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Teaching Digital Humanities Through a Community-Engaged, Team-Based Pedagogy

by Andrew Jewell and Elizabeth Lorang

Presented at Digital Humanities 2016

Two years ago, at the end of the spring semester, dozens of people filled a room in Love Library at the University of Nebraska-Lincoln to listen to three teams of students share what they had created as part of UNL's first "Digital Humanities Practicum" course. One team of undergraduate students proudly announced that, as of that day, the mobile application they had created in partnership with Humanities Nebraska, a state-wide nonprofit, was available for download in the Google Play store. One of the students gestured to the slide announcing the availability of the app and said, with some emotion, "Here it is. And it's real." Hearing her underscore the value of her work by noting its reality, the way it addressed a real challenge for a real organization and was now available for real people to use, was striking. It underscored the power of giving students opportunities to engage with actual experiences that clarify approaches they might otherwise only encounter as concepts and abstractions, or as relevant only in a class setting.

Through a focus on this Digital Humanities Practicum course at the University of Nebraska-Lincoln (UNL), this paper explores two areas of current--and recurrent--interest in digital humanities teaching and learning: DH pedagogy in the undergraduate classroom and DH and "skills training." While the presentation emphasizes particulars of the course, including its design, what has worked well, and what we are still learning, we also want to think beyond the single course and prompt further discussion around several themes, including team-based problem-solving and connecting digital humanities with community-engaged learning.
Ultimately, we argue that a team-based, community-engaged approach can be an effective strategy for teaching digital humanities practice to students. Furthermore, we believe that this approach can powerfully illustrate the societal benefit of humanities-centered approaches to problem-solving. Students in the Digital Humanities Practicum course get an opportunity to work together creatively, analyze a problem and conceive a solution, build something, and have a positive impact on their community.

The current Digital Humanities Practicum at UNL has developed in an evolutionary and experimental process, one that has been shaped by changes to the larger DH curricular program at UNL and by a sense of what such a course most needs to do. For two years (2012 and 2013), the course functioned on an internship model and was available only to graduate students. Students were embedded within existing faculty-led DH projects, one student per project. They worked on these projects for seven hours per week and spent one hour a week in class, during which instructors and guests introduced them to basic skills for doing digital humanities work. We found that this model underestimated the challenges of setting students up as collaborators in such limited time, especially when project staff faced deadlines and needed to focus on production rather than instruction. One result was that some students performed menial and repetitive work throughout the semester. And while students could cite their work on these project teams to prospective employers and others, there was not always a visible product the students could point to as the result of their contributions. The weekly class sessions, too, were mere introductions; students might hear about a skill, but they did not necessarily learn it if their projects did not provide opportunities for practice.
One could argue that the students still gained valuable experience: they saw how academic teams function, participated in a collaboration, and lived firsthand the reality that for every exciting moment or activity in project development, there is a substantial amount of preparation and routine. These outcomes, however, did not require 100 hours of work time and nearly twenty hours of class time. We also aspired to a higher level of student investment in the work and wanted students to be intimately involved in project development from conception to implementation—for them to see and be a part of a full project life cycle. Moreover, the course was now also set to be offered to undergraduate students for the first time, as part of an undergraduate minor in Digital Humanities. Opening the course to undergraduate students made us even more aware of the need to present students with varied projects, not only those emerging from faculty members at a research-intensive university. The combination of these factors—the mediocrity of the original internship model approach and the arrival of the DH minor, for which students also would need to gain practical experience—forced us to think more deeply about what it means to teach DH project development.

We began reassessing the course by asking the question: What do the students who take this course need from it? Part of responding to this question was identifying what the other courses that are part of the graduate certificate program and undergraduate minor already do—especially since significantly more digital humanities courses were on the books even after just two years of offering the internship course. Within the DH curricular programs at UNL, all students—whether undergraduate or graduate—are required to take a more theoretical course: Being Human in a Digital Age at the undergraduate level and the Interdisciplinary Reading Seminar in Digital Humanities at the graduate level. And at both levels, students have
opportunities to complete courses that emphasize particular disciplinary areas and questions or specific technologies and methodologies. These other courses help students develop disciplinary expertise and can require sustained engagement with particular hardware, software, and methods. We determined then that the Digital Humanities Practicum should 1) enable student opportunities and student responsibility to solve problems; 2) create the opportunity for students to talk about their work to a variety of audiences; 3) develop connections among students with others in and beyond the university; and 4) teach strategies for learning problem-solving techniques rather than specific technical or methodological approaches.

We arrived at an immersive, community-based model to digital humanities teaching and learning. We partner with local organizations who have identified challenges suited to technological, humanities-engaged solutions. Over the course of the semester, students respond to those challenges, first conceptualizing a solution, iteratively building their solution, and then presenting their solution to a public audience at the end of the semester. The practicum engages and implements key values of community-based learning, including a "recursive style; direct, high-impact method; and emphasis on abstraction embedded in practice." In addition, the course advances a team-based experience that focuses not only on academia but looks outward to the humanities' roles in society more broadly. Neither project-based learning nor service learning are new, of course, and both can be found commonly in business and engineering courses, among others. These approaches also are present in humanities department, such as with programs that connect writers with various community/education programs. But this approach to teaching

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digital humanities is, we believe, relatively rare. In other cases, institutions may have a longer-standing relationship with an external organization and succeeding classes of digital humanities students contribute to a larger, on-going project. We are not familiar, though, with other programs that bring in new, outside, real-world problems each year to a digital humanities course.

A fundamental difference between the Digital Humanities Practicum and the earlier internship course is that the Practicum focuses on team-based problem-solving rather than specific technical skills. In the first year of the Practicum, for example, Humanities Nebraska challenged the students to improve communication about their annual Chautauqua event while engaging new audiences. It was in response to this challenge that the team of undergraduate students developed their mobile application to serve as an information platform and provide opportunities for social media engagement. Entering the course, the students had limited experience with web technologies and no experience with mobile application development. While they researched what was involved in creating a mobile application, we reached out to others on the UNL campus who could work with students to help them learn specific skills, and we made sure they would have access to necessary technology, such as software for wireframe designing and a variety of mobile devices for testing. During this experience, the students learned much more than new technology proficiencies. They performed research about Chautauqua and the Chautauqua theme ("Free Land"), considered how best to communicate this information to the audiences they sought to reach, and interacted effectively with their client and mentors about their ideas—including accepting and responding to criticism of approaches that were not working.
Other teams had similar experiences in the first two years of the revamped course, working with organizations including the Heritage Room of Nebraska Authors in the Lincoln City Libraries; the Nebraska Commission on Indian Affairs; the Midwest Archeological Center, a division of the National Park service; and the Malone Community Center. In the first year, we began with organizations where we already had personal connections, and in the second year, we partnered with organizations that would connect the students with a broader range of histories and cultures. This past semester, we partnered with organizations that are not principally humanities organizations. These included a children's museum, a community garden and food education organization, and a social justice organization. Our goal was to broaden understanding of where humanities work can happen as well as demonstrate possibilities for solving problems by joining diverse areas of expertise.

For the remainder of the presentation, we want to share some core values of the course that we hope will have broad applicability to teachers of DH, principles that could be considered for a range of courses and not just Practicum courses like ours. We also, however, wish to confess some struggles we continue to have in offering the course in this way, in order to invite suggestions from the audience and indicate our ongoing revisions with the course. First, though, we think it would be helpful to provide a very brief overview of the general student experience of the course so you have some context to understand the principles that follow.

The course is cross-listed among several departments including Anthropology, English, History, and Modern Languages & Literatures, and students from outside these areas may enroll as well: in spring 2016, one student was pursuing a doctoral degree in education, for example. Both undergraduate and graduate students enroll in the same section of the course, and aside
from one assignment, students at both levels are responsible for the same work. The class size has ranged from 8 to 15 students. In the semester before the course, we identify potential external organizations and line up community partners for the course. The first day of class features presentations from these external partners about the mission and identities of the organizations and the challenges they are bringing to the class. After learning about these organizations and their challenges, and a little about each other, the students provide feedback to us about themselves and the challenges. Students complete both a short information sheet on their interests and prior experience as well as an interview with us, in which we learn more about their motivations for taking the course, what roles they typically play in group work, and what they most want to learn. Based on this combined information, we group the students into teams. The teams are set for the rest of the semester, and virtually every remaining assignment is a product of the team rather than of individuals.

Teams research and generate a proposal for their project, perhaps the most important part of which is a goals and scope document. Quite early in the semester, the teams must produce iterations of their project. In spring 2016, we required students to submit 4 versions of their solutions at the pre-alpha, alpha, beta, and final stages. For each of these versions, and, less formally, throughout the semester, the teams must present their work to their classmates, professors, and invited guests, culminating in a final, formal, public presentation to the UNL DH community and external organization representatives. They end the semester with a delivery of project results (usually computer files) and documentation to the instructors and, typically, the external organizations. Of course, this skeletal outline doesn't begin to represent the variations in experience that different student teams have, from mid-semester presentations to an external
organization's leadership team, to stress-induced team relationship melodrama and donut-fueled hack-a-thons, but it does provide, we hope, a basic sense of the student experience in the class.

Underlying all of this work and the experience of the course are several core values: 1) students are in control of their projects; 2) the work of the course is team-based; 3) problem-solving is more important than skill-building; 4) expertise is decentralized and shared.

I. Students are in control of their projects

As we develop partnerships with external organizations for this class, we emphasize to them that we'd like them to identify a challenge or problem they are facing--but not to pre-determine the solution to that challenge. For example, the Nebraska Commission on Indian Affairs was seeking ways to help highlight to Congress the reasons that the Standing Bear historic trail should receive federal designation and protection, and the Lincoln Children's Museum was seeking ways both to remain relevant to children older than eight years old as well as to introduce children to more geographic, economic, and cultural diversity. We thus present the students with an organizational mission, a specific difficulty the organization is having while trying to meet a part of that mission, and the requirement that the students use both humanities methodologies, values, and principles, as well as digital technology to "solve" the problem. Sometimes the challenges presented have a clear need for a technical approach, as when the Midwest Archeological Center wanted to make their dataset on transfer print ceramic materials more widely accessible to their user community, and other times the challenge is much broader, as when Community Crops asked the students to help communicate the story of their work with refugee and immigrant gardeners to the broader city of Lincoln, Nebraska. In all cases, though, it
has been crucial that neither the organization nor the instructors pre-ordain a solution or approach. Instead, the student teams must be empowered to create the solution.

We believe, and thus far the course has borne out, that giving students full responsibility for the solution inspires a high degree of student investment in that solution. This strategy also highlights for the students the fundamental importance of creative problem-solving. It is the intellectual work of determining a response to the challenge that can be the most difficult—and most important—part of the class. Though the instructors, fellow students, and guests to the class offer a great deal of feedback on the approach the teams take to address the challenges, ultimately the students have the freedom to develop the response.

II. The work of the course is team-based

With the exception of about 20% individualized participation grades which allow us to make some grade distinctions as warranted, all of the evaluated work of the course is team-generated. This pushes the students to de-emphasize individual contributions and, instead, work strategically as a team and adopt a team-based identity. We do this, of course, because collaborative work is fundamental to digital humanities project development, both inside and outside the academy, and we want students to contend with all of the benefits and challenges of working on a creative, technical project as part of a team. Most of the time, this has resulted in high-quality work and strong bonds among team members, but it has also sometimes led to frustration, anger, confusion, and annoyance.

We are exploring ways to help teams work together more effectively and make sure they are set up for success, but we also recognize that as we are working with people, there will be differences of opinion and personality, disagreements, and other challenges to collaboration. We
do our best to guide students who experience frustrations with their teammates, but we also tell the students (and ourselves) that learning to deal with difficult working relationships is one of the objectives of the class. At the same time, we also want to be attuned to how improve the potential for success in teams, including thinking about team size, the spaces in which teams work, and whether we need to do some teaching in the course on team dynamics and power structures.

III. Problem-solving is more important than skill-building

We believe that a fundamental skill students need to learn is team-based problem-solving. An effective way to achieve this learning is for students to work together to design and build a digital project that addresses a real challenge, draws upon their commitment to the humanities, and serves the mission of a local organization. This problem-solving approach provides an immersive experience that concentrates student experiences on team coordination, project development, resource identification, and communication. The emphasis on the project strategy has focused class conversations on addressing the organization's challenges. By putting so much emphasis on creative problem-solving, and by giving the students the power to determine how they will solve the problem, we make the "practical" experience of the class be largely based on project design rather than technical skill-building. Our contention is that our students who are likely to use their DH learning to inform careers both inside and outside of academia are best served by experiences that reveal an ability to solve problems and quickly learn a variety of new technologies in an evolving environment. The course structure, with its focus on iterations of both documents and digital products, emphasizes reflection and evaluation and continually asks
the students to connect their results to the challenge and scope of the project. Our conversations, too, are dominated by how the team creations do or do not successfully address the challenge presented by the organization. From the teaching perspective, this approach requires embracing an active learning pedagogy and for the instructors also to recognize the limits of their expertise.

**IV. Expertise is decentralized and shared**

We have structured the class away from the model of expert content-delivery. On a practical level, it would be impossible for any instructor of this class to be an authority on all of the issues and technologies that are relevant in any given semester, especially since the issues and technologies are not determined in advance. As the instructors, we confess at the beginning of the course that we don't ourselves know everything the students will need to learn to be successful. But what we offer the students--and model for them--is the ability to figure out the necessary skills and seek appropriate resources. Knowing that, we identify resources for the students--human as well as other information resources--and guide them toward a practice of personal knowledge-gathering. They can't depend upon learning everything they need to know during class time, but will have to identify other opportunities to gather information.

In our effort to offer a deeply "practical" digital humanities experience, we need to create an environment that does not rely on one or two experts who have all of the answers, but instead a space where each student must seek out knowledge for their particular project needs. This is part of our goal to build research and technical confidence rather than specialized technical knowledge. That is, we want students to leave the class with the belief that they can grapple with
technical challenges as they come, not that they should learn all of the technical skills before they have an opportunity to apply them.

The structure of this class does include some pretty substantial risks. Student teams are given considerable independence to do their work, and some teams respond better to that independence than others. Some individuals within teams disengage and frustrate fellow students. Some partner organizations offer confusing and frustrating feedback to the teams. The model requires significant flexibility on the part of the instructors and students. The syllabus is largely unfixed, as it must respond to the students and their needs, based on their background and experiences and also on the solutions they seek to pursue. Therefore, most of the fifteen-week semester cannot be planned more than a week or two in advance. This can feel very different to the students, and one student, at least, has asked where the "teaching" is in the course. Though we acknowledge the decentralized nature of the class can be quite jarring for some students, most appear to value that the teaching happens through the careful design of the experience, the repeated and continuous feedback to their products, and the facilitation of in-class discussion. We continually refine our approach, however, in order to enable as many student successes as possible, but we know we won't prevent every problem. Rather than fixate on the risks, we have decided to embrace the risk as part of what makes this course a valuable, practical experience.

Our approach to teaching the Digital Humanities Practicum course will not provide the experience some expect: it will not necessarily teach every student to "code" and it will not expose students to a predetermined set of technologies or methodologies. Instead, it empowers
students to think about Digital Humanities as collaborative problem-solving and provides them an opportunity to see humanities values and methods used to address community concerns.