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## Librarians Doing DH: A Team and Project-Based Approach to Digital Humanities in the Library

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# Librarians Doing DH: A Team and Project-Based Approach to Digital Humanities in the Library

## Abstract

The Claremont Colleges Library embarked on a "learn by doing" Digital Humanities (DH) program and series of team-based projects in order to provide librarians experience working directly with DH methodologies and tools. Drawing from two divisions in the Library, a team of librarians designed an analysis project using DH tools to examine collection development trends on the topic of terrorism. In the process, the team addressed technical obstacles, communication issues and time management techniques that contributed to a productive collaboration. DH can be a catalyst for librarians' own research beyond serving in a supportive role for the disciplines. With its broad applications for library research, DH has the potential to bridge departmental divides in libraries and promote a culture or environment of experimentation.

## Keywords

digital humanities, DH, learn by doing, project based work, culture building

## **Cover Page Footnote**

Many thanks to Nina Clements and Alex Margolin for their review and comments on this paper.

## From the Field

## Librarians Doing DH: A Team and Project-Based Approach to Digital Humanities in the Library

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#### Abstract

The Claremont Colleges Library embarked on a "learn by doing" Digital Humanities (DH) program and series of team-based projects in order to provide librarians experience working directly with DH methodologies and tools. Drawing from two divisions in the Library, a team of librarians designed an analysis project using DH tools to examine collection development trends on the topic of terrorism. In the process, the team addressed technical obstacles, communication issues and time management techniques that contributed to a productive collaboration. DH can be a catalyst for librarians' own research beyond serving in a supportive role for the disciplines. With its broad applications for library research, DH has the potential to bridge departmental divides in libraries and promote a culture or environment of experimentation.

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#### Introduction

Digital Humanities (DH) is a relatively new and growing field of keen interest to librarians. Academic librarians are already supporting faculty DH work in the disciplines, and libraries are actively building the necessary infrastructure.<sup>1</sup> Starting in 2015, the Claremont Colleges Library has also employed DH as a catalyst for librarians' own collaborative research interests. The Library took a "learn by doing" approach, encouraging library staff to work on their own projects in order to explore the Digital Humanities and to better support DH work happening at the Claremont Colleges. This learn by doing methodology has strengthened cross-divisional partnerships within the library while nurturing collaborative work by library staff with different areas of expertise. Through incorporating DH skills into librarians' toolsets at the Claremont Colleges Library, program participants have found that the resultant projects allow many opportunities for collaboration as well as growth in technical and analytical skills. Applying Digital Humanities methodologies has helped this team better understand the Claremont Colleges Library's collection data, which served as the main focus of a library research project, and most importantly, helped establish a culture of experimentation across all library divisions.

As part of a DH research team, four librarians from two different divisions (two from reference



and instruction, and two from information resources and acquisitions) worked with the Digital Scholarship Coordinator (now Director of the Digital Research Studio) to develop their own DH project. The team used digital research tools to examine past collecting patterns at the Claremont Colleges Library through the textual analysis of titles and subject headings. This collaboration allowed team members to bring their unique skills and expertise to the project, and for all team members to learn from each other while exploring DH. In the initial project design, phase librarians worked collaboratively as a way to lower barriers to entering this new field. Individuals were able to share the workload and pool their knowledge and interests and as a result the project benefited from multiple perspectives and was more imaginative. This project exemplifies the working culture of DH which requires researchers to be collaborative because expertise from many different fields is a key part of building new projects. This experience contrasts dramatically with the isolated nature of humanistic research and, often, librarianship.

The Claremont Colleges Library is a single library serving five undergraduate colleges and two graduate institutions with approximately 7,000 FTE and an emphasis on liberal arts education. Each of the colleges has unique characteristics, but there are overlapping departments and research interests across the campuses. The undergraduate colleges are Pomona College, Scripps College, Pitzer College, Harvey Mudd College, and Claremont McKenna College; the graduate institutions are Claremont Graduate University and the Keck Graduate Institute. It is a perpetually complicated, and highly stimulating, environment to work in and presents many challenges for the single library. The complex organizational structure lends itself to some natural benefits, however. The library serves as the locus of intercollegiate grants and scholarship initiated through locating the activities of the five-year Andrew W. Mellon grant for "Digital

Humanities at the Claremont Colleges: Developing Capacity and Community" within the library. Digital Humanities finds a natural home in the library as a central point for all colleges to come together for interdisciplinary research support.

## What is Digital Humanities at the Claremont Colleges?

Given the emerging nature of the field of DH, definitions of the term vary from institution to institution.<sup>2</sup> Some practitioners argue that the term "digital scholarship" is more appropriate and inclusive, but the Claremont Colleges Library has chosen to use "digital humanities" in order to align with the language from the Mellon grant.<sup>3</sup> This grant funds DH projects across the colleges and supports the recently established Digital Research Studio, a separate organizational entity housed in the library building. To create a common understanding, the Claremont Colleges and the Library engage with the definition proposed by the Digital Research Studio Director, Ashley Sanders, Ph.D.:

DH is the study, exploration, and preservation of, as well as education about human cultures, events, languages, people, and material production in the past and present in a digital environment through the creation and use of dynamic tools to:

- visualize and analyze data,
- share and annotate primary sources,
- discuss and publish findings, and
- collaborate on research and teaching

for scholars, students, and the general public.<sup>4</sup>

In the fall of 2015, Sanders developed a DH course for librarians to ensure that library staff were engaged and able to support the broad initiatives of the Mellon DH Grant.<sup>5</sup> Participants from across library divisions came together to



learn about tools and theories on a range of DH topics including: data visualization, spatial and temporal pattern finding, network analysis, and topic modeling. The internal course, required for teaching librarians but optional for other librarians and some staff, was comprised of five weeks of seventy-five-minute weekly sessions with assigned readings, collaborative in-class activities, a companion website, and a final project assignment.6 Sanders designed the course as a foundation for internal professional development in DH and digital literacy to develop librarians' knowledge and skills. The workshop series that followed the course included sessions on how to conduct DH project consultations, digital identity and security, author rights, copyright issues, and more. These learning opportunities expanded the Library's ability to support faculty and students as scholarship quickly evolves in the digital age. Consequently, librarians have begun conducting DH consultations themselves, in addition to creating their own DH projects.

In summer 2016, the Library held its first Library DH "Maker Week" for librarians and library staff to begin building out the projects they envisioned during the short course. These projects sought to apply DH methods and tools to research questions about library services. In establishing the DH course with the follow-up Maker Week and regularly-scheduled project work sessions, the program created a structure that protected time for librarians to engage in creative research (see Figure 1). The goal of Maker Week was for librarians to apply tools to projects that benefit the Library and to highlight and demonstrate the value of DH work. A sampling of projects included a data visualization of Wi-Fi usage in the building, a network analysis based on the relationships of theatergoers as printed on a seventeenth century fan, and a visual map of events and a timeline based on doctoral research in the Hebrew Bible. While the Wi-Fi usage project demonstrated how patrons use the library, the fan project promotes some of the intriguing

and singular items held by Special Collections by revealing insights and scholarly context on an object. While it did not deal with library data, the Hebrew Bible timeline tied the library's support of DH to the research work of a staff member currently enrolled in a doctoral program. This article specifically focuses on a project analyzing print book collecting over a twenty-year period using text analysis and timeline tools to identify trends in collecting on the subject of terrorism studies.

### A Team-Based DH Project

This team's project and its goal of analyzing the Library's print collection in the context of transnational terrorist events came about as part of brainstorming sessions during the DH course and subsequent Maker Week. The team selected terrorism as a topic because major events that took place between 1995 and 2015 seemed likely to have impacted the scholarly conversation at identifiable points in time. Another motivation for choosing a topic such as terrorism was its potential usefulness in evaluating whether or not the Library's print collection exhibited any unexamined bias. The project was designed as a "proof of concept" to investigate whether it is possible to better understand collecting habits through text analysis of purchased print book titles. The team wanted to trace the responsiveness of the Library's print collection and to experiment with data visualization tools in order to better understand historic trends in collection development at the Library.

This effort required collaboration across divisions as team members learned about new tools and methods for gathering collections data and communicating findings using DH tools. The two librarians from information resources and acquisitions brought expertise in traditional collection analysis and experience working with the previous and current integrated library systems (Innovative Millennium and OCLC's



Worldshare Management System). The two research and teaching librarians, subject specialists with responsibilities in collection development, brought content knowledge in the subject area and an interest in developing new methods of analyzing collections to meet student and faculty research needs. The librarians had different yet complementary skills and interests and, by working together, the project team was able to design a project based on user needs in a particular subject.

The team selected digital tools based on project needs. The team planned, tracked, and wrote collaboratively in an institutional Google Drive account and ultimately decided on using Excel, Access, and a Python script in order to scrape numbers. The team also used Voyant Tools (https://voyant-tools.org/), TimelineJS (https://timeline.knightlab.com/), and a free version of Tableau (https://public.tableau.com/s/) to analyze and visualize results.7 Aside from the Python script, all of these tools were ready to use with minimal set-up or programming experience, and many were open source. This first stage of the project culminated in a presentation at the Charleston Conference 2016 examining twenty years of collecting patterns and title word frequencies.8

## **Collaborating on a Technical Project**

Collaborating on a technical project, especially when not all team members work with that technology on a daily basis, presents a unique set of challenges. Downloading and managing the necessary data was critical yet repetitive and involved expertise from both library staff and project team members using a variety of systems. The team's practical issues included crunching large quantities of data on relatively slow machines, poor Wi-Fi connectivity, and problems keeping files under control. Data analysis on shared server space was complicated by limited bandwidth and required planned asynchronous work. After extracting the data, the closer and more detailed the analysis became the more anomalies appeared which forced the team to re-do work multiple times. As a result, the team found that clear communication, distributing data cleaning tasks, robust documentation, and adequate hardware were all essential for completing this essential process. The team has some suggestions for handling challenges that come with working on a collaborative project in an emerging field.

Dedicate Group Time for the Project

In a busy library with many pressing initiatives, it was imperative to build time into individual schedules for this project. Following the examples of the DH course and Maker Week, the team scheduled weekly meetings which provided time to think, discuss, plan, and write. The team found the project required regularly planned, focused time in order to fully develop the vision, goals, and deliverables. Tool experimentation, observations, and decisions evolved over time and with experience. Data correction and re-work made the team realize that the process reflected the cyclical nature of research itself--frustrating, but also necessary. Having dedicated time was a key part of this project's success, and helped to maintain the team's bond and to stay on track. This allowed the team to produce conference presentations and draft articles for publication, which, in turn, helped make a case for the project's importance with division supervisors and emphasized the benefit to the whole Library.

## Clear and Consistent Communication

The exploratory and cross-divisional aspects of the project called for a conscious commitment to communication. No one librarian had the knowledge, access to data, or skills to do this project alone. The focus on collections required knowledge from the two different departments that worked together on collection development. Similarly, not every librarian was familiar with



the technical terms and techniques. As a result, it was important for the team to define technical terms, outline modes of communication, and have a structured approach to documentation. Team members created documentation for the data cleaning process and followed these procedures, asking questions when necessary, but following the group-established protocol.

Consistent communication with library administration and the alignment of the work to organization-wide strategic goals enabled the team to demonstrate the meaningful ways the project contributed to institutional growth and justified the significant time commitment. Sharing the project widely across the Library proved beneficial; questions and observations from other library staff illuminated early flaws in data collection and led to more accurate data and consequently more accurate analysis. The Library then offered financial support for presenting the project externally at conferences which has led to additional opportunities for professional development and fulfillment of both professional and personal goals.

Strong interpersonal relationships within the group also contributed to the project's success. The team was, and continues to be, congenial. Each person shares their knowledge and experience unselfishly. It is challenging to explore uncharted territory and attempt something one has never tried before. This project requires every member to be vulnerable and ask questions which has made it easier to take risks and encourages new learning through experimentation. The team members represent departments that occasionally experience a challenging relationship, partly due to the recent implementation of a new discovery system. Digital Humanities work has facilitated an opportunity to build bridges and generate good will between these

departments. Trust was, and is, essential to the success of the team and this project. For others interested in this type of work, the team has found that identifying each other's strengths, giving everyone the benefit of the doubt, and providing encouragement are key elements to uniting a team built from members of different departments.

### Conclusion

The Digital Humanities program brought together librarians and staff with a variety of backgrounds, experiences, and education, allowing all involved to both contribute to research projects and learn from their colleagues. As new collaborations have formed, librarians and staff have developed technical and analytical skills in DH, specifically, as well as methods for creatively negotiating infrastructure and time constraints. The librarians and staff who participated in the DH professional development program initially exhibited tentative confidence in the face of something new, and that confidence grew stronger through a focus on play and experimentation during the short course and subsequent project work. By diving headfirst into DH-based library research in a safe learning environment, the collection analysis project team was able to apply newly learned skills without fear of failure. The DH professional development program and resulting research projects have made a concrete contribution to a culture of experimentation at the Claremont Colleges Library. When building a culture that allows for play and mistakes, a collaborative approach supports staff in persisting through difficult tasks and participating in complicated and innovative projects.



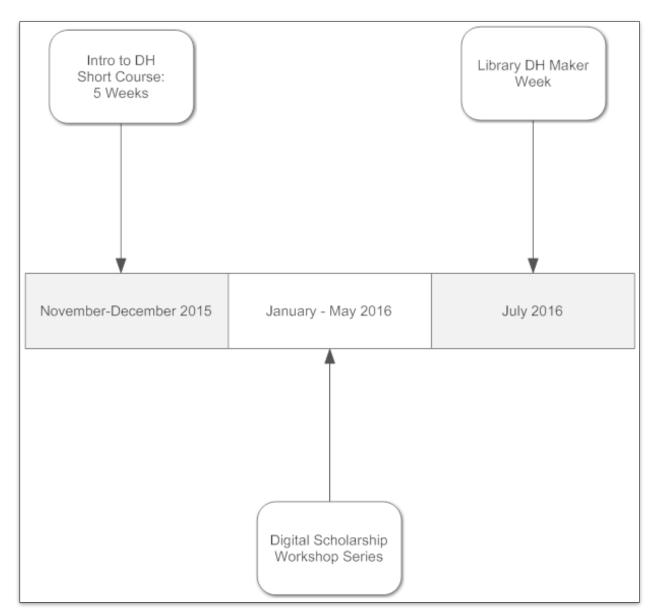


Figure 1: Timeline showing DH short course, workshop series and Maker Week events at the Claremont Colleges Library.

<u>dh-in-the-library.html</u>; Ben Showers, "Does the Library Have a Role to Play in the Digital Humanities?," JISC Digital Infrastructure Team, February 23, 2012, <u>http://infteam.jiscin-</u><u>volve.org/wp/2012/02/23/does-the-library-</u><u>have-a-role-to-play-in-the-digital-humanities/</u>. In professional organizations, the Association of



<sup>&</sup>lt;sup>1</sup> Chris Alen Sula, "Digital Humanities and Libraries: A Conceptual Model," *Journal of Library Administration* 53, no. 1 (2013): 10–26, doi:10.1080/01930826.2013.756680; Trevor Munoz, "Digital Humanities in the Library Isn't a Service," August 19, 2012, <u>http://www.tre-vormunoz.com/notebook/2012/08/19/doing-</u>

College and Research Libraries recognizes DH as a growing area of interest through dh+lib (<u>http://acrl.ala.org/dh/</u>) and the Digital Library Federation Forum is an entire conference dedicated to DH/Digital Scholarship (<u>https://www.diglib.org/</u>).

<sup>2</sup> Jason Heppler, "What is Digital Humanities?" n.d, <u>http://whatisdigitalhumanities.com</u>.

<sup>3</sup> For an early definition of Digital Humanities, even though it is called "digital scholarship," see: Lisa Spiro, "Defining Digital Scholarship in the Humanities: Ten-Fingered Humanists?" Digital Scholarship in the Humanities: Exploring the Digital Humanities (November 30, 2007), http://digitalscholarship.wordpress.com/2007/11/30/defining-digital-scholarship-in-the-humanities-ten-fingered-humanists/. For more definitions of DH see the following: Kathleen Fitzpatrick, "Reporting from the Digital Humanities 2010 Conference," Prof-Hacker, The Chronicle of Higher Education, July 13, 2010, http://chronicle.com/blogs/profhacker/reporting-from-the-digital-humanities-2010-conference/25473; Kathleen Fitzpatrick, "The Humanities Done Digitally," The Chronicle of Higher Education, May 8, 2011, http://chronicle.com/article/The-Humanities-Done-Digitally/127382/; Kathleen Fitzpatrick, Andrew Lopez, and Fred Rowland, "On Scholarly Communication and the Digital Humanities: An Interview with Kathleen Fitzpatrick," In the Library with a Lead Pipe, January 14, 2015, http://inthelibrarywiththeleadpipe.org/2015/on-scholarly-communicationand-the-digital-humanities-an-interview-withkathleen-fitzpatrick/; William Pannapacker, "Stop Calling it 'Digital Humanities' And 9 Other Strategies to Help Liberal-Arts Colleges Join the Movement," The Chronicle of Higher Education, February 18, 2013, http://www.chroni-

<u>cle.com/article/Stop-Calling-It-Digi-</u> <u>tal/137325/</u>. For a comparison of the terms, "Digital Scholarship," "Digital Liberal Arts," and "Digital Humanities," see Ashley Sanders, "What's in a Name? Does it Matter?" (Digital Scholarship Workshop, Claremont Colleges Library, CA, May 31, 2016): <u>http://ash-</u> <u>leyrsanders.com/defining-terms-dh-vs-digitalscholarship-vs-digital-liberal-arts/</u>.

<sup>4</sup> Ashley Sanders, "Defining the Digital Humanities," Colonialism Through the Veil, 2013, <u>https://colonialismthroughtheveil.ash-</u> <u>leyrsanders.com/defining-the-digital-humanities/</u>.

<sup>5</sup> For more information on the Mellon Grant see "Digital Humanities at the Claremont Colleges," <u>http://dh.libraries.claremont.edu/</u> and Ashley Sanders, "Expanding DH Capacity Through Strategic Partnerships in the Liberal Arts College Library" (presentation at the Digital Library Federation Forum Liberal Arts College Pre-Conference, Milwaukee, WI, November 6, 2016), <u>http://ashleyrsanders.com/dlf2016-presentation-expanding-dh-capacity-through-strategicpartnerships/</u>.

<sup>6</sup> Ashley Sanders, "DH@CCL 101 - A DH Short Course for Librarians, Faculty, & Students," Claremont Colleges Library, <u>http://www.dhatccl101.com/</u>.

<sup>7</sup> For the Python Data files, see Ashley Sanders, "Claremont Colleges Library Collections Analysis DH Project," GitHub, <u>https://github.com/AshleySanders/CCL-DH</u>.

<sup>8</sup> Lydia Bello, Nina Clements, Madelynn Dickerson, Margaret Hogarth, "Critical Collection Analysis: Using DH Tools to Contextualize Historic Collecting Patterns at the Claremont Colleges Library," Claremont Colleges Library, http://bit.ly/claremontcollections.

