A NOTE ON THIS VERSION:

This version of the article was submitted to American Libraries Magazine on November 9, 2015. It was significantly edited before publication in the Jan/Feb 2016 issue of American Libraries. The edited version that was approved by authors is also available as a supplementary file in the Carolina Digital Repository. That version is also different from version that appears online.

For more information about the various versions see:
https://stewartvarner.com/2016/01/04/um-about-that-american-libraries-article-we-wrote/

Digital Humanities in Libraries

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Introduction

It is easy to imagine that there was a time when humanities scholarship was characterized by close reading and months of more or less solitary research in libraries and archives. The resulting dissertations, journal articles, and monographs - would be published and placed on a library shelf and the cycle would continue. While the past was, of course, never so simple, contemporary research in the humanities has expanded beyond anything that could be considered traditional. Historians are building interactive digital maps, literary scholars are using computers to look for patterns across millions of books, and scholars in all disciplines are taking advantage of the internet to make their work more dynamic and visually engaging.

Digital Humanities is the umbrella term that is often used to describe much of this work. It is neither a field, nor a discipline nor a methodology. It is not simply the humanities done with computers nor is it simply computer science performed on topics of interest to the humanities. Digital humanities is the result of a dynamic dialog between emerging technology and humanistic inquiry. For some, it is a scholarly community of practice that is engaged in a wide variety of projects but who collectively value experimentation, collaboration and making. For others, it is a contentious label that signifies elitism and is characterized by a fetishization of technology and a lack of critical reflection. However it is defined, digital humanities has had a significant impact on the academic landscape for more than a decade.

Libraries and librarians have played a crucial role in the story of digital humanities. From the earliest days, librarians were eager partners on collaborative digitization projects,

and now they can be found negotiating text mining rights with researchers and vendors, hosting open access journals, and making room for makerspaces within their buildings. We have been such valuable collaborators over the years because the values of librarianship inform a deep interest in information access, a concern for information preservation and a desire to make room for our diverse user communities. Yet, despite this ongoing engagement, libraries are often unsure how they should respond as digital humanities attracts more and more practitioners and its definition evolves to cover an ever-expanding range of techniques and methods.

This uncertainty is illustrated by the responses to a survey conducted by Gale Cengage and American Libraries Magazine. The survey reveals that an overwhelming 97% of libraries agree that digital humanities materials and project outcomes should be held in library collections. However, only a little more than half (51%) reported that consultations about initial project development are an important way librarians are helping users engage in digital humanities projects. The survey found that 17% of responding libraries say there are no digital scholarship services at their institutions at while 41% described their digital scholarship services as merely ad hoc. Not surprisingly, among the libraries who are actively engaged in digital humanities, their activities vary widely. Some have limited their engagement with DH to digital collections while 19% have built expansive digital humanities centers. All of this has had implications for staffing as well with 21% of respondents reporting that they have created special positions such as digital humanities librarian while others are crosstraining existing staff to be project collaborators.

Regardless of a library's particular approach, it is tempting to think of digital humanities in terms of services to be offered or as a field to be supported with specific resources. While this is understandable – and useful, in a limited way - it also places libraries in the role of service provider at the exact moment where it is not clear what services would even be useful. Given the speed at which digital humanities is evolving and the degree of ambiguity and uncertainty that surrounds it, it may be more generative – and more honest – to position the library as research partner who can explore new solutions with researchers rather than a service provider that either has what a researcher is looking for, or doesn't. The survey suggests that most librarians would prefer this model as well with 63% of those surveyed (212 out of 339) reporting that they believe the primary role of a digital humanities librarian should be as full-fledged project collaborator and participant.

There are many libraries that are currently providing excellent examples of how to go beyond being a service provider by becoming a valuable research partner. We talked to several librarians who are doing exciting work to see how they are thinking about digital humanities in their libraries. While every library is unique, there are some characteristics

these libraries share; they encourage their librarians to stay engaged with both their users and their peers, they build on existing strengths, and they aren't afraid to experiment.

Common Characteristics

1. Stay engaged. Because digital humanities means so many things to so many people, it is more important than ever for librarians to be engaged with their local communities. Librarians need to know what kinds of projects interest researchers and what is holding them back. For example, Thomas Padilla, Digital Scholarship Librarian at Michigan State University Libraries, found that his users who were interested in text mining said that "getting access to data and learning how to work with it is a challenge." For Padilla, this is an opportunity to rethink "how libraries prepare and provide access to data which originated from their collections and how libraries help their communities work with data."

Engagement in digital humanities should also expand beyond the library's local community. The global networks of researchers and librarians at other institutions can be vital sources of ideas, inspiration and support. Librarians may find that their local communities are not quite sure where to start thinking about incorporating technology into their work and could benefit from seeing examples. Staying connected to other librarians and digital humanists via social media and through professional organizations is a great way to learn about what kinds of things people are working on and how they are dealing with common challenges. Sarah Potvin, co-Editor-in-chief at DH+Lib and Digital Scholarship Librarian at Texas A&M highlights the value of these networks, describing digital humanities as "a community of learners, where no one person or group can wield total authority or knowledge. It's that spirit-- of learning and curiosity, of looking at questions from such different disciplinary angles-- that I find most welcoming and fruitful."

2. Play to your strengths. While it may seem like a new direction for libraries, getting involved in DH can be a great way for librarians to build on what they do best; working with users on research projects and helping students learn valuable research skills. Laurie Allen, Coordinator for Digital Scholarship and Services at Haverford College, says that "library organizations already include people who are fluent in so many parts of DH: reference librarians understand scholarship, are good listeners and know their communities; catalogers understand how to organize information; and technologists can figure out how tools work, and how to improve upon them." The Gale Cengage/American Libraries survey supports Allen's assertion noting that libraries are leveraging their best known strengths for digital humanities including preservation assistance, metadata enhancement, and accommodation of digital objects in institutional repositories.

Just as digital humanities produces new forms of scholarship, it also demands new research skills. This gives librarians an opportunity to expand their role in instruction. To this end, Padilla and the library at Michigan State received a small grant from the Association of Computers and the Humanities "to bring together disciplinary faculty and librarians from around the State of Michigan to test the utility of cross walking ACRL's Framework for Information Literacy, competencies from the Data Information Literacy Project, and disciplinary learning competencies in order to design more effective Digital Humanities instruction." The team at MSU learned that by working collaboratively, they were able to "foster beneficial conversations about Digital Humanities instruction design between librarians and disciplinary faculty."

3. Don't be afraid to experiment. While librarians will find that their core strengths are vital to digital humanities work, this does not mean that they can simply remain in their comfort zone. Embracing a spirit of experimentation is essential for libraries engaged with digital humanities because new tools and techniques are constantly emerging and there are always opportunities for the library get involved in new work. Allen, reflecting on her experiences working with students at Haverford, said "the more our libraries can build our technical, labor and administrative infrastructures to facilitate experimentation, the easier DH will be."

Unfortunately, experimentation is sometimes the hardest things for libraries to do because it resists standardization, often requires additional spending and raises difficult questions about long-term preservation. While there are certainly ways to experiment thoughtfully by managing expectations and making informed decisions about tools and methods, embracing experimentation also means embracing the possibility of failure. Potvin says, "by acknowledging that failure itself can be productive, instructive, I think we are freeing ourselves and our institutions to embrace change and all the bumps and knocks that may accompany it."

How libraries are currently doing digital humanities

While digital humanities is evolving, certain types of projects emerge so often that they are becoming common. Publishing scholarly digital work, building digital libraries and collections, facilitating text mining, and collaborating digital assignments are in some ways natural ways for libraries and researchers to collaborate. Furthermore, while technologies constantly evolve, certain tools and techniques have proven to be generally useful for many of these activities. This is fortunate because, by finding ways to easily answer common questions, libraries will have more capacity to work on trickier projects.

Digital scholarly publishing. One of the most prominent examples of scholarly publishing in digital humanities is the digital edition (sometimes known as digital scholarly edition or even digital archive). Many libraries are already equipped with the basics for launching researchers on a digital edition project, such as scanning equipment, Optical Character Recognition software for enhancing the accuracy of scanned text and making it editable, searchable, and encodable (via the Extensible Markup Language, or XML), and guidance on tools for XML editing and transformation to make the output human readable. Methods like text encoding enable critical, editorial, and scholarly explorations not otherwise possible. Digital editions often adhere to accepted standards for encoding, such as the guidelines provided by the Text Encoding Initiative (TEI), active since 1987. Examples of digital edition projects that are library-based collaborations with faculty and students include the Victorian Women Writers Project, based at the Indiana University Libraries, and the Shelley-Godwin Archive, a partnership between the New York Public Library and the Maryland Institute for Technology in the Humanities (based in the University of Maryland Libraries).

Digital libraries and digital collections. Libraries are also deploying digital collections in myriad file formats, essentially as data, to allow downloading en masse and, in turn, expedite submission to computational or other methods for analysis, modeling, and visualization. Stripping digital collections down to core components - turning them inside out, so to speak - could render everything old new again in terms of what libraries might offer to the humanities research community. A leading example of an initiative providing this type of multi-format access is DocSouth Data, an extension of the Documenting the American South project, hosted by the University of North Carolina at Chapel Hill Libraries. The representation of digital collections in various data formats may lead to creative programs and partnerships for instruction, collection development and strategy (as suggested in the section on text mining below, as well), digitization, and training or "skilling up" opportunities for both librarians and researchers, including students, to name just a few possibilities.

Text mining. In 2001, Franco Moretti introduced the phrase "distant reading" into literature studies as a way to describe work he was doing that used computers to study larger numbers of books than he could reasonably read. The name is meant as a play on "close reading," the practice of carefully analyzing the details and nuances in a single passage. Moretti's distant reading takes several steps back to look at not a single passage or even a single book but the literature of an entire nation in an attempt to see common features, distinctive patterns and signs of evolution. Libraries can be critical partners in this work. For example, scholars are often limited in what the can study by the availability of machine readable texts. Librarians are negotiating for access to digital collections that facilitates distant reading and making sure their own collections are

accessible as well. Library instruction sessions are also expanding to include training on tools and techniques for text analysis.

Digital Pedagogy. Whether it takes the form of a one-shot session or an ongoing, embedded relationship, class-based library instruction is a common responsibility for librarians. At the most basic, library instruction sessions give students the basics of how to find library resources but librarians often go beyond this and develop complex assignments with instructors that are designed to give students experience doing deep research. Emerging technology is making it easier than ever to expand these kinds of assignments so that students not only engage in meaningful research but also develop original projects that can be shared online. For example, students can contextualize their research temporally and spatially by incorporating their findings into digital timelines or online maps. Thanks to freely available tools like Omeka, classes can easily build online exhibits that allow them to tell stories with primary source material. Assignments like this can be an engaging way for students to connect with library resources and help them develop new skills (or use skills they've developed elsewhere).

What about digital humanities in public and school libraries?

In addition to reaching out to academic librarians for their perspectives on digital humanities, we also tried to gauge whether digital humanities is happening in public libraries and school libraries - and, if so, then of what nature?

The answer is not easy to tease out. The digital humanities projects one hears about tend to be collaborations with college and research libraries. Perhaps not surprising, most respondents to the survey by Gale Cengage and American Libraries Magazine said they are at academic libraries. (The closest that public libraries and school libraries come to participation in digital humanities might be in the form of makerspaces, a maker faire, and fablabs - that is, spaces where the emphasis is on DIY and provision of physical tools with which to create, invent, build.) Part of the challenge for digital humanities in school libraries, as we learned from one school librarian, Lisa Hack, media specialist at Silver Spring International Middle School, is that the focus in students' assignments is rarely on analysis of primary sources. It also depends on the type of school library. More digital humanities projects may be occurring in private schools because of the readily available resources in those environments. Paige Roberts, archivist and head of special collections at Phillips Academy, has been working with both faculty and students on projects that draw on the use of Omeka and Historypin in telling stories with primary sources. These collaborations are still new and highly experimental at Phillips Academy, and Roberts views them as ways of modeling openness, risk-taking, and being comfortable with not knowing all the answers.

Just as doing digital humanities can change mindsets about how teaching, research, and learning may be carried out, so might the digital humanities community itself benefit from more exposure to contexts not accustomed to DH - such as public libraries, particularly ones less resourced and smaller than, say, the New York Public Library, where support for DH projects is not uncommon. For James Neal, Librarian III - Digital Services in the Administrative Offices of Prince George's County Memorial Library System, "Digital humanities could also benefit by exploring the outreach mindset of public libraries. Local communities need to have access to digital preservation tools and more efficient means of curating content. Local histories of civic institutions and societies outside of the academic arena are ripe for collaboration with DH tools and perspectives." Thus, making engagement with digital humanities a priority for areas where there is little to none taking place, but where needs for such engagement are perceived, would likely be a productive future priority for the DH community. It aligns with recent calls in the field to diversify who gets to pursue digital humanities, whom we hear from who is doing digital humanities, whom we are teaching digital humanities to, and whom we are partnering with in DH.

Looking ahead

In capturing how libraries and librarians are contributing to digital humanities at their institutions, it's important to note, as our interviews showed, how much community engagement goes hand in hand with building capacity for DH. The survey gets at this point implicitly, in that more than 40% of respondents said their libraries are advocating for coordinated, cross-campus support for digital humanities. The interdisciplinarity of projects, which almost three-quarters of survey respondents confirmed their libraries encourage and facilitate, can also generate a sense of community among digital humanities practitioners. At the same time, there are signs that a better understanding of libraries' roles in digital humanities projects is needed; most librarians who were surveyed claimed their organizations to not have a policy or written statement that characterizes the support they provide for DH activities. Funding sources are also an issue. If digital humanities succeeds best when it's a communal effort at institutions, even inter-institutionally, then the responsibility for funding it should be more evenly distributed across the campus entities that are involved. Performing a needs assessment or an environmental scan can help clarify what the appropriate responses and approaches should be. In addition, as the librarians we interviewed can attest, almost as key to capacity and community building for digital humanities is a willingness to participate in a culture of experimentation and, thus, of openness to failure as a learning opportunity. Not every project undertaken needs to go down the path of production.

Additional Resources

Funding Opportunities

American Council of Learned Societies: Digital Extension Grants - https://www.acls.org/programs/digitalextension/

DLF + DHSI Cross-Pollinator Tuition Awards - http://www.diglib.org/archives/10438/ John D. and Catherine T. MacArthur Foundation: Digital Media and Learning Initiative - https://www.macfound.org/programs/learning/

Institute of Museum and Library Services

- National Leadership Grants https://www.imls.gov/grants/apply-grant/available-grants
- Laura Bush 21st Century Librarian Program -https://www.imls.gov/grants/available/laura-bush-21st-century-librarian-program
- Sparks! Ignition Grants for Libraries https://www.imls.gov/grants/available/sparks-ignition-grants-libraries

Mellon Foundation

- Higher Education and Scholarship in the Humanities https://mellon.org/programs/higher-education-and-scholarship-humanities/
- Arts and Cultural Heritage https://mellon.org/programs/arts-and-cultural-heritage/
- Scholarly Communications https://mellon.org/programs/scholarly-communications/

National Endowment for the Humanities: Office of Digital Humanities http://www.neh.gov/divisions/odh

- Digital Humanities Start-Up Grants http://www.neh.gov/grants/odh/digital-humanities-start-grants
- NEH/DFG Bilateral Digital Humanities Program http://www.neh.gov/grants/odh/nehdfg-bilateral-digital-humanities-program
- Institutes for Advanced Topics in the Digital Humanities -http://www.neh.gov/grants/odh/institutes-advanced-topics-in-the-digital-humanities

National Endowment for the Humanities: Scholarly Editions and Translations Grant Program - http://www.neh.gov/grants/research/scholarly-editions-and-translations-grants

National Historical Publications and Records Commission - http://www.archives.gov/nhprc/

For more digital humanities funding possibilities in the U.S., see this crowd-sourced list: https://docs.google.com/spreadsheets/d/1jpFkxW5batjV5E8L34mNcoX8n1guqnUsXLIGYdS4X1A/edit#gid=2

DH Projects

Breaking the Code: The Developing Librarian Project -

http://www.developinglibrarian.org/

Florida Memory - https://www.floridamemory.com/

Kindred Britain - http://kindred.stanford.edu/#

Map of Early Modern London - https://mapoflondon.uvic.ca/

Mapping Gothic France - http://mappinggothic.org/

OPENN - http://openn.library.upenn.edu/

The Praxis Project at Scholars' Lab - http://praxis.scholarslab.org/

Voyages: Trans-Atlantic Slave Trade Database - http://www.slavevoyages.org/

What's on the Menu? - http://menus.nypl.org/

The Willa Cather Archive - http://cather.unl.edu/

The William Blake Archive - http://www.blakearchive.org/blake/

DH Tools

Cultural Heritage Collections & Archives | Web Publishing

Mukurtu - http://www.mukurtu.org/

Omeka - http://omeka.org/

Scalar - http://scalar.usc.edu/

Data Cleanup

OpenRefine - http://openrefine.org/

GIS, Mapping, and Data Visualization

ArcGIS (\$) - https://www.arcgis.com/features/

CartoDB - https://cartodb.com/

Neatline - http://neatline.org/

StoryMap - https://storymap.knightlab.com/

Network Analysis

Gephi - http://gephi.github.io/ (also for data visualization)

NodeXL - http://nodexl.codeplex.com/

Optical Character Recognition

ABBYY FineReader (\$) - http://www.abbyy.com/finereader/

OmniPage (\$) - http://www.nuance.com/for-individuals/by-product/omnipage/index.htm

Tesseract - https://code.google.com/p/tesseract-ocr/, https://github.com/tesseract-ocr

Text Encoding | Text Analysis (including topic modeling)

BBEdit - http://www.barebones.com/products/bbedit/

Mallet - http://mallet.cs.umass.edu/

Oxygen (\$) - https://www.oxygenxml.com/

Stylo R package - https://sites.google.com/site/computationalstylistics/stylo (for stylometry)

Text Encoding Initiative (TEI) - http://www.tei-c.org/index.xml Voyant - http://www.tei-c.org/index.xml

Keeping Up with Digital Humanities

- Digital Library Federation http://www.diglib.org/
- Digital Humanities Now http://digitalhumanitiesnow.org/
- The Alliance of Digital Humanities Organizations http://adho.org/
- DH + Lib http://acrl.ala.org/dh/
- ACRL Digital Humanities Interest Group http://connect.ala.org/node/158885
- Twitter Love it or hate it, librarians and digital humanists have found Twitter to be a valuable tool for sharing information.

Further Reading

- Miriam Posner's DH and Libraries Bibliogrphy http://miriamposner.com/blog/digital-humanities-and-the-library/
- Journal of Library Administration: Special Issue: Digital Humanities in Libraries: New Models for Scholarly Engagement http://www.tandfonline.com/toc/wjla20/53/1