"The Digital and the Humanities"
LIS 3600: Seminar in Information Systems & Technology
School of Information Sciences, University of Pittsburgh
Fall 2015

Syllabus

This seminar will address the relationships between digital computing and the humanities, both as a subject of historical interest and of contemporary practical concern. We will delve into what it means, if anything, to be a "digital humanist" today by engaging in the ongoing theoretical discussions about the digital humanities (allied social sciences, liberal arts, etc...), but also by sitting down and finding out what it takes to actually implement this type of research in the digital environment. You will leave this class having gained a personally-significant understanding of current debates in the field as well as having built a digital project that furthers your own research.

Instructor

Alison Langmead (ADL40@pitt.edu)
Office Location: 116 Frick Fine Arts
Office Hours: By appointment, but are frequently available. Simply ask in person or by email.

Learning Objectives

* Upon completion of this course, students will have successfully formed, implemented, and concluded an original argument in their own scholarly domain, an argument whose construction relies on the use of analytic digital technologies.
* Students will also leave this course with an understanding of the ways in which digital technologies are being used in disciplines across the humanities and allied social sciences. Such domains include, but are not limited to, music, art and architectural history, media studies, studies of language and literature, history, and linguistics.
* Students will learn how to assess and examine their *process* as well as their digital products.
* Finally, students will become conversant in the current theoretical and political debates happening in the academy surrounding the use of digital technologies in the above domains.

Course Expectations

* This course is both discussion-based and making-intensive. Students will come to class prepared for the session by having read/watched/created all that is requested of them by the syllabus.
* Students will productively engage to the fullest of their abilities in each and every class session. "Engagement" is not restricted to "speaking publicly in front of a group." I will provide other opportunities to engage outside of the spoken classroom environment, and am very eager to collaborate with you on fostering an environment of openness and wonder.
* I expect the group to focus on being problem-driven rather than tool-driven. This is to say that, in this class, we are, first and foremost, practicing the study of the humans and their material, social and intellectual environments. We discover an interesting problem, or latch onto an idea, or embody some other form of engagement. In this seminar, tool selection comes next.[1]

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[1] After your work in this seminar, you might also consider the benefits offered by "playing around with tools" first. On these approaches, see Trevor Owens, "Where to Start? On Research Questions in the Digital Humanities," *Trevor Owens*, August 22, 2014, http://www.trevorowens.org/2014/08/where-to-start-on-research-questions-in-the-digital-humanities/.

UNIVERSITY POLICIES

Academic Integrity
Students in this course will be expected to comply with the University of Pittsburgh's Policy on Academic Integrity. Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity.

Disability Services
If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services (DRS), 140 William Pitt Union, (412) 648-7890, drsrecep@pitt.edu, (412) 228-5347 for P3 ASL users, as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course.

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Statement on Classroom Recording
To ensure the free and open discussion of ideas, students may not record classroom lectures, discussion and/or activities without the advance written permission of the instructor, and any such recording properly approved in advance may be used solely for the student's own private use.

Note on Digital Workflow

Producing digital projects in the humanities and allied social sciences is not (quite yet) associated with a traditional, patterned workflow. Over the years, I have begun to develop my own, and have noted that others seem to benefit from it, and so I offer it here in that spirit. I use a word in the workflow, "**capta**," that may not be familiar to you, but it is part of the contemporary conversation about what constitutes the "data" that humanists use. Whereas "data" means "things given" in Latin, "capta" means "things taken." For a more detailed discussion of capta and data in the humanities, feel free to read Johanna Drucker, "Humanities Approaches to Graphical Display," *Digital Humanities Quarterly* 5 (2011): http://www.digitalhumanities.org/dhq/vol/5/1/000091/000091.html. We will also be reading this article for seminar.

1. **BE CURIOUS**.
2. **FIND CAPTA** that respond to your curiosity.
3. **ASK A SPECIFIC QUESTION** that your capta can help you examine.
4. **LOCATE TOOLS** and further resources that help you investigate that question.
5. **PRODUCE ITERATED DELIVERABLES** as you work to address your curiosity
(question → capta → tools → product → question → capta → tools → product).
6. **REFLECT** as you go on your successes and struggles with the process.

These steps very well may not seem all that foreign, as well they should not. Producing an original argument that incorporates the analytic power of digital technologies is, in fact, like any other

academic research enterprise. There is one crucial part of the process, however, that these new*er* methods of academic production bring crucially to the fore, that of *iteration* (Step 5).

I might even go so far as to assert that it is *impossible* to produce a well-crafted, digitally-inflected argument in the academy without going through several iterations, that is to say several attempts to collect capta, refine it with tools, and draw meaningful conclusions from it. After all, we may reasonably expect our ideas to change as we implement our argument with *any* given tool, including the five-paragraph essay. We manipulate our tools, and insodoing, they have been known to show us things that we had not yet considered. We could not have been perfectly right all along, of course, for if so, when would the learning have happened? As the question mutates, capta analysis and tool selection might happen again. We refine. We iterate.

Of course, this has always been the way academic arguments have been produced. There have been drafts and revisions upon drafts and revisions. But from experience, I can tell you that iteration in the digital domain is even more critical to the process of creating and presenting new academic knowledge.

Expected Research Products

To this end, you will be asked to expose your iterative research process in this seminar by producing multiple versions of your project, providing self-assessments, and by submitting your work frequently to peer review. Let us bring our process into view and learn how it both changes us and our relationship to the problems that we address. Each iteration will include a composition (in any appropriate, comprehensible format) that provides me with both your project deliverables, your self-evaluations, and a summary of your peers' feedback.

First Iteration (Due to CourseWeb by noon on Monday, October 12th)
- What is your hypothesis, thesis, or engaging line of inquiry that you would like to investigate during this course? Begin to generate or find a captaset that responds to your inquiry. In old money, we called these "sources." In fact, we still call them that.
- *Be sure to address the following questions*: Why do you think your question would be well-served by the application of digital analytical tools? What benefits do you anticipate that your exploration of the captaset will draw from the use of such tools? Which type(s) of digital tools do you think will best serve it and why? What feedback have your peers given you so far, and how have you taken it into consideration? What are your thoughts on your process so far (a.k.a., how has it been going)?

Second Iteration (Due to CourseWeb by noon on Monday, November 16th)
- Produce a project with your captaset using a digital tool (or set of digital tools) especially chosen by you to help you investigate your particular question. This project will put forward a thesis, it will also provide evidence and analysis to support that thesis, and it will have a clearly-presented (even if tentative) conclusion—even if that conclusion is, "I am not succeeding in supporting my thesis, and here is a detailed explication of why…"
- *Be sure to address the following questions*: What was your process for this iteration? What have you learned about your question? What have you learned about your captaset? What have you learned about your digital tools? What feedback have your peers given you so far, and how have you taken it into consideration?

In-Class Presentations and Peer Assessments (Thursdays, December 10th and 17th)
- In the last two sessions, everyone will be presenting their process and iterated products to the class. You will also be producing short peer assessments of the other projects presented during these sessions. Knowing how to evaluate digital products intelligently and professionally is a critical skill in the 21st-century academy. Let us practice that skill.

Third Iteration (Due to CourseWeb by noon on **Friday**, December 18th)
- Refine your project, perhaps even using a different digital tool (or set of tools), with a refined/changed/transformed/identical captaset—whatever the project requires. The same analytic expectations will apply: there will be a thesis, evidence presented to support that thesis, analysis, and it a clearly-presented conclusion—even if that conclusion is, "I am still not succeeding in supporting my thesis, and here is a detailed explication of why…"
- What did this iteration demonstrate to you? What were the joys and the frustrations? What were the ways that the technological affordances and restrictions of each tool interacted with the capta to produce something unique? What sorts of feedback have you received from your peers and your instructors? How has this modified your process, if at all?

Assessment
As far as assessment goes, the following three methods of evaluation will occur throughout this seminar. Each of them should provide you with the ability to look more critically at your work and improve its clarity and depth of thought.

1. Self-evaluations. I have included extra questions to be answered during each iteration that are designed to keep you as self-reflective as possible throughout this process.

2. Peer evaluations. We will not work solely in isolation. We will give feedback to our colleagues. Before the due date for each deliverable, time will be made in class for paired peer critiques. This timing will allow you to incorporate the feedback into the work you turn in for professional evaluation. There will also be end-of-term peer assessments.

3. Professional evaluations. I will provide feedback and commentary on your iterations, which includes the effort and thought put into the peer and self-evaluations.

Method of Constructing the Grade for the Registrar
You will be evaluated at the end of the term on your level of engagement with your peers and your research.

WEEK-BY-WEEK OVERVIEW OF SEMINAR TOPICS

In addition to weekly seminar discussion and an in-class group project, we will be having a number of distinguished, local digital scholars joining us to share their expertise. The schedule for the local luminaries' visits is currently tentative, and is subject to change.

Date	Topic	Distinguished Visitors and Notes
Sep 03	Asking and Answering Questions about Humans…with the Help of Computers	
Sep 10	What is "DH™?"[2] Assessing Questions, Methods, Implementation, and Design	
Sep 17	The Materiality of the Digital: Hardware	
Sep 24	The Materiality of the Digital: Software	Annette Vee
Oct 01	Asking Questions, Finding Capta	David Birnbaum
Oct 08	Data Modeling in the Humanities	In-Class Group Project Begins [Iteration 1 Due Monday]
Oct 15	Metadata and Markup [in the context of Network Analysis]	Elisa Beshero-Bondar
Oct 22	Metadata and Markup [in the context of the Spatial Humanities]	Scott Weingart
Oct 29	Tools, Tools, Tools	In-Class Group Project Continues
Nov 05	Computing over Encodings [in the context of Image Analysis]	Tom Lombardi
Nov 12	Visualization [in the context of Topic Modeling]	Benjamin Miller [Iteration 2 Due Monday]
Nov 19	Project Management and Ongoing Preservation	In-Class Group Project Concludes
Dec 03	Publics, Publication and Impact	Matthew Lavin
Dec 10	Our Projects: Presentations on Process and Product	
Dec 17	Our Projects: Presentations on Process and Product	[Peer Evaluations and Iteration 3 Due **Friday**]

Class Session Breakdown

In keeping with the balanced approach this class will be taking towards theoretical investigations and practical investigations of digital tools and methods, each class session will devote time to both principles and practice. You will note that on October 01, October 29, and November 19, we will be working in-class together on a group DH project—one that we will design and create from scratch, together.

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[2] Phrase thanks to Meaghan Alston, MLIS.

Week 1 (September 03)
Asking and Answering Questions about Humans…with the Help of Computers

Preparation for This Week

1. Frabetti, Federica. "Have the Humanities Always Been Digital? For an Understanding of the 'Digital Humanities' in the Context of Originary Technicity." In *Understanding Digital Humanities*, edited by David M. Berry, 161-171. London: Palgrave Macmillan, 2012. http://pitt.idm.oclc.org/login? url=http://site.ebrary.com/lib/pitt/docDetail.action?docID=10538980.
2. McPherson, Tara. "Introduction: Media Studies and the Digital Humanities." *Cinema Journal* 48 (Winter 2009): 119–23. http://www.jstor.org/stable/20484452.

Week 2 (September 10)
What is "DH™?" Assessing Questions, Methods, Implementation, and Design

Preparation for This Week

1. Bring a pair of digital projects that particularly interest you to the group for discussion. Please select them from different domains of the humanities or allied social sciences.
2. Burdick, Anne, et al. "4. Provocations." In *Digital_Humanities*, by Anne Burdick et al., 99-135. Cambridge, MA: MIT Press, 2012. http://mitpress.mit.edu/sites/default/files/titles/content/ 9780262018470_Open_Access_Edition.pdf.
3. Posner, Miriam. "How Did They Make That? The Video!" *Miriam Posner's Blog*, April 17, 2014. http://miriamposner.com/blog/how-did-they-make-that-the-video/. In tandem with this video, see also http://miriamposner.com/blog/how-did-they-make-that/, from August 29, 2013.
4. Morville, Peter and Louis Rosenfeld. "Chapter 1: Defining Information Architecture." In *Information Architecture for the World Wide Web, Third Edition*, by Peter Morville and Louis Rosenfeld, 3-15. Sebastopol, CA : O'Reilly, 2007. http://pitt.idm.oclc.org/login?url=http://search.ebscohost.com/ login.aspx?direct=true&scope=site&db=nlebk&db=nlabk&AN=415014.

Week 3 (17 September)
The Materiality of the Digital: Hardware

Preparation for This Week

1. Barad, Karen. "Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter." *Signs* 28 (Spring 2003): 801-831.
2. Ford, Paul. "What is Code: **Sections 1-2**." *Businessweek*, electronic edition, June 11, 2015. http://www.bloomberg.com/graphics/2015-paul-ford-what-is-code/
3. Raben, Joseph. "Computer Applications in the Humanities." *Science* 228, no. 4698 (April 26, 1985): 434-438.

Week 4 (24 September)
The Materiality of the Digital: Software

Preparation for This Week

1. Ford, Paul. "What is Code: **Sections 3-7**." *Businessweek*, electronic edition, June 11, 2015. http://www.bloomberg.com/graphics/2015-paul-ford-what-is-code/.

2. Vee, Annette. "Understanding Computer Programming as a Literacy." *Literacy in Composition Studies* 1 (2013): 42-64. http://licsjournal.org/OJS/index.php/LiCS/article/view/24/26.

Week 5 (01 October)
Asking Questions, Finding Capta

Preparation for This Week

1. Please bring to class the question you are thinking of investigating during this seminar and the capta (or links to the capta) that you are thinking of using.
2. Drucker, Johanna. "Humanities Approaches to Graphical Display." *Digital Humanities Quarterly* 5, no. 1 (2011): http://www.digitalhumanities.org/dhq/vol/5/1/000091/000091.html.
3. Schöch, Christof. "Big? Smart? Clean? Messy? Data in the Humanities." *Journal of Digital Humanities* 2, no. 3 (Summer 2013): http://journalofdigitalhumanities.org/2-3/big-smart-clean-messy-data-in-the-humanities/.
4. Weaver, Warren. "Translation." In *Machine Translation of Languages*, edited by William N. Locke and A. Donald Booth, 15-23. New York: Wiley and Technology Press of MIT, 1955 (original memo from 1949).

Week 6 (08 October)
Data Modeling in the Humanities
IN-CLASS GROUP PROJECT BEGINS

Preparation for This Week

1. Posner, Miriam. "What's Next: The Radical, Unrealized Potential of Digital Humanities." *Miriam Posner's Blog*, July 27, 2015. http://miriamposner.com/blog/whats-next-the-radical-unrealized-potential-of-digital-humanities/.
2. Ramsay, Stephen. "15. Databases." In *A Companion to Digital Humanities*, edited by Susan Schreibman, et al., electronic edition, 2004. http://www.digitalhumanities.org/companion/view?docId=blackwell/9781405103213/9781405103213.xml&chunk.id=ss1-3-3&toc.depth=1&toc.id=ss1-3-3&brand=default.
3. Tillett, Barbara. "What is FRBR? A Conceptual Model for the Bibliographic Universe." Pamphlet produced by the Library of Congress. Washington, DC: Library of Congress, February 2004. http://www.loc.gov/cds/downloads/FRBR.PDF.

Week 7 (15 October)
Metadata and Markup [in the context of Network Analysis]

Preparation for This Week

1. Beshero-Bondar, Elisa. "An Introduction to Network Analysis and Cytoscape for XML Coders: First, Some Background." June 30, 2015. http://ebeshero.github.io/thalaba/cytosc.html#background.
2. Birnbaum, David. "What is XML and Why Should Humanists Care? An Even Gentler Introduction to XML." *<oo>→<dh> Digital Humanities*, April 15, 2004. http://dh.obdurodon.org/what-is-xml.xhtml.
3. Gilliland, Anne. "Setting the Stage." In *Introduction to Metadata*, edited by Murtha Baca and Tony Gill. Online edition, version 3.0. (Los Angeles, CA, 2008). http://www.getty.edu/research/publications/electronic_publications/intrometadata/setting.html.
4. Tasman, Paul. "Literary Data Processing." *IBM Journal of Research and Development* 1, no. 3 (1957): 249-256.

5. Weingart, Scott. "Demystifying Networks." *The Scottbot Irregular*, December 14, 2011. http://www.scottbot.net/HIAL/?p=6279.

Week 8 (22 October)
Metadata and Markup [in the context of the Spatial Humanities]

Preparation for This Week
1. Knowles, Anne Kelly. "GIS and History." In *Placing History: How Maps, Spatial Data, and GIS are Changing Historical Scholarship*, edited by Anne Kelly Knowles and Amy Hillier, 1-25. Redlands, CA: ESRI Press, 2008. https://books.google.com/books?id=VN1v7rzhSQEC
2. McLafferty, Sara. "Women and GIS: Geospatial Technologies and Feminist Geographies." *Cartographica* 40 (2006): 37-45.
3. Scholar's Lab. "Spatial Humanities: A Project of the Institute for Enabling Geospatial Scholarship," 2001-2013. http://spatial.scholarslab.org/. See especially "What is the Spatial Turn?" (http://spatial.scholarslab.org/spatial-turn/) and "Spatial Humanities Step by Step: Online GIS Using ArcGIS.com" (http://spatial.scholarslab.org/online-gis-using-arcgis-com/).

Week 9 (29 October)
Tools, Tools, Tools
IN-CLASS GROUP PROJECT CONTINUES

Preparation for This Week
1. Bring in, and be prepared to demo, one of the tools you have been investigating for your project.
2. Chiasson, Trina, Dyanna Gregory, et al. "Preparing Data." In *Data + Design*, 2014. https://infoactive.co/data-design/part03.html.
3. Gibbs, Fred and Trevor Owens. "Building Better Digital Humanities Tools: Toward Broader Audiences and User-Centered Designs." *Digital Humanities Quarterly* 6 (2012): http://www.digitalhumanities.org/dhq/vol/6/2/000136/000136.html.

Week 10 (05 November)
Computing Encodings [in the context of Image Analysis]

Preparation for This Week
1. Kraus, Kari. "Picture Criticism: Textual Studies and the Image." In *The Cambridge Companion to Textual Scholarship*, edited by Neil Fraistat and Julia Flanders, 236-256. Cambridge: Cambridge University Press, 2013.
2. Latour, Bruno and Adam Lowe. "The Migration of the Aura or How to Explore the Original through Its Facsimiles." In *Switching Codes: Thinking through Digital Humanities and the Arts*, edited by Thomas Bartscherer and Roderick Coover, 275-297. Chicago: University of Chicago Press, 2011. http://www.bruno-latour.fr/sites/default/files/108-ADAM-FACSIMILES-GB.pdf.
3. Manovich, Lev. "Data Science and Digital Art History." *International Journal for Digital Art History* 1 (June 2015): 13-35. http://journals.ub.uni-heidelberg.de/index.php/dah/article/download/21631/15404.

Week 11 (12 November)
Visualization [in the context of Topic Modeling]

Preparation for This Week

1. Burton, Matt. "The Joy of Topic Modeling." *Mcburton.net*, May 21, 2013. http://mcburton.net/blog/joy-of-tm/.
2. Chiasson, Trina, Dyanna Gregory, et al. "Visualizing Data." In *Data + Design*, 2014. https://infoactive.co/data-design/part04.html.
3. Goldstone, Andrew and Ted Underwood. "The Quiet Transformations of Literary Studies: What Thirteen Thousand Scholars could Tell Us." *New Literary History* 45 (Summer 2014): 359-384. Posted also at the Rutgers University Community Repository: https://rucore.libraries.rutgers.edu/rutgers-lib/43176/.[3]
4. Klein, Lauren. "The Carework and Codework of the Digital Humanities." *Lauren Klein*, June 25, 2015. http://lklein.com/2015/06/the-carework-and-codework-of-the-digital-humanities/.
5. Meeks, Elijah. "Using Word Clouds for Topic Modeling Results." *Digital Humanities Specialist*, August 15, 2012. https://dhs.stanford.edu/algorithmic-literacy/using-word-clouds-for-topic-modeling-results/.

Week 12 (19 November)
Project Management and Ongoing Preservation
IN-CLASS GROUP PROJECT CONCLUDES

Preparation for This Week

1. Fino-Radin, Ben. "It Takes a Village to Save a Hard Drive." *benfinoradin.info*, September 12, 2013, http://notepad.benfinoradin.info/2013/09/12/it-takes-a-village-to-save-a-hard-drive/
2. Leon, Sharon. "Project Management for Humanists: Preparing Future Primary Investigators." *#alt-academy*, May 6, 2011. http://mediacommons.futureofthebook.org/alt-ac/pieces/project-management-humanists.
3. Reed, Ashley. "Managing an Established Digital Humanities Project: Principles and Practices from the Twentieth Year of the William Blake Archive." Digital Humanities Quarterly 8, no. 1 (2014): http://www.digitalhumanities.org/dhq/vol/8/1/000174/000174.html.
4. Rockwell, Geoffrey, et al. "Burying Dead Projects: Depositing the Globalization Compendium." *Digital Humanities Quarterly* 8, no. 2 (2014): http://www.digitalhumanities.org/dhq/vol/8/2/000179/000179.html.

Week 13 (03 December)
Publics, Publication and Impact

Preparation for This Week

1. Burdick, Anne, et al. "3. The Social Life of the Digital Humanities." In Digital_Humanities, 73-98. Cambridge, Mass: MIT Press, 2012. http://mitpress.mit.edu/sites/default/files/titles/content/9780262018470_Open_Access_Edition.pdf .

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[3] Other links for this project include the dataset/tool: http://rci.rutgers.edu/~ag978/quiet/ and the distribution of the source code for the tool: http://agoldst.github.io/dfr-browser/.

2. Fitzpatrick, Kathleen. "Beyond Metrics: Community Authorization and Open Peer Review." In *Debates in the Digital Humanities*, edited by Matthew Gold, electronic edition (2013). http://dhdebates.gc.cuny.edu/debates/text/7.
3. Koh, Adeline. "Niceness, Building, and Opening the Genealogy of the Digital Humanities: Beyond the Social Contract of Humanities Computing." differences 25, no. 1 (2014): 93-106.
4. Nowviskie, Bethany. "Digital Humanities in the Anthropocene." Digital Scholarship in the Humanities (April 9, 2015): http://dsh.oxfordjournals.org/content/early/2015/04/09/llc.fqv015.full.

Week 14 (10 December)
Our Projects: Presentations on Process and Product

Preparation for This Week
- Half of the class will presenting their process and products today. Those not presenting will be crafting peer assessments for their colleagues.

Week 15 (17 December)
Our Projects: Presentations on Process and Product

Preparation for This Week
- Half of the class will presenting their process and products today. Those not presenting will be crafting peer assessments for their colleagues.