

Does Every Research Library Need a Digital Humanities Center?

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Executive Summary

There are many ways to respond to the needs of digital humanists, and a digital humanities (DH) center is appropriate in relatively few circumstances. Library leadership can choose from a range of possible directions:

- package existing services as a “virtual DH center”
- advocate coordinated DH support across the institution
- help scholars plan for preservation needs
- extend the institutional repository to accommodate DH digital objects
- work internationally to spur co-investment in DH across institutions
- create avenues for scholarly use and enhancement of metadata
- consult DH scholars at the beginning of digitization projects
- get involved in DH project planning for sustainability from the beginning
- commit to a DH center

A DH center does not always meet the needs of DH researchers. When warranted, a DH center is not necessarily best located in the library. Library culture may need to evolve in order for librarians to be seen as effective DH partners. A handful of models demonstrate successful collaborations with digital humanists, but one size does not fit all.

In most settings, the best decision is to observe what the DH academics are already doing and then set out to address gaps.

Introduction

The digital humanities (DH) are attracting considerable attention and funding at the same time that this nascent field is striving for an identity. Some research libraries are making significant investments by creating digital humanities centers. Questions about whether such investments are warranted, however, persist across the cultural heritage community. Is building infrastructure for DH too big an outlay to benefit a very limited scholarly audience? Or is failing to support DH a greater risk? Libraries must engage with digital humanists, but at what level of investment? Do opportunities exist to collaborate with other institutions? Which aspects of DH should be managed locally? In this essay we seek to address these questions.

Our goal is to prepare library directors and other decision-makers to respond to questions from deans, or provosts who may ask what the library is doing about the digital humanities.¹ We discuss specific concerns of scholars engaged in DH and tie these to decisions that might be made by directors. We hope to bridge the gap between how library directors and DH researchers think.

Regardless of the extent to which a library supports DH, it is vital to commit to continuing advocacy for the humanities, including finding new ways to support the *digital* humanities as the field continues to evolve. A director's investment in DH can be extensible to researchers outside traditional humanities departments. In fact most services developed to support DH should scale to support other digital scholarship—and scholarship in general.

The nature of digital humanities scholarship varies by institution, so your approach should focus on local needs. What are the DH research practices at your institution, and what is an appropriate role for the library? What are the needs and desires of scholars, and which might your library address?

To help directors confront these issues, we familiarized ourselves with the DH scholars' point of view—about their processes, their issues, and their needs. We followed online discussions, attended scholarly conferences, read the literature, and took advantage of opportunities to talk to scholars about what they do, how they do it, and where they would like assistance.²

We conducted two informal focus groups¹⁰ in which we asked DH scholars questions such as:

- Remembering a recent piece of work you did, what kinds of sources did you use? What made locating them easy or hard?
- How do you publish or share the outcomes of your research? What will happen to tools, new versions of your source material, or other byproducts of your research?
- What skills do you wish you had on your research team?

In late 2012 and 2013, OCLC Research staff attended a variety of DH meetings:

- THATcamp DH and Libraries³
- CATCH in Context⁴
- CATCH WebArt⁵
- Beyond the Text: Literary Archives in the 21st Century⁶
- ELAG Inside Out Libraries⁷
- Canadian Society for Digital Humanities⁸
- Digital Humanities 2013⁹

Views of DH scholars are paraphrased throughout this essay. Our purpose in gathering information about current trends in the digital humanities was to locate a productive entry point for libraries. To do this, we used a library lens to focus what we heard from DH researchers. We synthesized recurring themes and corresponding decisions in this essay, which is unavoidably subjective.

The fields of humanities computing and digital humanities have been evolving over several decades. Our working definition is “application of digital resources and methods to humanistic inquiry” (Waters 2013, 4). Some consider the “process” of DH to be part of the scholarship, while others see published outcomes as the only true coins of the realm. The unit of DH is the project, which often requires a one-off approach (Burdick et al. 2012, 122). Most often, scholars garner significant support outside of the library, including from outside of the institution. Some issues for DH projects are distinctively local, such as those involving personnel, university technology support, or project management. Others (such as discovery, preservation, or metadata) may be cross-institutional, interdisciplinary, national, or international.

In this essay we argue that library directors can engage with DH along a continuum of investment. The most important point is that digital humanists are fiercely independent. Developments in DH generate demand for technical skills that are still rare among scholars and librarians alike. It is not news to directors that digital humanists have an insatiable appetite for digital sources, as well as for metadata for source materials. They desire their own DH projects to be discovered easily when others do research. Questions of digital preservation and sustainability are omnipresent in DH. The digital humanities will benefit substantially from coordination within and across libraries and research institutions.

We conclude that these needs and desires of digital humanists can be addressed in a nuanced way, and tailored to demand. Most institutions will find their appropriate solutions along a spectrum of possible investments in the digital humanities. Only rarely will a director need to sink resources into a DH center.

Scholars' Autonomy

Most academics prefer to be self sufficient, and it doesn't occur to many digital humanists to seek help from the library. A healthy dose of humility is therefore in order when offering help to incubate DH projects. Some scholars will appreciate assistance ramping up their projects, but even if they subsequently work with programmers and librarians, they may want to write code and curate without assistance.

The library's role is not necessarily to make technology easier. DH scholars often consider wrestling with digital methods to be an integral part of their intellectual inquiry. Some large-scale projects to create comprehensive technical solutions for DH have demonstrated the danger of de-contextualizing scholarship and producing a homogenizing effect.

DH culture advocates taking risks. A director can experiment but should anticipate that a small percentage of scholars may take advantage of the offer. Successful library involvement in local DH initiatives will be influenced by prevailing attitudes regarding the library. Don't waste resources trying to fix problems that don't exist. DH researchers don't expect librarians to know everything about DH, and librarians should not presume to know best.

Identifying Competencies

Digital humanists have varied opinions about the skills necessary to conduct DH projects successfully. Some say that they long for other specialists on their team, or, conversely, that they need people who have multiple skills. "A new kind of digital humanist is emerging who combines in-depth training in a single humanistic subfield with a mix of skills drawn from design, computer science, media work, curatorial training, and library science" (Burdick et al. 2012, 116). Everyone recognizes the need for new skills that are not necessarily associated with the traditional humanities.

Both directors and DH scholars are interested in assembling competencies, including personal competencies (like risk-taking or time management), administrative competencies (especially project management), library competencies (such as metadata expertise), and mathematical and technology competencies (such as statistics, programming, and interface design).

Hiring new librarians and archivists with skills for digital collaboration is a significant investment, and it is not practical or realistic to expect one person to "do all the digital stuff."

Lucky directors may find that they already have DH-skilled librarians in their midst. Sometimes one or two staff members will rise to the occasion for digital scholarship, while in other libraries everyone is encouraged to get up to speed. Occasionally the DH librarian is a full-fledged participant on the project team, rather than playing a supporting role. In some organizations jealousy might crop up when a “chosen” person gets the desirable assignments, and in other settings staff may resent having to skill up in this new field. It goes without saying that librarians with new job titles or responsibilities must be allotted the resources, training, and time to handle their new assignments.

While some DH academics request support from the library, they almost never expect the library to contribute domain expertise. Should a DH scholar desire training with tools, for example, it is critical to find out specifically what is wanted and whether the library can meet that need. A director can economize and foster collaboration by training library staff along with DH researchers.

Finding Sources

Primary Sources

When digital humanists talk about finding primary sources for their work, libraries and archives figure significantly in their thinking. In parallel, directors are interested in mobilizing their collections for new audiences and purposes, particularly where research converges with archives and special collections. Digital humanists work at this intersection.

Humanities research has always placed a high value on exhaustive examination of all relevant materials. However, many scholars have long chafed at the time necessary to work painstakingly through silos of bibliographic and digital materials. For digital humanists, it is not trivial to collect and prepare the desired corpus of materials; researchers report that they (or their students) must touch each item individually in order to assemble the sources that they use. They long for a single point for discovery across a comprehensive corpus.

Most scholars prefer to locate, assemble, and prepare their sources themselves, whether the materials are bibliographies, texts, oral histories, or images—and whether they are in their local library or archives, in distant ones, or out in the wild. One or two digital humanists say that they would like the library to acquire, transcribe and encode the source materials, but we found this opinion quite rare.

Digitized Materials

Digital humanists and directors share the goal of making vast quantities of digitized materials available for use. Humanities research has evolved and requires more sophisticated and

scalable access to digital sources, such as batch-downloading a digitized corpus or text-mining millions of digital books. In retrospect, it seems that the sum total of cultural heritage digitization programs is chaotic and ill-suited to serve scholars (McGann 2011). Digitization efforts have been fragmented across libraries and the entire cultural heritage sector, leading to wasted resources and duplication of effort.

Directors should ensure that scholars are consulted when planning content and formats for digitization. Scholars would like to guide selection of books and special collections for digitization. Why digitize for a potential future interest, when urgent needs exist for particular materials now?

Born-digital Materials

Providing access to born-digital manuscripts and electronic literature is critical for digital humanists. Academics are clamoring for access. Literary electronic literature (e-lit)¹¹ exists *only* in digital form and requires careful management in order to be experienced in context. Many libraries are acquiring other types of born-digital content, but few have taken up the challenge to collect and preserve access to e-lit. We heard about examples of significant e-lit works that have been lost. Some scholars acquire endangered e-lit works and retain their functionality themselves, because they have given up waiting for libraries or others to do so.¹² This is one opportunity for librarians and archivists to learn from DH research and to reuse successful DH approaches, rather than develop their own.

Facilitating Discovery of Digital Humanities Research Outcomes

Digital humanists want their projects to be discoverable, and they also want others to be able to find individual source materials that they have enriched during the project, such as texts encoded and images created. They often wish to contribute their siloed materials to a larger aggregation in order to make them easily available for reuse and scholarly analysis (McGann 2011). Many academics would like to include their untraditional scholarly outputs in online catalogs so that they will become discoverable alongside other humanities resources. We heard some say that the library catalog is the logical place for these materials.

From a DH perspective, the imprimatur of the library confers legitimacy and ensures longevity. We learned of overtures that DH projects have made to invite libraries to “accession” their digitized materials or metadata. Some libraries have declined to incorporate DH materials because they are not “in” the library collection. Sometimes DH scholars have been told that the library will not collaborate because it is competing with DH for limited resources. Such rebuffs are not forgotten easily. Resentment lingers.

Directors can support DH by providing a repository for digital files and metadata records for all materials used in a project, no matter where the physical originals are housed. More than that, the library can remove obstacles to discovery and make DH materials accessible outside the walls of the library and university.

Coordinating Local Support Structures

Digital humanities services can come from a variety of sources: an academic department, the library, the information technology department, or from outside the university (such as domain-specific or national digital infrastructures). Some DH needs are unique to a project (e.g., a particular visualization tool), while others are the same as those of other projects or fields (e.g., data storage and preservation).

The library has political and social roles to play on campus, and a savvy director is positioned to advocate for coordinated DH support. The director might broker relationships with the central computing unit to provide server space. A respected subject librarian can work with an academic department to supplement support already provided to faculty members. In reciprocal fashion, an Office of Research or Sponsored Projects might help connect researchers to the library's DH services.

In most settings, the best approach will be to observe the local organic alliances and institutional niches of DH, and then set out to coordinate existing university services and infrastructures to fill any gaps.

Collaborating Beyond Your Institution

Some desirable activities inherently require collaboration with other libraries, national or disciplinary entities, or other digital humanities programs.

Integrate Resources

Aggregations of materials from multiple projects and institutions are beginning to figure prominently in the DH landscape. Many of these aggregations (which may include encoded texts, collections of DH tools, or digital materials on particular topics) are virtual: they are metadata portals that link to texts or tools housed elsewhere. When we asked about the sustainability of one such aggregation, we were told that it was completely sustainable because the texts were stored on other servers. In some cases those "other servers" might be institutional repositories, but far more likely they are departmental servers or individual researchers' computers. It is rare for such sites to have long-term preservation plans.

Directors might start by consulting with academics to discover whether appropriate topic-specific services are offered elsewhere and whether they are reliable for the long term. Some universities offer to integrate DH materials for all academics working in a particular subfield, or with particular tools, or with a particular approach to analysis. These may be areas in which your library does not need to invest; perhaps you could instead adopt an orphan discipline or method of DH research.

Improve Metadata

One librarian told us that metadata is catnip to digital humanists. Creating, sharing, and reusing metadata is a large part of DH discourse. DH requires intensive use of library and archival metadata and relies on its quality and comprehensiveness.

Solid methodology and close analysis—hallmarks of academic research—often result in scholars having better information about the sources than archivists and librarians do. Naturally, this leads researchers to want to improve catalog records and finding aids by contributing new information, correcting errors, and adding links to digital images collected in the course of their research.

Local additions and error correction only go so far, however. DH scholars would like to share their enhancements more broadly. Collectively, directors are in a position to influence vendors and library utilities to create avenues for sharing scholarly enhancement of metadata.

Disambiguate Names

Digital humanists are delighted to have discovered new sources of name variants and authorities such as VIAF¹³ and EAC-CPF.¹⁴ Existing aggregations of names are often not adequate, however. For example, library name authority files typically include only people who appear in monographs and do not articulate some of the contexts and relationships that are essential for DH.

DH academics would like to supplement, correct, and add name authorities, and they imagine that librarians and archivists would be happy to have them do so. From the library's point of view, however, it sometimes seems that DH projects are reinventing authority control. Could DH resources—developed to support academic inquiry—coexist with files of names that are already used to manage library and archival records? Would one endeavor inevitably complicate the other, or could both benefit? We believe the latter can be the case.

A director can encourage scholars to work with their library's authorities experts to funnel additions into national and international catalogs and hubs. Some scholarly societies support a discipline's database of entities, which can be batch-loaded into VIAF (Smith-Yoshimura and Michelson 2013, Smith-Yoshimura 2013).

Directors are positioned to work internationally to spur this kind of co-investment across institutions and thereby build bridges over gaps in existing metadata infrastructures and aggregations.

Preserving a Digital Humanist's Investment

As we described earlier, digital humanists tend to think of libraries when the issue of preservation arises, and many consider the library an ideal host for their finished digital projects. We heard comments about how library infrastructure is the only hope of sustainability, and that the library is a critical partner because it has a more stable budget, which is crucial for preservation. A director should turn this perception to the library's advantage.

The library can extend the institutional repository (IR) to maintain DH digital objects and to respond to the *cri de coeur* to safeguard and make accessible born-digital content. When DH researchers talk about preserving their work, they may be referring to either their published results or the digital products of their work such as edited sources, digitized materials, software tools, code or algorithms. When offered a working prototype for preservation, it is one thing to accept a bag of bits, but quite another to ensure that the content will be usable in the future. Librarians know only too well that it is expensive to maintain operating prototypes over generations of hardware and software. Keeping old equipment alive or emulating obsolete environments on current gear may be warranted for landmark projects, but only after considerable deliberation. This is a significant responsibility and, once accepted, it may be difficult to honor indefinitely.

Sustaining the Library's Investment

When planning for the library's investment in the digital humanities, a director must consider sustainability issues from the outset. Are library DH services scalable beyond the first few projects? Does the library have the resources to meet its commitments? What would happen to existing projects if the library were to cease offering a service? And how would you walk away from things that aren't working out without damaging the library's reputation?

One component of sustainability is to avoid creating new systems and tools when existing ones will do. Can you extend an IR to meet DH needs for storage and access? Can the system used for digital library collections include DH resources, such as a scholar's own digitized special collections? Reusable tools and external services (such as cloud storage) may ease the burden.

Ideally, the library should be involved in project planning for sustainability from the beginning of a grant proposal process, so as to help think through which outputs will be of continuing

value and how they should be managed along the way. When projects require customized systems, the library can collaborate on plans to “twilight” the DH project, or to migrate the content. One way to approach scalability and sustainability is to offer infrastructure for DH as an ongoing service. Sometimes a single platform can meet most needs. A base level of service may suffice with minimal customization for a majority of projects. Outliers may be required to include funding for their special needs in their grant proposal. Hopefully economies of scale will open up opportunities to innovate for really special projects.

A project agreement between the library and the DH team is highly desirable for articulating standard services or custom services, duration of support, service level agreements, and decommissioning. Full or partial cost recovery decreases “scope creep” and encourages scholars to assess their ongoing needs.

Do You Need a Digital Humanities Center?

Before deciding to invest in a DH center, library directors can consider a continuum of other possibilities. Every research library is already supporting DH at some level. Libraries acquire special collections and other library materials for the humanities, digitize collections for improved access and utility, and provide repositories for scholarly publications. Interlibrary loan provides access to remote collections. Most libraries and archives offer scan-on-demand services and allow use of personal digital cameras in special collections. Many directors have assigned research liaisons to work with scholars in various disciplines. In addition, libraries are beginning to provide data curation services and assistance with data management plans for primary sources in the research process. These services are highly valued by the DH community.

Perhaps the simplest way to improve support for the digital humanities is to package these existing library services so that it becomes obvious that they are there to be used by DH scholars. Give your “virtual DH center” a name and publicize it to DH researchers.

A DH-friendly environment may be sufficient. Could a few of the right library staff fill an occasional need for collaboration and advice? Are there services that might meet the needs of several researchers?

Scaling up warrants careful consideration of the library’s capabilities. Is offering general advice sufficient? What about actively supporting a single project, starting small with a pilot? If one pilot is successful, though, would this generate expectations that the library will support the next twenty? In addition, if that first project is treated as a special case, will scholars imagine that all other projects will be treated that way? Establish expectations early on about the library’s capacity to support any given DH project. Seek commonalities and connections among projects and ways to handle exceptions.

Space can be a precious asset to researchers who work collaboratively. If feasible, space located near library expertise and resources may be especially desirable for fostering community and helping library staff become essential research facilitators. Such a space can be a starting point for digital humanists seeking assistance. Or, if resources are limited, it may simply be a place for scholars to congregate while serving as a physical reminder of the library's collections and other services.

A formal DH center managed by the library may be the best choice if you have both high demands and the resources to fulfill them. A DH center cannot depend solely on project money, however; a center is a commitment. While experimentation is necessary, once a center is launched, scholars should be able to depend on it.

Once a director decides to invest in a DH center, what services should it offer? Determine this based on the needs of researchers. They may need access to specialized software or to more computing power than is available on their desktops. They may need a place to store datasets they are creating or manipulating. They may need support for multi-institutional collaboration, such as shared access to secured data. They may need support for statistical analysis or data visualizations. Offering a fully equipped space not only will meet those needs, but also will provide more opportunities for assistance and involvement.

It can be advantageous to staff a DH center with expert programmers and domain specialists, but this may not be necessary as long as scholars can reach someone who will be able to respond quickly. Subject librarians can consult and collaborate with DH teams. Ideally some DH academics themselves will end up offering services in "your" center. Remember, however, that most researchers prefer to be autonomous. They will flourish outside the center. Lavish your attention upon those who want it.

Scholars often mention DH centers positively, both those with significant library involvement and those wholly separate from the library. When asked whether the library should host a DH lab, one scholar-librarian looked quizzical and wondered what needs a center in a library would serve. Another DH scholar declared that the library *is* their lab.

DH can be "dean-candy" and elevate the visibility of the humanities generally (Cecire 2011). A library DH center can draw favorable attention of university administration on the entire humanities faculty and the library.

Conclusion

It has been argued that the digital revolution is reconnecting scholars and memory institutions (Burdick et al. 2012, 33). Ignoring this trend could sever those relationships and position the library more as a museum than as an integral contributor to scholarship. While various science disciplines increasingly depend on research services provided by national initiatives, funding agencies or disciplinary hubs, the humanities have long-standing symbiotic relations with academic libraries. The *digital* humanities will be an important driver for future library services.

Humanities scholars have always been a central constituency for research libraries. The digital humanities constitute an evolving approach to research, and directors must support this work as a component of the university's research mission. Libraries offer many useful services to digital humanists. Where the need is clear and DH scholars are receptive, libraries can offer various dedicated services to further DH efforts. In some cases, a full-blown DH center may be warranted.

Library participation with some DH projects will be necessarily local, while some researchers may obtain support elsewhere. Opportunities exist for a library to partner with other libraries and with other players in their institution—and beyond—to ensure that DH needs are met.

No matter which approaches to supporting the digital humanities you opt to take, keep in mind that what we call “The Digital Humanities” today will soon be considered “The Humanities.” Supporting DH scholarship is not much different than supporting digital scholarship in any discipline. Increasingly, digital scholarship is simply scholarship.

Notes

1. Our intended audience is decision-makers of all sorts in research libraries: university librarians, deans, deputies, directors of research services, directors of archives, heads of special collections, and others who are responsible for decisions about investment in DH. For the sake of brevity, we'll refer only to "library directors" and "directors" from here onward.
2. Interest in digital humanities is not new at OCLC Research. For instance, in 2008 we organized a symposium about the humanities and digitization of special collections: <http://www.oclc.org/research/events/2008/06-02c.html>.
3. See "THATCAMP Digital Humanities & Libraries DLF Forum 2012 Pre-Conference November 3, 2012": <http://dhib2012.thatcamp.org/>.
4. See "Presentations CATCH Midterm Event: CATCH in Context": <http://www.nwo.nl/en/research-andresults/programmes/Continuous+Access+To+Cultural+Heritage+%28CATCH%29/events/presentations+catch+mid+term+event+2012>
5. See <http://www.nwo.nl/en/forms/catch>
6. See <http://beinecke.library.yale.edu/programs-events/events/beyond-text>
7. See <http://elag2013.org/>
8. See <http://www.congress2013.ca/home>
9. The Annual International Conference of the Alliance of Digital Humanities Organizations. University of Nebraska—Lincoln, 16-19 July 2013. <http://dh2013.unl.edu/>.
10. Conducted during the Digital Humanities 2013 Annual Conference (see also note 8).
11. See "What is E-Lit?" <http://eliterature.org/what-is-e-lit/>.
12. See, for example, Lori Emerson's Media Archaeology Lab: <http://loriemerson.net/media-archaeology-lab/>, or the Deena Larsen Collection at the Maryland Institute for Technology: <http://mith.umd.edu/larsen/>.
13. VIAF is the Virtual International Authority File <http://www.viaf.org>.
14. EAC-CPF is the data structure standard for Encoded Archival Context—Corporate Bodies, Persons and Families <http://eac.staatsbibliothek-berlin.de/>.

References

- Burdick, Anne, Johanna Drucker, Peter Lunenfeld, Todd Presner, and Jeffrey Schnapp. 2012. *Digital_Humanities*. Cambridge, MA: MIT Press.
http://mitpress.mit.edu/sites/default/files/titles/content/9780262018470_Open_Access_Edition.pdf.
- Cecire, Natalia. 2011. "It's not 'The Job Market'; It's The Profession (And It's Your Problem Too)." *Works Cited* (blog). 25 September. <http://nataliacecire.blogspot.com/2011/09/its-not-job-market-its-profession-and.html>.
- McGann, Jerome. 2011. On Creating a Usable Future. *Profession*. (1): 182-195.
http://humanities.case.edu/digital/evaluatingDigital_5.pdf.
- Smith-Yoshimura. 2013. "First Scholars' Contributions to VIAF: Greek!" *HangingTogether* (blog). 25 November. <http://hangingtogether.org/?p=3455>
- Smith-Yoshimura, Karen, and David Michelson. 2013. "Irreconcilable Differences? Name Authority Control & Humanities Scholarship." *HangingTogether* (blog). 27 March.
<http://hangingtogether.org/?p=2621>.
- Waters, Don. 2013. "An Overview of the Digital Humanities." *Research Library Issues: A Report from ARL, CNI, and SPARC*. no. 284: 3-11. <http://publications.arl.org/rli284/>.