"Starting From Scratch"? Workshopping New Directions in Undergraduate Digital Humanities

Caitlin Christian-Lamb <cachristianlamb_at_davidson_dot_edu>, Davidson College
Anelise Hanson Shrout <ashrout_at_fullerton_dot_edu>, California State University Fullerton

Abstract

Recent years have seen widespread interest in digital humanities (DH) and growing interest in undergraduate-centered digital curricula. However, few undergraduate DH programs resemble those at large research institutions, where digital initiatives tend to be housed in graduate programs and rooted in graduate pedagogy or faculty research. Further, no two undergraduate DH programs are alike. This article seeks to move beyond graduate- and faculty-centered models by exploring new possibilities for undergraduate DH initiatives. It describes a workshop held at the ADHO DH2015 conference. This workshop brought together practitioners of digital pedagogy from small liberal arts colleges and from undergraduate centers within larger institutions. This article details the workshop's exploration of undergraduate DH education, situating those practices in the context of broader trends in digital pedagogy. Finally, this article charts three broad challenges faced by programs which emphasize undergraduate digital curricula and offers suggestions and strategies to address these common issues.

Introduction[1]

The digital humanities began in research projects and at research universities. As a result, both scholarly and popular discussions of digital pedagogy have coalesced around faculty-driven digital humanities labs and graduate digital humanities education [Kirschenbaum 2011] [Schreibman et. al. 2008] [Allington et. al. 2016]. In these discussions, commentators have tended to focus on supporting digital graduate theses, building Masters and PhD programs, or running training opportunities designed to support faculty research [What Is a Dissertation?] [McCarty 2012]. However, faculty and graduate students are not the only humanities practitioners interested in the digital turn, and graduate programs are not the only spaces in which digital practices happen. Alongside the development of graduate and professional programs, institutions around the world have begun to build curricula that emphasize the digital humanities in undergraduate education. Faculty are not alone in shaping these curricula - they work alongside librarians, archivists, IT specialists, program directors and students themselves. However, there remains little consensus about how those curricula should be developed, who should participate in them, or even what they should cover.[2]

[1]

In 2015, we facilitated a workshop at the Alliance of Digital Humanities Association's (ADHO) Digital Humanities Conference in Sydney, Australia. This workshop - entitled "Starting from Scratch: Building Undergraduate #DH Programs" - aimed to bring together representatives from programs in Australia, Hong Kong, South Korea, the United Kingdom and the United States. Together, we hoped to map the current state of undergraduate digital humanities practice, identify shared concerns, and propose new practices for future development. This article describes and builds upon the workshop's findings. It begins by discussing the methodological and conceptual challenges posed by two common models of student digital engagement: the "digital native" and "apprentice-research assistant." It then summarizes the concerns articulated by workshop participants, before suggesting that both the "digital native" and "apprentice researcher" models fail to account for the experiences of students, faculty and staff at institutions primarily geared towards undergraduates because at these institutions digital humanities training is often not a precursor to graduate work or future research.

[2]

Finally, the article elaborates on some of the workshop's findings, and argues that undergraduate-centered DH should adopt a theoretical model which centers student agency. We argue that programs which foster student agency share certain common practices:

[3]

1. They emphasize research collaboration between faculty and students, with an eye towards building skills beyond the classroom.
2. They are often housed in libraries or centers of excellence unmoored from traditional programs, but which are in keeping with liberal arts pedagogy.
3. They are often highly flexible because they must respond to the particular needs of individual institutions, and because labor at academic institutions is often distributed among faculty, librarians and staff.

The article closes with a list of long-term suggestions for undergraduate digital humanities programs. Together, we hope that our theoretical discussion as well as the discussion of best practices that came out of the workshop will serve as the beginning of a conversation about what digital humanities undergraduate education does, can and should look like in the future.

[4]

Conceptualizing Undergraduates and Technology

Underlying our workshop's discussions - and many other debates about how the digital should inflect education - are questions about students' relationship to technology. There is, however, little consensus on what precisely that relationship is. The two dominant models - "digital native" and "apprentice-research assistant" are in many ways opposed to one another. Additionally, we argue, both fail to account for the digital humanities practiced in undergraduate spaces.

[5]

As originally conceived by Marc Prensky, "digital native" was meant as a metaphor to describe why many people in some generations - who Prensky called "digital immigrants" - feel "at sea" when faced with digital technologies [Prensky 2001] [Prensky 2011]. More recently, the phrase has been used to signify someone who has "grow[n] up in a digital country," "any person born after the widespread adoption of digital technology" or as a tech-infused alternative to "millennial" [Toyama 2015] [Palfrey and Gasser 2013]. In the context of undergraduate pedagogy, "digital native" can draw attention to very real differences between students and educators. Indeed, students who grew up with an omnipresent internet have different relationships to information access and consumption than did previous generations [Waycott et. al. 2010].[3] At the same time, "digital native" is often used pejoratively and paradoxically, to point out that while students belong to a "native" generation, they are in fact often less conversant with the workings of technology than their teachers and mentors. According to this narrative, these students are perfectly comfortable engaging with some aspects of the digital humanities – participating in online communities, sharing, hacking, snapping, or forking content – but often don't understand things that instructors view as basic, such as file structures, differences between printed and digital journals, or the differences between texts and e-mails. This discrepancy between what instructors expect of these digitally "native" generations, and what the students themselves know has been a challenge for digital humanities pedagogy in undergraduate contexts.

[6]

The gaps between instructor and student expectations have led scholars to develop to the "apprentice-research assistant" model of digital humanities pedagogy. This model takes on board the criticisms of "digital native" and assumes that even smartphone- and text-savvy undergraduates need to be technologically coached in order to do the kinds of digital humanities work required at the college or university level. Accordingly, "apprentice-researcher" digital humanists are brought onto large, faculty-run projects as research assistants, and then molded into proto-graduate students or proto-faculty primed to explore the new possibilities of future digital humanities scholarship. This model presumes that a large-scale digital humanities lab is the ideal space in which students might learn to do academic work. While such a space might be feasible in the context of a large research university, such approaches are substantially less workable at smaller, undergraduate-centered institutions. The "apprentice-research assistant" model also assumes an

[7]

intellectual trajectory that leads to graduate work and the professoriate. Since the liberal arts are predicated on the assumption that humanistic, quantitative, and social scientific researchers produce better citizens, and that these skills should not be reserved to those students who intend to go on to graduate or professional schools, the "apprentice" digital humanists model often seems at odds with the aims of the liberal arts.[4]

In addition to the critiques outlined above, neither the "apprentice-researcher" nor the "digital native" model suit many undergraduate students' sense of the digital scholarship they are doing. In fact, their expectations about what constitutes innovative and cutting edge digital humanist projects can differ markedly from instructor expectations. This has an impact on the tools and mediums used for digital projects. For example, while faculty might assume that the best platform for a digital exhibit is Omeka, students may prefer microblogging tools - such as Tumblr, Instagram, Snapchat, and YouTube - when making digital art and scholarship. This should not be a surprising trend, but rather the inevitable result of students' experiences growing up in a digitally-mediated world.[5]

As with all oppositional models, there is a middle ground between the "apprentice-researcher" and "digital native" frames. Adeline Koh recently contended that everyone is "already a digital humanist, whether or not [they] know it," because we and our students "all use technology in [our] daily lives." She went on to note that "at its best, the digital humanities is about engaging more critically with the intersections between technology and how we act, think and learn" [Koh 2014]. Similarly, Ryan Cordell argues that while students are inherently embedded in webs of digital humanities meaning, they "do not care about DH *qua* DH." Rather, they see value in the skills that often fall under the digital humanities umbrella, but are frustrated by the ways in which "the priorities, required skills, and reward structures of their disciplines have shifted under their feet in ways they cannot account or adjust for" [Cordell 2015]. In short, although students use digital tools, they have no training for how to use those tools in academic contexts.

The Workshop

The variety of conceptions surrounding undergraduate roles within DH work together to confound the development of undergraduate humanities programs. Not only must undergraduate digital humanities programs subscribe to the mission statements and goals of their home institutions, they must also be pitched to attract student populations who seem simultaneously digitally native and uninformed, deeply digital but also disengaged. The "Starting from Scratch" workshop grew out of discussions among the authors, our colleagues, and other educators about the myriad ways in which undergraduate digital humanities education was developing.[6] DH2015 presented us with the opportunity to bring those educators together, to lay out some of the central concerns that preoccupy undergraduate digital pedagogy, and to begin to build a list of best practices for building digital curricula.

Workshop participants negotiated some of the apparent contradictions outlined above by rejecting models which pitted students and instructors against one another, or which presumed an inexorable path towards graduate school. Instead, they embraced strategies that centered student agency, rejected of siloed fields, and innovatively explored ways of integrating the digital into extant liberal arts structures.

In preparation for this workshop, we solicited participants from undergraduate-centered institutions around the world, and from as wide a range of geographical locations as possible. These included representatives from Europe, Asia, North America and Australia. We strove to include practitioners in many roles within digital initiatives. These included faculty, students, librarians, archivists, instructional technologists, IT professionals and program directors. Finally, we sought contributions from colleagues who could not attend the workshop, but who were interested in participating in a preliminary discussion.[7]

Participants in the pre-workshop discussion were interested in exploring the ways in which the pedagogical needs of undergraduate institutions and undergraduate-centered digital humanities programs differed from those of larger research universities; the challenges that undergraduate-focused DH programs faced around the world; and how the discussions about digital humanities taking place on liberal arts campuses related to broader questions that animated the field of digital pedagogy. While some concerns were nationally specific, there were many similarities across countries and regions.

Participants' concerns fell into three broad categories: how to shape digital humanities pedagogy to fit with undergraduate curricula, how the digital humanities fit within the liberal arts, and how to distribute labor among the many different digital humanities practitioners on undergraduate campuses. After articulating these general concerns, participants worked through design-thinking exercises and formal discussions to link the identified problems with local challenges, collaborate on strategies for particular problems, and define common principles and pedagogical reasoning.[8] Some of these strategies took the form of structural changes that would ideally support undergraduate digital pedagogy. Others were more radical, or more long-term solutions. Many were untested. Together, they suggested new paths forward in undergraduate digital pedagogy. The challenges and proposed solutions are the basis for the remainder of this article.

The Importance of Student Agency

Workshop participants were particularly concerned with how institutions, programs and educators define (and in some cases, police) the boundaries of undergraduate digital humanities. The scholars assembled wondered whether many undergraduate DH programs were merely "translating" graduate work to the undergraduate level without attending to how DH pedagogy fits into broader liberal arts curricula [Jacobs 2016].

Many participants argued that undergraduate programs should contain "more [focus] on pedagogy and smaller, discrete projects" than the large-scale projects common to graduate DH programs.[9] These kinds of projects were considered to be emblematic of the "apprentice-researcher" model, and in most cases simply not applicable to undergraduate education. Participants also contended that undergraduates need to be the "primary audience, not additional labor for projects." Further, they argued that "engaging undergraduates in pre-existing long-term projects in ways that allow them to clearly cite and define their ownership could be an exciting opportunity provided by DH methods," which "potentially lends a sense of meaning to undergraduate Humanities production."[10] Finally, participants suggested that shifting attention from DH tools and training to the production of original digital scholarship would support the missions of undergraduate-centered and liberal arts institutions while simultaneously providing students with grounding in the digital humanities.

One potential challenge that participants noted was that if undergraduates were to be included in digital projects, they needed to be distinguished from graduate students, who often "owned" their projects much in the same way as faculty or staff were able to. Graduate students can devote longer periods of time - in some cases, years - that many undergraduate programs do not afford to their students, though this model is being challenged by the "Domain of One's Own" movement [A Domain of One's Own]. In some institutions, the problem of undergraduate time commitments is addressed by incorporating undergraduates into (and using their labor to accomplish) large digital humanities projects. However, in these cases, a new problem arises; even if student contributions are noted in the final product, it is often difficult to ensure that the undergraduates are getting concrete learning experiences, and not merely serving as a convenient source of "free" labor. Finally, in addition to critical thinking about student labor and agency, educators engaging in undergraduate DH must consider privacy concerns - if student work is to be made public digitally or archived within an institution repository, the students involved must be made aware of the issues and their rights.

These critiques of the use of student labor in projects have been echoed by students themselves, who note that even when undergraduate students are able to take ownership of their work, integrating a digital component into an existing undergraduate course without significant redesign may not serve any pedagogical purpose, and may use the curriculum as a cudgel to force students into a different kind of labor. As Andrew Rikard, a Davidson College undergraduate student, wrote in *edSurge*,

> [We need] to shift the emphasis from data possession to knowledge production. Gaining ownership over the data is vital–but until students see this [digital] domain as a space that rewards rigor and experimentation, it will not promote student agency. Traditional assignments don't necessarily empower students

when they have to post them in a public space. [Rikard 2015]

In accord with Rikard, workshop participants felt that undergraduate digital humanities pedagogy needs to focus on course-integrated digital assignments, rather than large, long-term projects more typically associated with graduate or faculty work. However, they emphasized that digital humanities coursework, particularly for undergraduates, requires scaffolding to both teach technical skills students may not already possess and also critically examine those skills, digital scholarship as a whole, and the situation of their own work in a digital space.[11] Finally, they agreed that these safeguards are meaningless if students are not given agency over their own work, and if that agency is not supported beyond the classroom.

Fitting Digital Humanities into Liberal Arts Structures

In institutions without established DH programs, nomenclature was a frequent point of contention. One concern that workshop participants raised was that because there are few curricularly driven digital humanities centers in undergraduate-centered institutions, the DH programs that develop at these institutions have tended to be shaped by unique curricular needs of particular department, college or university. This is one of the reasons that so few undergraduate digital humanities programs are alike. For instance, some schools have digital departments, though there is little consensus about whether these should be called "digital humanities," "digital studies,"[12] "experimental humanities,"[13] "digital liberal arts"[14] or something else entirely [Pannapacker 2013]. Other institutions incorporate classes on digital methods and digital culture into instructional technology through libraries and archives. Still others locate digital classes in "traditional" departments ranging from English, to History, to Computer Science to Anthropology. As a result of these different institutional affordances, participants agreed, undergraduate digital humanities education has developed in extensively varied ways [Sanders 2016].

Workshop attendees came from a variety of institutions, with a variety of titles for the digital scholarship being conducted at their places of work, but as far as pedagogy and centering the undergraduate, they argued that title of the program they develop or support does not matter as much as the mission and vision underpinning it.

When focusing on undergraduate-centered digital humanities pedagogy, some participants felt that undergraduate-only institutions, (in the United States, particularly liberal arts colleges) already supported DH initiatives by focusing on interdisciplinary and original student research. But they wondered how undergraduate DH could be made to fit in places with a less robust liberal arts tradition. Some participants advocated for institutions should consider "DH as a set of practices, not necessarily a separate field."[15] By conceptualizing digital humanities as a broadly applicable set of methods, practice, and pedagogy, participants argued, the digital humanities could be distributed across curricula. This broader vision of digital humanities could make DH applicable to numerous majors and programs, rather than only a few. In this way, DH becomes one of the liberal arts.

Avoiding Silos with the "Distributed" Model

As undergraduate scholarship increasingly focuses on digital research and more public-facing work, participants were concerned that DH theory was being taught alongside digital skills methodology, to the detriment of both. They noted that integrating a digital humanities project into an already existing course often requires that something must be removed in order to allow time for students to learn required technologies, implement them, and assess their work.

One of the strategies proposed during the design thinking exercises was that some of the structure surrounding technical training and assessment could be aided by collaborating with other faculty, librarians, archivists, and instructional technologists. This strategy intersected with another central concern for many of the workshop participants. During the workshop, participants debated whether this dearth of "homes" for DH education in undergraduate-centered institutions meant students would be best served by building bespoke programs or initiatives "from scratch." However, many felt were concerned that these programs could become siloed, like graduate programs which might have an "Intro to Digital Humanities" course in each department, or could be organized around a bounded digital humanities centers.[16] In contrast, many undergraduate programs seem to be spreading teaching DH methods and tools throughout several courses and on smaller, more discrete projects. This more distributed model may be more suited to the nature of undergraduate education, but it makes it difficult to identify or implement a core digital humanities pedagogy [Sustaining the Digital Humanities 2014].

One proposed solution to this conundrum was that a DH center or staffed initiative could support digital scholarship across departments, without offering any classes in DH *qua* DH. [17] Another was to locate classes in digital scholarship within libraries and instructional technology, so that students could have access to digital expertise without having to devote curricular time to DH classes. In both of these, digital humanities training could be distributed across an institution, drawing on the native talent of DH practitioners already on faculty or staff.

This "distributed" model raised questions about how undergraduate institutions can create programs that are flexible enough to allow for a variety of methods and approaches from across disciplines while still adhering to the graduation and major requirements of individual colleges and universities. However, distributing DH throughout the undergraduate curriculum can allow wider engagement with students. For instance, Davidson College, Grinnell College, Washington and Lee University, and Hope College have all formed or are in the process of forming interdisciplinary initiatives that support undergraduate DH but are not run out of a formal campus DH center.[18] On an even larger scale, groups like ILiADS are working to form distributed digital humanities training networks across American liberal arts colleges.[19]

Another challenge that participants raised in establishing a distributed, decentralized DH program was that individually-spearheaded efforts might lead to untenable amounts of labor for one person or a small group of people, since becoming "the face of DH" for an institution can also lead to significant organizational challenges. Ideally, digital scholarship within an institution would not be driven by a single personality, but supported via buy-in from senior faculty and administration. Similar to the scaffolding needed to integrate DH into existing undergraduate courses, structural support is necessary to make a DH program a success at any institution. Workshop participants felt openly discussing the challenge of building a new program was valuable, as ways of distributing labor and establishing formal support varied depending on each institution.[20] That support could come from valuing digital scholarship and pedagogy in the tenure and promotion process, consideration of DH within core and major requirements at the institution, and providing resources to support students in and outside of the classroom, including placing an emphasis on student agency.

Moving Forward: Radical and Long-Term Ideas

At the end of the workshop, participants came up with a list of radical or long-term suggestions aimed at addressing some of the structural challenges facing undergraduate digital humanities pedagogy. These suggestions coalesced around building and sustaining flexible structures that support digital scholarship, critically considering the placement of DH within curriculum, and practicing advocacy and outreach on behalf of DH.

They concluded that unless digital scholarship received support and buy-in from the institution, efforts to build digital initiatives and programs are not likely to succeed.[21] Some suggested writing collaboration into job descriptions for digital humanities positions. Doing so would scaffold a DH community, especially in places where one is not developing naturally. Purpose-hired digital scholarship coordinators might also serve as hubs for faculty, student, and staff training, and as a point person for long-term planning and growth.[22]

Another set of long-term solutions focused on teaching, suggesting that such an approach would lead to adoption from the ground-up rather than top-down. These included providing learning opportunities on campus for the entire community, such as brown bag lunches or workshop series; including spaces for practitioners to share successes and frustrations in digital humanities pedagogy; and supporting teaching institutionally by ensuring that instructors are allowed the time, resources, and freedom to experiment. These kinds of initiatives would allow faculty and lecturers to more fully integrate technology into their teaching, rather than simply appending a DH week or assignment to already robust classes.

Distributing digital scholarship throughout the existing curriculum, and integrating it as part of core requirements was seen by participants one of the most promising models for undergraduate digital humanities. However, participants agreed that in order for this distributed model to be successful, critical thinking and careful planning would be necessary at the outset. Participants hoped that those building these programs would consider how to best "embed" digital humanities across the curriculum by noting where DH fits in naturally, and where a critical frame around digital research and scholarship could benefit existing curriculum. They also recommended integrating DH practices into substantive capstone projects, which would illustrate how DH practices fill gaps, assist in making new arguments, and shows how this kind of work results in more impressive (and higher graded) projects. This kind of practice would both allow for flexibility within existing programs, and illustrate the inherent flexibility of digital approaches. Participants also called for an emphasis on the ways in which digital resources allow undergraduates to engage in truly original research.

31

While the undergraduates discussed in this workshop seemed generally aware of digital humanities as a set of practices and desirous of learning digital things, participants pointed out that undergraduate students are often difficult to engage with, because they can have trouble seeing an immediate utility in learning digital methods, both for current and future scholarship as well as marketability when looking for jobs. However, participants found that undergraduates too can benefit from DH immediately and as a possible "resume booster," but that value needs to be more clearly communicated. There is potential here to collaborate with other campus entities, such as career development offices, academic advising, and the library, who may be able to generate student interest and gauge student needs.

32

Simultaneous with this kind of work, participants called for digital practitioners to continue to critically engage with debates around digital pedagogy. This would include building upon previously existing digital humanities projects, and using these as models and possible data sources rather than beginning truly from scratch; to begin, as scholars, to write about the weak points of our projects as well as the strengths and to teach students to be critical of digital projects, both their own and others, by questioning the limitations of data sets and what gives a digital project authority. This kind of engagement would create better, more publicized platforms for sharing digital humanities syllabi and pedagogical outputs in order to form a wider undergraduate digital pedagogical community.

33

Finally, without advocacy and outreach on behalf of digital initiatives and the value of DH as a set of practices, digital scholarship cannot thrive at the institutional level. Participants' suggestions included considering how undergraduate students can serve as ambassadors - as they gain a greater understanding of digital humanities, they can communicate their knowledge and benefits of the program to other students. They also called for those who are already working in DH to practice advocacy by communicating why DH is important, as a set of practices and at your specific institution; and recognizing that shifts within academia may require "change agents," "digital evangelists," and aggressive communicators in order to succeed. Institutions might find ways to reward this kind of advocacy, as service credit or in annual reviews, thereby reinforcing the importance of digital pedagogy to individual colleges and universities. In sum, faculty, students and staff all need to embrace change and communicate the value of digital scholarship and pedagogy to their wider campus and disciplinary communities.

34

Conclusions

At the heart of this workshop were concerns about the value undergraduate students are deriving from digital humanities programs and courses. Because many of these programs are still developing, there is little precedent for how to evaluate what students would like to get out of DH-inflected courses, and few rubrics for how we assess student learning after the fact. Digital humanists from a range of spaces and professions wondered how, given the differences across programs, and particularly around structure of programs and funds available, it might be possible to develop a shared set of best practices. We concluded that these issues have manifold solutions, with each institution's culture, personnel, and strategic priorities playing a role in how DH programs are shaped and managed. By centering on student-driven scholarship and desirable learning outcomes, and by building programs that are inherently flexible - adapting to the changing needs of students, educators and institutions, we can articulate shared pedagogical values, rather than prescriptive best practices.

35

Programs which implemented a clear structure for undergraduate digital humanities education, and linked that structure to clear pedagogical outcomes were seen by participants as the most satisfactory models for undergraduate digital humanities. These kinds of programs tended to avoid silos and closed circles, preferring instead to draw from a wide range of interests and competencies. Finally, these programs centered student agency, and encouraged students to take on digital projects as a means to better presenting themselves and their research to the world, rather than as a means to acquiring individual digital skills. Together, these findings point to the need for new and flexible models for undergraduate DH education in which faculty, staff and institutions work to scaffold undergraduate DH education while empowering students to produce, share, critique (and be critiqued on) their work in the wider world.

36

<div align="center">

Notes

</div>

[1] The authors would like to thank Mark Sample for his guidance and generosity in reading over early drafts; our workshop committee, James Baker, Mark Sample, Jentery Sayers, and Sara Sikes, for providing feedback and planning assistance; the Mellon Foundation and Digital Studies at Davidson College for funding the authors' travel to DH2015; E.H. Little Library at Davidson College for professional development funding; and Kristen Eshlemen, Jakub Kabala, Andrew Rikard and Bobby Smiley for providing feedback on early drafts. We would also like to thank workshop participants for the contributions to the workshop itself, and for reviewing an early draft of this article.

[2] See, for example, the kind of funding work done by the Mellon Foundation to support programs in digital scholarship and training. https://mellon.org/programs/higher-education-and-scholarship-humanities/research-universities-and-institutes/

[3] Journals like *Computers & Education* are primarily concerned with questions like these.

[4] See, for example, Duke's Humanities Lab: http://www.fhi.duke.edu/labs/phd.html

[5] Faculty-designed assigned choice of tools may also reflect the landscape of how other academics are creating digital projects - such as using Omeka or Scalar - and might also include preservation and support concerns that students aren't made fully aware of.

[6] The workshop was planned by Shrout and Christian-Lamb, with feedback from their DH 2015 pre-conference workshop committee, which consisted of the authors, as well as James Baker (University of Sussex, UK), Mark Sample (Davidson College, USA), Jentery Sayers (University of Victoria, Canada), and Sara Sikes (Massachusetts Historical Society, USA).

[7] Workshop participants and the contributors to the preliminary discussion consisted of Anelise Hanson Shrout (Davidson College, USA), Caitlin Christian-Lamb (Davidson College, USA), Erik Simpson (Grinnell College, USA), Sayre Greenfield (University of Pittsburgh at Greensburg, USA), Joanna Hare (City University of Hong Kong), Simon Burrows (University of Western Sydney, Australia), Paul Gooding (University of East Anglia, UK), Juan Steyn (North-West University, Potchefstroom campus, South Africa), Elizabeth Hale (University of New England, Australia), Kyunghoon Jung (Ajou University, South Korea), MyoungSuk Kwak (Ajou University, South Korea), YeBeet Jang (Ajou University, South Korea), James Baker (University of Sussex, UK), Ryan Cordell (Northeastern University, USA), and Sara Sikes (Massachusetts Historical Society, USA). We asked this group to contribute to a shared Zotero library to compile the most current and relevant sources for undergraduate digital humanities pedagogy. We also asked them to provide case studies describing how their undergraduate digital humanities programs began and are structured, and to identify pedagogies, challenges and questions they wanted the workshop to address. See the library here: https://www.zotero.org/groups/starting_from_scratch. During the pre-workshop discussions and during the workshop itself, participants were asked to contribute to a collaborative note-taking document, which the editors then synthesized into a coherent set of comments and concerns. The document is available here: https://docs.google.com/document/d/1WZX6aZh_IfF5pbp7zOnVPMoafiakLV0-41usMJxjwUA/edit?usp=sharing

[8] We built on Stanford University's Design Thinking Crash course, and on a version of that exercise developed by Kristen Eshleman and Anelise Hanson Shrout. For the structure of the DH2015 design thinking exercise, see https://docs.google.com/presentation/d/1Ztd_phWYskdLAOU4FdivwSnz_ALyrIehNaCHBjQ1z3Q/edit?usp=sharing

[9] For examples of such projects, see Harvard's *Initiative for the Science of the Human Past* (http://sohp.fas.harvard.edu/) or Stanford's *Mapping the Republic of Letters* (http://republicofletters.stanford.edu/)

[10] Much of our commentary is drawn from a collaborative note-taking document that participants worked on during the workshop. The full collaborative document can be seen here: https://docs.google.com/document/d/1WZX6aZh_IfF5pbp7zOnVPMoafiakLV0-41usMJxjwUA/edit?usp=sharing

[11] Something that was not discussed in the workshop, but which obviously requires careful consideration, is how to teach digital methods courses to students with a broad range of technical abilities and different kinds of access to technologies. Programs generally - but especially those which serve diverse student populations - will have to work to meet students at various levels of technical expertise, and design flexible programs than can accommodate a range of student perspectives.

[12] As an example, Davidson College (https://www.davidson.edu/academics/digital-studies). University of Wisconsin-Madison (http://digitalstudies.wisc.edu/). University of Michigan's Department of American Culture (https://lsa.umich.edu/digitalstudies) all use the term "digital studies."

[13] Such as at Bard College, where DH is "EH": http://eh.bard.edu/about/

[14] As an example, Hope College (http://www.hope.edu/academics/mellon-scholars/about-program/digital-liberal-arts.html), Middlebury College (http://sites.middlebury.edu/dla/about/). Whittier College (https://diglibarts.whittier.edu/), Grinnell College (https://www.grinnell.edu/academics/centers/ctla/dlac), and Occidental College (http://www.oxy.edu/center-digital-liberal-arts) all use the term "digital liberal arts" for their programs.

[15] These quotations come from the collaborative document: https://docs.google.com/document/d/1WZX6aZh_IfF5pbp7zOnVPMoafiakLV0-41usMJxjwUA/edit?usp=sharing

[16] See, for example, the CUNY digital humanities initiative (http://cunydhi.commons.gc.cuny.edu/), the Carolina Digital Humanities Initiative (http://digitalhumanities.unc.edu/), Carleton University's Collaborative MA in English and Digital Humanities program. (http://carleton.ca/english/graduate-programs/english-and-the-digital-humanities/) the Institute for Advanced Technology in Humanities (http://www.iath.virginia.edu/), the Maryland for Technology in the Humanities (http://mith.umd.edu/), or the many centers listed on centerNet's website (https://dhcenternet.org/centers).

[17] For example, while Davidson College offers digital studies courses, it also provides support for the creation of new courses in traditional departments that incorporate digital methodology. Similarly, the University of Iowa's Public Humanities in the Digital World initiative (http://clas.uiowa.edu/phdw/home) provides support for digital projects across the university, Duke University's Digital Scholarship Services (http://sites.duke.edu/digital/about/) provides DH support across the university, and the University of North Carolina at Chapel Hill's Digital Innovation Lab (http://digitalinnovation.unc.edu/) Carolina Digital Humanities Initiative (http://digitalhumanities.unc.edu/) supports courses and trainings across disciplines and institutions.

[18] For more about these individual programs, see: https://www.davidson.edu/academics/digital-studies, http://www.grinnell.edu/news/expanding-use-digital-technology, https://digitalhumanities.wlu.edu/about/, and http://www.hope.edu/academic/mellon/aboutprogram.html.

[19] http://iliads.org/

[20] Labor within academia, and particularly within digital scholarship, remains a major challenge for faculty and staff supporting and engaging in digital pedagogy. For some background, see Miriam Posner's "Money and Time" (http://miriamposner.com/blog/money-and-time/), Helen J. Burgess and Jeanne Hamming's "New Media in the Academy: Labor and the Production of Knowledge in Scholarly Multimedia" (http://www.digitalhumanities.org/dhq/vol/5/3/000102/000102.html), Stacie Williams' "Implications of Archival Labor" (https://medium.com/on-archivy/implications-of-archival-labor-b606d8d02014#.zuoaiupav), Julia Flanders' "Time, Labor, and 'Alternate Careers' in Digital Humanities Knowledge Work" (http://dhdebates.gc.cuny.edu/debates/text/26), Roxanne Shirazi's "Reproducing the Academy: Librarians and the Question of Service in the Digital Humanities" (http://roxanneshirazi.com/2014/07/15/reproducing-the-academy-librarians-and-the-question-of-service-in-the-digital-humanities/), and Trevor Muñoz and Jennifer Guilano's "Making Digital Humanities Work" (http://www.trevormunoz.com/notebook/2014/07/14/making-digital-humanities-work.html).

[21] The Mellon Foundation has provided funding for many digital humanities initiatives in the past, and their new Higher Education and Scholarship in the Humanities guidelines include a mention of special initiatives for "digital humanities training and scholarship" (https://mellon.org/programs/higher-education-and-scholarship-humanities/research-universities-and-institutes/), as well as a strengthened emphasis on "develop[ing] students' critical, analytical, and creative capacities through the use of digital technologies, including blended learning" in liberal arts college settings (https://mellon.org/programs/higher-education-and-scholarship-humanities/liberal-arts-colleges/). The NEH Office of Digital Humanities (https://www.neh.gov/divisions/odh) also provides opportunities to apply for funding to create sustainable DH.

[22] These types of positions seem to be on the rise, with institutions such as Michigan State University (http://digitalhumanities.msu.edu/) Whittier College (https://diglibarts.whittier.edu/project-leadership/), and Hamilton College (http://www.dhinitiative.org/about/aboutus) having digital scholarship baked into various point-person roles.

Works Cited

A Domain of One's Own "A Domain of One's Own." n.d. *Wired*. https://www.wired.com/insights/2012/07/a-domain-of-ones-own/.

Allington et. al. 2016 Allington, Daniel, Sarah Brouillette, and David Golumbia. 2016. "Neoliberal Tools (and Archives): A Political History of Digital Humanities." *LA Review of Books*.

Cordell 2015 Cordell, Ryan. 2015. *How Not to Teach Digital Humanities*. JSTOR. http://www.jstor.org/stable/pdf/10.5749/j.ctt1cn6thb.39.pdf?acceptTC=true&coverpage=false.

Jacobs 2016 Jacobs, Hannal L. 2016. "Scaling Digital Humanities Pedagogy." https://cit.duke.edu/showcase2016/files/2016/10/digital-humanities-PDF.pdf.

Kirschenbaum 2011 Kirschenbaum, Matthew G. 2011. "What Is Digital Humanities and What's It Doing in English Departments?" *Disciplinary Futures, Part*, 55.

Koh 2014 Koh, Adeline. 2014. "Introducing Digital Humanities Work to Undergraduates: An Overview - Hybrid Pedagogy." *Hybrid Pedagogy*, August. http://www.hybridpedagogy.com/journal/introducing-digital-humanities-work-undergraduates-overview/.

Latour 2014 Latour, Bruno. 2014. "Opening Keynote, DH 2014." In Lausanne, Switzerland. http://dh2014.org/videos/opening-night-bruno-latour/.

McCarty 2012 McCarty, Willard. 2012. "The PhD in Digital Humanities." *Digital Humanities Pedagogy: Practices, Principles and Politics*, 33–46.

Palfrey and Gasser 2013 Palfrey, John Gorham, and Urs Gasser. 2013. *Born Digital: Understanding the First Generation of Digital Natives*. Basic Books. https://books.google.com/books?hl=en&lr=&id=LIFNT1ER4scC&oi=fnd&pg=PR7&dq=Born+Digital:+Understanding+the+First+Generation+of+Digital+Natives+&ots=XGLnjYjTH4&sig=Vbo8t_T7Jmd_ubM_dW7qPOsuGR0.

Pannapacker 2013 Pannapacker, William. 2013. "Stop Calling It 'Digital Humanities' - Advice." *The Chronicle of Higher Education*, February 18. http://chronicle.com/article/Stop-Calling-It-Digital/137325/?cid=at&utm_source=at&utm_medium=en.

Prensky 2001 Prensky, Marc. 2001. "Digital Natives, Digital Immigrants Part 1." *On the Horizon* 9 (5): 1–6.

Prensky 2011 Prensky, Marc. 2011. "Digital Wisdom and Homo Sapiens Digital". *Deconstructing Digital Natives: Young People, Technology and the New Literacies*, 15–29.

Pressi et. al. n.d. Pressi, Hayley Di, Stephanie Gorman, Miriam Posner, Raphael Sasayama, and Tori Schmitt. n.d. "A Student Collaborators' Bill of Rights." *Center for Digital Humanities - UCLA*. http://www.cdh.ucla.edu/news-events/a-student-collaborators-bill-of-rights/.

Rikard 2015 Rikard, Andrew. 2015. "Do I Own My Domain If You Grade It?" *EdSurge*. August 10. https://www.edsurge.com/news/2015-08-10-do-i-own-my-domain-if-you-grade-it.

Sanders 2016 Sanders, Ashley. 2016. "Defining Digital Terms: DH vs. Digital Scholarship vs. Digital Liberal Arts." *Ashleysanders.com*. May 31. https://docs.google.com/presentation/d/15_eQ8HHbm6iwYwgiwNfWfwEVMyi_Grcx6s-BWDOg3ZE/embed?start=false&loop=false&delayms=3000&usp=embed_facebook.

Schreibman et. al. 2008 Schreibman, Susan, Ray Siemens, and John Unsworth. 2008. "Introduction." In *A Companion to Digital Humanities*. John Wiley & Sons. https://books.google.com/books?hl=en&lr=&id=mE7cvIxAK4wC&oi=fnd&pg=PR5&dq=%22a+companion+to+digital+humanities%22&ots=odxtX5ctcI&sig=S4RHxnqRu-DxQNitY28nGNpg2Bw.

Sustaining the Digital Humanities 2014 "Sustaining the Digital Humanities." 2014. *Ithaka S+R*. June 18. http://www.sr.ithaka.org/publications/sustaining-the-digital-humanities/.

Toyama 2015 Toyama, K. 2015. "Why Technology Will Never Fix Education." *The Chronicle of Higher Education*.

Waycott et. al. 2010 Waycott, Jenny, Sue Bennett, Gregor Kennedy, Barney Dalgarno, and Kathleen Gray. 2010. "Digital Divides? Student and Staff Perceptions of Information and Communication Technologies." *Computers & Education* 54 (4): 1202–1211.

What Is a Dissertation? "What Is a Dissertation? New Models, Methods, Media." 2014. CUNY Grad Center.