

## Classics and Digital Humanities

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“Digital Humanities” is the current umbrella term, one which is gaining wide currency, despite its relatively recent popularization, for a variety of activities at the intersection of humanities and computing.<sup>1</sup> Though the field itself is well over fifty years old, Digital Humanities seems to have recently caught the attention of the popular press. The *New York Times*’ series, entitled “Humanities 2.0,” explores “how digital tools are changing scholarship in history, literature and the arts.”<sup>2</sup> One such piece earlier this year highlighted work like that of Stanford’s Dan Edelstein on the intellectual networks of Enlightenment thinkers.<sup>3</sup> (In classical circles, the Hestia Project is doing analogous work on spatial networks in Herodotus.<sup>4</sup>) A more recent piece shows off the use of Second Life and the 3–D models of the Theatron project for teaching and research.<sup>5</sup> The attention is great, but there is of course a certain blindness in these reports. One report in the *New York Times* seems astounded that humanities scholars – they’re the pale ones hanging out near the library, right? – even know how to use computers.<sup>6</sup> (The piece is framed with an appraisal of the whole digital project by Anthony Grafton which misleadingly makes Grafton’s sober assessment sound like partial condemnation.) The popular press’s rhetoric of “cutting edge” distorts the situation, illustrated easily enough within our own discipline. Classics boasts some of the longest-running projects in the digital realm, many of which are now so familiar that it is difficult to think of them as “Digital Humanities.”<sup>7</sup> The *Bryn Mawr Classical Review*, for example, is the second-oldest online academic journal.<sup>8</sup> The *Perseus Digital Library* started up in 1985 and the *Thesaurus Linguae Graecae* some forty years ago, in 1972.<sup>9</sup> Computer analysis of classical texts extends back to the earliest days of humanities computing.<sup>10</sup> It is worth recalling that the very first project in Digital Humanities was the work of Father Roberto Busa, beginning in 1949, to construct a concordance to the works of Thomas Aquinas with the aid of early computers, a project which, if not strictly “classical,” has at least linguistic kinship.<sup>11</sup> So even if the Grey Lady is oblivious to the history of Digital Humanities, this most recent percolation into the popular press captures something essential and distinctive about Digital Humanities at this particular moment (and in distinction to the modes of doing humanities computing over the past decades).

Matthew Kirschenbaum, in a recent genre piece on the perennial Digital Humanities question, “What is Digital Humanities,” ends with this public dimension:

Whatever else it might be then, the digital humanities today is about a scholarship (and a pedagogy) that is publicly visible in ways to which we are generally unaccustomed, a scholarship and pedagogy that are bound up with infrastructure in ways that are deeper

and more explicit than we are generally accustomed to, a scholarship and pedagogy that are collaborative and depend on networks of people that live an active 24/7 life online.<sup>12</sup>

I would take exception at that last point, as this seems as unhealthy a prerequisite as living a 24/7 life inside a library; but Kirshenbaum emphasizes well the way that the best Digital Humanities work is not the property of just a small set of scholars. Computing tools and resources must be shared and Digital Humanities work necessarily involves building things online which can be made accessible to a potentially broader audience than the standard circulation of a scholarly monograph. We can see in this characterization a profound shift where the computer as statistical heavy-lifter and concordance generator – the promise of early humanities computing – has not disappeared, but has become so obvious as to be unmarked; in its place the current ideology of the web, that is, a world that is social, plugged in, public, and collaborative, rises to prominence.

That Digital Humanities should matter in a discussion of the future of Classics is, in a very practical sense, a matter of money. Funding for digital initiatives, many with a classroom component or orientation, seem to be going up at a time when many other spending areas trend towards zero. At the national level, there are currently 11 different funding programs for Digital Humanities sponsored by NEH and administered under a permanent “Office of Digital Humanities” formed in 2008.<sup>13</sup> ACLS funds digital innovation fellowships separate from its regular ACLS fellowships.<sup>14</sup> The Andrew Mellon Foundation has devoted big money to support Digital Humanities centers like Hamilton College’s Digital Humanities Initiative and the cross-institution Project Bamboo.<sup>15</sup> And Google has thrown its weight behind Digital Humanities with its Digital Humanities Research Awards.<sup>16</sup> Of interest to the Classics scholar, Google has already made available 500 digitized books and out-of-copyright works of scholarship.<sup>17</sup> And their n-gram viewer of word frequency for their digital book archive is not a trivial tool for surgical slices across intellectual history.<sup>18</sup>

Classics is perhaps more fortunate than other disciplines in having major repositories of digital texts, including epigraphic and papyrological texts, online for some time now. Even a cursory romp through the listings on the Digital Classicist site or the Stoa Consortium reveals a wide variety of endeavors occupying distinct digitization niches.<sup>19</sup> Whichever of these tools any individual scholar might claim to use or be familiar with, most of these have the common purpose of making available or collecting for search and study our particular data, the data of texts, sites, and scholarship.

We are at a turning point in this regard. Tim Berners-Lee sees the next iteration of the web in terms of linked data.<sup>20</sup> Where the existing web consists of data dumped or lumped in various packets, each semantically isolated from others, the next leap forward will be in creating structural links between publically available datasets.<sup>21</sup> That this is a concept of the open web which requires that data not hide behind subscription walls is an important point, but also gives some vision as to where we might go. There is still much work to be done in digitization to be sure. On this front, Greg Crane’s call for more editors is a prerequisite of particular importance in our field.<sup>22</sup> Our data (of the textual persuasion at least) needs much attention with the expertise

native to our discipline. But the endpoint of such work is not solely or even primarily in the publication of that data, but in what one can do once that data becomes linked to other types of information. The NEH is on to this trend – their recent “digging into Data” program is aimed precisely at finding new ways to manipulate and connect data in the humanities.<sup>23</sup>

Imagine the analogue for Classics and its data sets. What can be done when we can link chronologies and timelines to geographic data which is in turn linked to texts, texts which are in turn coordinated with their context in a meaningful way? One can, of course, map or trace any single component through those other domains with relative ease and speed, but imagine the greater context of a linked web of other public data, where our ancient data is coordinated with wholly different sorts of information – weather data, health data, geologic data. Imagine what we can do if we can take our data and feed it analysis tools developed for wholly different data sets? What sorts of data analysis can we then bring to bear? The promise of Digital Humanities is not as panacea which answers old questions with a new technologically-driven period; rather, linking all this data generates new questions or new perspective on old questions.

That is perhaps high-minded technological evangelicalism and so we would do well to mix a healthy dose of doubt with our expectations. Harsh realities do loom on the horizon. All humanities disciplines have struggled with basic problems of how to evaluate and support work in the Digital Humanities. Is an online project equivalent to other forms of scholarly production? Is it something more? Something less? Institutionally, technologically, how do we get these projects moving? How do we ensure long-term stability? These are problems we share with all humanities disciplines, but Classics also has a more specific and acute problem which is, I think, the biggest challenge going forward. Our discipline has a particularly heavy burden of training, both because of the long history of scholarship which stubbornly refuses to be irrelevant and because of the non-trivial period of immersion required for ancient languages. (We feel this pinch already when we must balance the conservatism of the discipline against the evolving methods or discourse outside of any particular classical sub-field.) How do we train classicists equipped to do digital work? Joint degrees in computer science and Classics? Can Ph.D. curricula accommodate coursework or the autodidactic time necessary to maintain competence in computing? The future of Classics, as far as Digital Humanities is concerned, is only partly in the projects that are, with increasing frequency, populating the internet landscape. And though there are many other areas which may be more important, like funding or institutional reorganizations, classicists are not always in a position of direct control over such things. But we are able to more quickly and deeply affect graduate training of classicists. The promise of Digital Classics, let me suggest or at least provoke, ultimately depends upon how we adapt that training. And that is a project to which, whether or not you know how to code or want to build things on the web, everyone can contribute.

## Notes

1. For the history of humanities and computing, see especially *A Companion to Digital Humanities*, eds. Susan Schreibman, Ray Siemens, and John Unsworth (Oxford: Oxford University Press, 2004), available online at <http://digitalhumanities.org/companion/>; and, more recently, Patrik Svensson, “The Landscape of Digital Humanities,” *Digital Humanities Quarterly* 4.1 (2010), available online at <http://www.digitalhumanities.org/dhq/vol/4/1/000080/000080.html> with further bibliography. For the term “digital humanities,” see Matthew Kirschenbaum, “What Is Digital Humanities and What’s It Doing in English Departments?” *ADE Bulletin* 150 (2010): 55–61, especially 56–57. Particularly helpful for exploring current work in Digital Humanities is the CUNY Digital Humanities Resource Guide: [http://commons.gc.cuny.edu/wiki/index.php/The\\_CUNY\\_Digital\\_Humanities\\_Resource\\_Guide](http://commons.gc.cuny.edu/wiki/index.php/The_CUNY_Digital_Humanities_Resource_Guide).
2. [http://topics.nytimes.com/top/features/books/series/humanities\\_20/index.html](http://topics.nytimes.com/top/features/books/series/humanities_20/index.html)
3. <http://republicofletters.stanford.edu>
4. <http://www.open.ac.uk/Arts/hestia/>
5. <http://www.kvl.cch.kcl.ac.uk/theatron.html>
6. Patricia Cohen, “Digital Keys for Unlocking the Humanities’ Riches,” *New York Times* November 16, 2020, <http://www.nytimes.com/2010/11/17/arts/17digital.html>.
7. Gregory Crane surveys the history of “Classics and the Computer: An End of the History” in Part I, section 4 of Schreibman, Siemens, and Unsworth 2004. See also Theodore F. Brunner, “Classics and the Computer: The History,” *Accessing Antiquity: The Computerization of Classical Databases*, ed. Jon Solomon (Tucson, AZ: University of Arizona Press, 1993), 10–33.
8. <http://bmc.brynmawr.edu/>
9. <http://www.perseus.tufts.edu> and <http://www.tlg.uci.edu/>
10. In 1959, James McDonough wrote of computers and Classics, hailing the dawning of “a new era in scholarship, a golden age in which machines perform the servile secretarial tasks, and so leave the scholar free for his proper function, interpretive scholarly research” (James T. McDonough, “Computers and Classics,” *The Classical World* 53.2 (1959): 44–50, especially 49–50). It is not until the late 1960s that we see a significant uptick in computer-aided research, particularly for statistical analyses of various features of ancient literature (e.g., formula, sound, meter). The journal *Computers and the Humanities* (since 2005 called *Language Resources and Evaluation*) started up in 1966 and one can read regular annual reports on “Computers and the Classics” into the early 1970s.
11. Roberto Busa, *Sancti Thomae Aquinatis Hymnorum Ritualium Varia Specimina Concordantiarum ... A First Example of Word Index Automatically Compiled and Printed by Ibm Punched Card Machines* (Milan: Fratelli Bocca, 1951); see also “The Annals of

Humanities Computing: The Index Thomisticus,” *Computers and the Humanities* 14.2 (1980): 83–90.

12. Kirschenbaum 2010.

13. <http://www.neh.gov/odh/>

14. <http://www.acls.org/grants/Default.aspx?id=508>

15. <http://www.dhinitiative.org> and <http://www.projectbamboo.org>

16. <http://googleblog.blogspot.com/2010/07/our-commitment-to-digital-humanities.html>.

Some of this funding has gone to classical endeavors, including Greg Crane at Tufts for *Classics in Google Books* and to the team of Elton Barker, Eric C. Kansa, and Leif Isaksen for *Google Ancient Places (GAP): Discovering historic geographical entities in the Google Books corpus*. The fate of some work with the Google corpus remains to be determined however as there are copyright issues still in the courts (see, e.g., <http://books.google.com/googlebooks/agreement/> and Miguel Helft, “Judge Rejects Google’s Deal to Digitize Books,” *New York Times* March 22, 2011, <http://www.nytimes.com/2011/03/23/technology/23google.html>).

17. <http://www.google.com/googlebooks/ancient-greek-and-latin.html>

18. <http://ngrams.googlelabs.com/>

19. <http://www.stoa.org/> and <http://www.digitalclassicist.org/>

20. For an easy to digest presentation on the topic, see Berners-Lee’s 2009 TED talk at [http://www.ted.com/talks/tim\\_berners\\_lee\\_on\\_the\\_next\\_web.html](http://www.ted.com/talks/tim_berners_lee_on_the_next_web.html)

21. See <http://linkeddatabook.com/editions/1.0/> and Christian Bizer, Tom Heath, and Tim Berners-Lee, “Linked Data – the Story So Far,” *International Journal on Semantic Web and Information Systems* 5.3 (2009): 1–22.

22. Gregory Crane, “Give us editors! Re-inventing the edition and re-thinking the humanities,” *Connexions* 14 (May 2010), available online at <http://cnx.org/content/m34316/latest/2010>.

23. <http://www.diggingintodata.org/>