

Building Bridges: Pedagogical Strategies for Introducing Digital Humanities in the Undergraduate and Graduate Classroom



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OVERVIEW

This poster highlights some of the challenges of teaching introductory-level digital humanities courses in undergraduate and graduate classrooms, and describes pedagogical solutions developed by faculty at UCLA and the University of Washington to address these complexities. These solutions include identifying and developing the core skill sets students need to begin work in digital humanities, including best practices for project management, for working with data, and interpreting and presenting analyses. From a faculty standpoint, the poster suggests strategies for building collaborative partnerships between libraries and faculty to best leverage each respective group's expertise.

INTRODUCTION

As well as playing a central role in the provision of digital services to faculty and students, Centers for Digital Scholarship should, arguably, be equally involved in DH pedagogy. Often housed in the library, they are staffed by librarians whose skills range from traditional librarianship, technical expertise, digital project development and management, as well as the provision of training, workshop development and education. Although humanities faculty teaching with or about DH tools and methodologies may draw on librarians for support in developing their digital humanities curricula, more often they develop course materials without taking advantage of overlapping expertise and experience.

The poster highlights areas of library expertise that we have drawn on in our own DH teaching, and will explore potential models for collaboration between faculty and librarians which address the issue of balance between technology and subject matter expertise.

PROMOTING DIGITAL LITERACIES

The theoretical framework developed by Eshet et al provides a robust framework for designing a course geared towards cultivating digitally literate students. In order to gather the data necessary to conduct meaningful research, work in the DH class combines 'traditional' linear search and retrieve exercises set against a backdrop of a more iterative and cyclical flow of retrieving digital material, evaluating and cleaning as appropriate, analyzing and visualizing, returning to repeat the process until satisfactory results are achieved. In this scenario, students are required to evaluate and order considerable amounts of information from disparate sources in a short period of time. Repeating this process on multiple occasions, and perhaps across different platforms, helps reinforce this mental model for students, moving from an abstract concept into a defined workflow. The theory and practice of this type of work is the remit of librarians, who can offer advice on topics ranging from sourcing appropriately-licensed data, initiating efficient and comprehensive searches, curating data and working with metadata. Finally, librarians can act as 'skill-hubs' providing recommendations for campus training resources that may not otherwise be readily discernible.

Literacy	Definition	Examples from Syllabi
Photo-visual Literacy	Understanding workflows, instructions and messages when presented in graphical formats	Data wrangling, use of digital tools
Reproduction Literacy	Creating new meaning or interpretations from disparate information in various formats.	Creating and curating datasets, exporting data, use of visualization tools
Information Literacy	Assessing large volumes of data objectively, discounting irrelevant material while demonstrating an awareness of bias and/or falsehood.	Search strategies, understanding OCR, curating datasets, analyzing existing projects
Branching Literacy	Navigating a complex hypermedia environment while remaining oriented and focused on core research and learning tasks.	Developing and understanding analyses and visualizations, text cleaning
Socio-Emotional Literacy	Understanding the rules of effective, respectful and sensitive engagement in an online environment, including a willingness to share knowledge while working and learning collaboratively.	Building meaningful visualizations and interpreting output, presenting research results, collaborative final projects

Figure 1. After Yoram Eshet-Alkalai. "Digital Literacy: A Conceptual Framework for Survival Skills in the Digital Era". *Journal of Educational Multimedia and Hypermedia* (2004) 13(1), 93-106.

FOSTERING COLLABORATION

Just as DH has redefined the nature of traditional scholarship, so DH pedagogy is redefining how we build and deliver our courses. Conversations with librarians early in the planning process can help identify the most appropriate digital tools to use in the classroom; considerations may include ease of installation and management, sustainability, good documentation and extensibility.

The knowledge and skills developed by librarians naturally align with some of the principal concepts at work in DH pedagogical practices. These skills include traditional librarianship, technical expertise, digital project development and management, as well as the provision of training, workshop development and education. Miriam Posner has identified three core levels to any DH project, no matter which methodology is used, from mapping to text mining. Curating, processing, presenting, and – we have added – preserving, are foundational to DH project work. These are also the core competencies of librarianship. Figure 2 showcases the skills and expertise the library can offer in support of DH research and pedagogy on campus. It can also be used to uncover gaps which require further funding and support from administration. Most importantly, it is a means to shed light on the work librarians are already doing in support of the DH, underscoring the library's status as a valuable stakeholder and partner.

Curating	Processing	Presenting	Preserving
Videos	Organizing	Visualizing	Archiving
Images	Editing	Making Accessible	Managing
Files	Correcting	Mapping	Building Infrastructure
Texts	Querying	Making Searchable	
Sound	Statistically Analyzing	Making Interactive	
Documents	Digitizing		

Figure 2. Librarians as Digital Experts: Skills and Expertise

SAMPLE SYLLABI

Figure 3. Syllabus for 'An Introduction to Digital Humanities', University of Washington, Winter Quarter 2020

WEEK	THEME	LITERACY	TOPIC
1	INTRODUCTORY WEEK		Welcome! Syllabus review & orientation What is Digital Humanities? Exploring DH projects
2	PRIMARY SOURCES		Introducing the primary sources; sourcing content Palaeography, transcribing and text as data
3	PLANNING		NO CLASS: MLK DAY Planning and managing digital projects
4	ARCHIVES & WRITING		Working with digital archives and primary sources Working with digital archives, creating OCR text
5	GATHERING & PREPARING DIGITAL MATERIAL		Corpus building Preparing texts for analysis
6	INTRODUCING DIGITAL TOOLS FOR TEXT ANALYSIS		Quantitative or qualitative? Considering which digital tools to use through the lens of sample projects. Sentiment Analysis
7	DIGITAL TOOLS		NO CLASS: PRESIDENTS' DAY Named Entity Recognition
8	DIGITAL TOOLS		Ngrams Mapping
9	DIGITAL TOOLS		Timelines & Storympas Hands on Lab work
10	WRAPPING UP		Hands on Lab work Presentations Final Projects Due

Course Description

A no-prerequisite course to introduce students to concepts and methodologies of using digital humanities tools for dataset creation, analysis and presentation. Students will explore primary source material related to the lives and achievements of early pioneers in Near Eastern archaeology, focusing specifically on the period known as the 'Golden Age' of Egyptology at the end of the 19th and early 20th centuries. Students will analyze primary source documents using text mining methodologies, build digital maps and timelines, and ultimately present research results on an online platform.

Course Outcomes and Learning Objectives

Humanities and social sciences students will become familiar with a range of tools and technologies for text mining and text analysis that will enhance their abilities to succeed both as undergraduate researchers and in their lives after graduation. Students in technology disciplines will be able to explore the applications of digital tools to humanistic endeavors. Students in this course will:

1. Learn the basic vocabulary of concepts and tools in digital humanities and become acquainted with a range of projects, best practices and resources in the field.
2. Gain hands-on experience of humanities dataset creation, curation, analysis and presentation.
3. Gain an introductory knowledge of many open source digital tools or methods useful to broad humanities disciplines.
4. Create a digital narrative to present the results of work in (2).

WHY COLLABORATION MATTERS

The average DH project has many collaborators, since it is understood that no one person can be expert in all aspects of successful project-building. The DH syllabi we showcase here represent a full--albeit compressed--project cycle, with the addition of a pedagogical layer. It is therefore unsurprising that collaboration in the DH classroom setting is as important as it is in a DH research project. Project-based learning and the group work that inevitably serves as the base for those projects rely on successful team dynamics. But fomenting prosperous partnerships takes time, patience, and mutual goals, which can be challenging. In addition there's only so much bandwidth people have available in their current roles. So, why should we strive to foster meaningful collaborations? Relationship-building between faculty and staff or student peer groups enriches the educational experience for students. Faculty teaching DH courses find the necessary supports for planning and executing complex DH courses and librarians can contribute their expertise in support of student research and learning outcomes. Creating a working agreement, project scoping, and establishing parameters and expectations is a crucial element to developing healthy and long lasting collaborative partnerships.

Both syllabi are designed as foundational courses in computation for humanities: one is an introduction to digital humanities and the other course focused specifically on geospatial techniques for the humanities.

The Commonalities

- 1) planning and scoping;
- 2) data wrangling;
- 3) analysis; and
- 4) a public-facing presentation.

These syllabi examples from our classroom underscore the value of identifying common pedagogical ground in an effort to develop curricular materials and teaching strategies that are relevant for digital scholars and librarians, and taught by specialists from both fields. The goal is to make DH pedagogy extensible and an engaging experience for both instructors and students.



Course Description

Spatial Humanities, Geohumanities, GIS Humanities, "deep maps," "digital culture mapping," and "the spatial turn" are terms that have grown in popularity over recent years in the humanities and digital humanities. Digital mapping makes it possible to create rich stories of culturally, socially, and historically relevant materials on a cartographic interface converting a purely geographic space into a place. This course will provide an overview of GIS and other mapping techniques through project-based assignments. Students with little to no GIS experience will be exposed to the theories, concepts, and methods used for mapping projects in the humanities and social sciences. Student with a GIS background will have the opportunity to explore non-traditional uses of mapping systems.

Course Outcomes and Learning Objectives

By experimenting with a wide range of tools that employ a variety of data types (both structured and unstructured), students will learn the basics of mapping and geospatial information. Students will build skills necessary to enhance their spatial thinking and literacy. By learning to manipulate GIS software and generate basic spatial analysis, students will be able to apply spatial research methods to enhance their research in their own subject areas. Students will also learn best practices for planning, managing, and effectuating a digital mapping project by creating a web or mobile-based project.

Figure 4. Syllabus for 'Geospatial Humanities: Mapping Space and Place,' UCLA

WEEK	THEME	LITERACY	TOPIC
1	Introduction		Welcome! Syllabus review; Intro to GIS Finding GIS Data & data types
2	Working with Structured Data & (Mis)representation		Geolocating structured data; editing data; working with tables; data cleaning (Mis)representation: Data Feminism, Justice Mapping, biased data and mapping inequality
3	Georeferencing Maps		Georeferencing scanned maps; Google Earth; Project Management & the GIS Project Planning Process Rectifying historical maps: <i>Map Warper</i>
4	Deep Maps & Digital Storytelling		Mapping narratives and digital storytelling: ArcGIS StoryMaps Visualizing time-enabled data; StoryMapJS & Neatline
5	Web Mapping		Carto Leaflet
6	Python & Open Data		Working with open data: GitHub data and Jupyter Notebooks Working with open data: Tableau Public
7	GIS Software: ArcGIS/QGIS		Adding data to maps Data analysis: measurements, connectivity, interpolation, point pattern analysis, classification, spatial overlay
8	Unstructured Data		Unstructured Data: Natural Language Process (NER) and mapping using Recogito Unstructured Data: Natural Language Process (NER) and mapping using Recogito
9	Group work		Final Projects
10	Group work		Final Projects

DISCUSSION AND CONCLUSIONS

Developing literacies in the digital humanities classroom include, yet transcend, the 'traditional' passive literacies of reading, hearing and seeing into the active realms of finding, evaluating, creating, engaging and communicating with an audience that may extend beyond institutional boundaries. Recognizing the overlaps between the core skills of digital pedagogy helps faculty identify how to leverage the expertise available through the library and Centers for Digital Scholarship. Including these campus stakeholders in the development of curricula--and potentially involving them in classroom instruction for discreet topics--fosters partnerships that can continue beyond a single course. The authentic, collaborative classroom environment described throughout this poster necessitates partnerships between IT staff, edtech groups, and the library. Instead of framing the contributions from staff as a service, these genuine collaborations foster an integrated classroom that encourages the growth of cross-campus relationships.

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