSA’s Levels of Digital Preservation. A conference paper by Philips, et. al., discusses the origin of the “Levels”.[[8]](#footnote-8) First released in 2013 and then revised in 2019[[9]](#footnote-9), the “Levels” are a “codification of current technological practices for long-term preservation of digital resources in galleries, libraries, archives, and museums (GLAM).”[[10]](#footnote-10)  With an easy-to-use, color-coded visual matrix, it includes five functional areas mapped to four levels of content awareness.A multicolored chart with text

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I was intrigued to find Owens listed as a third author on the “Levels” paper illustrating that he found himself at the center of the digital archival world only four years after joining the NDIIPP. The paper details the effort to create an objective scale for preservation from basic to advanced and provides a criteria from Level 1 for small, community entities up to Level 4 for large facilities. Each layer builds upon another. The Levels align with Owens’ contextual flexibility in that it tailors the preservation to each repository’s capacity. Now available in multiple languages, the 2019 update also includes an assessment tool. The revision of this matrix won the Digital Preservation Coalition’s [2020 Digital Preservation Award](https://www.dpconline.org/events/digital-preservation-awards/digital-preservation-awards-2020).

With the core texts reviewed and incorporating the pragmatically updated Levels from 2019, I turned to another pragmatic consideration: resources. Hunter lists the determination of financial resources as the first among six questions that must be answered before developing an acquisition policy.[[11]](#footnote-11) I was inspired by that advice in the selection of my collection focus on holiday railroad art. I found oblique support from Jensen’s article *Digital Archival Literacy for (All) Historians****[[12]](#footnote-12)*** where he discusses the economics of digital archives with special emphasis on “retro-digitization”.[[13]](#footnote-13) Although I frequently see the term “born-digital” to describe email/text/website data, I was unfamiliar with the term “retro-digital”. It is, however, an apt description for my project since all objects will require digitization; however, at the AR level, new objects (e.g., 3-D animations of a train moving across logos) will be created that are born-digital yet built on vintage designs. My vision is a small-scale version of [Beyond Van Gogh: The Immersive Experience](https://beyondvangogh.com/), one a series of highly popular exhibits of digital animation of Van Gogh paintings that began in the U.S. in 2021. This digital phenomenon is analyzed and critiqued by Mondloch[[14]](#footnote-14) who concludes that such immersive media spectatorship aligns with the consumer demand and should not be dismissed by GLAM.

Jensen claims that digital archival literacy is impossible without awareness that retro-digitization decisions are based on funding, policies, and usage. Jensen laments that, “with popularity, prestige, or profit as a benchmark for costly digital projects, particular strands of historical research are marginalized, and researchers’ interests are sidelined.” Economic structures based on for-profit incentives, “influence what we find and, especially, what we do not find online.”

He describes a reality in which traditional archives are becoming more user focused as online presence is coupled with a digitization strategy to broaden outreach. Digitizing what is in high-demand advances preservation goals and resource allocation. The digital activities of archival institutions often depend on external funding, which means that they are usually subject to policies that emphasize popularity and monetization.

I found Jensen’s analysis accurate and appreciated his viewpoint as a historian; however, I do not share his dour conclusions and instead prefer Mondloch’s cautiously optimistic appraisal. Ironically, the economic reality that Jensen laments is a strategic keystone for my project’s sustainability. The holidays have been consistently and near-universally popular in the U.S. since at least the publication of Dickens’ A Christmas Carol in the 1840s. This affection boomed in the post-war period through the present day. Equipping repositories to leverage this popularity benefits their need for resources, preserves beautiful artwork, and makes it accessible to the public via a new medium. The holiday theme, particularly its nostalgic appeal, offers a reliable foundation for success. Proceeds from the exhibition will ensure stability and growth of the collection and fund further AR enhancements to keep the experience fresh.

With a sound financial basis for my work, I needed to ensure that I had a content development strategy for access and use. The documents I seek are typically found within community heritage organizations that require a different approach compared with objects in university or large institutional archives. I was fortunate to find a recent conference paper, “*Collaborative Approaches to Digital Preservation in Small Archives.”[[15]](#footnote-15)* Martinez and Tallman

believe that securing funding, building internal advocacy, and streamlining workflows are key considerations that apply to all digital preservation programs. They note that collaboration around digital preservation between community archives and research/academic libraries is limited and will require more diverse collection policies. A reduction in paternalism and membership requirements will be necessary to change the status quo. Since funding must come first, my approach to collaboration will always begin with assuring community archive partners that I arrive with an innovative funding model (i.e., revenue share) to secure their participation.

With helpful literature to guide my content development, I move to the *final* aspect of the Triad: technology, which in some ways is also the *first* aspect of the digital loop.

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My vision for the collection includes layers of technology to include scanning, databases, content management systems, and a user web-interface that will combine with an advanced layer of AR to bring new life and interpretation to the objects. To be conversant on the major platforms for data sharing and storage, I found a recent analysis of the top eight open-source content management systems: CKAN, Dataverse, DSpace, ePrints, EUDAT, Figshare, Zenodo, and Islandora. [[16]](#footnote-16) Reviewed against six criteria structured on the OAIS model, the analysis of repository interoperability is a key for uniting holiday railroad art from diverse sources into one digital collection. With interoperability in mind and looking for a strong visual component, Islandora was my preferred platform. Although not a scholarly article, ATLA publishes a robust site[[17]](#footnote-17) comparing [digital platforms](https://atla.libguides.com/digitizing-collections/online-content-platforms) that could be starting point for future research on top platforms. Current literature on specific platforms is quite dated.[[18]](#footnote-18)

In 2025, the technological aspects of digital archiving must include an article on AI. Hunter describes how “digital” issues once confined to a book’s last chapter, are now integrated throughout the text.[[19]](#footnote-19) I see the same evolution for AI. It must not only be *part* of the conversation but integrated with all digital preservation topics. Jaillant’s “*Are Users of Digital Archives Ready for the AI Era?[[20]](#footnote-20)* explores computational research methods applied to digitized and born-digital archives and those in the humanities who resist this kind of research, in part because they lack the skills necessary to engage with these materials. To address this challenge, Jaillant recommends broadening postgraduate training in the humanities/social sciences to include data/computer science. I was gratified to find Drexel’s MLIS program already addresses these issues in the manner that Jaillant suggests by integrating their program within the College of Computing and Informatics.

Conclusion and Future Study

Throughout my search, I was disappointed to find a number of dated books and articles in need of revision. I was also unable to find a website of core texts recommended as “foundational” by the NDSA or LOC. This is ironic in the case of the LOC as it has a robust page of “digital pioneers”, yet no one has undertaken an effort to “induct” certain articles or books in a similar “hall of fame” style webpage. This would be a worthy accomplishment, but particularly in 2025 in recognition of the 25th anniversary of the LOC’s initial digital effort. Assembling a “blue ribbon” faculty panel would also be a worthwhile endeavor to select the “all-stars” from among the literature.

As we look at future research in digital collections, copyright and data sharing are vital. While Van Gogh’s work is long within the public domain, 20th century art depends on where it falls on the timeline (pre or post 1928). Since virtually all passenger rail operations permanently closed or were sold, which entity owns the rights to railroad art? In the case of the PRR, the Penn-Central RR bankruptcy scattered objects between Conrail (a quasi-government successor) and an NY Central RR insurance company, only serves to further muddy the waters. Though Owens’ article gets closest to my project, I was unable to find a more precise, scholarly article on boutique, project-based approaches relevant to the creation of new historic art collections from undigitized sources across varied repositories. An article that relates to the building of such a collection would be a valuable addition to the current literature.

This literature review lays the groundwork for a potential business case analysis that aligns digital preservation to meet institutional goals. Synthesizing all the readings could lead to the creation of a new company: a novel fusion of digital archivists, graphic designers, and museum exhibit creators. Having the continuum of digital archival efforts in one enterprise could be an attractive model that GLAMs could leverage to boost revenue and users. At Drexel, this could take the shape of a multi-college collaboration between Computing and Informatics, Business, and Media Arts and Design. Existing companies such as [DT Heritage,](https://heritage-digitaltransitions.com/) [Neopangea](https://www.neopangea.com/), and [Exhibition Hub](https://www.exhibitionhub.com/) all speak to different parts of the continuum (Digitization, Augmented Reality, and Digital Exhibit Creation), but they are aimed at large-scale clients. Small to mid-size cultural heritage organizations have no such options. This creates an opening for a novel approach where a revenue-sharing model could lower the barrier to entry. For example, the paradigm I propose may allow repositories to defer most development costs in exchange for a smaller share of the exhibition earnings.

With a balanced grounding in both theory and practice, this literature review provides a familiarity with the issues related to the creation of a digital preservation strategy. Owens’ craft-in-context theory is well-served by Chudnov’s discussion of repository pitfalls and Corrado’s practical preservation strategy, while the NDSA provides a scalable framework for digital archiving that serves both small repositories and large university collections. Though I expect the craft theory to remain stable, articles in the triad will need to be updated annually with current literature on content, technology, and management.

When combined with specific articles to support each leg of the digital preservation triad, Owens’ craft theory, supported by current texts, justifies my approach to building a niche digital collection. Each text lends support for my focus on small cultural heritage organizations and tailors preservation and access to my railroad holiday print collection. With a strong theoretical basis focused on the craft of digital preservation combined with practical applications of retro-digitization, this literature review not only provides the road map to the future of sustainable digital archives, but also offers an innovative, yet sustainable revenue model for unique cultural collections.

**Bibliography**

Blardone, C. (2013). *Pennsylvania Railroad advertising art 1859–1968*. Pennsylvania Railroad Technical & Historical Society.

Chudnov, D. (2008). The Emperor’s New Repository. *Computers in Libraries, 28*(9), 39–41.

Corrado, E. M., & Moulaison Sandy, H. (2017). *Digital preservation for libraries, archives, and museums* (2nd ed.). Rowman & Littlefield.

Corrado, E. M., & Moulaison Sandy, H. (2017). Bringing content into the picture: Proposing a tri-partite model for digital preservation. *Journal of Library Administration, 57*(7), 1–17. <https://doi.org/10.1080/01930826.2017.1385988>

Digital Preservation Coalition. (2020, November 30). *Digital Preservation Awards 2020*. <https://www.dpconline.org/events/digital-preservation-awards/digital-preservation-awards-2020>

Hunter, G. S. (2020). *Developing and maintaining practical archives: A how-to-do-it manual* (3rd ed.). ALA Neal-Schuman.

Jaillant, L., & Aske, K. (2023). Are users of digital archives ready for the AI era? Obstacles to the application of computational research methods and new opportunities. *ACM Journal on Computing and Cultural Heritage, 16*(4), Article 87, 1–16. <https://doi.org/10.1145/3631125>

Jensen, H. S. (2020). Digital archival literacy for (all) historians. *Media History, 27*(2), 251–265. <https://doi.org/10.1080/13688804.2020.1779047>

Miller, R., & Thompson, J. (2024). Collaborative approaches to digital preservation in small archives. In R. Martinez & N. Tallman (Eds.), *iPRES 2024 Papers: Fostering collaboration between research libraries and community archives to preserve the “network of mutuality”*. iPRES. <https://ipres2024.pubpub.org/pub/a2jrq8ho>

Mondloch, K. (2022). The influencers: Van Gogh immersive experiences and the attention-experience economy. *Arts, 11*(5), 90. <https://doi.org/10.3390/arts11050090>

National Digital Information Infrastructure and Preservation Program. (n.d.). *Digital preservation pioneers*. Library of Congress. <https://www.digitalpreservation.gov/series/pioneers/>

NDSA Levels of Digital Preservation Working Group. (2019). *2019 Levels of Digital Preservation Matrix* (Version 2.0, October 2019). OSF. <https://doi.org/10.17605/OSF.IO/QGZ98>

Owens, T. (2018). *The theory and craft of digital preservation*. Johns Hopkins University Press.

Owens, T. (2018). Cultivating craft in context: Graduate students as digital preservation consultants for small cultural heritage organizations. *International Journal on Innovations in Online Education, 2*(4). <https://doi.org/10.1615/IntJInnovOnlineEdu.2019029576>

Phillips, M., Bailey, J., Goethals, A., & Owens, T. (2014). The NDSA levels of digital preservation: An explanation and uses. In *Archiving 2014 Conference Proceedings* (pp. 1–7). Society for Imaging Science and Technology.

Rodrigues, J., & Teixeira Lopes, C. (2022). Solutions for data sharing and storage: A comparative analysis of data repositories. In *Lecture Notes in Computer Science* (Vol. 13541, pp. 512–517). Springer. <https://doi.org/10.1007/978-3-031-16802-4_55>

Zaagsma, G. (2023). Digital history and the politics of digitization. *Digital Scholarship in the Humanities, 38*(2), 830–851. <https://doi.org/10.1093/llc/fqac050>

1. Blardone, C. (2013). Pennsylvania Railroad advertising art 1859-1968. Pennsylvania Railroad Technical & Historical Society. [↑](#footnote-ref-1)
2. Owens, T. (2018). The theory and craft of digital preservation. Johns Hopkins University Press. [↑](#footnote-ref-2)
3. National Digital Information Infrastructure and Preservation Program. (n.d.). *Digital preservation pioneers*. Library of Congress. <https://www.digitalpreservation.gov/series/pioneers/> [↑](#footnote-ref-3)
4. Owens, T. (2018). Cultivating craft in context: Graduate students as digital preservation consultants for small cultural heritage organizations. International Journal on Innovations in Online Education, 2(4). https://doi.org/10.1615/IntJInnovOnlineEdu.2019029576 [↑](#footnote-ref-4)
5. Chudnov, D. (2008). The Emperor's New Repository. *Computers in Libraries, 28*(9), 39–41. [↑](#footnote-ref-5)
6. Corrado, E. M., & Moulaison Sandy, H. (2017). Digital preservation for libraries, archives, and museums (2nd ed.). Rowman & Littlefield. [↑](#footnote-ref-6)
7. Corrado, E. M. & Moulaison Sandy, H. (2017). Bringing content into the picture: Proposing a tri-partite model for digital preservation. Journal of Library Administration, 57(7), 1-17. https://doi.org/10.1080/01930826.2017.1385988 [↑](#footnote-ref-7)
8. Phillips, M., Bailey, J., Goethals, A., & Owens, T. (2014). The NDSA levels of digital preservation: An explanation and uses. In Archiving 2014 Conference Proceedings (pp. 1-7). Berlin, Germany: Society for Imaging Science and Technology. [↑](#footnote-ref-8)
9. NDSA Levels of Digital Preservation Working Group. (2019). *2019 Levels of Digital Preservation Matrix* (Version 2.0, October 2019). OSF. [https://doi.org/10.17605/OSF.IO/QGZ98](https://osf.io/qgz98/) [↑](#footnote-ref-9)
10. Digital Preservation Coalition. (2020, November 30). *Digital Preservation Awards 2020*. Digital Preservation Coalition. <https://www.dpconline.org/events/digital-preservation-awards/digital-preservation-awards-2020> [↑](#footnote-ref-10)
11. Hunter, G. S. (2020). Developing and maintaining practical archives: A how-to-do-it manual (3rd ed.). ALA Neal-Schuman, p.80. [↑](#footnote-ref-11)
12. Jensen, H. S. (2020). Digital Archival Literacy for (All) Historians. *Media History*, *27*(2), 251–265. <https://doi.org/10.1080/13688804.2020.1779047> [↑](#footnote-ref-12)
13. Zaagsma, G. (2023). Digital history and the politics of digitization. *Digital Scholarship in the Humanities, 38*(2), 830–851. https://doi.org/10.1093/llc/fqac050 [↑](#footnote-ref-13)
14. Mondloch, K. (2022). The influencers: Van Gogh immersive experiences and the attention-experience economy. Arts, 11(5), 90. <https://doi.org/10.3390/arts11050090> [↑](#footnote-ref-14)
15. Miller, R., & Thompson, J. (2024). Collaborative Approaches to Digital Preservation in Small Archives. In R. Martinez & N. Tallman (Eds.), *iPRES 2024 Papers: Fostering Collaboration between research libraries and community archives to preserve the ‘network of mutuality’*. iPRES. <https://ipres2024.pubpub.org/pub/a2jrq8ho> [↑](#footnote-ref-15)
16. Rodrigues, J., & Teixeira Lopes, C. (2022). Solutions for data sharing and storage: A comparative analysis of data repositories. In *Lecture Notes in Computer Science* (Vol. 13541, pp. 512-517). Springer. <https://doi.org/10.1007/978-3-031-16802-4_55> [↑](#footnote-ref-16)
17. Atla Digital Library. (2024). *Digitizing collections: Selection*. Atla LibGuides. <https://atla.libguides.com/digitizing-collections/selection> [↑](#footnote-ref-17)
18. Castagné, M. (2013, August 14). Institutional repository software comparison: DSpace, EPrints, Digital Commons, Islandora and Hydra [R]. <https://dx.doi.org/10.14288/1.0075768> [↑](#footnote-ref-18)
19. Hunter, G. S. (2020). Developing and maintaining practical archives: A how-to-do-it manual (3rd ed.). ALA Neal-Schuman, p. xvi. [↑](#footnote-ref-19)
20. Jaillant, L., & Aske, K. (2023). Are users of digital archives ready for the AI era? Obstacles to the application of computational research methods and new opportunities. *ACM Journal on Computing and Cultural Heritage, 16*(4), Article 87, 1–16. <https://doi.org/10.1145/3631125> [↑](#footnote-ref-20)