1 Recent Trends in Digital Humanities Scholarship

1.1 Introduction: Concerns and Possibilities That Give Rise to the Digital Humanities

Education is changing, and digital work is both reflective of and instrumental for these changes. Yet, whereas digital technology has long been central in many academic arenas, it has received mixed reviews by those in the humanities. The past decade, however, has introduced several factors that have been giving technology a more prominent role in these ostensibly less-technical forums.

One factor has been an anxiety that US higher education is not preparing students for today’s changing workforce. As US jobs continue to be off-shored due to global market conditions or automated due to technological advances, many have asked if higher education is appropriately preparing US students to be future workers and leaders in an economy that demands innovation and entrepreneurialism for quick adaptations to global systems in flux. This anxiety about student preparation, coupled with rising student debt, has led citizens, businesses, government officials and policy makers\(^1\) to question what students are receiving for their increasingly expensive higher education. More, such questions have nudged academic institutions, programs, and departments to explore how globally networked digital media can keep universities relevant in today’s changing contexts.

A second, related concern that has helped fuel increased interest in technology relates to funding for higher education. For years there has been an ongoing withdrawal of US governmental funding, with 48 of the 50 states continuing to cut financial support (Center for Budget and Policy Priorities, 2014) to the point where some argue that the government will all but de-fund these universities within the coming decades. As universities scramble to fill that budgetary gap, they rely on a series of measures, including the controversial courting of business sponsorships.

\(^1\) An earlier high-profile example is when, in 2006, Margaret Spellings, the then chair of the US Department of Education under George W. Bush, convened a Commission on the Future of Higher Education working group to recommend future educational trajectories. The resulting report, “A Test of Leadership, Charting the Future of US Higher Education,” started by asking what businesses and citizens were getting for the high price tag of education. Illustrating the wide-spread anxiety about whether US higher education is preparing students, and therefore the US, to be leaders in today’s globalized world, this report asked educators to justify how it was preparing today’s workers, a justification those in higher education continue to be asked to make today (Commission Appointed by Secretary of Education Margaret Spellings, 2006).
University athletic divisions have solicited and maintained corporate alliances for years, but expanding that reliance, critics fear, makes universities beholden to these companies beyond their ubiquitous advertising at university sporting events or their names on campus buildings, facilities, or academic positions. Donations that have explicit strings attached (e.g., about research agendas, curricular choices, hiring practices) can compromise the intellectual freedom that universities champion, yet, as long as these economic conditions remain, cash-strapped universities have few options for funding and will, therefore, need to negotiate new sponsorships and the incumbent responsibilities that go along with such relationships.

Among the many concerns facing higher education, these two—anxiety about student preparation and concerns about sponsors who fund and shape that preparation—show higher education's twinned problems of needing to do more with less. In that difficult spot, universities are learning to do differently, and technology is increasingly touted as a means both to prepare students for the digitally saturated employment world of today and to develop partnerships beyond the traditional ones. Not surprisingly, many in higher education have pinned their hopes for emerging educational practices on the use of digital media throughout higher education, including the humanities. Fortunately, this shift is becoming easier in the classroom, in part because of the world in which we live today.

According to the Pew Charitable Trust, digital media is ubiquitous in many students’ lives (Lenhart, et al., 2008), and teachers across the university are tapping this interest. For example, the annual Educause list of the top 100 technologies teachers report using in their classrooms indicates that teachers are bringing high-end and everyday technology into their classrooms (Dahlstrom and Brooks, 2014; Purcell, et al., 2013), and they are using that technology in various ways, whether to teach rhetorical strategies with social media, efficient data management for research projects, or effective collaboration in digitally mediated forums. This interest in using digital communication in the classroom is shared by university presidents as well; when asked what higher education will look like in the year 2020, the majority of university presidents responded that higher education will be quite different, with more digitally mediated teaching and learning than exists today (Anderson, et al., 2012). In fact, most university presidents anticipate a significant rise in online teaching

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2 Consider, for instance, the controversy in the United States surrounding the Koch brothers donating large sums of money to Schools of Business, something that has occurred at my university as well. These two conservative donors often attach strings to their donations, such as a required reading for students or a review of academic candidates by the donors. While these Koch brother restrictions have been softened, in some instances this overall practice worries academics due to the perceived and/or actual effects that businesses—often with strong political agendas—may be buying higher education and its influence.
and learning, with half of those responding that digitally mediated teaching will be important to how a majority of students receive their education (Taylor, et al., 2011).

This general interest in and acceptance of digital technology in academia today is also evident in parts of the humanities. As technology finds a stronger foothold in the humanities, a conventionally less-technical arena than other parts of universities, more resources are becoming available to illustrate and explore the possibilities of the Digital Humanities, including: the US government sponsored National Endowment for the Humanities has a special section called the Office of the Digital Humanities; established book series have Digital Humanities collections, such as Blackwell’s A Companion to Digital Humanities (Schreibman, Siemens, and Unsworth, 2004); and, academic conferences, disciplinary specializations, and academic jobs are devoted solely to the Digital Humanities.

Such markers highlight that the digital and indeed the Digital Humanities have arrived, yet the actual definition of the Digital Humanities is less stabilized. Many see that the term can push scholars to explore possibilities beyond what has been traditional inquiry. Others contest the term altogether; noting that the digital is infused in the sciences, engineering, and medicine (areas that do not use the “digital” modifier), this group pushes scholars to focus on defining the humanities in contemporary contexts. Still others use the term Digital Humanities to mean just about anything that uses digital media. Despite the diversity of views, the Digital Humanities generally refers to a set of methods and projects that investigate how the pairing of the terms “digital” and “humanities” extends one another. In other words, definitions coalesce around investigations into what it means to be human in the digitally networked information age. As such, these definitions tap traditional humanities strengths—such as synthesis, analysis, creation, and curation of artifacts with social/cultural significance—within digital networks to respond to cultural, economic, and global changes (Burdick, et al., 2003, p. 82).

In sharing their work, Digital Humanities scholars not only build upon but also extend humanities knowledge, making their arguments in both traditional, longer academic forms (e.g., academic papers, research reports) and in innovative, shorter forms (e.g., data visualizations). These scholars also pursue novel methods that, among other things, open new forms of scholarly inquiry, assess and organize knowledge in different ways, and facilitate collaboration across both traditional disciplinary silos as well as academic and non-academic participants. While scholars have been asking new questions, providing inventive assessments and collaborating

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3 Oft-cited examples include ways to provide less expensive and more inclusive educational options. For example, supporters of digitally mediated learning argue that technology can provide education more cheaply (e.g., online classes do not require expensive buildings or maintenance of physical classrooms) and entice more students (e.g., online classes allow working or rural students to take classes that may be impossible if classes require face-to-face class meeting).
for years, the degree to which these practices are the norm in Digital Humanities scholarship is distinctive. It is still too early to definitively state what exactly can come in this context, but already Digital Humanities scholars are charting several key paths, as the following examples illustrate.

1.2 Examples of Digital Humanities Projects

There are many ways to describe the diverse Digital Humanities projects that infuse long-standing traditions of humanistic inquiry into rapidly changing technological possibilities of today. Below are examples of three types: the *digitization of information*, which makes information widely and often freely available to a far greater range of stakeholders; the *born digital* projects, which call for multimodal, often interactive and immersive, engagements afforded by digitally mediated technologies; and, the *creation of tools* that allow for new ways to research and represent that research. Fostering collaboration and opening the possibility of innovative methods and questions, each of these projects extends humanities research by encouraging new ways of creating and representing knowledge.

1.2.1 Digitization of Existing Materials

One type of Digital Humanities project is the *digitization of existing materials*, which makes historically static material easily available and accessible to anyone with an Internet connection. While not an entirely new practice—scholars have had access to archives in the past—increasing access to this information radically changes the scope and possibilities of such work. Consider, for instance, Devon Elliott and William J. Turkel’s use of early 20th-Century periodicals for stage magicians as way to develop image processing techniques that extract, classify, and visualize imagery. They did so both to better understand practices and changes in the field of magic, and to suggest ways that similar image mining processes might help scholars efficiently identify and analyze themes across digitized visual collections. Just as individual scholars may find the digitization of existing materials of value, nations and global groups can, too, as evident in the Woodrow Wilson Center Archive making available recently declassified documents on various themes, such as The Cold War, The Korean Conflict, and Nuclear History. Providing declassified global communications, this free, digitally accessible archive changes who can easily do research, from scholars and public intellectuals to curious global citizens. The European Commission’s *Digital Agenda For Europe: A Europe 2020 Initiative* also seeks to expand who can participate in important conversations, in this case by “improv[ing] the framework conditions for digitization and digital preservation” of key cultural material (n.p.). In short, the
mass availability of shared documents allows for new degrees of openness and of collaboration among interested groups, regardless of their participants’ status.

Digitizing data clearly has its rewards, and as more people, organizations and nations become interested in the possibilities, we will see more information and a greater range of people engaging with this information. Still, there are challenges that go beyond simply converting materials into .pdfs and .jpegs and posting them online. Researchers continue to struggle with finding and accessing texts that may exist in various formats (articles, reports, diaries, newspaper clippings, photos, recordings), securing or clearing copyrights that may be held by groups with competing agendas, digitizing materials for archival purposes, coding files for organization and retrieval, managing and maintaining archives in ways that others can readily access, and providing the means to expand these systems as more information becomes available. Such efforts require expertise, time, and money, and the demands for these resources will only grow as the frameworks and infrastructures supporting the resulting datasets become more complex. But the work is already being done, and the results at individual and global levels are promising. In this way, what may have started as an important but incremental change in who has access to data sets—a difference in degree of access—is developing into the coordination and mining of large scale, cross-disciplinary data sets that can change the types of research questions able to be explored—a difference in the kind of research easily accomplished in the Digital Humanities.

1.2.2 Born Digital Scholarship

A second type of Digital Humanities project is born digital scholarship. Rather than making traditional data available in a static format, born digital scholarship attempts to foster projects conceived entirely in digitally-mediated spaces.

A relatively early example is *Pox and the City: Edinburgh: A Digital Role Playing Game for the History of Medicine*, a virtual reality game developed by scholars in multiple countries (Canada, United States, United Kingdom) in multiple disciplines (epidemiology, computer sciences, education). Seeking to teach the complex, systems thinking needed for learning medicine, this immersive role-playing game asks students to become different characters, each of which attempts to address the spread of Small Pox in the city of Edinburgh around 1800. In their adopted roles, students use clues and primary historical documents provided for them in the game to learn how the advancement of science is influenced by factors as diverse as architecture, cultural and religious norms, and propaganda from rival medical professionals (Kean, 2013). While, in theory, students could imagine such a world and could themselves gather primary and secondary paper sources, *Pox and the City* was imagined and created for digital contexts. Specifically, by tapping the affordances of digital technologies, this project was conceived as a series of simulations that help students engage in the
complex deductive and inductive reasoning needed to learn epidemiology (see Pox and the City).

A second, more recent example of born digital scholarship is The Virtual Reconstruction of an Afghan Refugee Camp as a Site of Cultural Memory, another project that seeks to recreate lived experience, this time an Afghan refugee center that arose in 1979, after the Soviet invasion of Afghanistan. Led by scholars from politics, architectural history, and performance studies, and working with local community organizations that have ties to the United Nations High Commissioner for Refugees, The Virtual Reconstruction project uses actual materials from the camp (e.g., letters, journals, diaries, photos, audio tapes, videos) in order to develop “online multiplayer games to create a virtual community of testimony, witness, recovery and social bonding” (Burdick, et al., 2013, p. 68-69). The project uses these primary sources to create an immersive environment for all, but perhaps especially for those displaced by the Afghan conflict. Examining “patterns of diaspora, assimilation, and cultural memory” (Burdick, et al., 2003, p. 68), this project uses the textual and embodied testimony and performances from the camp inhabitants as a way to see the camp as both a “historical site” and as a “living memory” where history, diaspora, and trauma can be addressed.

In addition to exploring possibilities the digital offers, these and other examples of born digital scholarship reveal methodological dilemmas researchers face, perhaps especially when they need to negotiate potentially competing cultural values and ethical considerations. As these Digital Humanities scholars attempt to understand and represent how large-scale historical forces shape groups of people, they also must account for their own research choices by probing the consequences individual people may face if their personal stories are exposed. Such projects ask traditional humanities questions, such as: How do we determine which people and objects should be included and how should they be contextualized? Who benefits when historical materials are made available? And, what are the risks in such a project? These Digital Humanities projects also intensify more traditional humanities questions, such as: What happens when we change the scale of access to someone’s story? How do we keep from being distracted by the medium (i.e., how do digital tools alter the way we convey a story)? How do we decide what work should be digitized? These decidedly humanistic inquiries are placed within contemporary digital frameworks that both extend and rework humanistic traditions, thus highlighting what Digital Humanities scholarship can contribute to such traditions.

1.2.3 Creation of Digital Tools

A third type of Digital Humanities scholarship, and one I find particularly important at the moment, is the creation of digital tools that gather, analyze, synthesize, and
Recent Trends in Digital Humanities Scholarship

Many recent trends in Digital Humanities Scholarship present the findings of scholarship in ways not readily done, or even possible, in more traditional scholarship.

One example from translation studies examines how core religious, literary, and cultural texts “translate” into other languages. For example, the Version Variation Visualization (VVV) project sponsored by the United Kingdom’s Arts and Humanities Research Council is developing digital tools for creating, curating, exploring, and analyzing corpora of differing versions of texts. Led by an interdisciplinary team that includes researchers in the Departments of Computer Science, English, History, Classics, as well as Languages, Translation and Communication, the VVV looks at historical and contemporary retranslations of cross-culturally significant works of literature, scripture, and philosophy so as to develop two things: 1) new ways of understanding cultural change and diversity in and through such text corpora, and 2) new ways of communicating these understandings to both academic and lay communities, using data visualizations. An illustration of this work is the Multilingual crowd-sourcing of Shakespeare’s *Othello* project, which seeks “to make digital tools to help us explore world culture, by comparing how the same work is translated differently, over time and space, in the same and different languages” (Delighted Beauty, n.p.). In doing so, the VVV aims to “develop text analysis and data visualization tools which will contribute to cross-cultural understandings and enable new research, new learning and teaching” (Delighted Beauty, n.p.). By mapping the shared and divergent understandings of certain translations, the resulting visualization (Figure 1.1) can show how shared texts do and do not translate in different cultures, indicating potential cultural misalignments.

A second example, “Networks in History: Data-Driven Tools for Analyzing Relationships Across Time,” similarly seeks to create visualization tools, in this case a suite of tools that can help researchers interpret, analyze, and represent given *and missing* data from the massive influx of large, online data sets that are becoming increasingly available. Tapping the collaborative potential of international (Italian and US) and interdisciplinary scholars (from disciplines including History, French, Italian, English, Classics, and Media Technology, as well as other collaborative areas such as technology support, libraries, and research labs), “Networks in History” emerged out of ongoing projects that sought to examine the “impact that social networks have on our own professional lives [and research projects], as well as the power that digital technologies possess for revealing the organization of these networks” (NEH Office of Digital Humanities Implementation Grant, 2013, p. 3). Considering that these data sets are often historically incomplete, humanistic interpretive frameworks (a qualitative project) can help researchers make sense of what mistakenly seems a question of running-the-numbers on these data sets (a quantitative project) (NEH Office of Digital Humanities Implementation Grant, 2013, p. 4). As these examples illustrate, international, interdisciplinary collaboration can create new possibilities, ones that extend traditional humanities scholarship by altering the methods, teams, and circulation/representation of conventional humanities research.
Figure 1.1: Visual Analysis of Segment Variation of German Translations of *Othello*. Visualization developed by Geng and Laramee (see Cheesman, Flanagan, & Thiel, 2013).
The above examples also illustrate that the distinction between types of Digital Humanities scholarship is often fuzzy; digitizing existing materials encourages researchers to ask new questions that require the development of new tools, which can encourage new types of digital scholarship. For example, exploring historical approaches to making sense of the millions of web-based images generated each day, Ian Milligan has used Web “scrapes” to generate data sets within millions of images to explore methods of “distant reading,” what he calls “snapshots” of archived web content, to examine what large-scale archives as systems can help us see about the past. Similarly, Kate Bagnall and Tim Sherratt’s *Invisible Australians: Living Under the White Australia Policy* project uses a facial detection script to extract images from exemption certificates, part of the archives borne out of Australia’s Immigration Restriction Act 1901; compiling the resulting images into an infinite scroll, the authors allow viewers to see the real faces of so-called “White Australia.” Regardless of the type of Digital Humanities scholarship, these examples illustrate how scholars in a variety of contexts and through a variety of methods are re-imagining how to conduct and represent their research.

1.3 Initial Steps for Incorporating DH Scholarship

Each of the above examples illustrates the interdisciplinary and collaborative potential of Digital Humanities projects. And yet, few of us have such resources readily available to us. In fact, the projects above are so large it may be hard to imagine how to start such work. Consequently, below is one final example—a substantially scaled down example—to demonstrate how even the most reticent can begin to incorporate digital technology in their work.

At the 2014 Thomas R. Watson Conference at the University of Louisville, we created a digital archive that invited conference participants to submit a 1 minute video of what it means to them to be a responsive teacher, researcher or community-engaged partner in our field today (Watson Archive). The various responses demonstrate a range of Digital Humanities scholarship. For example, most participants offered short video clips of them talking into a camera. Such responses are akin to the digitization of existing materials, in which the participant made widely available their response to the theme of the conference, something that could have been written out but something that can be far more accessible as a digital project. Other participants (e.g., DeVoss, Hesford, Sheridan) submitted videos echoing born-digital scholarship. Incorporating digital affordances such as images, sound, animation and embedded clips, these videos forwarded arguments in ways that exceed print-only possibilities. We hope this widely accessible digital archive can be a sandbox for those in our field to mine. Like those working with the VVV *Othello* project, people working with the Watson Digital Archive can create tools and visualizations that analyze and represent the data in ways that show, among other things, current narrative tropes about
disciplinary self-representations. Collectively, these Watson Conference videos—now archived as a digital resource—can provide a low barrier for many to enter Digital Humanities scholarship, whether creating their own videos or analyzing others’ videos. In this way, the Watson Digital archive functions as an invitation for people to explore and participate in Digital Humanities scholarship based on their own varying degrees of familiarity with the Digital Humanities itself.

1.4 Conclusions: Thoughts on Beginning Digital Humanities Projects

The Digital Humanities are emerging within contexts where concerns about higher education are being met by people’s aspirations for technological possibilities. Among the many concerns, perhaps most notably concerns about who will fund today’s educational projects, two questions are central: 1. what is higher education supposed to be doing? and, 2. who gets to decide that? The pervasiveness of digital media offers hope for both of these concerns, and the Digital Humanities in particular can help us pursue creative, critical, ethical, and analytical cultural projects within contemporary contexts.

Even as the above examples highlight the promise of Digital Humanities work, resources are needed to realize that promise. Take just one example: although funders (e.g., the National Endowment for the Humanities and the National Institute of Health in the US) encourage projects that draw upon interdisciplinary teams and that share their work with wider audiences, these goals are more likely achieved within a linked infrastructure that provides ways to share data and to collaborate across diverse networks. Such an infrastructure, however, raises important questions: Will universities support (with time and technological infrastructure) teachers and students to innovate and collaborate meaningfully, especially in hiring and promotion decisions, even if such work takes time and resources away from more traditional scholarship? Who will have access to these data/what types of surveillance and privacy will be in place? How will we avoid being overwhelmed by large amounts of data we can now easily collect?

Although these questions do not yet have satisfactory answers, diving into the Digital Humanities still seems well advised: it is not only our future but, as the research illustrates, it is very much part of our present. Consequently, I end this essay with three suggestions for how to embark on Digital Humanities projects. First, start small: Explore a visualization tool in your research, incorporate a digital assignment in your teaching, participate in a digitally mediated community of scholars exploring issues you care about. Then assess, revise, and try it again. Once you have accomplished this project, try something new.

Second, find one or more partners. Initially, a partner can be anyone interested in exploring similar questions, whether those questions concern a topic, a method,
a pedagogy, or a combination thereof. Eventually, develop a team of people (from your home institution or from across the globe), likely humanists, designers, and technologists, who may develop larger projects with each contributing their own expertise to the endeavor.

Finally, know that success never happens the first time around. Indeed, failure is part of the process, but the next iteration is usually better. With continued practice—and on-going tweaking or redesigning—questions, projects, and contributions provide lenses for imagining and investigating questions, often in innovative ways. When we can accept this process-oriented approach toward research, teaching and learning, and when we can be open to unexpected possibilities along the way, we can see the potential the Digital Humanities have to offer our own work.

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