Helping To Build Better Networks:

Service-Learning Partnerships as Distributed Knowledge Work

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Many community stakeholders are experiencing increased pressure to enter the digital arena in order to be heard by new audiences, but many such stakeholders lack the technical expertise to do so. To meet this demand, some service-learning teachers are turning to digital media production as a new method of service. This approach to a service-learning pedagogy brings with it inherent complications, however. We believe these complications call for a re-orientation of service-learning projects around a model of distributed knowledge work. This model asks students to view themselves as budding professionals entering into community networks that pre-exist them. It also requires students to deeply share their knowledge-making practices with community stakeholders.

For community stakeholders like Eric, an elementary school art teacher from Michigan who creates digital documentaries with his art students, it is no longer enough to build a basic public presence represented by a static website. Eric's audience of parents, funding organizations, and other art teachers respond to stories—particularly stories that document some of the innovative work that is going on in his classroom. This is why Eric first partnered with Guiseppe,

a service-learning instructor at a local university, to help better document some of the stories taking place in his classroom. These stories centered on the frenetic "chaos" of Eric's classroom and the creative media that his students were using for projects, which ranged from cardboard, plastic, and other recycled materials to green screen technology used to animate student projects into short videos.

Stakeholders like Eric are creating both a crisis and an opportunity for service-learning instructors across the country. Such stakeholders often lack the expertise and resources to produce and circulate digital media, in order to effectively tell their stories in a larger arena. This is often because the primary concern of many non-profits and community groups is direct service, not media literacy. At the same time, the "prosumerization" of media technologies means that production technologies like digital cameras, web hosting platforms, and design software that were once exorbitantly expensive are now closer to being within reach of many communities and classrooms (Rennie).

In this vein, we wish to respond to the call of Elenore Long and others to explore the intersections between digital technology and community literacy by introducing a new model for service-learning pedagogies (13). Founded in technical communication and critical technology studies, we advocate rethinking service-learning as distributed knowledge work or highly coordinated and collaborative work in which stakeholders pool expertise to create impressive digital projects that meet both learning goals and organizational prerogatives. As a case-in-point, we draw on our experiences teaching a community media-themed First Year Composition (FYC) service-learning course that invited students to design digital projects to meet the needs of organizational partners from the local community.

Specifically, what we propose in this article is a methodology for doing service-learning that involves tapping into the distributed knowledge work *already* happening in local communities. Mapping such a methodology involves articulating how a service-learning pedagogy is developed as a kind of knowledge work and more specifically, as knowledge work that happens at three levels of social and technological infrastructure:

1. The local community: as we will explain, developing a pedagogy founded on distributed knowledge work involves getting invested in one's local community, enough so that useful professional and civic networks become apparent.

2. The university: at the institutional level, our method has the potential to be both disruptive and productive. We discuss how to deal with resistance to the development of service-learning pedagogies as knowledge work, as well as how to use them to build resources within academic institutions.

3. The classroom: within a classroom founded in distributed knowledge work, a careful balance must be struck between the structure and flexibility of learning goals. As we will explain, the classroom is a kind of fulcrum for our method: it can be a space to try out ideas before they reach a larger audience, such as community leaders or university administrators. At the same time, however, student learning

goals should never be short-changed when creating useful pedagogical experiments, some of which will inevitably fail.

After exploring our experiences developing a pedagogy of distributed knowledge work within each of these layers of infrastructure, we close with implications for future scholarship and pedagogical development at the intersections of community work, emerging technologies, and service-learning.

NEW MEDIA TECHNOLOGIES, SERVICE-LEARNING, AND COMMUNITY MEDIA

Our call for the use of emerging technologies in service-learning and community-based projects is not new. A growing number of scholars in both composition and technical communication are working productively at the intersections of service-learning and digital technologies, such as Michelle Comstock, Ellen Cushman ("Sustainable" and "Praxis"), Jeffrey Grabill ("Community" and *Writing Community*), Melinda Turnley, and Michelle Simmons, for instance.[1] These thinkers challenge us to reconsider concepts like literacy, engagement, authenticity, and the public sphere via the incorporation of digital technologies into community-based writing projects and service-learning pedagogies. Cushman, in particular, offers an especially useful pedagogical and theoretical analytic—a "praxis of new media"—for creating sustainable, community-based new media projects. Weaving a rhetorical awareness into the New London's Group concept of design, Cushman's "praxis of new media" adds a much-needed ethical dimension to the consideration of meaning-making as a complex exchange between audiences and producers because it gives equal weight to people, technologies, and media (Cushman 125).

Similarly, Melinda Turnley aligns the commitments of service-learning and client-based pedagogies with critical approaches to

1   Simmons posits an "extended model" for community writing projects outside of a singular classroom and semester; this extended model aligns well with our theory of distributed knowledge work as the nexus of service learning and new media technology. By employing distributed knowledge work as our framework, we cannot take the semester or classroom to be the unit of analysis when arriving at sustainability, or when attending to infrastructural concerns.

technology. The "[c]ritical consideration of technology" is an ability, Turnley argues, that allows students to be better, more informed writers as they must consider "their client's potentials and constraints to propose and produce feasible project deliverables" ("Integrating" 109). Rather than just consider rhetorical effectiveness as efficiency, a critical approach to technology in service-learning compels students to ethically consider how "technological decisions" shape "interpersonal relationships" (110). To this end, in "Towards a Mediological Method: A Framework for Critically Engaging Dimensions of a Medium," Turnley develops a heuristic called "mediology" to help stakeholders make "rhetorical decisions about multimodal possibilities." Based on the work of Regis Debaray, mediology is "a means for framing problems and conducting research about relationships among culture, media and the transmission of ideas" that accounts for both macro-level considerations and local praxis (Turnley 127).

We see these trends as ripe for a useful convergence of ideas in which approaches to producing knowledge using digital technologies meet existing models of service-learning and community engagement, transforming both. As a contribution to this scholarship, we wish to introduce our concept of service-learning as distributed knowledge work, a model in which knowledge-making is responsive to the expertise of the stakeholders involved and is thus attentive to issues of sustainability and available technological infrastructure. Understanding distributed knowledge work as a potential model for developing service-learning pedagogies enables us to align a critical view of technologies, media, and service-learning with the goals of a FYC or introductory technical communication course.

From an extra-curricular viewpoint, the study and practice of community media is another arena of community-based technology work that we have found useful. This area of study and praxis has most consistently been located within the field of communication, and explores the ways that experienced communicators, such as college faculty, work together with community stakeholders to produce publicly broadcasted media. Community media is thus differentiated from other—often more established—forms of media

by stakeholders' interest in production with and for local audiences. Nicholas Jankowski and Ole Prehn echo these assertions when they define community media as the study of "communication structures and communication processes within a distinct social setting—a geographical community or community of interest" (20). At the other end of the spectrum, Kevin Howley defines community media as a form of praxis, or as "grassroots or locally oriented media access initiatives predicated on a profound sense of dissatisfaction with mainstream media form and content, dedicated to the principles of free expression and participatory democracy, and committed to enhancing community relations and promoting community solidarity" (2).

We locate our own work somewhere in the middle of the spectrum from research methodology to pedagogy to community praxis. Most importantly, we agree wholeheartedly with calls from scholars like Anne Wysocki and Stuart Selber to open emerging forms of media to writing, or to open the production, circulation, and consumption of new media to the thinking of people who are writing experts (Wysocki 7; see Selber as well). In addition, we think community media can be similarly opened: as scholars seek new ways to engage with communities through pedagogies involving emerging technologies, we see it as important to think of the projects they work on as sustainable products and processes that begin within already-existing community structures, processes, and value systems, and that thus must be respectful of, and responsive to, these "local publics" (Long 16).

One way to situate service-learning work as a critical form of community media is to think of community work involving emerging technologies as always already existing within a distributed network of knowledge. Generally, "distributed knowledge work" is used to describe work that is collaborative and takes place over computer-based networks. Business researcher Eli Hustad, extending Jean Lave and Etienne Wenger's communities of practice, has labeled geographically-dispersed, electronic, collaborative partnerships "distributed networks of practice" (69). Within such a network, the focus is on managing different kinds of knowledge rather than technologies. This means that groups are defined by projects of

interest; maintaining flexible configurations; relying on recursive, yet somewhat hierarchal structures; and engaging in decision-making through distributed cooperation (or shared authority) (Ho et al. 449). As critics have demonstrated, however, distributed knowledge models often represent the ideal situation rather than the actual complexities of knowledge work. As those who engage in community-based writing work know, knowledge is always already situated, and "problems of transferring, negotiating or co-constructing knowledge vary with [different] distribution types" (Haythornthwaite 3, 7).

When Eric first encountered Guiseppe as a new service-learning instructor looking for community partners, for instance, he was already heavily invested in creating digital videos with his art students. He even had his own YouTube channel and had entered a few documentary contests for K-12 educators. This work was far from sustainable, however. Eric struggled to maintain a slew of new projects that he was constantly integrating into his teaching, much less to document all these projects, to edit the footage, and to upload new videos to online networks for sharing. He was also not satisfied with the quality of his previous attempts at documentary and overall wanted to improve the efficiency and efficacy of his digital video production workflow, while building stock footage of his classroom that he could use as background footage.

Enter Courtney, Ivory, and Val, three students enrolled in Guiseppe's community media-themed FYC service-learning course who expressed interest in working with Eric. All three were moderately proficient in digital video production but wanted to learn more. Most importantly, they were all deeply concerned with helping local communities reach larger audiences through the use of digital technologies.[2] This was a good match for a service-learning partnership, in other words. In our collective experience, doing distributed knowledge work effectively with people you don't already know well—as often happens between students and community partners in a service-learning class— requires explicit attention to the networks of people that make up the community you are serving, as well as attention to the technologies, media, and types of knowledge available within that community.

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2   These vignettes are based on a formal case study of Guiseppe's class, the full version of which is cited below (Getto).

In our own classes, and especially when working on digital projects with stakeholders who have little knowledge of digital technology, we encourage students to pay close attention to what knowledge community partners *do* have: such as what types of media they deem useful and how individual members of their community communicate with each other during their daily work lives. In other words, we ask students to consider what kind of infrastructure community-based knowledge work relies on.

Though commonly people like to think of an infrastructure as a "substrate," or material base upon which a community runs, we prefer, along with Susan Star and Karen Ruhleder, to think of infrastructure as a "fundamentally relational concept" (112). Rather than being easily defined as a built structure that has "pre-given attributes frozen in time," infrastructure "is something that emerges for people in practice, connected to activities and structures" (Star and Ruhleder 112). Infrastructure, like technology, has meaning only in usage. When Eric asked students to assist him with digital video production, then, he was asking them to enter a complex network of people, processes, and structures necessary to both build and maintain robust digital documentaries. Jeffrey Grabill sums up infrastructures and the networks they are part of nicely when he says:

> Infrastructures are not just information, not just interfaces, not just the computers or the wires. Infrastructures enact standards, they are activity systems, and they are also people themselves (and all that people entail, such as cultural and communal practices, identities, and diverse purposes and needs). Community networks of any kind are social, political, and technical; they get work done and allow others to work; and they embody a set of often hidden and invisible design decisions and standards that change people and communities. It's not information that is powerful. Infrastructures are powerful. ("Writing" 40)

Infrastructures can be thought of as the glue that keeps distributed knowledge networks together, then. They are the people, processes, and structures necessary to keep such networks running smoothly and productively.

Given this, and based on our experiences working within the networks of a variety of communities in Lansing, Michigan (and teaching service-learning students via these networks), we contend that thinking about community-based pedagogy (especially when it involves emerging technologies) as a kind of distributed knowledge work that attends to local infrastructures is useful because:

- it aptly describes how the production of media (and writing in general) happens in many community learning situations;

- it draws the attention of scholars, practitioners, and students to the complexity of the networks of people, processes, and structures necessary to run a community, and to do short-term work with that community that is anywhere close to useful;

- it provides a fresh perspective for thinking about the interactions of stakeholders in any group-based project that necessitates valuing all the individual forms of knowledge brought to the table;

- and because of all of this: it makes work done in a community learning situation much more likely to be sustainable for all those involved.

Just as Scott Blake has expressed concern with hyperpragmatism in technical communication courses geared toward meeting the needs of business and industry at the detriment of students' critical abilities for public engagement, we are attempting to balance parallel considerations in the first year writing course (289).

As scholars and teachers invested in first year writing, we are concerned with a hyperpragmatism founded in teaching students to be successful within a university to the detriment of the development of both civic and technological abilities—particularly the abilities to make change in their day-to-day lives within communities they will inhabit beyond our courses. Though we recognize the need to make writing courses useful for the universities in which they are

conducted, as Cushman argues, such a "history of professionalization might be one reason academics have so easily turned away from the democratic project that education serves to ensure-civic participation by well-rounded individuals" ("Rhetorician" 11). Below we further explore our own project to ensure civic participation within the local community, the university, and the classroom.

I. DISTRIBUTED KNOWLEDGE WORK WITHIN THE LOCAL COMMUNITY

To design courses that are mindful of local infrastructures and the distributed knowledge networks they sustain, service-learning instructors need to begin by working with local community members themselves, before they ever consider sending students into the community. All three of the authors of this article began their work in the community groups, non-profits, and small businesses of Lansing, MI by working as volunteers or support staff for community media projects that were important to local organizations and individuals. Over the course of our time pursuing Ph.D.s at Michigan State University, we were each involved with the Capital Area Community Media Center (CACMC) because of our interests in doing community-based work that involves emerging technologies. Through the CACMC, we planned and facilitated technology-focused workshops (on logo design, technology plans, web design, etc.) for non-profits; assisted in writing grants to help build infrastructure; and participated in actual media production for numerous projects (e.g. digital videos, websites, social media campaigns, etc). To teach students how to help community stakeholders tell stories via emerging technologies, we needed first to have the insider knowledge of how and why that happened in our local community. Not only did this build our individual repertoires for doing community media work, it taught us about the networks and infrastructures of the stakeholders with which we worked, such as what stakeholders were doing well, what they needed help with, what help they were likely to accept, and what help would likely fall on deaf ears.

This work was distributed in that it involved us sharing our expertise and inviting local area residents to share theirs, to produce projects of mutual benefit. We learned *with* local residents, in other words, rather than being the experts who foisted our knowledge upon them. This often happened out of necessity. Most of the projects we became

involved in required knowledge we didn't possess at the beginning of the project. When Eric approached Guiseppe to help him build his capacity for digital documentary work, for instance, Guiseppe had sufficient knowledge to do this work himself but had never taught anyone else how to do this work. Nor had he taught students how to collaborate with a community partner who wanted help with this work. The project thus began with Guiseppe visiting Eric's classroom to investigate the knowledge network he would be asking students to enter. This investigation would also entail collaboration with Eric on whether or not the curriculum Guiseppe had in mind would serve his needs.

In a larger sense, because of our experiences working with community media projects in Lansing, we learned that this work is *central* and not ancillary to the life of local residents. We also learned through this experience that the CACMC's capacity was limited. As a small, incipient non-profit, the center could not afford sufficient staff, technology, or other resources required to serve a community of nearly 400,000 people. The CACMC's director was thus very amenable to service-learning partnerships via which he could help us place students with local stakeholders that needed digital work done. These important efforts would lay the groundwork for making infrastructural connections between local area stakeholders and our incipient service-learning FYC courses.

II. DISTRIBUTED KNOWLEDGE WORK WITHIN THE UNIVERSITY

It is important to acknowledge at this point that we are not in any way trying to claim that the three levels of infrastructure we're discussing (local community, university, classroom) are separate. Rather, they are entirely interconnected. We are simply discussing them separately for clarity. At the same time that we were investing in local publics that supported community media, for instance, we were also exploring MSU for resources that we could use to help community initiatives build their own infrastructure. Some of the resources we found included:[3]

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3   For a more complete reading of MSU's infrastructure, see DeVoss, Cushman, and Grabill.

- *Technology:* including a staffed documentary lab with digital cameras we could check out, computer labs that doubled as classrooms, software available for our use, and digital cameras available to students for checkout

- *Technology support:* including a Writing Center that offered training in various technologies and tech-savvy colleagues willing to advise us

- *Like-minded knowledge workers:* including ourselves and several other teachers invested in community engagement and service-learning; a community media center (the CACMC) willing to help match-make community partners with service-learning instructors; designated service-learning sections of FYC; and college freshmen willing to enroll in a designated service-learning class

And though in our implications section we will discuss possibilities for universities without such robust infrastructure, we must acknowledge that of course the infrastructure available to us at MSU helped make our particular service-learning partnerships possible. It made sense, in other words, given the resources available to us at our university and the needs articulated to us by local community leaders to design a service-learning class around community media.

At the same time, we do not feel that our model of service-learning as distributed knowledge work is dependent on a certain type of infrastructure. Our model is a way of tapping into existing networks centered around knowledge, networks which exist in every community and in every university. What we are advocating is sustained and long-term work within these local publics before ever setting foot in a service-learning classroom. However innovative our actual service-learning pedagogy is, it was highly impacted by, and thus impacted, the networks of people within which we developed it. Rather than create completely new infrastructure, and completely new networks, we advocate facilitating new intersections between people, processes, and structures already in place. Such a move requires a necessary act of humility on the part of service-learning teacher-scholars, as

well as an acknowledgement that no good idea can be of social use without sufficient community support.

At the same time, and as anyone who is an educator knows, the activities associated with course design can be powerful moves to make, particularly within organizations like universities that are explicitly dedicated to both innovation and the public good. In the next section, we would like to discuss how we facilitated new connections between the networks and infrastructures that we encountered during our preliminary community media work. We found that processes for producing community media worked somewhat differently when students were introduced into the mix. The length of an academic semester necessitated students coming to a new understanding about media production for the public good within just a few months.

III. DISTRIBUTED KNOWLEDGE WORK WITHIN THE CLASSROOM

One implication of our argument is that service-learning work that doesn't tap existing knowledge networks—networks that teachers already know well—is unlikely to be successful. Students need room to fail, room to innovate, and at the same time need to be protected (as do community partners) from the worst penalties of their failures and innovations. A service-learning class itself, in other words, should function as a distributed knowledge network and infrastructure for this kind of work: knowledge work that will usually be less than professional, that will hopefully engender student investment, and that will produce at least some outcomes for all parties involved. To create such a classroom space, we developed assignment sequences that encouraged the types of knowledge work that we had experienced while developing the course: work that was distributed, attentive to existing infrastructure, done with an awareness of sustainability, and that taught students about knowledge-making processes important for community media work.

When applied to the classroom, this meant an emphasis on respecting the various forms of knowledge everyone involved with a given project brought to the table and being flexible about the distribution of the actual work of knowledge-making. To accomplish this, we interwove into our curricula various media that we felt would be most conducive to supporting distributed knowledge work. This

didn't mean that every project assigned involved digital technology or collaboration, however. Essay writing assigned early on allowed students to write about concepts important to community media-based service-learning, such as sustainability, mutual respect of knowledge, and collaboration. Essay writing also enabled students to complete research papers that helped them solve problems involving the design of their media projects, and that helped them communicate these solutions to community partners. Finally, the essay served as a touchstone for students who were most familiar with a writing class being about writing essays.

The media that students used on their actual projects for their community partners were much more multifaceted. Courtney, Val, and Ivory would use a large assembly of technologies during their work with Eric. These technologies included iMovie; iTunes; Eric's video camera; an MSU video camera; library computer labs with smart screens; various websites such as those that made royalty-free music available; individual student laptops; and wired and wireless Internet connections. This list was developed as the students moved through an assignment sequence that began with a personal essay that explored students' experiences with literacy and technology in communities from their past. Next, students engaged in a research project into the literacies and technologies important to their community partner. Finally, students produced several iterations of research and media until they had designed a deliverable that met community partner needs.

This recursive style of knowledge work allowed students to meet the sometimes radically shifting demands of the ad hoc networks we encouraged them to form with their community partners. As their project proceeded, for instance, Courtney, Ivory, and Val became increasingly anxious that they didn't have an adequate sense of audience for producing a video that would meet Eric's needs. This fear was amplified by the fact that Eric wanted not only a video but also wanted the students to produce resources to use in his current and future projects. He had "big plans" for their footage, including reworking some of it into a longer project he was working on for local broadcast television. At the same time, the students felt that

Eric wasn't giving them specific-enough feedback to prepare a final project that would meet all these complex specifications.

In response to concerns such as these, we have constantly encouraged our students to engage in deeper forms of collaboration with their partners, rather than retreating to the safety of the classroom and asking us for answers. When the students approached Guiseppe with these concerns, he thus invited them to engage Eric in an in-depth conversation after their first visit to his classroom to capture footage. In response to this encouragement, the following scene would unfold between the students and Eric:[4]

Courtney: We were gonna do the music and everything—we just wanted to showcase it in kind of more an organized way or do you want it like less organized?

Eric: That's a good one…[looks at camera] You waiting for an answer? [everyone laughs]

E: I have to think on it…I think that's kind of cool. Then we can just make up like the little icons like on movies, we'll have like first, second, third, fourth, and fifth. And they can just click on that movie and go to it. We'll do that like in iDVD—

C: Like the different chapters—

E: Uh-huh.

C: So it will like play through anyways but you'll have, if you want to scene select you can like kind of do that [to Val] Can we do that? I mean, I don't know…

V: Yeah, depending on what, like, editing thing you can make it in like a DVD format. Did you want it on like Youtube? Did you want us to like upload it to Youtube?

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4   Ivory had a scheduling conflict and wasn't available to attend this meeting.

E: Probably, yeah. Probably do that kind of thing… You both— you're going to use a Mac for this?

C: Yeah. We're going to.

V: Who did you want to see—like, who did you want to be able to see this video?

E: Anybody.

V: Anybody?

E: Yeah, we'll make it for Youtube, then Channel 21. It'll be Bob who

does our broadcasting—

V: Like for Lansing Public Access?

C: It's like the local broadcasting?

E: Yep! And then he'll put it up on TV for like fillers between his shows and stuff.

Here we see first year composition students making very sophisticated moves in response to a complex partnership involving knowledge work. Their goal is clearly to understand all the audiences Eric wants to reach and how various technologies might be mobilized to meet these audiences. This scene represents distributed knowledge work in action, in other words: students sharing their knowledge-making processes with their community partner in a deep and inclusive way.

Rather than approach Eric as a recipient of this knowledge-making process, the students show evidence of figuring themselves as outsiders to Eric's ongoing work. Rather than suggesting audiences, they asked him, "who did you want to be able to see this video?" Rather than presenting the plan for organizing the video, which they

had brainstormed with Guiseppe in class as part of their assignment, they present this plan in a very invitational manner: "We were gonna do the music and everything—we just wanted to showcase it in kind of more an organized way or do you want it like less organized?" The students show evidence of a sensitivity to the distributed work necessary to produce a video for multiple audiences, a video that would enable an art teacher to become a better maker of digital documentaries.

In every project we facilitated, there were always unseen exigencies that arose, as happens with any kind of knowledge work. In fact, because students had to continually adapt their knowledge-making practices during their projects, we'd like to argue, they developed a kind of kairotic sensitivity to the conditions in which they were producing their projects. We think that this kind of sensitivity is unique to a classroom where students are encouraged to think of themselves as networked writers engaged in a kind of service that revolves around knowledge.

While we hope we have demonstrated that our approach to service-learning as distributed knowledge work is beneficial for writing teachers and their students, we also want to foreground the usefulness of this approach to community partners. As Cushman notes community stakeholders must often contend with a "hit it and quit it" approach to service-learning ("Sustainable" 40). The operative question is: what kind of long-term community impact do we yield from a distributed knowledge approach that differs from other approaches?

First of all, our approach acknowledges that service-learning partnerships are a part of the natural and ongoing recruitment process that community stakeholders already undergo. Because of the decline in grant funds and rapid growth of new organizations in the non-profit sector, community stakeholders have a high need for volunteers, professional or otherwise. These organizations also typically have a high degree of volunteer turnover. Within the organization, staff members must recruit enough volunteers to ensure regular services, events, and special projects are completed in a timely manner. When thinking of a community organization as a knowledge network that

we are temporarily enlisting our students to support, we must know a given organization well enough to make sure the learning goals of our class are compatible with organizational needs (or infrastructure) at that time. If they are not, service-learning instructors should try to find organizations and other resources to aid them in achieving their goals. By striving toward mutuality from the start, we make certain that our service-learning partnerships are somewhat natural continuations of organizational workflows rather than unnecessary interruptions of them.

Eric didn't need new technology, for instance. He already had technology that enabled him to make digital documentaries, technology he had won through a competitive local grant. He needed a better workflow for using this technology, and he needed a resource for helping him enact this workflow. This is why, after much discussion and collaboration, Courtney, Ivory, and Val would turn over to Eric not only a polished version of a video showcasing the activity of his art classroom (https://www.msu.edu/~gettogui/Eric1Project.mov) but also a full iMovie project with all the footage, images, and royalty-free music files they had collected, plus a written guide to effectively using all these new resources. Starting out with a simple video in mind, the students ended up providing Eric with assets for the kind of knowledge work he most valued.

Indeed, the issue of sustainability is never a simple one. Service-learning partnerships cost stakeholders valuable time, and workflow is also understood, articulated, and measured differently by different stakeholders. For some organizations, workflow is best achieved in service-learning partnerships when students do routine writing tasks for the organization. A local healthcare center asked our students to serve by making monthly newsletters; training time was minimal, and the release of that task allowed staff to focus more on client relationships. Other organizations preferred students work on special projects that were not a part of their regular routine but that served long-term goals. A local youth initiative asked students to make a WordPress-based website that was appealing to young people who were entering a local detention center. Shifting organizational identity is a challenge to all stakeholders involved in this process, but it also constitutes an exciting opportunity.

We recommend beginning partnerships by asking community stakeholders for as many extant documents as they can provide, particularly documents that they feel represent their organization's identity (such as websites, videos, mission statements, newsletters, brochures, flyers, etc.). These documents create a necessary touchstone for students to form an ad hoc network with community stakeholders—a network based in ongoing work. Such documents, in addition to collaborative meetings with stakeholders, enable students to connect the work they will do with stakeholders to work that has already been accomplished by these stakeholders.

This is only the beginning of the process, however. Even when our students have asked questions, written detailed notes, and have elicited from their partners clear parameters for projects, discussion of in-progress drafts with partners inevitably yields some version of "no, this isn't who we are" or "oh... this is how you see me." As a result, students learn more about the organization, and organizations learn more about how their organizational identity can be represented through the production of various kinds of media. Such encounters also engender conversations about the sustainability of service-learning deliverables. Though the issue of sustainability should be foregrounded throughout the project, in our experience, this issue tends to truly hit home for both partner and student near the termination of a project. To account for this, as part of our curriculum, students documented their entire process of completing a project and assembled this documentation into guides geared at helping their partners sustain projects after the semester ends.

Our model of distributed knowledge work was developed, after all, because we wanted our partners to come away with knowledge that enabled them to be increasingly independent in their capacities to produce media for various audiences. To foster such critical abilities, we must appreciate all of the different kinds of knowledge that stakeholders bring to the table when engaging in service-learning as distributed knowledge work. As service-learning teachers, we often have knowledge of composing various media; trends in volunteerism; intellectual property; project management; communication strategies; and group work theories and practices. We convert that knowledge into materials and processes to initiate community

partner relationships that can become curricula that aid students in figuring out how to work with community stakeholders. Community stakeholders often marshal their knowledge of non-profit culture; organizational identity and practices; local community trends; specific technologies; and expertise in understanding and fostering volunteer and student development. Students in turn draw on their knowledge of volunteering; the writing process; understanding and using technology; working within group settings; and learning how to adapt their expectations and practices to successfully navigate the service-learning classroom in all its complexity.

As service-learning instructors, we can remind both community partners and students at regular intervals what each stakeholder has to bring to the table. We can do this through in-class discussions, meetings, e-mail updates, and short writing assignments. Regardless, our goal should be to foster mutual respect and learning amongst everyone involved—a necessary goal if both short-term and long-term outcomes are to be reached.

As stakeholders work together, they also learn to exchange knowledge in a more effective manner. Community organizations learn more about intellectual property and methods to make and sustain media projects. Students learn how organizational missions and goals shape media and how media are produced and maintained within different forms of infrastructure. Instructors learn better techniques for project management, communication, and problem-solving as we monitor the relationships students are building with their community partners throughout the semester. When we work together, we increase our knowledge across stakeholder groups. As we strive for interdependence, we increase our individual capacities in myriad ways.

IMPLICATIONS AND FUTURE DIRECTIONS

As we hope we have demonstrated, there are a variety of challenges to our model worth considering. And though a full exploration of all of them is beyond the scope of this article, we hope to touch on a few as we cover implications for conceptualizing service-learning partnerships as distributed knowledge work. The first such implication is the ways in which this model is impacted by

and has the potential to impact various kinds of infrastructure—community-based, university-based, and classroom-based. Though, as we mentioned before, the exact work we have been reflecting on throughout this article wouldn't have been possible were it not for the networks and infrastructures we were working within, the opposite is also true: any infrastructure provides motivated teachers and scholars with both limitations and opportunities.

Prior to our work at MSU, for instance, no instructors had conceived of FYC-based service-learning as a way to produce community media. That possibility now exists at MSU, and has been taken up by at least one part-time instructor who has used our curriculum to create her own partnerships within the local community. Infrastructure, then, is most apparent when it breaks, either through negligence or the intentional rupture of existing policies (DeVoss, Cushman, and Grabill 19). Enthusiastic teachers and scholars may find that the development of similar courses—courses that help connect various types of infrastructure together through distributing work across traditional boundaries—is a productive way to make a case for new resources, new activities, perhaps even new tenure-lines or other positions. Certainly none of the infrastructure we relied on for teaching at MSU was built in a day; it represents the coordinated effort of a variety of stakeholders applying concerted effort for sometimes years at a time.

Another important implication and challenge to our model is its place within the discourse of FYC and other introductory courses, such as introductions to technical communication or media studies. We see this challenge as divisible into two main aspects of FYC infrastructure that are more or less consistent from institution to institution:

1. *Variability in student population, goals and outcomes*: In a first year writing course, students are typically first year students, with varying experiences in and with college-level writing. At the same time, however, in some ways this is another argument for our model, because the very variability of student learning in FYC mitigates against a one-size-fits all model and towards more a distributed model in which various kinds of knowledge

(programmatic, individual, communal, etc.) are folded into a FYC program that takes commitments to its local community seriously.

2. *Differences in the role that the course plays in the university*: though more of a challenge to service-learning than to our model of it, per se, many service-learning instructors can relate to the story of the colleague who wants to do service-learning but is concerned with adding learning outcomes to an already-rigorous and taxing curriculum. Our experience, however, has been that our model allows for a lot of scalability when it comes to the scope of projects because the relationship that is consistent is between instructor and community partner. Knowledge-based projects like the ones assigned in writing classrooms can easily be repurposed for external audiences if one is aware of the intricacies of the needs of those audiences.

If we are certain of one thing, it is that service-learning requires an intense commitment to the sharing of knowledge from all stakeholders. For such work—or perhaps any public initiative—to be successful, in other words, all the people involved must see themselves as a part of a collective, as part of a responsive network of individuals who pool their resources for a common good. Our model utilizes distributed knowledge work not just to produce useful public deliverables but also to build the kind of relationships that make community partnerships worth pursuing.

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