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Grounding Digital Scholarship in the Analog: Reimagining Library Fellowships Post-Pandemic

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Grounding Digital Scholarship in the Analog: Reimagining Library Fellowships Post-Pandemic

Abstract
A digital object is grounded in the analog. By examining the object in a continuum rather than its current state, we can better understand both the analog item and its digital representation. As part of this pedagogical exploration, we reimagined a year-long, library-based, digital scholarship fellowship that provides hands-on instruction for undergraduate students, grounded in physical collections and spaces but resulting in digital manifestations. The fellowship focuses on social justice by highlighting ethical issues in the field of digital scholarship, specifically exploring the topics of labor, race, gender, disability, infrastructure, and environmental inequality. We frame the work through a pedagogy of play, or critical making, that encourages students to embrace failure.

As instructors and collaborators, our philosophy is deeply informed by the scholarship of Andre Brock, Miriam Posner, and Katherine Harris, which manifests in the readings and activities we integrate into the course. In the fellowship, students grapple with the theoretical work of a diverse set of scholars (Simone Browne, Shannon Mattern, Lisa Nakamura, Lauren Klein, Catherine D'Agnozio, etc.) and experiment with a wide range of kinesthetic, object-oriented digital literacy activities. Each week, students create digital objects and interact via touch, smell, and feel with analog objects. Our discussions act as the bridge between these two modes, making their relationship explicit. Without the analog objects, the relationship and history these objects have with our library would be lost.

Keywords
Interactive learning spaces, technology, instruction, collaboration, mentoring, training, media literacy, digital humanities, digital scholarship, book history, pedagogy, emerging technology, metadata.

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Introduction

If we agree that the concept of the "digital native" is a myth and we cannot specify a set of digital skills anyone is born with, then a pedagogy of how you teach an all-encompassing technology becomes crucial. A student who was born in the United States in the mid-2000s and is now in a university has always known the internet but does not necessarily know *how* the internet works. At the Swarthmore College libraries, we made a conscious choice to embody the ethos of a multidisciplinary and long-standing institution (the libraries) by bringing students in the STEM, social sciences, and humanities fields together via a fellowship to learn both the history of digital technologies as well as the timeline of how an object becomes digital. To do so, we erased the distinction between the digital and analog by pairing theoretical readings with practical workshops that demonstrated that this false binary is actually a continuum. Although it may seem abstract, this approach has already been exemplified in the works of the authors André Brock and Safiya Noble on a broader scale, and their work gave us language with which to study an analog object within a social justice framework.[1] Ultimately, we found that teaching technology in this way allowed the students to think of the digital as analog, with its required infrastructure and the people needed to maintain it, and to think of the analog as digital for the sake of preservation and accessibility, all within the framework of social justice.

The Digital Object

The idea of a "digital object" gains its semantic clarity from how we think about physical objects in general. Objects are visible, maneuverable, and take up space; these qualities are equally present in our minds when we think of digital objects. The digital, often lost in the ether of pixels and RAM, becomes grounded when we add the word "object" because we recall the physical object. The digital ceases to be *only* mediated by the physical (i.e. a phone or a screen) but it gains permanence and identity as an object in its own right (e.g., an image is not just pixels represented in a screen but also an object worth considering apart from the screen). The unique characteristic in a phrase like "digital object" is the hidden presence of the physical. As of now, there is no digital without an analog counterpart. On one hand, the hidden presence of the analog in the phrase "digital object" allows us to have discrete conversations about an image, sound, or a piece of software without having to consider every analog counterpart or needing to define the infrastructure that allows the digital to exist. On the other hand, we believe that it is worth making the inherent relationship between analog and digital visible, especially from a pedagogical perspective.

Swarthmore is a residential college[2] that is attractive to students because it offers a fully in-person experience. Swarthmore is also a teaching college where students expect small class sizes and experiential learning opportunities. At the Swarthmore College libraries, our desire to put into practice this interlinked relationship between the digital and the analog becomes apparent in a student-centered, participatory fellowship that has existed for the last ten years. The Lib Lab Fellowship brings together students from STEM, the humanities, and social sciences to discuss the theory and history of technology through its various applications and takes an interdisciplinary approach to the application of code and mark-up language within social relations. In this essay, we argue for a temporal quality in the digital versus analog binary: the way to frame this conversation is not only *either/or* but also *when*. In other words, we would like to further expand on the scholarship already discussing the *form* of this either/or binary as in the discussion of what the boundaries of a

[1] André L. Brock, *Distributed Blackness: African American Cybercultures* (New York: New York University Press, 2020) and Safiya Noble, *Algorithms of Oppression* (New York: NYU Press, 2018).

[2] According to the publicly available reporting provided by the college, in 2023-24 95% of the 1,543 students lived on campus (https://www.swarthmore.edu/institutional-effectiveness-research-assessment/fact-book).

digital object are[3] or the discussion of the processes of digitization[4] and include the concept of time as a helpful quality to assign to a digital object. Others have taken a similar approach. For example, in their article "Sociomaterial Texts, Spaces and Devices: Questioning 'Digital Dualism' in Library and Study Practices," Lesley Gourlay, Donna M. Lanclos, and Martin Oliver write, "the digital [in the library] is often assumed to be a somewhat disembodied realm…In contrast, spaces in the material campus are frequently positioned as prototypically traditional and analogue."[5] Although the authors are focusing on library spaces, they engage with the digital-versus-analog binary by examining students' study practices. Our approach goes further and argues that, for example, a digital image either exists because of its analog copy or, for born-digital images, because of the physical infrastructure. Since the assertion that the digital has a physical dimension (analog) is not new, our argument is rather focused on the pedagogical consequences of understanding a digital object as both having been and being analog. By adding this temporal dimension to the understanding of a digital object, we can engage in a critical analysis.

Lib Lab Fellowship

For the first eight years of Lib Lab, the main aim of the fellowship was to bring together students interested in different aspects of the history of technology and have them read and participate across frameworks. Although not explicit, the fellowship held an *either/or* approach to the lives of physical and digital objects. Understanding computer code was different from understanding letterpress printing, and understanding annotation was different from understanding marginalia. A key point throughout the fellowship was the emphasis that behind every code, digital tool, and protocol (e.g., HTTPS), there were real humans making decisions. For example, a computer science student would be encouraged to consider the inherent bias in code (written in English) while a philosophy student would be encouraged to develop a basic understanding of how a webpage is served. This point was key in highlighting the *realness* of the internet, that the internet is not invisible; its physical infrastructure has a tremendous environmental impact which includes cables under the sea, server farms that require massive amounts of water, and large warehouses that use as much electricity as a city. As Nicole Starosielski writes in her book *The Undersea Network,* "Cable infrastructures remain firmly tethered to the earth, anchored in a grid of material and cultural coordinates."[6] Understanding the internet as a tangible technology with real environmental impacts and limits of scale reframes how the students think about the future of digital collections.

In 2020, the quarantine issued by the United States government caused the Swarthmore campus to temporarily suspend in-person operations, and the Lib Lab Fellowship was moved online. Most students did not return to living on campus until spring 2021, when COVID-19 vaccines became available. When reimagining the fellowship after students returned, we wanted to emphasize how this experience would maximize the on-campus resources that could not be translated to a fully remote mode of instruction. We wanted to reacquaint, and in some cases introduce, students to the wide range of materials available across the three libraries, as well as our strategic partners, on campus. This not only manifested as a return to using physical library spaces but also to providing undergraduate students with direct engagement with the circulating stacks,

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[3] Selçuk Artut, Osman Serhat Karaman, and Cemal Yilmaz, eds., *Technological Arts Preservation* (Istanbul: Sabancı University Sakıp Sabancı Museum, 2021).
[4] Katie Rudolph, "Why Everything in the Archives Isn't Digitized (Yet)," Denver Library, October 26, 2021, https://history.denverlibrary.org/news/conservation/why-everything-archives-isnt-digitized-yet.
[5] Lesley Gourlay, Donna M. Lanclos, and Martin Oliver, "Sociomaterial Texts, Spaces and Devices," *Higher Education Quarterly* 69 (2015): 263-278, https://doi.org/10.1111/hequ.12075.
[6] Nicole Starosielski, *The Undersea Network* (Durham: Duke University Press, 2015), 2.

archival materials, and special collections these spaces hold, as well as the digital tools we use to interact with these materials.

Due to the COVID-19 crisis, many students were unfamiliar with the libraries on campus; furthermore, many did not have significant exposure to libraries before attending college. While it might not seem like a radical approach to introduce students to the circulating stacks, this was in fact a novel experience for almost all the fellows. There was no nostalgia about the "times when they used to check out books" from the library. Despite having humanities majors and students who had previously held positions in the library, most had never checked out a physical book, and none of the fellows had a sense of the scope of our circulating collections. While some had experienced a course session or brief tour of our special collections, few had a deep knowledge of the breadth of our college archives, Friends Historical Library, or Peace Collections. Because the fellowship focuses on digital scholarship, specifically orienting students to the digital literacy skills needed to create library-centered projects, we framed searching the stacks through the modes most frequently used to find materials: online databases and search engines. It was essential to provide students with a theoretical framework through which they could analyze and evaluate the digital platforms library patrons use to find materials, as well as the physical materials themselves.

To introduce students to a theoretical framework, students read important works in the field. In 1980, Langdon Winner published the now seminal essay "Do Artifacts Have Politics?" in which he argued that technological artifacts have inherent political and sociological implications. The key adjective in his argument is the word *inherent*. In other words, he argued that many technologies cannot simply be categorized under the "it depends how you use them" framework to determine whether they are beneficial to society or not, but that certain technologies "*in-themselves* have political properties."[7] We pair this reading with Eula Biss' essay "Time and Distance Overcome" during the first week of the fellowship to emphasize the ethical dimensions of digital scholarship and technology broadly, a key focus of the fellowship.[8]

Through the semester we explore the topics of labor, race, gender, disability, and infrastructure and environmental inequality. This specific approach allows us to interrogate not only how a specific digital method is being used but also how and under what circumstances the method was created (exploring past, present, and future equally). For example, we discuss Johanna Drucker's "Graphical Approaches to the Digital Humanities" to learn about the humanities' adoption of statistical and graphical methods and the tension that exists when adopting methods from disciplines "whose epistemological premises are fundamentally at odds with humanistic methods."[9] These texts provided a broader introduction to the debates in the field of digital humanities, which we then focus on by including texts on issues of inequity and social justice written by scholars working to bring awareness to how technologies are currently, and have historically, been weaponized against communities of color.

Focus on Social Justice

Influenced by the work of André Brock, Safiya Noble, and Simone Browne, all of whom highlight the unequal impact of the false binary between the analog and the digital on communities of color, we interrogate the technologies we use in the fellowship through the lens of critical race studies. As Brock writes in *Distributed Blackness: African American Cybercultures*, "[w]hen scholars first

[7] Langdon Winner, "Do Artifacts Have Politics?" *Daedalus* 109, no. 1 (1980): 121-136, https://www.jstor.org/stable/20024652.
[8] Eula Biss, "Time and Distance Overcome," *The Iowa Review* 38.1 (2008): 83-89, http://ir.uiowa.edu/iowareview/vol38/iss1/36.
[9] Johanna Drucker, "Graphical Approaches to the Digital Humanities," in *A New Companion to Digital Humanities*, eds. Susan Schreibman, Ray Siemens, and John Unsworth (John Wiley & Sons, Ltd, 2015), 238-250.

sought to understand information technology use by Black folk, the Black body was only legible through its perceived absence: absence from the material, technical, and institutional aspects of computers and society."[10] Instead of perpetuating that absence, we hope to feature spaces in which diversity is integrated across race, gender, sexuality, and ability and to be transparent about our critiques of spaces and tools that lack diversity or actively promote barriers to equity. Together we read Simone Browne's *Dark Matters: On the Surveillance of Blackness*, in which she writes about Jeremy Bentham's Panopticon[11] and traces the lineage of physical surveillance to the now prevalent digital surveillance of Black bodies.[12] The Panopticon's physical structure, in Browne's writing, also exists in parallel with the digital one. Both exist simultaneously and must be understood in relation to each other. Similarly, the physical realities of policing Black bodies are digitally highlighted in Noble's *Algorithms of Oppression* which we read to understand the implicit bias in search engines.[13] Taught alongside Ted Underwood's "Theorizing Research Practices We Forgot to Theorize Twenty Years Ago," we stress that the lack of scholarship on a process as fundamental as the act of searching online can have serious political and personal implications.[14]

As educators at an elite small liberal arts college, most of the students we encounter are well prepared to grapple with scholarly texts and complex theory, but the practical application of that knowledge can be more difficult to achieve. Therefore, we structure each two hour "lab" session around constructive play where we encourage students to learn digital literacy skills through low-stakes exercises. Students critique our library search features, and then physically go into the stacks to find the oldest book that is currently circulating (1739!). Part of bringing the temporal dimension to the analog/digital binary involves reframing students' expectations of what should be available in digital form by seeing in the stacks a 300-year-old book with marginalia, indexed in a library catalog. Students are shocked by the history and provenance of our collections, as well as the role serendipity plays when searching the physical shelves. Inspired by the Book Traces[15] project, we consider the challenge of wanting robust physical collections in the library, but also being realistic about space constraints and dwindling demand for physical books post-pandemic shut down when patrons expect electronic versions to be available. We also talk about the very real threat climate change poses to library spaces, and how extreme weather impacts how we store and preserve materials. Grounding the digital in the analog also involves looking into the common temporal misconception that the analog equals outdated modes of representation and the digital equals modern technology.[16] The concept of "outdated technology" serves its purpose in practical settings but our hope is that

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[10] André L. Brock, *Distributed Blackness: African American Cybercultures* (New York: New York University Press, 2020).

[11] The Panopticon is cited in Simone Browne's work. Browne writes on page 33 of *Dark Matters*, "The Panopticon was conceived by Jeremy Bentham in 1786 [...] as a model for workforce supervision. [...] Bentham imagined the Panopticon to be, as the name suggests, all-seeing and also polyvalent, meaning it could be put to use in any establishment where persons were to be kept under watch: prisons, schools, poorhouses, factories, hospitals, lazarettos, or quarantine stations." Her citation is from Jeremy Bentham and John Bowring, *The Works of Jeremy Bentham* (Edinburgh: W. Tait, 1843).

[12] Simone Browne, *Dark Matters: On the Surveillance of Blackness* (Durham: Duke University Press, 2015).

[13] Safiya Noble, *Algorithms of Oppression* (New York: New York University Press, 2018).

[14] Ted Underwood, "Theorizing Research Practices We Forgot to Theorize Twenty Years Ago," *Representations* 127, no. 1 (August 1, 2014): 64-72, https://doi.org/10.1525/rep.2014.127.1.64.

[15] Learn about the Book Traces Project (https://booktraces-public.lib.virginia.edu/), started at the University of Virginia by Andrew Stauffer and read more about how Amanda Licastro integrates this project into the curriculum in "The Past, Present, and Future of Social Annotation" in *Digital Reading and Writing in Composition Studies*, eds. Mary Lamb and Jennifer M. Parrott (New York: Routledge, 2019).

[16] For further reading on this topic, see Jens Schröter, "Analog/Digital – Opposition oder Kontinuum?" in *Analog/Digital - Opposition oder Kontinuum?*, eds. Jens Schröter and Alexander Zons (Bielefeld: transcript Verlag, 2015), 27-30.

during our sessions, we can view the analog in the continuum of a digital object, thereby removing notions of usefulness or efficiency.

Conversations about searching lead to investigations of data; the underlying bias in search engines emerges from what Lisa Gitleman calls the "oxymoron of raw data."[17] After reading selections from Gitleman as well as chapters from *Data Feminism* by Lauren Klein and Catherine D'Ignazio, the fellows grapple with local examples of how, when, and why data is or is not collected, and how that data shapes the narratives we believe about the community we live and work in.[18] To demonstrate, Emily Higgs Kopin, Head of Digital Strategy, provides a tutorial on digitization in the library, complete with a tour of the digitization lab and a workshop on the process of writing metadata for the objects we host in our online repository. The fellows become aware of the critical, ethically informed decisions librarians must make as they transform the analog objects held in our library into digital artifacts available online, and the ever-evolving standards that are reviewed, reimagined, and revised in order to reflect updated language and progressive cultural sensitivity. These decisions and distinctions put the analog and digital in a temporal continuum that depends on the current context. John Lavagnino hints at this, saying, "The common habit is to refer to data as being digital or analog; but it is only as a property of whole systems that the terms are meaningful."[19] An important lesson here is what does not get digitized, especially considering the large selection of Native American archives held at Swarthmore, and specific donor agreements made when materials are acquired by the college. These considerations largely go unseen by the general public but impact what materials are discoverable by those outside the college community.

To better understand what research is made possible by digitizing archival materials, the digitization workshop is followed by a session led by James Truitt, currently a Digital Archivist at Swarthmore and the Project Manager of the Friendly Networks project.[20] The Friendly Networks project profiles the individuals discussed in Quaker minister John Hunt's journals, "mapping the social networks that connect them, and using this information to provide rich context for a new online edition of the text."[21] The journals are a part of the Friends Historical Library that were digitized and made searchable and can be cross referenced with paper copies of Quaker meeting records held in our collections. But this project requires a significant amount of data management, including dealing with particularly difficult challenges such as lists of hundreds of people with the same first and last name, a variety of antiquated naming conventions (including abbreviations for titles and women referred to by their husband's name), and dates in a variety of formats. Students learn that humans who are experts in this area of history, with years of training on how to read nineteenth century handwriting, must clean and refine the data before it can be transformed into interactive visualizations such as maps, timelines, and network graphs. Students gain a basic database literacy and are guided through the use of tools such as Google Refine, SNAC, and a very basic introduction to d3 in JSON. This workshop also provides an overview of the types of visualizations possible and a discussion of which forms of visualization might be best depending on the data available.

Intentionally, we follow the discussions on digitalization and data visualization with a workshop on accessibility. As a campus built in the 1700s, our physical spaces often do not meet Americans with Disabilities Act (ADA) standards, and the college is in the midst of a major renovation to address these issues. While many students are aware of the limitations of the built

[17] Lisa Gitleman, *"Raw Data" Is an Oxymoron* (Cambridge: MIT Press, 2013.)
[18] Catherine D'Ignazio and Lauren F. Klein, *Data Feminism* (Cambridge: MIT Press, 2020).
[19] John Lavagnino, "Digital and Analog Texts," in *A Companion to Digital Literary Studies*, 1st ed., eds. Ray Siemens and Susan Schreibman, (Hoboken: Wiley-Blackwell, 2013), 402-414.
[20] You can interact with the Friendly Networks project at https://ds-pages.swarthmore.edu/friendly-networks.
[21] *Friendly Networks*, Swarthmore College, 2024, https://ds-pages.swarthmore.edu/friendly-networks/credits.

environment that houses the physical library, fewer understand the accessibility demands in the digital space. Accessibility experts Jen Moore and Jessica Brangile visit the fellows to explain web accessibility guidelines and to walk them through the WCAG standards.[22] Understanding that we are all only temporarily able-bodied and that accessibility accommodations make everyone's experience of both physical and digital spaces better helps to reframe the conversation from retrofitting – as is happening to the lived environment – to intentional universal design, which we can do when creating digital projects. Students play with tools to test the websites they use every day and are prompted to complete the W3 school tutorials on web accessibility before embarking on their own digital scholarship projects.

A Pedagogy of Play

These hands-on activities are based on a pedagogy of play (influenced by Jade Davis at the University of Pennsylvania)[23] wherein students immerse themselves in low-stakes activities that build comfort with concepts through experiential learning. In the fall, the Lib Lab fellows read a wide range of challenging scholarship, but they apply that knowledge through collaborative activities that are not graded or formally assessed. This gives the students space to fail forward and experiment without fear of consequences before engaging in higher stakes projects in the spring. As Katherine Harris writes in "Play, Collaborate, Break, Build, Share: 'Screwing Around' in Digital Pedagogy,"

> [...]something happens when we start incorporating Digital Humanities and Digital Pedagogy into the undergraduate classroom, something that is not embraced in academia: failure. Digital Humanities scholarship requires collaboration and playfulness – both risky endeavors in any Humanities classroom because of the need for assessment, structure, rules, and bounded learning. But, what happens when we modify some of the institutional structures and student learning outcomes to accommodate these two methods for learning and add into the curriculum a requirement for building something, anything, within the undergraduate classroom? The students collaborate, screw around, and build materials for public scholarship, but we all risk failure – and then learn from it.[24]

This fellowship provides the ideal climate for play as it is extracurricular and not attached to any formal assessment structure. Because of this, we – the designers of the fellowship and the students supported monetarily and intellectually by the fellowship – have freedom to "screw around" with digital tools without fear of long-term consequences. The emphasis can be on learning for learning's sake, which is essential when experimenting with emerging technologies that are constantly evolving.

Our unit "AI, one of these constantly evolving technologies," added this year to address the windfall of so-called Artificial Intelligence (AI) platforms that wreaked havoc on higher education, balances readings on the unjust labor practices and the apocalyptic predictions of many digital humanists for the future of LLM[25] technologies and playful engagement with and critical discussions of the tools most impacting the library ecosystem. Inspired by Miraim Posner, the fellows read

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[22] The mission of the Web Content Accessibility Guidelines (WCAG) is to "provid[e] a single shared standard for web content accessibility that meets the needs of individuals, organizations, and governments internationally." A full description can be found at https://www.w3.org/TR/WCAG21/.

[23] Jade Davis, "Taking Play Seriously at the Penn Libraries," January 17, 2023, https://penntoday.upenn.edu/news/taking-play-seriously-penn-libraries.

[24] Katherine D. Harris, "Play, Collaborate, Break, Build, Share: 'Screwing Around' in Digital Pedagogy," *Polymath: An Interdisciplinary Arts and Sciences Journal* (2013): 1-26.

[25] An LLM, or Large Language Model, is difficult to define simply. We recommend reading the non-technical explanation of "an algorithm that mimics the form of written language" from this *New York Times* article: Aatish Bhatia, "Let Us Show You How GPT Works – Using Jane Austen," *The New York Times*, April 27, 2023, sec. The Upshot, https://www.nytimes.com/interactive/2023/04/26/upshot/gpt-from-scratch.html.

"Inside the AI Factory" by Josh Dzieza,[26] then play the browser-based game Moderator Mayhem. In this game, the player acts as a moderator for a large corporation and is prompted to choose what content to display from a rapid-fire deluge; meanwhile, their manager judges their choices and a timer counts down the seconds – yet they have to produce material in order to make their daily quota. Aside from being stressful, the game invites students to consider the subjectivity of these decisions and the impact of harmful content on the humans who are assaulted by it. It also serves as a catalyst for further exploration into what can be done by machines versus what must be done by humans, despite the false pretenses sold to us by the technology companies who promote these platforms. Next year, we wish to better contextualize AI historically to emphasize how machine learning can also be explored through the lens of the digital/analog continuum, inspired by the work of Annette Vee and Matthew G. Kirschenbaum.[27]

We also ask students to make a simple website using HTML and CSS, and then repeat the process using AI tools. Modeled after the CUNY Digital Scholarship Research Institute,[28] we introduce commonly used tools such as the command line, VSCode editor, GitHub, and markdown. Students dabble with coding a three-page website about their scholarly interests with some basic styling elements. Then we do the entire process using OpenAI to generate the code. The goal is to teach students the skills they need to code a website themselves and to evaluate how an AI code generator produces the same results. One fascinating side effect of this exercise is that it demonstrates how easy it is to publish false information on the web in a way that seems authentic and authoritative. As frightening as it may be, it is also essential information literacy. Embedded in this activity is a discussion of why we are using the version of OpenAI licensed by our instructional technology department to give us priority access and protect our data. This allows for the evaluation of other AI platforms and the transparency of their terms and conditions. In future years we hope to expand this unit to include an examination of AI tools built into library platforms such as JSTOR and library chat functions, as well as an expanded consideration of copyright.

These examples comprise a small sample of the activities completed in the fall semester of the fellowship. Simultaneously, the fellowship leaders put out a call for projects across the libraries and with our campus partners to generate a list of digital scholarship opportunities for students to work on after they return from winter break. At our last meeting before the fall term ends, project leaders pitch their ideas to the students and answer any questions they have about what skills are needed and what experience they will gain by choosing these opportunities. Each student then selects a project to work on and, in collaboration with the project leader and the fellowship leaders, creates a work plan and contract with detailed weekly objectives. To support this work, the fellowship leaders hold weekly co-working hours and project leaders meet with the fellows separately. The library continues to pay fellows hourly for this work. Examples of projects from 2024 include digitizing the radio station archives (including working with outdated audio formats and creating a digital exhibit to showcase interesting findings), working with the Rosine 2.0 project to create an interactive StoryMap of women's narratives from nineteenth century Philadelphia,[29] and

[26] John Dzieza, "Inside the AI Factory," *Intelligencer*, June 20, 2023, https://nymag.com/intelligencer/article/ai-artificial-intelligence-humans-technology-business-factory.html.

[27] Annette Vee visited Swarthmore's Critical AI Inquiry Group in spring 2024 and is authoring a book on the history of writing machines (forthcoming); Matthew Kirschenbaum held a workshop and public talk about his work on the "Textpocalypse" on campus in fall 2024 as part of the same series.

[28] The CUNY Digital Scholarship Research Institute consists of reusable and remixable materials meant for dissemination; read more at https://gcdri.commons.gc.cuny.edu/.

[29] According to the "About" page, "Rosine Association 2.0, initiated by Swarthmore College, was an interdisciplinary collective of artists, harm reductionists, archivists, and community members involved in today's street economies,

redesigning the Newton Book Award website. The fellows present their work at a student showcase that includes student workers from across the libraries.

Conclusion

We already have some substantial ideas on how to revise this experience moving forward. There are times when the spring projects seem stressful, and both the project leaders and fellows fear failure. This is antithetical to our intentions, so we need to find a way to engage with these projects in a manner that maintains our emphasis on process over product. For instance, we hope to have the projects lined up in summer to ensure we can directly link the fall tutorials to the skills fellows will need to successfully complete the work they will engage in during the spring term. Further explicated by Mark Leather, Nevin Harper, and Patricia Obee in "A Pedagogy of Play: Reasons to Be Playful in Postsecondary Education," "[O]ur pedagogical practices incorporating play are intended to increase our students' ability to see the positive in situations, not take themselves too seriously, maintain an open mind, embrace challenges, and increase their ability to deal with failure and adapt to change," we want to design an experience that nurtures adaptability and kindness.[30] With that in mind, we can also be more intentional about weaving accessibility into every unit and making it visible in our evaluation of each tool and platform we encounter, rather than relegating it to a separate class meeting.

Finally, our objective is to delve deeper into the temporal dimensions inherent in the analog/digital binary. Through collaborative discussions with our peers, we aim to elucidate the pedagogical advantages that arise from comprehending this binary this way. We understand that digital and analog concepts have functional meaning in fields like engineering and computer science so our hope is that by adding this temporal dimension to our approach with the fellows, we can help them distinguish when to add a temporal framework – as explained in this essay – and when to evaluate each concept separately. As fellows come to the library with no previous knowledge of the library stacks, we view this as an opportunity to redefine how the stacks are used and viewed, making room for play while also seeing them as a representation of the past, present, *and* the future.

specifically at the intersection of sex work and drug use from 2020-2023." Rosine 2.0, "Rosine 2.0," accessed December 16, 2024, https://rosine2.org/the-project.

[30] Mark Leather, Nevin Harper, and Patricia Obee, "A Pedagogy of Play: Reasons to Be Playful in Postsecondary Education," *Journal of Experiential Education* 44, no. 3 (2021): 208-226, https://doi.org/10.1177/1053825920959684.

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