

Debates in the Digital Humanities

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Should Liberal Arts Campuses Do Digital Humanities? Process and Products in the Small College World

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his is a boom time for the digital humanities. As this chapter is being written, projects proliferate while dialogue around the movement grows, as marked by online discussion, conference presence, articles, and books. Academic instantiations of digital humanities are building, even in a recession, from individual courses to faculty positions to academic programs to digital humanities centers. The movement's influence has been felt outside the walls of academia, as 2010 saw Google funding digital humanities projects around the Google Books collection and Patricia Cohen publishing her Humanities 2.0 series of articles in the *New York Times* about digital methodologies in the humanities (Parry). At a time when the academic humanities seems otherwise threatened and contracting, the digital humanities remains a viable growth area, even a potential source of salvation for threatened disciplines.¹

Like many intellectual or social movements, the digital humanities (DH) advance not uniformly but unevenly, moving from certain academic positions to specific niches. So far, the enterprise has largely been the creature of doctoral and research universities (formerly Research-I under the Carnegie Classifications; "Carnegie") and several state campuses, at least on the high-profile production end. Community colleges, most large state and regional universities, small schools, and many private campuses have been comparatively underinvolved (Unsworth, "The State of Digital Humanities").

In this chapter, we examine the liberal arts sector, small colleges and universities focused on traditional-age undergraduate education, ones that have apparently played little role in the digital humanities movement.² Our argument starts from the sector's relative silence, as we identify a series of reasonable objections to the engagement of liberal arts colleges in the digital humanities. After we summarize (and, in some case, ventriloquize) these objections, we identify responses. This is not a symmetrical sequence, with each dour "no" met by a cheerful "yes," as some

arguments are met by cases of ongoing practice that don't map precisely onto the criticism. Other charges are answered only on a small scale, which doesn't necessarily speak to the entire sector. We chose this uncomfortable call-and-response framing in order to take criticism seriously, while letting us fully delineate the liberal arts sector's achievements. The mismatch between critique and liberal arts practice uncovered by this framing is revealing. Ultimately, those achievements have come to constitute a different mode for the digital humanities, a separate path worth identifying, understanding, and encouraging, one based on emphasizing a distributed, socially engaged *process* over a focus on publicly shared *products*.

A point about perspective: the authors are a program officer and researcher for the National Institute for Technology in Liberal Education (NITLE). We are also humanists (classical studies and English, respectively), former small liberal arts college teaching faculty, and digital practitioners. Our stance is therefore an unusual one, combining current interinstitutional work with a history of on-campus immersion. We are invested in the topic but do not hold a current campus practitioner's standpoint. We hope to combine understanding of the small campus experience with a view of national trends cross the sector. Finally, we wish to elicit discussion.

Obstacles

Should liberal arts campuses engage with the digital humanities movement? There are several serious arguments for disengagement, including problems of logistics, infrastructure, and campus identity.

One institutional objection stems from the size and concomitant resource base that characterizes most small liberal arts colleges. Because of their small scale, such colleges and universities may lack the proper infrastructure to support digital humanities work. For many digital humanists, the key piece of college infrastructure is the digital humanities center. In her Survey of Digital Humanities Centers in the United States, Diane Zorich defines the center as "an entity where new media and technologies are used for humanities-based research, teaching, and intellectual engagement and experimentation. The goals of the center are to further humanities scholarship, create new forms of knowledge, and explore technology's impact on humanities-based disciplines" (4). Functionally, such centers provide locations for interdisciplinary, interdepartmental collaboration; centralized computing support and expertise for a variety of projects; and help in securing funding. They are resource centers, information clearing houses, interpersonal networking nodes, and advocates for the field. These centers are comparatively new in the university landscape; the centers in Zorich's survey have a median founding date of 1999 (9). Zorich also finds a typical trajectory for the development of most centers in which an initial stimulus, "a grant, a strategic discussion, or an entrepreneurial individual," starts a development that moves in an unstructured fashion "from project (singular activity) to program (long-term activity) to center (multiple activities)" (9–10). In all of these cases, it seems that a critical mass of digital research projects and other activities must be reached to justify a center and its staff.

Unfortunately, digital humanities centers are relatively rare in the small college world, as they are generally predicated on a campus being large and resourced well enough to allocate significant funds to what may be perceived as a niche effort. Small colleges typically lack the numbers to develop the critical mass that has led to the creation of centers at large institutions. Moreover, digital humanities centers are relatively new arrivals on liberal arts campuses, which makes them potentially less appealing than already established paradepartmental entities, such as teaching and learning or writing centers, which are fairly common at small colleges. As members of the Digital Campus podcast noted, life as an isolated digital humanist is a challenge, especially without the place to meet, support for getting grants, and technical staff that a center provides (Cohen, French, Kelly, and Scheinfeldt). How can digital humanists assemble the combination of skills and technology infrastructure needed to conduct digital humanities work such as coding, media production and aggregation, and the creation and development of information architecture, not to mention conducting the essential work within a humanities subject? Furthermore, the digital humanities center integrates professional populations along with personal skill sets: faculty members, librarians, and technologists. Without an anchoring department, individual digital humanists at small colleges often lack the social capital to create or participate in already existing cross-sector teams.

Small colleges may not have accumulated the critical mass to create a digital humanities center due to a third obstacle to the digital humanities in the liberal arts world, namely that sector's pedagogical focus. Not only is a digital humanities center inappropriately resource demanding, but such centers do not usually focus on undergraduate teaching, the central task of a liberal arts campus. While many digital humanities centers do support some teaching, their ultimate goal is to "train the next generation of digital humanities researchers, scholars, and professionals" (Zorich, 20). Those receiving such training are more likely to be graduate students or interested faculty seeking professional development. Both cases are outside the mainstream of liberal education practice—teaching undergraduates.

While defining liberal education is nontrivial—in fact, it's a classic conversation generator—it is not controversial to recognize one generally inoffensive description: schooling focused on undergraduate education. As Jo Ellen Parker describes it, "The defining characteristics of liberal education in this logic are not disciplines but practices—practices like group study, undergraduate research, faculty mentoring, student presentations, and other forms of active learning." To the extent that liberal arts campuses follow this suite of practices, they are working in a way very different from a large university producing digital content for general consumption. Liberal arts campuses devote the balance of their energies to the classroom rather than the outside world of content consumers, the residential student body in discussion-based clusters rather than the res publica, small groups of physically

colocated students rather than fellow advanced scholars distributed around the world. Their tradition, reward structure, student expectation, and alumni perspective all turn on this richly rewarding student—professor interaction rather than more public, outward-facing types of sharing and publication. Therefore, on-campus critics could construe work in the classic digital humanities as marginal or off mission—perhaps dangerously so, during the Great Recession era of funding crisis.

If the pedagogical nature of liberal education presents a problem for practicing digital humanities, then the unclear identity of digital humanities offers yet another difficulty. It is famously difficult for observers and participants to agree on a definition of digital humanities; and, as Matthew Kirschenbaum has observed, essays defining the term are already genre pieces (55). Consider the definitional range Kirschenbaum explores from the perspective of literature departments: digital humanities are based on technologies, or analytical methods, or the emergence of certain research-supporting social structures demarcated by funding or social movement dynamics or network topology.³ Other sources offer a similar diversity. The digital humanities are about scholars, or about projects, or tools, or about technology itself. They are the entire humanities in transformation, or a narrow strand therein. The digital world invades the humanities, forcing us to think through new categories and reinvent our world, or cyberculture nestles firmly within our established critical theory tradition ("How Do You Define"). Whatever digital humanities is, it is emergent, dynamic, inclusive, evolving, and very fresh. It is an ongoing, Poundian "make it new!"

We can suggest many reasons for this definitional uncertainty. Although the digital humanities have a history of practice under various names—for example, humanities computing—the current name, digital humanities, remains relatively new within the academy. Kirschenbaum traces its origin to the publication of Blackwell's Companion to Digital Humanities in 2004 (Schreibman, Siemens, and Unsworth), the creation of the Alliance for Digital Humanities Organizations in 2005, and the launch of the Digital Humanities Initiative (now the Office of Digital Humanities) at the National Endowment for the Humanities (NEH) in 2006. Beyond the scholastic history, digital technologies change rapidly, as do the practices around them, driving digital humanities into a state of perpetual reinvention (websites, then Web 2.0, then apps, then games, then . . .). Additionally, the most recent recession has perhaps crimped academic progress generally, constricting budgets for people and materials, slowing the output of recognizable digital humanities work. Interdisciplinarity presents its usual challenges: difficulty in winning champions and resources in a discipline-structured environment. Similarly, the crosspopulation nature of digital humanities work, which requires faculty members, librarians, and technologists, makes it hard to garner interest in digital humanities projects. The combination of newness, technology change, and inclusion of multiple sectors and disciplines make (re)defining the digital humanities both problematic and necessary.

These definitional debates are, of course, fraught with practical implications, impacting careers and campuses. For example, the classic production-versus-theory argument (opposing hands-on work to reflective criticism, an argument about resources and ethos), a familiar one to the institutionalization of film and media studies, recurs here. To do digital humanities is to create digital humanities projects, argued Stephen Ramsay during a high-profile MLA 2011 discussion: "I think Digital Humanities is about building things . . . if you aren't building, you are not engaged in the 'methodologization' of the humanities, which, to me, is the hallmark of the discipline that was already decades old when I came to it" ("Who's In and Who's Out"). Such a focus might describe the field's developmental arc: "There's always been a profound—and profoundly exciting and enabling—commonality to everyone who finds their way to digital humanities. And that commonality, I think, involves moving from reading and critiquing to building and making" (Ramsay, "On Building"). Ramsay sees the process of creation as radically different from that of study (viz. critical media studies). Production summons up a distinct set of competencies, resources, and challenges, all in an especially emergent way that the observer or critic has no immediate access to.

The implications of Ramsay's definition exacerbate the small college production problem outlined earlier. By extension, small liberal arts colleges cannot pursue digital humanities projects due to their lack of centers and incompatibility of mission, and their inability to produce further disables them from truly engaging with the field on both individual and institutional levels. Put another way, the definitional problem makes it more difficult to argue for resource allocation to efforts stakeholders cannot readily apprehend.

The combination of small institutional size, lack of supporting infrastructure, pedagogical focus, and uncertain definition yields still another challenge for the digital humanities at small liberal arts colleges. These campuses lack visibility in the digital humanities world, as it is constituted through social networks, projects, and conferences. The relative lack of visibility for small liberal arts colleges in this world is clear from a survey of Twitter activity (see Dan Cohen's Twitter list, "Digital Humanists") or from a glance at Project Bamboo, a multi-institutional planning project aimed at discussing shared approaches to the digital humanities. The latter's planning and discussion were dominated by research universities, from planning through workshops (2008–2010) to the 2010 project group's composition (Millon, Project Bamboo).

Or consider participation in the Digital Humanities Conference, the annual international conference for digital scholarship in the humanities, sponsored by the Alliance of Digital Humanities Organizations (ADHO). At the 2010 conference, of the one hundred and forty institutions of various types listed on the program, only two were North American small liberal arts colleges. Granted, the conference took place in London; but, even at Digital Humanities 2009 in Maryland, five presenters

and two posters from a total of three hundred and sixty participants were scholars at small liberal arts colleges.

George Mason scholar Tom Scheinfeldt has argued that, in addition to Twitter and conferences, the federal grant-making process plays an important role in sustaining the digital humanities community by keeping it in conversation and collaboration ("Stuff Digital Humanists Like"). But if digital humanists at small liberal arts colleges cannot create projects, then they will also miss out on this part of the community. The numbers for the NEH Digital Humanities Start-Up Grant program bear this out. According to the Summary Findings of NEH Digital Humanities Start-Up Grants (2007–2010), of the 1,110 grant applications, less than 50 came from liberal arts colleges, while over 400 came from doctoral research institutions (Office of Digital Humanities, 18). The same report includes potential evidence of the effects of these perception issues. One principal investigator on a start-up grant who had so far failed to secure additional funding refers to "hesitation on the part of granting agencies to fund projects that rely on undergraduate work" (Office of Digital Humanities, 31). If small liberal arts colleges and universities participate in production or even study, that work lacks presence in the overall movement. That lack of impact can rebound on a small campus, creating a negative incentive for increased contribution.

Hand in hand with poor visibility comes the isolation of digital humanists working at small liberal arts colleges. Isolation impacts individuals, their work, and their projects in general. Such digital humanists lack physically proximate colleagues with whom they can collaborate or discuss their work. This disconnection reduces their opportunities for learning about standards, resources, and ongoing projects from peers. One result is that their work may not be interoperable with other projects or may even reduplicate efforts (Davis and Dombrowski). At a number of large research institutions, digital humanities centers play a key isolation reduction role by providing technology; expertise; information about tools, standards, and ongoing projects; as well as introductions to prominent figures in the digital humanities community who can serve as guides and mentors.

The Twitter network, the blogosphere, and other online community venues and shared resources may alleviate these problems to a certain extent, but digital humanists at small campuses are still disconnected from in-person meetings and collaborations. They can also feel isolated by the particular political and academic structures of their own institutions. Perhaps the liberal arts campus's residential ethos and emphasis on face-to-face teaching acculturates humanists on those campuses to prefer collocated conversations more strongly than do their colleagues in other sectors. While the impact of isolation is magnified for the scholar working at an institution without a digital humanities center, such organizations are hardly a panacea. As Diane Zorich explains, "The silo-like nature of centers also results in overlapping agendas and activities, particularly in areas of training, digitization of collections, and metadata development" (42). This shared challenge of isolation

offers one reason why the plight of the small college digital humanist should matter to the larger world of digital humanities.

Patterns of Engagement

What responses can be offered to these critiques? One answer is simple assent to each charge. A lack of institutional support, lines not opened, courses not approved, funds unallocated: there are many avenues for disengagement either at the policy level or in practical terms. A second type of response, however, evokes actual liberal arts digital humanities practices, making these available for analysis. The first category of response requires little adumbration here, partly because discussion of it involves proving an absence, or establishing a negative. The second category, current practice, is more interesting, especially as many projects address the objections outlined earlier.

To begin, we are seeing the creation of some digital humanities centers—at the University of Richmond, Hamilton College, and Occidental College—though with a particular liberal arts inflection. The Digital Scholarship Lab at the University of Richmond enjoys, perhaps, the highest level of institutional support, since noted digital humanist Ed Ayers is the president of the university. The lab's mission statement makes clear its production focus: "The Digital Scholarship Lab develops innovative digital humanities projects that contribute to research and teaching at and beyond the University of Richmond. It seeks to reach a wide audience by developing projects that integrate thoughtful interpretation in the humanities and social sciences with innovations in new media" ("About the Digital Scholarship Lab"). In addition to continuing projects like the History Engine started by Ayers at the University of Virginia, the lab also supports new projects including two that have received Digital Humanities Start-Up Grants from the National Endowment for the Humanities: "Landscapes of the American Past: Visualizing Emancipation" and "Visualizing the Past: Tools and Techniques for Understanding Historical Processes." This lab, with its focus on production of tools and projects, seems most like the digital humanities center familiar from large research institutions, although at least two of its projects—the History Engine and "Americans in Paris"—provide opportunities for undergraduate contributions integrated into courses ("History Engine," Jones).

By contrast, both Hamilton and Occidental Colleges have a more explicit pedagogical focus integrated into the overall mission of their centers. Each also secured grant funding from the Liberal Arts College Program of the Andrew W. Mellon Foundation in 2010 ("Mellon Awards \$800K for Digital Humanities Initiative"; "Occidental Awarded \$700,000 Mellon Grant for Digital Scholarship"). With its funding, the Digital Humanities Initiative (DHi) at Hamilton College has hired a programmer and is supporting faculty projects, which take the form of digital multimedia collections. One significant requirement is that all projects must have

a curricular element. DHi both builds on preexisting digital projects and pulls together faculty from all over campus. At the same time, this initiative illustrates the challenges of definition and visibility for the digital humanities on small liberal arts campuses. When one of the authors of this chapter visited there, she was struck by the repeated comment, "I didn't know I was doing digital humanities." Recognizing that other small liberal arts colleges do not have the resources to establish a center, Hamilton College is currently piloting some infrastructure to support these collections and wants to create a shared infrastructure in the cloud that can be used by other colleges (Simons, Nieves, and Hamlin). Essentially, Hamilton could act as a digital humanities center for other small liberal arts colleges.

The pedagogical focus becomes even clearer in our third example of a liberal arts digital humanities center. At Occidental College, the Center for Digital Learning and Research (CDLR) is part of a larger vision to transform the college for the twenty-first century. Like other centers, the CDLR centralizes expertise and becomes a nexus for collaboration on campus. Its staff consists of existing positions from both the library and information technology with the addition of its director and grant-funded postdocs ("Center for Digital Learning and Research"). A summer institute for faculty and ongoing support of faculty projects aim to transform teaching and learning. As part of this plan, the digital humanities provide an avenue for envisioning a new kind of education in which "faculty and students use digital resources to pose new questions, discover and create knowledge in distributed and collaborative ways, work with scholars and information globally without physically leaving campus, and simultaneously gather and share data in the field" (Chamberlain). The mission of this center, then, explicitly focuses on undergraduate education rather than on the production of digital humanities projects. Instead, digital methodologies are seen as a means to achieving that classroom-based end. While such centers share with centers at research institutions the functions of offering a location for interdisciplinary collaboration, thereby centralizing expertise and attracting funding, they have a distinct mission that focuses on undergraduate education, akin to the focus of teaching and learning centers and in keeping with the identity of small liberal arts colleges.

Despite these examples, most liberal arts campuses do not currently maintain a digital humanities center, nor do they plan on doing so in the near future. The first challenge we identified is thus only partially addressed by current practice. If the center model is not a normative one, can these small colleges and universities develop other institutional anchors to support the multidisciplinary, collaborative work of digital humanities? We have observed other structures emerging that fulfill the various functions of the center by unbundling them, including community building and on-campus advocacy and developing computing expertise and support for finding funding.

To combat the sense of isolation and lack of visibility on campus, one programmatic function focuses on creating a sense of community. Both Wheaton

College's Digital Scholarship Working Group and the Tri-Co Digital Humanities Consortium—which includes Bryn Mawr, Haverford, and Swarthmore Colleges (Hamlin; "Tri-Co Digital Humanities")—represent the coming together of groups of faculty who share an interest in digital humanities. Inspired by their faculty, students at Haverford and Bryn Mawr also created an undergraduate digital humanities group that hosted "Re:Humanities," an undergraduate digital humanities conference that pulled in students from other institutions like Hamilton College. These communities have helped advocate for the value of digital humanities work and raise its profile in the campus community.

Part of advocacy for the digital humanities on campus includes integrating it with an institution's mission and culture. For example, both Hamilton and Occidental Colleges have a pedagogical focus for their digital humanities centers in keeping with their institution's academic mission. From a different angle, the Humanities Program at the University of Puget Sound includes digital work in what is ostensibly a nondigital program, the Humanities Teaching Collective, directed by Professor Kent Hooper. Viewing the digital as a necessary part of humanities today, Hooper has integrated a collaboratively taught course on digital humanities within the humanities sequence at the University Puget Sound. When the associate dean was asked about what sort of structure they had to support the digital humanities, she replied, "Kent is our structure" (DeMarais). Such linkage of digital humanities with one person on campus may pose a danger. That person may be dismissed as an early adopter or the effort may run the risk of losing impetus if that person leaves (Moore). Nevertheless, Hooper has been able to integrate the digital humanities into Puget Sound's humanities program with the support of the administration, library, and information technology.

We find a similar integration of digital humanities into existing campus curricular programs at Wheaton College in Norton, Massachusetts. While large institutions need centers to operate outside curricular structures (i.e., outside departments) to promote interdisciplinary collaboration, at small colleges the tradition of interdisciplinary work is linked to the values of liberal education. The Association of American Colleges and Universities (AAC&U) includes interdisciplinary, integrative learning among its list of essential learning outcomes for liberal education. At Wheaton College, students have to take connected courses that link not just across disciplines but also across divisions as required by the integrative learning program, Connections. Out of that context arose the Lexomics Project, which combines computer science, statistics, and Old English texts (LeBlanc, Armstrong, and Gousie, "Lexomics"). Lexomics received an NEH Digital Humanities Start-Up Grant in 2008, and students contributed to the project which uses text mining to study Old English texts and determine authorship based on stylistic characteristics. The project secured additional funding in the form of an NEH Preservation and Access Grant in 2011 ("Four Professors Win NEH Grants"). Since such interdisciplinary approaches are typical of the digital humanities, the Connections program that made this possible provided the perfect environment. Both the University of Puget Sound and Wheaton College demonstrate that one successful strategy for promoting digital humanities is to find those existing structures and programs on campus that might fit with the digital humanities and to leverage them.

A third center function we see unbundled on the small college campus is computing expertise and support. Rather than creating a separate center, many colleges take advantage of the existing structures that already centralize computing and information support on campus. At the University of Puget Sound, the Library, Media, and Information Services Committee plays an active role in supporting their humanities program. At Willamette University, Michael Spalti, Associate University Librarian for Systems, essentially has played the role of a digital humanities center director: he was project director for an NEH Digital Humanities Start-Up Grant ("Bridging the Gap: Connecting Authors to Museum and Archival Collections"); he was the driving force behind Willamette's involvement in Project Bamboo; he organized and found funding for faculty workshops; and he has been a planner and the Willamette contact for digital humanities collaboration within NITLE. Similarly, at Lewis and Clark College, the library is supporting a new NEH Digital Humanities Start-Up Grant project, "Intellectual Property and International Collaboration in the Digital Humanities: The Moroccan Jewish Community Archives" (Kosansky). At Occidental College, the Center for Digital Learning and Research (CDLR) is connected to a developing Academic Commons in the library. It also pulls together staff from the library and IT. At Wheaton College, support for participation in the Text Encoding Initiative (TEI) comes from Library and Information Services, with materials coming from the college archives.

It's notable that most of these collaborative support examples occur where the information technology and library organizations are merged, or where a close working relationship exists between the two. Hamilton College's HILLgroup (Hamilton Information and Learning Liaisons) and Information Commons represent almost a decade of collaboration among faculty, librarians, and technologists. Wheaton and Occidental also have merged organizations. And at the University of Puget Sound, inclusion of digital work within the Humanities Teaching Collective models collaboration among faculty, librarians, and technologists typical of digital humanities projects. Essentially, these colleges have already centralized services in a way that can support digital humanities projects without having to create a separate structure to centralize expertise. Further, in these cases, small campus size, rather than being an obstacle to digital humanities work, may become an enabling virtue because it obviates the need for a separate center to house such work.

If these unbundled approaches do represent a separate mode of supporting digital humanities, their ability to secure grant funding represents an additional measure of their success. Besides the aforementioned grants for Wheaton, Willamette, and Lewis and Clark Colleges, faculty at Wheaton College have secured two Digital Humanities Start-Up Grants from the National Endowment for the Humanities

(Leblanc; Tomasek, "Digital History Project"); and the Tri-Co Digital Humanities Consortium will benefit from a million-dollar grant awarded to Bryn Mawr College ("Andrew W. Mellon Foundation"). While this funding level does not reach that of major digital humanities centers, it does demonstrate that major funding entities see the unbundled model as a viable alternative to digital humanities centers.

The presence of unbundled digital humanities center functions at small liberal arts colleges suggests that centers may, in fact, *not* be required to enable effective digital humanities work. It may well be that the functions described are waypoints on the journey to building up the critical mass needed for a digital humanities center. Then again, they may represent an alternate method of supporting digital humanities at small liberal arts colleges, one that will never lead to a center. Centers arose at large research institutions to help centralize efforts of community building, computing expertise, and advocacy spread across a large campus; the small size of liberal arts colleges mitigates the need for a separate structure to perform this centralizing function. In that case, assessing the viability of the digital humanities at small liberal arts colleges by the presence or lack of a digital humanities center is applying the wrong criterion to the question.

As we have seen, existing campus structures and intracampus collaborations can approximate the function of digital humanities centers for centralizing expertise and promoting interdisciplinary work on campus, but they do not necessarily help with the challenges of isolation and lack of visibility in the broader digital humanities community. For those challenges, digital humanists at small colleges have turned to interinstitutional collaboration. Many of the liberal arts colleges that have successful digital humanities activities have benefitted from relationships with research institutions. Kathryn Tomasek at Wheaton College has described how her proximity to Brown University has allowed her and her colleagues to learn TEI and hear speakers from the digital humanities world ("Brown Groupies?"). Likewise, Occidental College leveraged speakers from the University of Southern California and the University of California, Los Angeles, for their grant-funded summer institute on digital scholarship. Essentially, these small colleges take advantage of the networking and professional development opportunities of digital humanities centers at large institutions, especially when enabled by physical proximity. Regional THAT-Camps offer another nearby networking and professional development opportunity to connect digital humanists at a variety of institutions. One of the authors of this chapter helped plan THATCamp Liberal Arts Colleges, a THATCamp focused on institutional type rather than region that seeks specifically to counter the isolation of digital humanists at small colleges while raising their visibility within the larger community ("THATCamp: The Humanities"; "THATCamp Liberal Arts").

Small colleges may also join collaborative, interinstitutional digital humanities projects supported by large research institutions. Swarthmore faculty and students collaborate with faculty, librarians, and technologists at the University of Pennsylvania on the Early Novels Database (END), which seeks to provide rich bibliographic

information for a collection of early fiction (Buurma, Levine, and Li). The project won a NITLE Community Contribution Award for Digital Humanities and the Undergraduate in October 2010 ("Digital Humanities and the Undergraduate"). Since small colleges commonly do not have infrastructure or expertise to support large-scale digital projects, opportunities like these provide effective means to integrate their faculty, staff, and students into the digital humanities world.

Although many of these collaborations are organized around specific projects, we are also seeing large-scale multi-institutional projects aimed at building resources and pooling expertise. These are constructed to match the needs of both small liberal arts colleges and large research institutions. For example, the TAPAS project, or TEI Archiving, Preservation, and Access Service, aggregates expertise and labor of technology staff at small liberal arts colleges to help publish and archive high-quality scholarly data marked up according to TEI standards ("A New Part of Your Digital Humanities Toolkit"). Such data markup offers a relatively accessible way to engage students in digital humanities work, as shown by the Wheaton College Digital History Project, in which students transcribe and markup materials from the Wheaton College archive (Tomasek et al.). Since small colleges often lack resources such as server space, technical expertise, and advanced XML publication tools, publication and archiving of this work becomes a challenge. The TAPAS project started as Publishing TEI Documents for Small Colleges, a project funded by an Institute of Museum and Library Services (IMLS) planning grant to Wheaton College in collaboration with Dickinson and Mount Holyoke Colleges. In the course of the planning grant, participants realized that the service was also needed by large institutions, and Brown University is now partnering with the project to be the base of the service.

This kind of collaboration recognizes common needs at small and large institutions while integrating small colleges as equal partners in a productive process. It goes a long way toward raising the profile of small colleges in the digital humanities community and demonstrating their capacity to make meaningful contributions even at the level of producing tools. In addition, such multi-institutional collaborations have the added benefit of combating the tendency to form silos that Zorich identified for digital humanities centers. Due to their small size, liberal arts colleges have no illusions about their ability to go it alone. Their needs may prove a useful indicator of needs within the digital humanities community as a whole, needs that would benefit from the approach of large-scale shared infrastructure. Liberal arts colleges can thus help chart a more widely distributed version of the digital humanities in the future.

A related response to our opening objections involves the strategic use of resources. Perhaps liberal arts campuses are engaging digital humanities through a narrow selection of technologies and areas. We have just noted a good deal of work on text markup technologies, such as TEI; we have not discovered a parallel body of work in, for example, semantic text analysis, or the creation of large-scale digital

audio archives, or the development of open source tools (e.g., Zotero). Liberal arts campuses are smaller than most others and have recently suffered from the general recession. It is therefore appropriate for them to advance on several well-chosen axes, rather than across a general front. If this model is correct, then we should expect to see visible signs of liberal arts digital humanities engagement (conference presentations, published articles, Web 2.0 discussions) only in certain areas.

So far we have concentrated on ways in which small liberal arts colleges have strategically approximated the functions of large digital humanities centers by establishing their own centers, finding preexisting structures with analogous functions, and forming strategic partnerships with each other and larger institutions. Now we turn to an aspect of digital humanities linked to the particular identity of small liberal arts colleges—that is, their focus on undergraduate education. Liberal arts campuses focus digital humanities work specifically in the classroom experience, combining digital humanities research with teaching. Rather than emphasizing professionally mediated content and tool creation (cf. Ramsay, earlier), this approach turns faculty energies away from the production model, defining a very different form of digital humanities.

In a recent Digital Humanities Quarterly article, Chris Blackwell and Thomas Martin point to the prevalence of undergraduate research in the sciences, especially student-faculty collaborative research, but note the relative dearth of such examples in the humanities where the independent student thesis is the norm. This lack of collaboration is particularly troubling to small liberal arts colleges because such collaborative research, with close interaction between students and faculty, is a hallmark of their educational model (Lopatto). Mark Schantz points to more barriers to undergraduate research in the humanities: limited expertise, the independent researcher model that is typical of the humanities, and challenges of scalability in finding faculty time and attention to support undergraduate research ("Undergraduate Research," 26). The independent thesis model, however, is one existing structure that has allowed some undergraduates to pursue digital humanities research, turning a problem to an advantage. For example, Jen Rajchel produced the first online senior thesis in the English Department at Bryn Mawr College: "Mooring Gaps: Marianne Moore's Bryn Mawr Poetry" (Davis, Rajchel). While the idea of the individual thesis is a traditional practice at Bryn Mawr, Rajchel departed from the norm in constructing her thesis online. In this way, she was able to innovate within an existing program rather than completely break from tradition. Such measured progress may help make the digital humanities more palatable on the liberal arts campus.

Collaborative undergraduate research in the humanities, however, represents a departure from the norm for small liberal arts colleges. Blackwell and Martin argue persuasively that the digital humanities, along with some changes in practice, can open up collaborative research options for classical studies undergraduates both in and out of the classroom. Many of the examples mentioned previously, such as the

Wheaton College Digital History Project, the Early Novels Database (END), or the Lexomics Project, demonstrate those research options existing in other humanities disciplines, including history and English.

The Homer Multitext Project, described by Blackwell and Martin, presents an excellent example of student-faculty collaborative research in digital humanities (Dué and Ebbott). Although the project is based at the Center for Hellenic Studies of Harvard University, undergraduates at the College of the Holy Cross, Furman University, and the University of Houston collaborate on it. Recently, one of the authors of this chapter interviewed Mary Ebbot, coeditor of the Homer Multitext Project and associate professor of classics at the College of the Holy Cross about how she has integrated this project into undergraduate courses. In a Fall 2008 advanced Greek course on Homer, Professor Ebbot had her students take responsibility for one section of Homer; transcribe, translate, and provide commentary on the scholia, or marginal annotations; and map the text to the digital images of the manuscript. These high-resolution images allowed the students better views of the manuscript than were available to the handful of traditional classicists who had access to the physical manuscripts in the past. Now, not only have the images been made available online, but they are even available as an iPad app (Smith, "'Touch' the Venutus A"). In 2010, Holy Cross students did similar work as part of a summer research program. That fall, Ebbot's colleague, Neel Smith, organized a group of students, including first years, to volunteer to spend their Friday afternoons doing the same work (Smith, "New Content, New Contributors"). These students have developed a research community with which they share insights about how to decipher the writing on Byzantine manuscripts. Part of the intellectual excitement experienced by students stems from the opportunity to generate original work on primary material, rather than rehashing old arguments or synthesizing secondary literature ("Ebbot").

The Homer Multitext Project approaches the lab model familiar from the sciences. Amy Earhart suggests that the practices of the science lab offer a potential model for collaboration in the digital humanities, with students working under supervision by faculty and older students until they are ready for independent research (31–33). Collaborative work on a common project within the lab helps professionalize students in their discipline of classics. The collaborative model also helps with issues of scalability: students contribute to faculty projects, rather than taking away from faculty research time; and they support each other, rather than relying solely on faculty members for support and supervision. Overall, while the independent researcher model may represent an easier transition for integrating digital methodologies into undergraduate research in the humanities, the collaborative model will be more productive in the end, more in line with practice in the digital humanities, more in keeping with the world of webs and networks, and therefore a better option for the future of liberal education.

We should also consider the Homer Multitext Project as an example of applied learning, another of the key learning outcomes for liberal education identified by

AAC&U. In terms of pedagogical theory, this is problem-based learning, a pedagogical approach in which groups of students attack a problem with a real-world application. In "Bringing Our Brains to the Humanities: Increasing the Value of Our Classes while Supporting Our Futures," Sheila Cavanaugh argues that typical humanities classrooms do not take into account recent pedagogical theory; she suggests problem-based learning as one potentially fruitful and corrective approach. The applied-learning opportunities of digital humanities projects make them especially ripe for this approach. By giving students a limited amount of information—say, a section of the Homer manuscript—and some guidance, faculty can limit the scope and scaffold the learning process. Under this model of learning, students should learn both the process of inquiry and the actual content answer to the problem. After such scaffolded learning experiences, students will be ready for more independent research of the Homer manuscripts. This process-over-product focus distinguishes the digital humanities as practiced at small liberal arts colleges from the production focus in much of the digital humanities community.

For liberal arts colleges, applied learning has further benefits when it moves into the local community. Consider SmartChoices, a project led by Jack Dougherty, associate professor of educational studies at Trinity College in Hartford, Connecticut. Winner of NITLE's Community Contribution Award in 2010, SmartChoices is "a Web-based map and data sorting application that empowers parents to navigate and compare the growing number of public school options in metropolitan Hartford" (Dougherty). It was developed at Trinity by a team of students, faculty, and academic computing staff in collaboration with two nonprofit urban school reform organizations. Students on the project engaged in several high-impact practices valued in liberal education—including applied learning, service learning, and undergraduate research—and also developed their knowledge as citizens (Kuh). This kind of public engagement makes a powerful argument for the value of liberal education and digital humanities. Our undergraduates can play an important role translating our digital humanities work to the general public. Not all of these students will become digital humanists, but they will take a digital humanities perspective with them wherever they go, after having had an impact on their local communities.

The focus on the undergraduate curriculum at small liberal arts colleges offers the digital humanities a path for expansion beyond research centers at large universities to other types of institutions and beyond. While teaching is obviously important for most faculty members (allowing for variance by campus type), the discussion of pedagogy in the digital humanities has largely focused on teaching the field of digital humanities or preparing future digital humanists. By contrast, small liberal arts colleges focus on how the digital humanities effectively fulfill the learning outcomes of undergraduate liberal education. Thus they answer objections to their engagement with the digital humanities with their own brand of digital humanities, one predicated upon integration within undergraduate teaching and shared with all institutions that teach undergraduates.

Forking the Digital Humanities Code

Our descriptions of the ways liberal education addresses obstacles to digital humanities engagement have been uneven and partial so far. The examples we cite overcome some problems in an indirect or oblique way. Taken together, perhaps we are witnessing a fork in the digital humanities development path, to borrow a term from software development. Liberal arts campuses have taken the digital humanities source code and built a different application with it than their research university peers are currently constructing. Their focus is often on teaching and learning, not open content production. Institutional shapes differ from the now-classic digital humanities center. This looks like a specifically liberal arts route across the digital humanities landscape. Perhaps these small colleges and universities will decide, as an aggregate, not to follow that path any longer, either disengaging en masse or generating small-scale versions of research university models. But if those scenarios do not occur and the current record persists, liberal arts colleges and universities may break new ground with their focus on undergraduate education and their occasionally unbundled/uncentered support model.

If that is correct, then two implications arise. First, as liberal arts digital humanities work grows, those campuses will be sending undergraduates into digital humanities graduate studies programs. The research-I university will have a different type of humanist to train, one with a new and distinct background. These fresh graduate students may well present a deeper interest in teaching and learning implications than their peers, for example. They may also have a face-to-face understanding of digital humanities work. They may consider the humanities in terms of networks rather than centers, as a diffuse web rather than unified field.

Second, if liberal arts campuses continue this work and share some proportion of it with the world via the open web, then that work will connect with small campuses beyond the United States and that nation's unique liberal education experience. The system of American-style liberal arts colleges abroad, for example, could adopt the liberal arts path rather than the research university version. That group's very active library collaboration, the AMICAL consortium, could play a role in this by sharing practices. And as American-style liberal education flourishes in hitherto unfamiliar markets like China, this liberal arts brand of the digital humanities may follow. More broadly, a global education system eager to boost training during a worldwide recession may well find much utility in the liberal arts digital humanities model, grounded as it is in teaching and learning. A humanities-oriented cyberin-frastructure would support such international, interinstitutional collaboration if it developed shared workspaces, collaborative workflows, and other linked work tools (Unsworth, "Our Cultural Commonwealth").

We wish to conclude by expanding our discussions beyond institutional constraints. The liberal arts digital humanities method can impact the public

understanding of the digital humanities, or the humanities in general. First, the liberal arts emphasis on involving undergraduates, local communities, and multiple campuses might contribute to a sense of humanities belonging to everyone, not just trained professionals. Standing at the intersection between the general public and academia, undergraduates are particularly well positioned to bridge the gap, performing public outreach for academic digital humanities work. They may also fill the same needs as the public in crowdsourcing projects, while avoiding concerns about minimum expertise. In the liberal arts tradition, helping students become active citizens engaged in civic life is a longstanding good, supported by nondigital programs like service learning (Schneider). Perhaps this sector's digital humanities approach keys into that outcome, developing a capacity for new forms of citizenship in a networked world. It may specifically help bridge the widening gap between academic humanities and broader American culture. Further, the liberal arts emphasis on lifelong learning could nudge some graduates to play a digital humanities advocacy role for decades to come.

Second, the rise of intercampus projects not affiliated with a single institution could reinforce the perception that digital humanities involves fluid, collaborative efforts. In an era when the humanities in general are under terrific budgetary pressures, such hacking of public awareness could prove influential. The liberal arts digital humanities fork may appear as a form of humanism oriented toward the commonweal. Understood in those terms, it could play a role in arguing for the humanities as a public good in policy and budgeting discussions.

This returns our "fork" back to the very nature of liberal education once again. One aspect of the liberal arts ethos is community engagement. As Jo Ellen Parker notes, "this approach [to understanding liberal education] tends to value the development of skills specifically believed to be central to effective citizenship literacy, numeracy, sometimes public speaking, scientific and statistical literacy, familiarity with social and political science, and critical thinking. It tends to value curricular engagement with current social and political issues alongside the extracurricular development of ethical reflection and socially responsible character traits in students, seeing student life as an educational sphere in its own right in which leadership, rhetorical, and community-building skills can be practiced." This pedagogical goal of boosting students' civic engagement is a very different academic process than that of publishing digital humanities projects to the web or other venues. The latter is a kind of product, a scholarly "output" shared with the world. In contrast the set of liberal arts digital humanities practices we've outlined makes more sense in terms of process. The skills of collaboration across disciplines and institutions, working with primary sources and archives, strategically selecting technologies under financial constraints, and working within networks and connecting with local communities: these practices start from microcommunities then ultimately rise to an ethical level of civic engagement. To focus on a triumphantly finished digital product masks the networked processes within

which it grew and grows further. In engaging the digital humanities movement in their own way, liberal arts campuses have reconnected with their deepest traditions and with the world

NOTES

- 1. Luke Waltzer explores this tension within this volume in his chapter, "Digital Humanities and the 'Ugly-Stepchildren' of American Higher Education."
- 2. For an explication of various definitions of liberal arts colleges, see Parker, "What's So 'Liberal' About Higher Ed?" For a recent examination of the sector, see Ferrall, *Liberal Arts at the Brink*
 - 3. Thanks to Mark Sample for this reference.

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