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CHAPTER THIRTY-ONE

Libraries and the Problem of Digital Humanities Discovery

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Over the last decade, a new kind of librarian took shape in US academic libraries: the digital humanities librarian. In 2011, Jean Bauer was hired as Brown University's first DH librarian, marking the start of a trend in hiring that saw annual searches balloon from two to twenty-eight in just five years (Morgan and Williams 2016). The following year I helped launch *dh+lib*, a project designed to connect the work of LIS professionals and DH scholars, with the understanding that there was significant overlap between the two areas. Also in 2012, Micah Vandegrift published a piece called "What is Digital Humanities and What's It Doing in the Library?," the title playing on Matthew Kirschenbaum's now-classic musing on DH (2012). Vandegrift summed up his argument in a "TL/DR" (too long, didn't read) for the piece:

> Libraries and digital humanities have the same goals. Stop asking if the library has a role, or what it is, and start getting involved in digital projects that are already happening.
>
> Advocate for new expanded roles and responsibilities to be able to do this. Become producers/creators in collaboration with scholars rather than servants to them.
>
> (Vandegrift 2012)

Such bold statements reflect the tone of those years, when questions of "who's in and who's out" took center stage and DH was still reeling from its debut in the popular press. Academic librarians, it seemed, were so delighted to *discover* scholars who were doing work that looked like our work, who valued curatorial ways of knowing, who wanted to talk about controlled vocabularies and metadata that we jumped up to proclaim, "we do this too!" and suddenly the only way to engage with DH was to *do DH*.

The enthusiastic response from librarians looking to expand their roles and responsibilities was met with equal enthusiasm by library administrators who were thus presented with a quick fix for building capacity for digital scholarship (Posner 2013, 44). We speak of the digital humanities librarian as concierge, IT expert, researcher, curator, educator, mediator, interpreter, host, partner, advocate, consultant (Vedantham and Porter 2015, 184–6; Zhang, Liu, and Mathews 2015, 371–3). Bobby Smiley, reflecting on the evolution of DH librarianship, laments: "The nature of my work is saying 'yes' to almost everything" (2019, 416). In 2017, a Digital Library Federation Working Group formed under the tongue-in-cheek banner of "miracle workers," which—though

met with some discomfort—gestured to the "ill-defined mandates" that digital humanities librarians encounter in shepherding institutional digital transformation with very little real power to do so (Bonds and Gil 2017; Morgan 2017).

This expansive view of what libraries and librarians have to offer digital humanities frames the library as lab, the library as producer, the library as platform. Yet with all of the attention paid to libraries and DH, in all of the calls for LIS practitioners to *do* DH and to work collaboratively with digital humanists (indeed, to recognize that librarian/scholar is not a dichotomy), we were perhaps a little too willing to shed the markers of traditional library work. We told ourselves that librarians needed reskilling to support DH. We needed to learn a new scholarly language: DHers create "tools," not software, they create "digital projects," not websites. DHers need help with Gephi, Mallet, Omeka; librarians needed to be conversant with digital humanities techniques and offer workshops steeped in digital humanities pedagogy. We eagerly translated the role of a subject librarian to DH librarian, proclaiming that instead of expertise with traditional sources, a DH librarian might have expertise with one or more "tools" and consult with researchers to pair their idea with an appropriate mode of analysis. Walking them through the process, helping them learn the tool. This was important work then, and it is important work now, but it shaped academic libraries' conception of how to support DH scholars within a limited framework of producer/creator. DH was about *building things*, so librarians focused on building too.

As libraries emphasized their crucial role in producing DH work as partners in developing, sustaining, and preserving digital resources, scant attention was paid to our role in description and discovery, our contribution to disciplinary formation that goes beyond our technology stacks and campus service models. Librarians, somewhat cavalierly, proclaim that "DH research output still lacks attention, integration, and sustainability" (Zhang, Liu, and Mathews 2015, 362), as though these qualities are birthed fully formed out of a developing field. The selectors, the catalogers, the bibliographers, those attending to the infrastructure of description and discovery, how might these "miracle workers" respond to DH? Perhaps in all of our asking about *the role of the library in DH*, we neglected to grapple with the many challenges presented by considering *the role of DH in the library*. By inverting the question that Vandegrift dismissed so long ago, we begin to grasp what has gone missing in the librarian drive to sustain DH knowledge production by becoming producers/creators of DH.

The discussion that follows is necessarily *one* area of libraries, *one* idea of librarianship, and *one* point of contention. The present conjecture depends on a choice between framing digital humanities as methodology, as a computational humanities; or digital humanities as presentational, as a mode of representation of scholarship. I have chosen the latter.

WHY IS IT SO HARD TO FIND DH PROJECTS?

When I teach DH to LIS students, I devote a class period early in the term to locating digital projects and the problem of DH discovery. Students work in pairs to complete a "DH Project Scavenger Hunt," in which they fill out a worksheet using an online search engine to find scholarly DH projects. Students are asked to find a project that meets various qualities, such as: employs a creative or unusual timeline; uses crowdsourced transcription; is not in English; uses twentieth-century texts or materials; includes historical reconstruction or modeling. They then choose one of the projects they've found and discuss these questions with their partner: Is it still active? How can

you tell? How would you categorize the topic or discipline? How would you categorize the method or technologies used? (Is it evident what those are?) Why would you call this a DH project?

These are the kinds of questions that librarians (and faculty) encounter as DH students look for examples to analyze and critique, as they seek models for what's possible and what to incorporate in their own projects. Eventually, we settle on a list of techniques: check the NEH digital humanities grants archive, DH Commons, Around DH in 80 Days, the Black DH Google Doc, DHNow, *dh+lib*. Students are, understandably, mystified by this state of affairs. Why is it so hard to find DH projects?

A 2019 report found that "much of the work of DH discovery, according to those we spoke with, appears to rely upon a network of relationships" with one study participant noting, "you have to know who works with whom" (Hudson-Vitale et al. 2019, 17). At this late stage, why do we put up with such exclusivity? It is no wonder that your digital humanities looks nothing like my digital humanities, if we are traveling in closed circles with pockets of knowledge passed among ourselves. If DH is serious about moving towards equity and inclusion, we must ask: who benefits from a system that requires such insular knowledge as the price of entrance to a field?

Reading the literature in libraries around DH discoverability, one sees how easy it is to conflate findability with interoperability and re-use. Some take discoverability to mean an established metadata standard applied at the point of production to allow automated harvesting and aggregation, a dream of seamless access and magical description. Others conflate discovery with outreach, promotion, media attention, critique, and it becomes a problem of *dissemination*—again, a responsibility of the creator. In this discussion of discovery, I simply mean how and where researchers find and access digital humanities projects and whether they are collocated with other scholarly materials.

Alex Gil has admirably demonstrated that making DH projects visible and accessible does not require large institutional resources. In 2014, responding to the nescience of Anglophone scholars concerning non-Anglophone digital humanities projects, Gil spearheaded "Around Digital Humanities in 80 Days" to highlight the global nature of digital humanities practice. Working with Global Outlook::Digital Humanities (GO::DH), a special interest group of the Association of Digital Humanities Organizations (ADHO), Gil and colleagues collected DH project information in a crowdsourced Google Doc as the basis of an online exhibit that featured a different project each day for eighty days. Since its appearance the project has become a de facto directory of digital projects for those curious about what DH looks like in practice, and it is still sustained by GO::DH, which now identifies discovery as one of its core activities (GO::DH n.d.). Similarly, CariDiScho2020, "A Directory of Caribbean Digital Scholarship," draws on several crowdsourced lists to curate what is essentially an online reference work (CariDiScho2020 n.d.). Developed as part of a 2020 scholarly conference co-organized by Gil, Kaima L. Glover, and Kelly M. Josephs, the directory also includes an underlying Google Doc to allow for continual updating (the directory itself is static). While these initiatives were not reliant on grant funding or sustained institutional support, they do both rely on a social infrastructure of scholarly community, an identified need, and a collective response. Neither is attempting to create a master directory of *all* digital projects, nor are they harvesting and aggregating data on a large scale. These are community-curated lists, and they continue to serve their communities.

Yet, we—librarians—must acknowledge that projects like these are powered by individuals and their Google Docs. They are a lightweight, if temporary, response but they should not be mistaken for a solution to the problem of DH discovery. There must be a middle ground between back-of-the-napkin ideas and our dream of complete interoperability.

MAINTENANCE AND "THE DIRECTORY PROBLEM"

Anyone attempting to resolve the discovery problem by proposing a master database of DH projects will be met with skepticism, a knowing smirk, perhaps, and an outstretched hand to guide them through a history of failed projects that have come and gone. Quinn Dombrowski's insightful account of Project Bamboo and the lessons to be learned from amorphous, multi-institution, and overly ambitious infrastructure projects is one place to start (2014). If we consider Tara McPherson's proposition that "today's fantasies of total knowledge depend on the database," with a foundation of extreme abstraction and an underlying drive towards interchangeability, we might begin to understand the desire for an all-encompassing solution to the problem of DH discovery in the form of a directory (McPherson 2015, 487). Digital humanities practitioners may espouse the tenets of playful experimentation and ephemerality and engage in innovative, nimble responses but they are, at the same time, prone to the "no limits" dreams of totality that are endemic to our digital age.

Through the work of Dombrowski and others, however, DH has come to appreciate the work of maintenance and so we encounter cautionary tales to talk us down from our grand schemes. Shannon Mattern observes that "the world is being fixed all around us, every day" despite the obfuscatory economic discourse of innovation: "Maintenance at any particular site, or on any particular body or object, requires the maintenance of an entire ecology: attending to supply chains, instruments, protocols, social infrastructures, and environmental conditions" (2018). That is, maintenance and repair are not the sole province of any one group, and the negotiation over what gets maintained and who does the maintaining is necessarily fraught. Digital humanities as a community of practice that spans the full range of faculty and staff positions within and adjacent to academia must negotiate these issues as the field grows and matures.

The decision to let go of the DiRT Directory (Digital Research Tools), for example, was not for lack of use or need; indeed, tool directories are lauded for their role "providing recognition" for DH software work, a path towards valuation that takes place outside of peer-reviewed journals (Grant et al. 2020). There is an understanding that directories themselves are necessary, but an appreciation of the maintenance required to keep them current, and thereby useful, rightly dampens any enthusiasm for new initiatives. Without the technical and social infrastructures in place to sustain these projects, which are themselves providing a kind of infrastructure for DH research and scholarship, existing product owners face burnout and a lack of institutional recognition for the work. DiRT was ultimately merged with TAPoR (Text Analysis Portal for Research), but the post-mortem analysis identifies important challenges to those developing research infrastructure that is produced and maintained by disciplinary specialists.

Beyond maintenance, we may also be seeing a shift in our collective understanding of sustainability and preservation. Where once we lamented the burdensome challenges of digital preservation, and conveniently declared that ephemerality was a feature and not a bug, there is now an interest in reviving legacy digital projects, rescuing them not just for re-use but to re-produce them through a process of salvaging; not stripping for parts, exactly, but resurrecting, restoring and repurposing (Senseney et al. 2018; Antonini, Benatti, and King 2020).

A recent study concluded that digital humanities projects have a five-year "shelf life," or period of time a project can exist without updates, after which it can reasonably be considered "abandoned" (Meneses and Furuta 2019). For years I assumed that the loss created by such abandonment was purely epistemic, but now it is the wastefulness of DH projects left to wither on the vine that moves me. What was it all for?

COLLECTING DH

One of the unfortunate corollaries of second-wave DH is that making space for humanities scholars who *want* to present their work digitally, who want to re-present, re-mix, re-interpret, re-think through expansive mediums becomes understood as a call, a mandate, for everyone to do this to remain competitive professionally. Similarly, among academic libraries there grew calls to expand research support services, to expand a slate of workshops, and collectively expand our capacity for digital scholarship, to accommodate this new style of researcher.

Yet what does it really mean to make space for this expansive idea of scholarship in libraries? How do libraries appropriately value open and digital forms of knowledge production in the academy, beyond touting our role as facilitators and producers of this new knowledge? Academic libraries have spent most of the Internet age desperately updating our image, our rationale, our services when historically our strengths lie in notions of permanence, reliability, longevity. Like the phenomenon of habitual new media described by Wendy Hui Kyong Chun, twenty-first-century libraries have been frantically "updating to remain the same," fighting obsolescence even by "writing over" or destroying the very thing we wish to resuscitate (Chun 2016, 2). How often have we heard that libraries are no longer necessary because everything is online? So we (re)discover the library as lab, the library as producer, the library as platform. It is no wonder that the perennial future of libraries has been, like Elsevier, leaning towards "workflow" over content (Schonfeld 2017).

The irony is that to make space for the humanities, done digitally, libraries need to *collect* this work, and we need to figure out how to do so in the absence of any industry standards for freely available digital materials. Now, it is true that the sum of a library's contributions to academia goes beyond the maintenance of physical and digital collections, but to attend to our role in disciplinary formation we must acknowledge the legitimizing function of libraries. Our collections reflect our priorities, our values, and our sensibilities. We can't wait for grand schemes of interoperability and data re-use to materialize from the creators, or from the next four-year grant-funded initiative that investigates project sustainability. We need rogue collectors, working outside the rarefied world of special collections, looking not to preserve the entirety of a digital work but to record useful metadata and integrate it with our proprietary digital resources. We need to solve the directory problem using systems we already have.

What would it look like for a library to *collect* DH instead of *support* DH? Imagine selectors at research libraries scouring scholarly journals for digital project reviews, chasing project citations in published books and articles, attending conferences and noting works-in-progress to build a list of digital materials to "acquire." We might find institutions identifying their own collection strengths and weaknesses, drawing on the disciplinary knowledge of our producer/creator digital humanities librarians to fill the gaps. If this sounds absurd, consider that today's academic libraries already operate in a post-ownership environment for electronic resources. Many of our librarian colleagues already spend their days configuring (and battling) proprietary systems that offer little in the way of stable access to digital collections. Perhaps we should consider how libraries could approach the discovery issue for openly available digital humanities projects as a means of sustaining our scholarly communities. By collocating digital resources with print and audiovisual materials and providing access through *description*, even in the absence of ownership, we might tip the scale towards broader integration, attention, and sustainability.

Most DH projects are produced outside of any formal publishing apparatus, any profit motive to standardize the identification and exchange, any financial value ascribed to the object itself

that warrants careful collection and preservation. Yet libraries have seen this before. In 1982, *Alternative Materials in Libraries* called on librarians to attend to the systemic barriers impeding the acquisition, cataloging, and use of "alternative publications, which include small press and other materials produced by non-standard, non-establishment groups or individuals" (Danky and Shore 1982). Librarians were (finally) responding to the explosion of counterculture literature and the ways in which our procurement and processing systems were simply not designed to accommodate non-standard, non-mainstream materials. The move to collect and catalog the alternative press and zines was not just another iteration of the canon wars; librarians needed to address the material conditions of our collecting and procurement processes in order to meet our obligation to our local communities, and that involved expanding our collection scope and integrating alternative materials into our existing catalog (Dodge 2008).

DH projects are cultural artifacts but unless libraries are responsible for full stewardship and preservation in partnership with the creators, we have no ownership. Without ownership, we have only a path to the work, which hinders our collective willingness to dedicate institutional resources to cataloging and integrating it into our discovery system. And yet, a path to a work starts to sound an awful lot like a citation. Imagine a practice of enumerative bibliography to record and document the steady growth of DH projects, to begin to identify where to allocate resources (and time) for deeper technical services work. What is stopping us? Blame the primacy of search, of Google; blame the fact that it's free, so we don't need to bother *collecting* it; blame the proliferation of LibGuides over stable and uniform reference guides, and the newer library services platforms that have turned libraries' attention from cataloging electronic resources to activating subscriptions and troubleshooting connections. The twenty-first-century traditional-digital scholarly publishing system is turning libraries into mere mechanisms for translating procurement funds into access points, and in our move to "write over" library collections we are finding new forms of enclosure surrounding the commons.

The open access (OA) movement has struggled with many of the same issues and a solution has not been forthcoming, but there is a commonality between the challenges of getting OA works into library discovery systems and the problems of DH discovery. "Mapping the Free Ebook Supply Chain," a grant-funded investigation into the mechanics of ebook discovery, concludes that "There is a clear need to make sure that OA books are included more rigorously in library catalogs" (Watkinson et al. 2017, 2). Report authors identified challenges that are all too familiar to DH: "systems and workflows designed to lock down not open up books," "questions about sustainability," and "lack of consistency in metadata" (Watkinson et al. 2017, 4). On institutional resources, they note: "Preparing books for deposit in platforms, including cataloging, incurs costs and it was unclear whether publishers or libraries would be willing to fund these fees" (4). Might libraries be willing to incur costs to catalog digital humanities projects? What if our producer/creator librarians, versed in DH tools and techniques, were able to leverage this knowledge in their libraries to design our own strategies instead of pushing it out to individual creators?

These are the problems that DH brings to the library, and by attending to the discovery and use of digital humanities projects we can approach the challenges collaboratively in a way that is impossible when working with commercial vendors. Libraries have already embraced, rightly or not, a post-ownership licensing model for digital materials; why not use some of our resources to tackle the OA discovery problem in a sphere where we are already working as partners in scholarly production? Archivists have developed a postcustodial model that works particularly well

with participatory and community archives, in which an institution stewards materials that are not in their physical custody ("SAA Dictionary: Postcustodial" n.d.). Perhaps it's time for libraries to separate description from ownership and to mobilize our collective capacity and institutional resources towards developing and adapting our systems for the somewhat paradoxical "acquisition" of open access materials.

* * *

A library catalog record is evidence of a work's existence, somewhere. A citation is evidence of its existence, somewhere. A Google Doc is evidence of its existence, somewhere. And once you have that record of existence with a few key data points, you can begin the process of locating it, of tracing its path through production to reception to obsolescence and rediscovery. But to do this, you must have the initial trace, the scant evidence from which to begin. A library catalog is a surrogate for the library collection, and each record is designed to capture enough descriptive information such that you can easily assess whether the item itself is worth retrieving. Serials cataloging, for example, has intricate means of connecting publications across changes in name or publisher. These linking fields do more than describe the object at hand; they map relationships between objects and between records. This is painstaking work, some would call it unsustainable, and yet it is sustained by a system of paid professionals whose core concern is description and access through creating and maintaining records.

For a brief moment, in the early Internet age, libraries were enthusiastic about adding websites to library catalogs as just another information format, with an effort towards standards and training in the US being developed by CONSER, the Cooperative Online Serials Program administered by the Library of Congress's Program for Cooperative Cataloging (Gerhard 1997; Moyo 2002). Publications like the *Journal of Internet Cataloging* helped justify a move to expend institutional resources to describe freely available online sources that offered enduring research value (the publication has since been renamed the *Journal of Library Metadata*). Berkeley's Digital Library SunSITE articulated four "digital collecting levels" with corresponding preservation commitments: archived, served, mirrored, and linked ("Digital Library SunSITE Collection Policy" 1996). Similarly, the IFLA Working Group on Guidelines for National Libraries addressed the challenges of electronic resources for national bibliography and posed the question of whether users were better served by libraries recording what exists or recording only what is held (Žumer 2009). In the late 1990s and early 2000s, US catalogers had professional concerns about the sustainability of such efforts. They noted the importance of being format-agnostic in bringing quality sources into library catalogs, but faced a dilemma over efficiency and whether they should just "leave the job to search engines like Google" (Dong 2007). It's clear today which side of the argument won, though given what has transpired in the intervening years and the revelations surrounding Google's search algorithms, libraries may need to reassess our approach. Why not begin with digital humanities scholarship as a use case for selecting and cataloging freely available web content in research libraries?

Ultimately, we need to arrive at a point where non-host institutions can collect and preserve digital humanities projects. A recent Mellon-funded project called "Digits" explored software containerization as a possible path and identified technical and social barriers to the integration of DH research output. The group suggests that we need technical standards for creators if we

are to solve the problem of portability, to allow scholars to deposit their work with a library and to move responsibility for low-stakes maintenance and preservation away from the individual creator (Burton et al. 2019). Regarding social barriers, DH scholars are beginning to see the value of reviewing digital humanities work in disciplinary publications, and in 2019, Roopika Risam and Jennifer Guiliano launched an experimental journal, *Reviews in DH*, designed to "foster critical discourse about digital scholarship in a format useful to other scholars" (Reviews in Digital Humanities n.d.). Such publications could also serve as a filtering mechanism for library selectors wishing to catalog DH at their libraries.

Knowing what we know now about the rise of Google, blogs, social media, and the systematic defunding of public institutions under neoliberalism, it is no surprise that cataloging websites was seen as a fool's errand. Yet the importance of *collecting* externally hosted online scholarly resources by *cataloging* them is better understood when presented with the limited use case of digital humanities researchers. We should also acknowledge that there are libraries who already catalog DH projects, but they are exceedingly rare, especially in relation to the number of libraries who have been expanding digital scholarship services over the last decade. The beauty of cooperative cataloging is that one library can create a record and another can enhance, refine, or correct it in a shared cataloging environment. The selection of online materials to be cataloged, if it's done at all, would typically be performed by subject specialists in the library, but since digital humanities librarians have reimagined that role away from traditional services it is very likely that no one is currently doing this work. I linger on these details because the maintenance of the system, the catalog, the record—this maintenance is the work of libraries, and it undergirds our ability to facilitate knowledge production. We are failing the digital humanities by not tending to our "traditional" library concerns while exhorting everyone to become a producer/creator of DH.

In discussing the challenges related to maintaining tool directories, Grant et al. note that, "we have experimental infrastructure, but it hasn't yet been woven into the practices of the field partly because the practices are still emerging" (2020). It may be that the practices of DH will have no use for the library catalog. But should the absence of a full-scale solution stop us from collecting and cataloging in piecemeal? We might find value in a multiplicity of approaches, weaving together a patchwork of library collections that are sustained and maintained as an alternative to our beloved Google Docs.

CONCLUSION

Cataloging digital humanities projects and tools might help make them legible as scholarship but it requires breaking the spell of *libraries doing DH*. If we can do that, if we can broaden the mandate of digital humanities librarianship away from the producer/creator model we can imagine bibliographies and indexes and compendiums and encyclopedias and all manner of reference works documenting the creative output of digital humanists. We can imagine libraries adjusting to a post-custodial mode of collecting, developing practices that align with the open access movement and breaking free from vendor solutions that move to enclose our digital commons.

Thinking about the role of DH in libraries causes us to wrestle with the challenge of an online, networked humanities. It causes us to wrestle with who is responsible for collecting "free" work, how we will curate those collections, and who will dedicate resources to protecting materials that are not valuable from a monetary standpoint, cannot (yet) be bought and sold as "rare" materials

to a consumer collector. It forces us to question what is valuable about scholarship: the making? the doing? the representation?

Now, readers may interpret this provocation as a reprimand to librarians, a call to stop traveling amongst the producers and stay home tending their collections. I don't want to stop librarians at all, I want more librarians attending to DH in more ways than one. I've proposed here that the problem of DH discovery is intimately woven with librarians' discovery of DH. (Yes, librarians were involved in much earlier stages dating back to the days of humanities computing, but I am referring to the clear growth in positions identified earlier.) Recognizing the many ways that librarians can support and, indeed, *do digital humanities* beyond the producer/creator model is but one step towards the maturation of our professional engagement with the field. Consider this a call for a cadre of librarians attending to the work of description and access for openly available, online, digital resources, using digital humanities as a use case for what surely lies ahead.

Marisa Parham reminds us that "Working merely to map extant systems … onto new kinds of scholarship not only assumes that such translation is possible; it also implies that we are in fact satisfied with what we already have" (2018, 683). We might not *want* to translate extant library systems to meet the challenge presented by digital humanities projects, but we don't have to be satisfied with mere translation. We can imagine alternatives and set our sights on building out the infrastructure of description and discovery for open materials on our own terms and in ways that meet the needs of digital humanists.

There may never be a single, correct, answer to the problem of DH discovery, but libraries already have the infrastructure to develop a network of local solutions and map connections between our multiple communities of practice. It's time for us to get started.

REFERENCES

Antonini, Alessio, Francesca Benatti, and Edmund King. 2020. "Restoration and Repurposing of DH Legacy Projects: The UK-RED Case." In *Book of Abstracts of DH2020*. Ottawa. https://dh2020.adho.org/wp-content/uploads/2020/07/138_RestorationandRepurposingofDHLegacyProjects.html.

Bonds, Leigh, and Alex Gil. 2017. "Introducing the 'Miracle Workers.'" *DLF*. December 15. https://www.diglib.org/introducing-miracle-workers-working-group/.

Burton, Matthew, Matthew J. Lavin, Jessica M. Otis, and Scott B. Weingart. 2019. "Digits: A New Unit of Publication." https://docs.google.com/presentation/d/e/2PACX-1vT0ksN1GnMilebHrmgGTeN5jhIK3nBURVQ4YBWevUoAYcANwqgSKXZ5MEV7wUh8Hz65IlzvnCS6eRlI/pub?start=false&loop=false&delayms=60000#slide=id.p.

CariDiScho2020. n.d. "Sources." CariDiScho2020. http://caribbeandigitalnyc.net/caridischo/.

Chun, Wendy Hui Kyong. 2016. *Updating to Remain the Same: Habitual New Media*. Cambridge, MA: MIT Press.

Danky, James Philip, and Elliott Shore. 1982. *Alternative Materials in Libraries*. Metuchen, NJ: Scarecrow Press.

"Digital Library SunSITE Collection and Preservation Policy." 1996. http://web.archive.org/web/20110628222622/http://sunsite.berkeley.edu/Admin/collection.html.

Dodge, Chris. 2008. "Collecting the Wretched Refuse: Lifting a Lamp to Zines, Military Newspapers, and Wisconsinalia." *Library Trends* 56 (3): 667–77. https://doi.org/10.1353/lib.2008.0013.

Dombrowski, Quinn. 2014. "What Ever Happened to Project Bamboo?" *Literary and Linguistic Computing* 29 (3): 326–39. https://doi.org/10.1093/llc/fqu026.

Dong, Elaine X. 2007. "Organizing Websites: A Dilemma for Libraries." *Journal of Internet Cataloging* 7 (3–4): 49–58.

Gerhard, Kristin H. 1997. “Cataloging Internet Resources.” *The Serials Librarian* 32 (1–2): 123–37. https://doi.org/10.1300/J123v32n01_09.

GO::DH. n.d. “About.” Global Outlook::Digital Humanities. http://www.globaloutlookdh.org/.

Grant, Kaitlyn, Quinn Dombrowski, Kamal Ranaweera, Omar Rodriguez-Arenas, Stéfan Sinclair, and Geoffrey Rockwell. 2020. “Absorbing DiRT: Tool Directories in the Digital Age.” *Digital Studies/Le Champ Numérique* 10 (1). https://doi.org/10.16995/dscn.325.

Hudson-Vitale, Cynthia, Judy Ruttenberg, Matthew Harp, Rick Johnson, Joanne Paterson, and Jeffrey Spies. 2019. “Integrating Digital Humanities into the Web of Scholarship with SHARE.” Association of Research Libraries. https://doi.org/10.29242/report.share2019.

Mattern, Shannon. 2018. “Maintenance and Care.” *Places Journal*, November. https://doi.org/10.22269/181120.

McPherson, Tara. 2015. “Post-Archive: The Humanities, the Archive, and the Database.” In *Between Humanities and the Digital*, edited by Patrik Svensson and David Theo Goldberg, 483–502. Cambridge, MA: MIT Press.

Meneses, Luis, and Richard Furuta. 2019. “Shelf Life: Identifying the Abandonment of Online Digital Humanities Projects.” *Digital Scholarship in the Humanities* 34 (Supplement 1): i129–34. https://doi.org/10.1093/llc/fqy079.

Morgan, Paige. 2017. “Please Don’t Call Me a Miracle Worker.” December 17. http://blog.paigemorgan.net/articles/17/please-dont.html.

Morgan, Paige, and Helene Williams. 2016. “The Expansion and Development of DH/DS Librarian Roles: A Preliminary Look at the Data.” Milwaukee, WI: OSF. https://osf.io/vu22f/.

Moyo, Lesley M. 2002. “Collections on the Web: Some Access and Navigation Issues.” *Library Collections, Acquisitions, and Technical Services* 26 (1): 47–59. https://doi.org/10.1016/S1464-9055(01)00240-8.

Parham, Marisa. 2018. “Ninety-Nine Problems: Assessment, Inclusion, and Other Old-New Problems.” *American Quarterly* 70 (3): 677–84. https://doi.org/10.1353/aq.2018.0052.

Posner, Miriam. 2013. “No Half Measures: Overcoming Common Challenges to Doing Digital Humanities in the Library.” *Journal of Library Administration* 53 (1): 43–52. https://doi.org/10.1080/01930826.2013.756694.

Reviews in Digital Humanities. n.d. “About.” Reviews in Digital Humanities. https://reviewsindh.pubpub.org/about.

“SAA Dictionary: Postcustodial.” n.d. https://dictionary.archivists.org/entry/postcustodial.html.

Schonfeld, Roger. 2017. “Cobbling Together the Pieces to Build a Workflow Business.” *The Scholarly Kitchen* (blog). February 9. https://scholarlykitchen.sspnet.org/2017/02/09/cobbling-together-workflow-businesses/.

Senseney, Megan Finn, Paige Morgan, Miriam Posner, Andrea Thomer, and Helene Williams. 2018. “Unanticipated Afterlives: Resurrecting Dead Projects and Research Data for Pedagogical Use.” *DH2018* (blog). June 7. https://dh2018.adho.org/unanticipated-afterlives-resurrecting-dead-projects-and-research-data-for-pedagogical-use/.

Smiley, Bobby L. 2019. “From Humanities to Scholarship: Librarians, Labor, and the Digital.” In *Debates in the Digital Humanities 2019*, edited by Matthew K. Gold and Lauren F. Klein, 413–20. Minneapolis, MN: University of Minnesota Press. doi: 10.5749/j.ctvg251hk.38.

Vandegrift, Micah. 2012. “What Is Digital Humanities and What’s It Doing in the Library?” *In the Library with the Lead Pipe*, June. http://www.inthelibrarywiththeleadpipe.org/2012/dhandthelib/.

Vedantham, Anu, and Dot Porter. 2015. “Spaces, Skills, and Synthesis.” *Digital Humanities in the Library: Challenges and Opportunities for Subject Specialists* (April): 177–98. https://repository.upenn.edu/library_papers/86.

Watkinson, Charles, Rebecca Welzenbach, Eric Hellman, Rupert Gatti, and Kristen Sonnenberg. 2017. “Mapping the Free Ebook Supply Chain: Final Report to the Andrew W. Mellon Foundation.” University of Michigan. http://hdl.handle.net/2027.42/137638.

Zhang, Ying, Shu Liu, and Emilee Mathews. 2015. “Convergence of Digital Humanities and Digital Libraries.” *Library Management* 36 (4/5): 362–77. http://dx.doi.org.ezproxy.gc.cuny.edu/10.1108/LM-09-2014-0116.

Žumer, Maja, ed. 2009. *National Bibliographies in the Digital Age: Guidelines and New Directions*. IFLA Series on Bibliographic Control 39. Munich: De Gruyter Saur.