Mining History: Digital Practices in Humanities Research

Instructors: Thursdays 13:30-15:10
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Medieval Studies, Cultural Heritage   Place TBD

Central European University   2 Credits, M.A. level

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Course Description

This course aims to introduce students to the basic debates and methodologies of the digital humanities (DH), and to think through how these approaches and methods might best be applied in their respective (historical or other humanities) projects and disciplines. After tracing how this interdisciplinary field has developed and some of its challenges and limitations, four of the main methodologies featured in DH will be discussed: text analysis, network analysis, mapping, and topic modeling. During these weeks of exploring the various approaches, students will also be working individually or in small groups, experimenting with their own datasets and 0   areas of research. By the end of the course, each group will present and submit a DH research or project proposal, incorporating at least one methodology with a selected discipline and area of research.

Learning Outcomes

- identify the major areas of practice in the digital humanities
- critically engage the role of DH in the future of the humanities
- navigate more easily among DH methodologies and debates
- envision a DH project that would enhance their own area of research
- locate the relevant resources at CEU and online to carry out DH projects in the future

Assessment

Presence and participation (30% of the final grade) In addition to regular attendance, students are expected to actively contribute to class discussions. Students should try whenever possible to attend the series of master classes in digital humanities and text analysis that will run parallel to this course.

<u>Project development</u> (30% of the final grade) Students will be asked to participate in biweekly online discussions of the readings and case studies. These will begin as individual responses to the reading, and then take the form of small group assignments that will build towards the final project.

<u>Final Research Proposal</u> (40% of the final grade) Over the course of the semester, students will be working individually or in small groups to develop a sample research proposal in the digital humanities. On the last day of class, each group will offer a short presentation of their proposal and get feedback from their instructors and classmates. The final research proposal will be due a few weeks later.

During the first half of the semester, the instructors will offer various opportunities for students to develop their individual interests and opinions regarding DH. Starting in Week 5, we will work closely with you to form the best possible working groups/or individual projects, and then check in biweekly with each group to ensure that you are on track towards a final research proposal and working together well.

Schedule of classes

Week 1 -- Jan 11: *What is DH? What is not DH? Who decides?*
The question of definition is both difficult and necessary to distinguish these (relatively) new modes of research and teaching in the humanities from that which has come before. We will offer a range of answers, and note the disciplinary imprint on the various approaches to DH. For the sake of clarity, it will also be important to distinguish digital practices that are not usually considered DH from those that are. Basic, introductory texts will help those new to the topic begin to get oriented.

Required reading:
1)   Anne Burdick, Johanna Drucker, Peter Lunenfeld, Todd Presner, and Jeffrey Schnapp, "Digital Humanities Fundamentals: Questions and Answers" from *Digital_Humanities* (Cambridge: MIT P, 2012), 122-135.
2)   A Portfolio of Case Studies", Burdick, et al., *Digital_Humanities*, 61-71.
Recommended reading:
➢   Burdick, et al., "Humanities to Digital Humanities", 3-26.
➢   Alan Liu, "The Meaning of the Digital Humanities" PMLA 128 (2013): 409-23.
➢   "Matthew Kirschenbaum, "What is Digital Humanities and What is it doing in English Departments?" Gold, ed. *Debates in the Digital Humanities* (Minneapolis: U of Minnesota P, 2012), 7 pages.

RESOURCE: [DH Tools for Beginners](#)

Week 2 -- Jan 18: *Origins of DH + Debates*
In order to better understand the current constellation of DH practices, it is useful to trace its origins in several distinct but interrelated disciplines (e.g., literary studies, literary history, sociology of literature, historiography, archival work, intellectual history, multimedia studies, etc.) There has been no shortage of controversy surrounding the rise of DH and its implementation in university departments, centers, and libraries. We review these debates and simultaneously think about the role that DH has played and will play in curricula, in IT infrastructure, in the cooperation between libraries, archives, and scholarly research, and in the past and future of the humanities.

Required reading:
1)   Blair, Ann. 2003. Reading strategies for coping with information overload, ca.1550-1700. *Journal of the History of Ideas* 64, no. 1: 11-28.
2)   Allington, Brouillette, and Golumbia, ["Neoliberal Tools (and Archives): A Political History of Digital Humanities,"](#) *Los Angeles Review of Books* (May 1, 2016) and selected responses (e.g., Alan Liu, response via [Storify](#) and excerpt from new book *[Against the Cultural Singularity](#)*; Mark Liberman, ["Digital Scholarship and Cultural Ideology"](#))
3)   Bailey, et al., ["Reflections on a Movement: #transformDH, Growing Up"](#) in Gold, ed. *Debates in the Digital Humanities* (2016), 10 pages.

Recommended reading:
Kirschenbaum, ["What is 'Digital Humanities,' and Why Are They Saying Such Terrible Things about It?"](#) *differences* 25.1 (2014), 14 pages.
["Provocations,"](#) Burdick, et al, 101-120.
Liberman, ["Digital Scholarship and Cultural Ideology"](#))Jonathan Senchyne, ["Between Knowledge and Metaknowledge: Shifting Disciplinary Borders in Digital Humanities and Library and Information Studies,"](#) Gold, ed. *Debates in the Digital Humanities* (Minneapolis: U of Minnesota P, 2016), 8 pages.
➢   [Franco Moretti, "Literature, Measured" *Stanford Lit Lab*, Pamphlet 12](#), 7 pages.
➢   Susan Hockey, ["A History of Humanities Computing,"](#) in Schreibman, Siemens, Unsworth, *A Companion to the Digital Humanities* (Oxford, Blackwell, 2004), 26 pages.
Steven E. Jones, ["The Emergence of the Digital Humanities (as the Network Is Everting),"](#) Gold, ed. *Debates in the Digital Humanities* (Minneapolis: U of Minnesota P, 2016), 15 pages.

RESOURCE: [DiRT Directory](#)

Week 3 -- Jan 25: *Mapping/GIS* I

Mapping has exploded as a mode of understanding the world in almost every form of communication: from personal correspondence to journalism to a certain location-based augmented-reality mobile game . This is largely the result of advances in satellite imaging techniques, and the increasing density of georeferenced information available (i.e., information which is encoded with latitude and longitude points). In scholarly terms, it is often easy to confuse maps used purely as illustration with those employed as a research tool. We will discuss how the rise of GIS-mapping coincided with a theoretical paradigm shift within Cultural Studies and History towards space and place ("the Spatial Turn"), and the accumulated effect of this on the humanities.

Required reading:
1)   Ian Gregory, Alistair Baron, David Cooper, Andrew Hardie, Patricia Murrieta-Flores and Paul Rayson, "Crossing Boundaries: Using GIS in LIterary Studies, HIstory, and Beyond," *Keys for architectural history research in the digital era* (2014) (10 pages)
2)   Guldi, "What is the Spatial Turn?" (Scholars Lab Project, UVA) (15 pages)
3)   Wrisley, "Spatial Humanities: An Agenda for Pre-modern Research" *Porphyra* 22 (Fall 2014), 96-107.
Recommended reading:
James Corner, "The Agency of Mapping," in *Mappings*, ed. Denis Cosgrove (London: Reaktion, 1999), 213-52.

Week 4 -- Feb 1: *Mapping/GIS* II
In this week we will try our hand at basic mapping skills via several easy-to-use applications. Using sample datasets, we will learn how to correctly identify geolocations, choose appropriate background maps, layer historical maps, and project/rectify our coordinates. We will refer to several case studies (listed below) and critique their approaches as well.
Other mapping case studies:
Visualizing Medieval Places
Mapping the Medieval Countryside
Digitized Medieval Manuscripts Maps
Digital Silk Road
Lviv Interactive
Journeys of Liszt
...and many more

TOOL to explore: Google Earth or Tableau Public
RESOURCE: Abstractualized

Week 5 -- Feb 8: *Network Analysis I*
One of the most effective DH tools that is adopted directly from the social sciences is network analysis. Used most commonly to visualize relationships between people or between concepts, it adds an important layer of abstraction to both literary and historical datasets. What does this abstraction allow us to see that is new? How do we then respond to new ways of seeing our research, and proceed in a different direction? We will talk in detail about the workflow and development of a DH project from dataset, through visualization, to analysis.

Required reading:
1)   Elson, et al, "Extracting Social Networks from Literary Fiction" (10 pages)
2)   Franco Moretti, "Network Theory, Plot Analysis" (*Literary Lab* Pamphlet 2, August 2011)
Recommended reading:
➢   Lisa Rhody, "A Method to the Model: Responding to Franco Moretti's 'Network Theory, Plot Analysis'" (Magazine Modernisms, August 2011)

Week 6 -- Feb 15: *Network Analysis II*
Cultures of Knowledge (Oxford)
Mapping the Republic of Letters (Stanford)

The first and major accomplishment of the Cultures of Knowledge project was the creation of the Early Modern Letters Online, which links correspondence located in eight separate collections through a comprehensive metadata protocol and relatively simple visualizations (graph and charts). In the current stage of their project, they are developing pilot projects that use network analysis to demonstrate relationships and discover patterns in early modern correspondence.

Required reading:
1)   Meeks and Krishnan, "An Introduction to Network Analysis and Representation" (circa 10 pages)
Other case studies to explore:
People of Medieval Scotland
TOOL to explore: Gephi
RESOURCES: A Digital Toolbox for Historians, CENDARI, histograph

Week 7 -- Feb 22: *Text Analysis I: Critical Editions and Text Mark-Up*

One of the earliest branches of DH to develop on a broad scale was text analysis, as practiced in literary and linguistic contexts, often linked to the movement/markup language called the Text Encoding Initiative. We will introduce the process of data collection, curation, and data mining (which is in fact common to many DH practices beyond text analysis), and think about the implications of these tools for historiographic analysis as well.

Required reading:

1)   Clement, "Text Analysis, Data Mining, and Visualization in Literary Scholarship" *Literary Studies in the Digital Age: An Evolving Anthology* (2013), 25 pages.

2)   Jerome McGann, "Introduction," and *The New Republic of Letters: Memory and Scholarship in the Age of Digital Reproduction* (Cambridge, MA: Harvard UP 2016), 1-18.

Recommended reading:

➤   Hassner, et al, "Computation and Paleography: Potentials and Limits"

➤   McGann, "Why Textual Scholarship Matters," *The New Republic of Letters* (19-31).

➤   David J. Birnbaum, "What is XML and why should Humanists care? An even gentler introduction to XML" Obduron 2015 (20 pages)

**Week 8 -- Mar 1: *Text Analysis II: Text Mining and Machine-Learning Approaches*
Computational Stylistics Group** (Krakow-Antwerp)

Stylometry is not a new approach to analyzing texts, but it has taken on new dimensions because of computational methods. Originally used to attribute authorship to anonymous texts (or those suspected of forgery), it has now developed into a method for detecting "signals" in texts, to determine what (if any) attributes make up authorial voice. The Computational Stylistics Group has developed the tool "Stylo" which has been now been widely adopted (see their list of papers and presentations), and has demonstrated their methodology in projects like "Go Set A Watchman while we Kill the Mockingbird In Cold Blood" on the disambiguation of texts by Harper Lee and Truman Capote.

Other case studies to explore:

Reportorium of Old Bulgarian Literature and Letters (David Birnbaum)

Distant Reading Early Modernity (DREaM Project)

TOOL to explore: Voyant, CATMA

RESOURCES: TAPoR, DigiPal, Alcide

**Week 9 -- Mar 8: METHODOLOGY + CASE STUDY FIVE: *Topic Modeling*
Topic Modeling the Slavic Review** (Yale)

Topic modeling uses is often used in conjunction with network analysis to identify relationships between thematic units, as opposed to simply individual nodes (like an actor's name or location). It is based on algorithmic analysis of larger-scale corpora, and typically generates series of words that are most likely to occur in proximity to one another. The biggest challenges of topic modeling projects are determining the scale of analysis, sorting through clusters of themes for relevance, and then drawing intuitively meaningful conclusions from these quantitative results. In other words, topic modeling requires a lot of humanist thinking to make meaning from machine-generated results.

Required reading/viewing:
1)   Megan Brett, "Topic Modeling, A Basic Introduction" *Journal of Digital Humanities* 2:1 (Winter 2012) (5 pages)
2)   Weingart, "Topic Modeling and Network Analysis" (10 pages)
3)   Michel + Aiden, "What we learned from 500 million books" (video)

Other case studies to explore:
Rob Nelson, Mining the Dispatch (U.S. Civil War-era newspaper)
TOOL to explore: Mallet

Week 10 -- Mar 15: Public-Facing projects, Social Engagement, Interactive Exhibits

Contested Memories: The Battle of Mount Street Bridges
Letters of 1916 Project
Researchers at Maynooth University and Trinity College Dublin have developed a virtual world to allow researchers and members of the public a novel way to understand this seminal battle which took place during the 1916 Rising in Ireland (also known as the Easter Rebellion). *Contested Memories* provides a thoroughly annotated computer model of the site of action as it appeared during Easter 1916. This is a virtual world project about the technologies, issues of representation, serious games, and responsibility to the past, relying on visual rhetoric. "Letters of 1916" explores a similar subject, but with completely different source material and approach. It relies on crowdsourcing (or 'social engagement,' as its creators prefer to call it) to enrich an existing collection and communicate its importance to a wider public.

Other Case Studies to explore:
Immersive Humanities Viewer (UCLA)
Tool to explore: Neatline
Sound design
Storytelling --- basics narrative

How to build a

Week 11 -- Mar 22: WORKSHOP -- final project proposal visualizations, discussions, feedback, and

Week 12 -- Mar 29: *Presentations and Conclusions*