CMS.633/833 - Fall 2022

Digital Humanities: Topics, Techniques, Technologies

Mondays & Wednesdays, 3:30 - 5:00 PM, Room 1-277

Instructor:

Kurt Fendt, office hour: Wednesdays 2:00 - 3:00 PM or by appointment, email: fendt@mit.edu

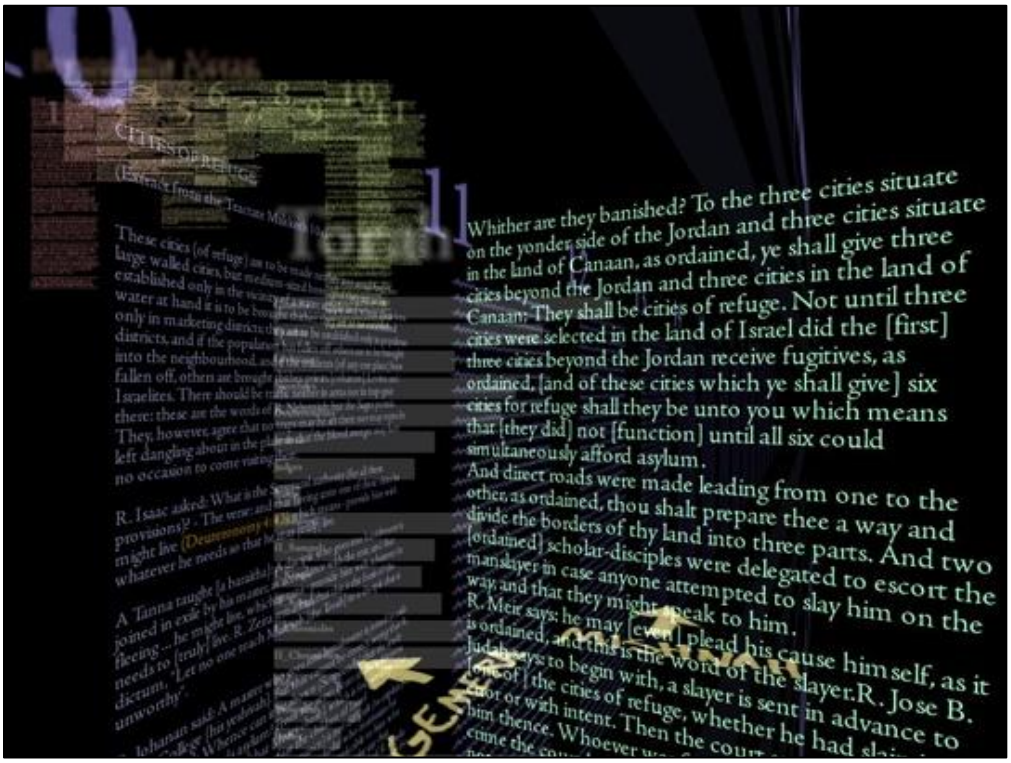
office: room 14N-421

Canvas Site: https://canvas.mit.edu/courses/16868

GitHub: https://cms633.github.io

Annotation Studio: https://app.annotation.studio

Slack: https://mit-cms633.slack.com/



David Small's *Talmud Project*

Course description

Examines theory and practice of using computational methods in the emerging field of digital humanities. Develops an understanding of key digital humanities concepts such as data representation, digital archives, information visualization, and user interaction through the study of contemporary research in conjunction with working on real-world projects for scholarly, educational, and public needs. Students create prototypes, write design papers, and conduct user studies. Some programming and design experience is helpful but not required. Students taking graduate version complete additional assignments.

Learning Objectives

- Demonstrating, through presentations, discussions, texts, and project work an understanding of core Digital Humanities concepts;
- Engaging with complex humanities ideas, connecting them to computational approaches, and developing critical thinking across media;
- Developing basic design thinking concepts, engaging in collaborative planning, design, and project development processes;
- Learning how to critically analyze humanities content and data, and how to select appropriate computational methods, approaches, and tools in light of different use cases and audiences;
- Leaning how to use a core set of Digital Humanities tools on humanities data.

Format and Requirements

This class will consist of reading discussions, demonstrations of tools and techniques, and hands-on project work. Occasionally, we will hear from guest speakers who work in museums, libraries, and research settings. Students are expected to comment on weekly readings on the class' Github site (two paragraphs minimum) and actively participate in class discussions on these readings. Rather than a summary of the readings, students are encouraged to focus on agreeing or disagreeing with key themes or assertions that they find provoking and would like to discuss in class, and pose questions that the class can discuss, including the use of examples, e.g. through web links to support their arguments. Occasionally, students will be asked to annotate readings using the tool Annotation Studio (http://app.annotation.studio). Before coming into class, **everyone** should read and think about the other students' comments and questions in preparation for the class discussion. Taking turns, students will lead the weekly reading discussions by addressing the questions raised and discuss them in light of the online comments by fellow students.

Small teams will be formed to work on a range of smaller projects in the first half of the semester. The second half of the semester will focus on developing the final small group project which will be selected mid-semester and will have to be completed by the end of the term. The final project will consist of a working digital prototype and a 15-page design paper.

Grades will be based on the following criteria:

- Final project (40%), including design paper and digital prototype
- Short projects (20%)
- Reading comments (25%)
- Class participation (15%)

Attendance and Participation

Class attendance and participation are required. Participation in class discussion is important because it allows you to explore the texts and themes collaboratively, and in the process, discover meanings and issues that you probably would not discover on your own. Participation in class also challenges you to continuously question, refine and articulate your own ideas and interpretations. You are expected to complete assignments ***before*** class (post your reading comments, project updates, etc. typically **by 10:00 AM on Mondays and Wednesdays,** exceptions will be announced). Active participation is required and the effect on your grade will be determined by how often you engage in class discussion

and how carefully you have read and thought about the assigned readings. Unexcused absences and habitual tardiness will affect your grade. Please email me in advance if you need to miss class due to illness or family emergency. There will be no final exam in the class.

Avoid *plagiarizing.* **Plagiarism** is the use of another's intellectual work without acknowledgment. Full acknowledgment for all information obtained from sources outside the classroom must be clearly stated in all written work submitted. All ideas, arguments, and direct phrasings taken from someone else's work must be identified and properly footnoted. Use quotation marks to identify all sources of wording that are not yours. Identify sources of ideas with appropriate footnoting. Plagiarism receives an F in the subject, the instructor is required to forward the case to the Committee on Discipline. See http://cmsw.mit.edu/writing-and-communication-center/avoiding-plagiarism/ for more information.

The WCC at MIT **(Writing and Communication Center**) offers *free* one-on-one professional advice from communication experts with advanced degrees and publishing experience. The WCC can help you further develop your oral communication skills and learn about all types of academic , creative, and professional writing. The WCC helps you think your way more deeply into your topic, no matter what department or discipline you are in. You can learn more about the WCC consultations at http://cmsw.mit.edu/writing-and-communication-center and register with the online scheduler to make appointments through https://mit.mywconline.com. Please note that the WCC hours are offered Monday-Friday, 9:00 a.m.-6:00 p.m., and fill up fast.

Class schedule (preliminary)

(Note: This is a preliminary syllabus; fine-tuning and changes in schedule or readings may occur. You will be notified if major changes need to be made.)

Date	Topics	Readings/Assignments
Week 1 September 7	**Introduction to Digital Humanities Part 1:** Sample DH projects	**Assignments:** In-class activity See in-class annoucement
Week 2 September 12	**Introduction to Digital Humanities Part 2:** From Humanities content to data	**Assignments:** Readings: • Read "A Short Guide to the *Digital_Humanities* (p.121-125) in *Digital_Humanities* (text on Canvas) • Evaluate one Digital Humanities site (see list and criteria on Assignment)
September 14	**From content to data:** Data concepts & humanities data	**Assignments:** • Annotate Vannevar Bush, "As We May Think" in Annotation Studio (http://mit.annotationstudio.org) Group project: Develop Comédie-Française data (see instructions)
Week 3 September 19	**Digital Transformations:** Project Presentation	Explore the Comédie-Française Registers project (cfregisters.org) • Read *Digital_Humanities*, chapter 1 (pp. 3-26) **U** read: pp. 3-16; **G**: read in addition: pp. 16-26
September 21	**What is data in the humanities?** Introduction to Final Projects	• Christof Schöch: Big? Smart? Clean? Messy? Data in the Humanities , *in: Journal of Digital Humanities, Vol. 2, No. 3 Summer 2013* • **G:** Miriam Posner: Humanities Data: A Necessary Contradiction , *June 25, 2015, Miriam Posner's Blog*
Week 4 September 26	Project Presentations - Comédie-Française Data Final Project Ideas	Develop ideas for a final project (see also links to past student projects)
September 28	**Data mining of open content I:** Working with APIs Project Pitches	**Readings:** • Johanna Drucker: *Data as Capta*, Los Angeles, 2010 (text on Canvas) **U** Read: *HUMANITIES APPROACHES TO GRAPHICAL DISPLAY* (5 Pages) **G** Read rest of Drucker text • D. Boyd, K. Crawford: *Six Provocations for Big Data* (2011) (text on Canvas)

Week 5 October 3	**Data mining of open content I:** Working with APIs	**Lab:** Using the APIs from the Comédie-Française registers Project, the MIT Museum, the Harvard Art Museums, etc.
October 5	**Data mining of open content II:** Data Scraping Defining Final Projects	**Readings:** • Christine L. Borgman, *Big Data, Little Data, No Data - Scholarship in the Networked World*, 2015, MIT-Press (Chapter 7) (text on Canvas) **U:** pp. 161-164, **G:** 161-185
Week 6 October 10	**Indigenous Peoples Day** (formerly: Columbus Day)	**No class**
October 12	**Data mining of open content II:** Data Scraping Defining Final Projects	**Tools:** Free Web scraping tools including Octoparse, Parsehub, etc.
Week 7 October 17	**Mapping Time – Data Visualization I:** Representation of time Final Project Pitches	**Readings:** • Edward Tufte, *Envisioning Information*, "Narratives of Space and Time" (text on Canvas) • Daniel Rosenberg and Anthony Grafton, *Cartographies of Time*, Chapter 1: "Time in Print" (text on Canvas) • **G.** Also read Chapter 2 (text on Canvas)
October 19	**Mapping Time – Data Visualization I:**	**Readings:** • Excerpts from „W.E.B. Du Bois's Data Portraits - Visualizing Black America (text on Canvas) **Tools:** • TimeMapper • Timeline.js • D3 or other tools **Assignment:** Spatial ethnographies
Week 8 October 24	**Mapping Space – Data Visualization II:**	**Readings:** • David J. Bodenhamer, The Potential of Spatial Humanities; pp. 14-31; (text on Canvas) • MARIA POPOVA: W.E.B. Du Bois's Little-Known, Arresting Modernist Data Visualizations of Black Life for the World's Fair of 1900 (www.brainpickings.org)

October 26	**Mapping Space – Data Visualization II:** Mapping Literature and other spatial data	**Tools:** • Carto • Google Maps/Earth Pro • Mapbox, TileMill, StoryMap, Neatline, Leaflet, etc.
Week 9 October 31	**Data Visualization III:** Network Graphs and other visualization techniques	**Readings:** • Dario Rodighiero: *Mapping Affinities in Academic Institutions*, 2018, frontiers (text on Canvas) • Edward Tufte: *Envisioning Information*, Chapter: Color and Information, 1990, pp. 81-96 (text on Canvas) • G: Johanna Drucker, excerpts from *Graphesis. Visual Forms of Knowledge Production* (text on Canvas)
November 2	**Data Visualization III:** Visualization Techniques & Tools	**Tools:** Tableau: https://www.tableau.com/academic/students Gephy: https://gephi.org/ **Assignment:** Work with text analysis tools and digital texts (see assignment)
Week 10 November 7	**Text as Data I** Methods of textual analysis	**Readings:** • Marti Hearst: What Is Text Mining? (2003) • Marti Hearst: Untangling Text Data Mining (1999) • **G:** Jeffrey M. Binder, "Alien Reading: Text Mining, Language Standardization, and the Humanities", in: Debates in the Digital Humanities, 2016 edition
November 9	**Text as Data I**	**Tools:** • Stanford Named Entity Recognizer (NER) • Voyant Tools, AntConc • JSTOR Lab Tools
Week 11 November 14	**Text as Data II** Text and Reading Encoding texts in TEI	**Readings:** • Lisa Gitelman (ed.), "*Raw Data" Is an Oxymoron*, *Introduction* (Cambridge, Mass, MIT-Press, 2013, 1-14) (text on Canvas) • **G:** Katherine Hayles: *How We Read: Close, hyper, Machine*, ADE BullEtin, (150) 2010, pp. 62-79 (text on Canvas) • Ahmed Elgamma et al. *The Shape of Art History in the Eyes of the Machine*, conference paper, (2018) (text on Canvas)

November 16	**Final Projects:** First presentation of Design Sketches, initial technology implementations	
Week 12 November 21	**Design Thinking Approaches to Project Development** **Design process:** Prototyping and wireframing	**Readings:** • Katja Tschimmel: *Design thinking as an effective toolkit for innovation* (2012) (text on Canvas) • Matt Kirschenbaum, "So the Colors Cover the Wires": Interface, Aesthetics, and Usability • **G: Johanna Drucker,** Performative Materiality and Theoretical Approaches to Interface, 2013 • Human-centered Design Toolkit, "Hear," pp. 29-68
November 23	**Data, Archives, Society** **Archiving Fandom**	**Readings:** • Jez Collins and Oliver Carter: "They're Not Pirates, They're Archivists". The Role of Fans as Curators and Archivists of Popular Music Heritage, in: Sarah Baker (ed.): Preserving Popular Music Heritage, New York, 2015, Routledge, pp. 127-138 **Assignment:** • Prepare presentation of digital prototype
Week 13 November 28	**Final Projects:** Presentation of updated Design Sketches, revised technology implementations	**Assignment:** Short write-up of project progress, prepare brief in-class presentation
November 30	**Black Digital Humanities**	**Reading:** Alison Martin, „Black Music Matters: Affirmation And Resilience In African American Musical Spaces In Washington, DC", in: *Black Lives Matter & Music: Protest, Intervention, Reflection*, Fernando Orejuela , Stephanie Shonekan (eds), Bloomington 2018, Indiana University Press, pp. 71-85 (text on Canvas)
Week 14 December 5	**Final Projects:** Presentation of digital prototype, refinement of prototype, brief presentation & feedback in class	**Assignment:** Written summary of project progress, work on Digital Prototype
December 7	**Final Projects** Project work	**Assignment:** Work on Digital Prototype

Week 15 December 12	**Final Projects:** Presentation of prototypes (dry run)	**Assignment:** Draft of final paper
December 14	**Final project Presentation**	**Assignment:** Final project Presentation and Design Document due