# Digital Humanities Knowledge: Reflections on the Introductory Graduate Syllabus

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yllabi themselves not only map out a (necessarily limited) picture of the field, but they also make an argument for what kind of knowledge is being produced in the course. In considering this argument, I found myself, like my colleagues at other institutions, balancing a broad-as-possible introduction to DH tools with some instruction on how DH fits into disciplinary research questions and, relatedly, having to decide how much coding to teach. Because my students and I considered these course design questions together, we began as a class to consider the knowledge that DH produces as a productive encounter between humanistic and computational styles and forms of thought.

### Tools and Research Questions

I found in my syllabus and others that a natural way to organize the introductory DH syllabus is through the variety of tools that digital humanists use, such as markup languages and content management systems, data mining, network visualization, and so forth. But starting with the tool can have its own kinds of limitations, and there is often some distance between describing a tool's capabilities (and limitations) and formulating a solid disciplinary research question with it. Over the course of the semester, my students and I developed a provisional criterion for what marks a "mature" stage of digital humanities as a field: its ability to connect digitally obtained evidence with other forms of evidence and to integrate digital work into the research questions other, non-DH scholars are asking. This criterion offered less a marker for what is (and is not) "mature" scholarship than it gave us, as a class, a strategy for reading and using this scholarship: how can we, as students, understand the ties between computationally obtained evidence and the research questions that are driving our fields now? I believe one of my students was the source of a phrase that came up several times in our classroom as we moved from week to week, from one

digital humanities method or tool to another: "Is this a tool in search of a research question?" We would mine our readings to construct ways in which the tools could be used in the *service* of one or more disciplinary research questions.

As we progressed, I came up with a list of research foci where the integration of digital tools seemed particularly promising beyond the archival, bibliographic, and textual studies with which humanities computing began. Weeks after I compiled my personal list—new sociologies of literature and culture, media theory and history, and science and technology studies—I saw that it had already been compiled (or strongly implied) in Alan Liu's expanded version of "Where Is Cultural Criticism in the Digital Humanities?" (about which I'll have more to say soon). The experience led me to conceive of advanced DH courses as those that could leave aside the "bus tour" of tools and methods and start with research questions that could make use of digital and nondigital evidence. The first of these courses that I have planned out will be a course on "Social Networks and Information Culture." (I should note, however, that Lauren F. Klein's² and Andrew Goldstone's³ recent courses, built in different ways around the theme of "data," seem to balance admirably between a sustained thematic focus *and* the breadth of an introductory survey.)

## How Much Programming?

The DH syllabi that I have seen seem to vary most widely in their approach to the amount of technical skills they intend to teach. My own initial model was like that of the THATCamp workshop: in the second half of each week's seminar, we would go to the computer lab and get started using a new tool. I initially envisioned more guided instruction on programming basics, but the wide range of students' abilities made this approach less practical than simply giving individual guidance, as needed, to each of the thirteen students. I think an excellent course could be built around Python or R (and they have, in the cases of Matt Wilkens's<sup>4</sup> and Andrew Goldstone's<sup>5</sup> syllabi), but I decided to err on the side of shallowness and breadth, making each lab a sort of hands-on session for a technique we had seen used in a reading. In the first couple of lab sessions, for instance, we set up basic WordPress or Drupal installations in order to see how database-driven websites work, an activity that set us up to talk about online archives and questions about databases. In another lab, we walked through the process of downloading and visualizing our social networks from Facebook or Twitter. In others, we tried out topic modeling, other distant reading techniques, and so on. On the negative side here, we were never able to go into much depth in the lab, but on the positive side, we got to work hands-on, at least a little, with most of the techniques we read about. While most of the guided work tended toward very modest goals, the independent project work time in the last five or six weeks seemed much more successful. There, students went into more

depth with the methods that they thought they could connect with data for their own research questions.

I was particularly surprised by the ways that students built on their own strengths in devising their projects. One pair of students made a rich database of nineteenth-century publication data using some prior advanced knowledge of Excel, and that was all they really needed to reach some compelling conclusions. One student created a simple virtual world as a way to get more familiar with Unity3D, based on a bit of prior programming experience. Another devised a Python script to distant-read a particular theme throughout the corpuses of several nineteenth-century authors. Several students worked intensively with me during labs and office hours to figure out or troubleshoot tasks that had them stumped (e.g., getting data into the right format to work with a D3.js visualization). And much of this work plugged into papers that provided strong disciplinary contexts for the questions they asked of their data, and they did so very well. (So, by our own criterion, I suppose, the student projects were rich in "mature" DH scholarship.)

# The Knowledges of DH

That question about the amount of programming to include led me and my students, collectively, to ask what it is that we ought to be teaching and learning in a digital humanities course. Surely, even programming-intensive DH courses teach forms of expertise that cannot be reduced to basic skills. A noteworthy moment of insight on this question came from our reading the Liu essay mentioned previously: "Where Is Cultural Criticism in the Digital Humanities?" We read the essay as part of a discussion of the most heated DH debates on the questions of diversity and theory in the digital humanities. Liu's essay is widely cited in discussions of diversity, in particular, so I imagined we would discuss it in that light.

Instead, we found ourselves talking (and I found myself thinking more afterward) about the turns at the end of his essay, where, in considering the roles of "instrumentality" in scholarship, Liu also seems to be rethinking the kind of knowledge that DH scholarship produces. He writes:

The appropriate, unique contribution that the digital humanities can make to cultural criticism at the present time is to use the tools, paradigms, and concepts of digital technologies to help rethink the idea of instrumentality. The goal, as I put it earlier, is to think "critically about metadata" (and everything else related to digital technologies) in a way that "scales into thinking critically about the power, finance, and other governance protocols of the world." Phrased even more expansively, the goal is to rethink instrumentality so that it includes both humanistic and STEM fields in a culturally broad, and not just narrowly purposive, ideal of service. (In *Debates in the Digital Humanities* 2012 edition, 490–509, 501)

I think Liu is suggesting that getting our hands dirty with digital tools (both by using computational techniques and by studying computational culture) puts us in a position where our metacommentary could produce fresh insights about the forms and technologies of knowledge in the contemporary moment. I like this notion because it suggests that the main benefit of humanists using "big data," for example, is *not* simply some well-mapped and well-ordered fingertip command of all the data of culture. Rather, what we get is a more robust understanding of "big data" as an *idea* and as a cultural phenomenon, an understanding that comes from trying to square this new form of knowledge with humanistic strategies of thinking. (Indeed, Liu's chapter in the present volume asks how we can approach big data through a modified understanding of the text's formal unity.)

For me, this insight happily supersedes the old "hack vs. yack" debate from the early days of DH. On the one hand, "hacking" makes scholars and students more active and insightful consumers of technology, which is one way of saying that it provides the kinds of digital literacy—the ability to create and manipulate content—that I believe ought to be an essential part of a twenty-first-century liberal arts education. Nevertheless, the know-how of "hacking" ought not to be confused with special expertise, since much DH work, including tool building, can be and often is done with sub-bachelor's-level computer science knowledge. Following this thinking, digital humanities courses give humanities practitioners literacy, not expertise; our expertise as humanists has always been in our strategies for rethinking and reframing difficult but important questions. To put the point I draw from Liu another way: the "theory" (or "yack") DH needs is broader than a particular canon of interdisciplinary thinkers and broader than calls for diversity, both of which are important and also deserve continual rethinking and renewal. Theory, as a historicist, self-reflexive, and interdisciplinary account of culture, stands to be enlarged and also renewed through our encounters with the forms, media, and techniques of contemporary information culture. The chance to think more about such opportunities has me excited to teach my next DH seminar.

#### NOTES

After I finished teaching my first digital humanities graduate seminar, I wrote this lightly revised blog post to reflect on a few of the questions I had seen colleagues grappling with on the level of course design. What is it that we teach, exactly, when we teach digital humanities at the graduate level, and how can we balance disciplinary training in a home discipline (like literature) with the kinds of technical training that are necessary to doing much of the work we call digital humanities? My mandate at the University of Arizona was to create an introduction to digital humanities in literary studies that could also benefit students coming from other disciplines, and in the class seven English literature students joined with four students in library science, one in creative writing, and one in gender and women's studies. We split the weekly session each week into a discussion and a lab

component. In planning the syllabus, I had useful conversations with Matthew Wilkens, Andrew Goldstone, and Chris Forster, and I perused syllabi generously posted online by Alan Liu, Rita Raley, Miriam Posner, and Lauren F. Klein. My own syllabus is online now, too.  $^6$ 

- 1. http://dhdebates.gc.cuny.edu/debates/text/20.
- 2. http://lkleincourses.lmc.gatech.edu/data13/schedule.
- 3. http://www.rci.rutgers.edu/~ag978/litdata/syllabus.
- $4.\ http://mattwilkens.com/teaching/digital-humanities-graduate-seminar-spring-2014.$ 
  - 5. http://www.rci.rutgers.edu/~ag978/litdata/syllabus.
  - 6. http://u.arizona.edu/~selisker/images/SeliskerENGL596K.pdf.