TOWARD A RHETORIC OF INFRASTRUCTURE: DOING NEW MEDIA WRITING WITH COMMUNITIES

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A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

RHETORIC AND WRITING

2011

ABSTRACT

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In the following dissertation, I develop heuristics for collaboratively and sustainably contributing to community infrastructures through writing. Based on the findings of an observational study on how students enrolled in my first year composition and service-learning class created new media writing projects with community partners and were able to contribute to local infrastructures, I argue that students mobilized and invented different kinds of knowledge depending on what technologies, modes, and genres they had experience with and access to as part of the class. In order to do this, they formed a strong network of skills, ideas, and other resources with their community partners. Reflections on these findings, along with my experiences doing community media work in Lansing, Michigan, enable me to develop a rhetorical understanding of infrastructures as networks of activity and resources—like knowledge about modes and genres—that support writing. From this perspective, I ultimately argue that the most effective means of building and sustaining infrastructures is for writers to leverage their networks to create new types of resources that can then be used to do rhetorical work in the world.

ACKNOWLEDGEMENTS

I would like to acknowledge all the people that have made this dissertation possible, including Jeff Grabill, Bump Halbritter, Julie Lindquist, Dean Rehberger, Malea Powell, Bill Hart-Davidson, David Sheridan, and Ellen Cushman for their mentoring and guidance at various stages of this project's development. I would like to thank Eric and David for being excellent community collaborators, for taking such good care of my students, and for agreeing to participate in the study that this dissertation is founded in. I'd like to thank the students themselves, Courtney, Val, Ivory, Shalin, Alex, Emily, and Kirk for teaching me more about new media writing than I probably taught them, and for agreeing to participate in the study as well. I'd like to thank Shreelina Ghosh and Jessica Rivait for contributing to early versions of the theories, methodologies, and findings you will soon read about. I'd like to thank Leonora Smith and Marilyn Wilson for their teacher mentoring and support. I'd like to thank Matt Penniman and Tristan Johnson for their technological mentoring and support. Finally, I'd like to thank Doug Bruce, Nathan Franklin, and Mark Roberts for their intellectual engagement over the years, and for listening to me complain about the rigors of grad school.

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It is now beyond doubt that some of the most emergent[1] forms of media, such as websites, digital videos, wikis, and blogs, are changing the way various people, and various groups of people, from individual consumers to social movements, work, write, and learn. It is also beyond doubt that 'new media' mean new opportunities for non-experts to create, use, and circulate information/content in new ways (Atton; Jenkins; Grabill; DeLuca; Howley). In light of this, the question becomes not whether new media are important for the ways we think about various forms of writing, rhetoric, and communication, but how they are important, and what this importance means.[2] This is especially the case given the

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[1] I discuss more thoroughly what I mean by media being 'emergent' in Chapter 5, but suffice it to say for now, that I consider the most emergent forms of media to be those that, within a given infrastructure, a term I also define later (some here, some in Chapter 4), are the newest to be introduced within that infrastructure. You will see no reference to 'multimedia' writing, because, like Paul Prior (in his works cited below), I believe that most current forms of writing draw on a variety of modes, and so are inherently 'multimodal.' More about this beginning in Chapter 2.

[2] For an important precedent for my framing metaphor, see Devoss, Cushman, and Grabill, who claim that new media infrastructures change over time and so are best dealt with in a kairotic fashion: writers must constantly be on guard for opportunities that arise to challenge infrastructural practices. I deal with this idea, and my extension of it, more fully in Chapter 5.

continued hegemony of corporate interests and established media producers, who spend millions of dollars every year trying to attract new users, viewers, and writers to use their media, watch their advertisements, and consume their products.

One answer that a variety of scholars have come up with as to how new media are important in relation to more established forms of media, is that the non-experts who use new media to create new content often end up doing so by using the same practices as dominant groups of media producers, but for radically different ends (e.g. Atton; Jenkins; Howley; DeLuca). Anyone with semi-regular access to the internet has seen some of the millions of user-generated videos on sites like Youtube, videos that mimic talk shows, news shows, and the like, in addition to the thousands of response-videos that proceed to mimic the mimicked shows. More people than ever before are creating their own content, posting it to public places, responding to other peoples' content, or are, in a word, writing or composing in new ways for completely new audiences. Within composition studies and education, these new forms of writing have been taken up by teachers and researchers who feel that facilitating the use of computers in the classroom in general, as well as assigning writing projects that require the use of multiple technologies and modes of expression, will better enable students to participate within the broader culture by becoming more critical technology user/consumers and more adept producer/consumers of new media (Selber; Shipka; Wysocki; Jewitt). At the same time, some scholars within communication studies and related fields have turned toward the emerging sub-discipline of community media as a way to research and facilitate the grassroots production of media ranging from radio and TV to RSS feeds and online discussion forums (Howley; Jankowski and Prehn; Rennie). And though for at least the past two decades compositionists have been increasingly interested

in community literacy and public rhetoric, or the processes by which everyday citizens go public (citizens who are sometimes local community members being assisted by composition teachers and students), few composition scholars have taken up the production of community media, or media made by, for, and with local communities, as a serious research and/or teaching goal (See Cushman, "Toward"; Grabill).

I argue (a case that will be more fully developed in Chapter 5) that this lack of attention may be valid from certain perspectives, but also it may have serious consequences for the ways composition students and local community members come to understand and enact their own agency as media user/consumers and producers, or in other words, for how they come to think of different forms of media as important. I would like to further suggest that the emerging emphasis on new media writing within composition studies has the potential to afford not only the production of texts by students and writing teachers that help both learn about the possibilities for new forms of meaning-making, but also the production of texts that do real work for and with local communities.

One of the central arguments of this dissertation is that if compositionists are increasingly interested in both the facilitation of everyday citizens going public and the production of new media, then community media can constitute a new research and/or teaching site within the field that does both these things, or namely that engages compositionists, students, and local community members in the production of locally made and owned media. These media have the potential to challenge media made by more established producers, producers who often do not have the best interests of local communities in mind. Making community media a central focus of our research would shift our gaze to the how of writing with new media: how this can help us do things that are

valuable, how different media are helping people do things of value in their communities and how compositionists can be a part of this. As I explain in the following chapter, however, there is a danger that many current practices regarding media within the academy will reify certain forms of it as something always-already coherent and pre-structured, something that isn't created by people and for people, something that can be mimicked, but not produced, something frozen-in-time and unchanging. Instead, I will argue, all forms of media and their attendant structures and practices are most enabled by the imagination and tenacity of the people who make up the networks that create and sustain them.

This dissertation emerges from my experiences researching, teaching, and doing new media writing with communities, and thus is a product of engaging with infrastructures, networks of people, forms of knowledge, and practices of media production I have personally encountered. From these experiences, I argue that the best way to create new media texts in a way that matters is to do so with people that have a rhetorical need for these texts within their community. In this chapter I review literature within rhetoric and composition and related fields that displays scholarly understandings of new media writing, community literacy, public rhetoric, and community media, and then attempt to extend these understandings to explicate how they are limiting the way scholars think of and make new media writing.

It has been my experience that infrastructures are not just things, not just material structures, they are also networks of carefully coordinated activity, networks of people, networks that rely on complicated forms of knowledge and practice to survive. Part of this experience, as I relate in the following chapters, has been as a teacher and researcher of

new media writing in which I encouraged students to join local networks of writing activity to contribute to community infrastructures, and then followed groups of students as they interacted with these infrastructures, hoping to understand better how such work is done. As I relate in Chapter 4, I found that student composing activity not only impacted, but was impacted by, local infrastructures, which further led me to believe that (student) writing work could be part of grassroots community media campaigns that allow local communities to have a voice in the way they are represented.

As I argue below, a convergence of old and new media infrastructures is allowing for groups of people that were previously only consumers of media to become producers of it, which further means that the facilitation of new forms of university-community relationships, ones founded around the production, circulation, and consumption of new media, are now possible as well. These newly mediated relationships can be similar to the types currently being developed under the auspices of community literacy and public rhetoric, but can also have the added benefit of increasing the abilities of community members to make, share, and broadly circulate their own media texts, as well as giving rhetoric and writing teachers and students valuable opportunities to learn and practice these skills themselves, skills that are increasingly necessary to participate fully in our media-saturated culture.

Understanding Community Media Infrastructures Better: More Why, Less How

What I'm suggesting isn't a radical alteration of research priorities, but is instead more of a shift in disciplinary emphasis and perspective. As Anne Wysocki attests, "writing teachers are already practiced with helping others understand how writing—as a print-

based practice—is embedded among the relations of agency and extensive material practices and structures that are our lives." She thus exhorts writing teachers to help open new media to writing, meaning open its production, circulation, and consumption to the thinking of people who are writing experts (7). Similarly, Stuart Selber attests that "[a]lthough academic institutions are investing in technology infrastructure and support at an astonishing rate...these investments are often driven by logics that fail to make humanistic perspectives a central concern" (1). I could easily make similar claims for new media writing with communities: writing teachers and other educators have something to contribute to this work, and if they don't, others will make decisions both for us and for our local communities.

Not all of these decisions are bad ones, though, of course: as I pointed out above, there are scholars in communication studies who are studying and helping to build community media all over the world. Additionally, there are undoubtedly some administrators in universities invested in building new media infrastructures that serve local communities. I wonder if, however, the main issue regarding who has a say in how media gets used in universities has more to do with exactly the kinds of "extensive material practices and structures" being developed on campuses all over the globe, the ones that Selber names infrastructures. This is not to confuse technological infrastructures built for supporting academic work in a university with those used for circulating media, though often they can be one and the same—my point is that perhaps the reason more rhetoric and writing experts aren't researching and getting involved with community media is a problem of the way infrastructures for doing so are both defined and built.

Though commonly people like to think of an infrastructure as a "substrate" or a sort of material base upon which something like local media outlets run, Susan Star and Karen Ruhleder prefer to think of an infrastructure as a "fundamentally relational concept" (112). Just as a tool has meaning when put into usage, rather than being easily defined as a built structure which has "pre-given attributes frozen in time," then, infrastructure "is something that emerges for people in practice, connected to activities and structures" (112). The same computing infrastructures on university campuses that Selber mentions, for example, can often be repurposed to serve as media production platforms given the right amount of work by the right amount of people. But this is not how community media infrastructures have been defined by communication scholars. Howley's definition is representative, if not somewhat more politicized than others: "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, emphasis mine).

At first glance this may seem to include something like a website made by a group of professional writing students (or any student interested in such a project) if such a website was developed in close collaboration with community stakeholders (see Cushman "Toward"). Rennie warns, however, that "there is [a] real danger that community media will be *confused* with social networking and other forms of *amateur* media production. Community *broadcasting*, due to its participative, accessible and cooperative nature, has found itself under pressure to justify its claim to state-derived resources when media participation is seen to occur at no cost elsewhere" (27, emphasis mine). Jankowski and

Prehn echo these assertions when they define community media methodologically as the study of "communication *structures* and communication processes within a distinct social setting—a geographical community or community of interest" (20). These definitions bear out in case studies created by these and other authors, studies of community radio stations and other forms of broadcasting, street newspaper initiatives, public television channels, and extensive community-based computer networks and other already existent *structures.*

This is all despite the assertions of Rennie that "[t]he categories of 'old' and 'new' media don't strictly apply to community broadcasting" because community media possesses many of the characteristics of "'new' social networking media: it relies on community affiliations and the circulation of information occurs through volunteer effort. Community media has always been 'prosumer'—in that it enables consumers (audiences) to become producers." However, it is "distinctly 'old' media in its technologies, codes of practice, legal restrictions and standards" (25). So, despite her own assertions to the contrary: clearly community media is old media, or has to be partly comprised of old media or an old media-like infrastructure such as a hard-wired network, station, office, building, or other physical location, etc. Community media needs to avoid being amateur media; it always already needs a pre-existing infrastructure. The practices that happen within this structure, the ones that determine who gets to say what in a community or university context, however, are not brought to the foreground or are absent altogether in this literature, and missing altogether are practices that happen outside of a recognized structure. The emphasis of these scholars, in other words, is on looking at the creation of what Star and Ruhleder would call a substrate, not an infrastructure, the former being a

material base upon which something operates, the latter being the interaction of this material base with social and cultural knowledges and practices.

And there are good, strategic reasons for defining community media in this way, at least publicly, as Rennie points out: convincing lawmakers, public benefactors, and funding agencies that makers of community media need money is important work, especially if it is to survive and thrive despite the move towards media consolidation.[3,4] I wonder, however, if these strategic definitions of community media infrastructures as necessarily tied to old media technologies, their associated practices of delivery, and other already recognized material structures might be overlooking valuable tactical contributions, such as doing a small project in a service-learning class, getting together to have a meeting about a possible community media initiative, etc.[5] I wonder, in other words, if these small steps toward larger endeavors might be some of the most important ones to pay attention to.

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[3] And I mean these are important strategic reasons in the sense that de Certeau uses this word to mean an act of "will and power" that "assumes a place that can be circumscribed as proper (propre) and thus serves as the basis for generating relations with an exterior distinct from it (competitors, adversaries, 'clientèles,' 'targets,' or 'objects of research)" (xix).

[4] Media consolidation commonly refers to the ownership of more and more media outlets by fewer and fewer large corporations such as Disney, MSNBC, and Clear Channel.

[5] Again, I am borrowing tactical from de Certeau in suggesting that many of the contributions rhetoric and writing teachers, researchers, and students might be able to make to community media are those "which cannot count on a 'proper' (a spatial or

Some of my experiences working on and studying community media initiatives in the community of Lansing, Michigan have convinced me that this might be case. One of the primary means through which I have done this for the past several years has been through the Capital Area Community Media Center, a non-profit organization founded through the Writing in Digital Environments (W.I.D.E.) Research Center housed at Michigan State University. The CACMC's primary purpose has been to help build local infrastructures through technology consulting, media design, serving as a liaison between service-learning students and local organizations, and helping organizations net grant funding in order to accumulate technological resources. Its primary purpose, in other words, has been to do as much for the social practices and knowledges associated with community media in Lansing, as it has for the material bases that those practices and knowledges interact with. One

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institutional localization)" (xix). At the same time, however, I do not mean to suggest that rhetoric and writing teachers cannot or should not—let me rephrase: they can and should—contribute to helping to build the material bases for community media infrastructures the same way that communications scholars are (and at least one rhetoric and writing scholar is: see Grabill), but what I mean is that, as rhetorical as well as literate experts, rhetoric and writing teachers and scholars can contribute to community media, because they by-and-large currently do not have a disciplinary—or community—seat at the community media table—in the same way that "because it does not have a place, a tactic depends on time"—by being "always on the watch for opportunities that must be seized 'on the wing'" (xix).

central locus of this capacity-building effort has been the CACMC's work through the Compassion Capital Fund, a grant program administered by the Administration for Children and Families of the U.S. Department of Health and Human Services that provides funding for faith-based and community organizations (FBCO's) to improve their technological infrastructures. Those of us who staff and volunteer for the CACMC have helped local FBCO's improve their infrastructures not only by performing on-site technology consultation and media design, but also by hosting workshops at MSU that encourage sustainable practices such as designing websites that the organizations themselves can maintain.

One of the primary reasons for this focus on building both technological practice and technological knowledge is perhaps best illustrated by a brief story. In my time in Lansing as a doctoral student and now candidate in Rhetoric and Writing, I have served in all of the above-listed capacities with CACMC, in addition to, as I will detail later, conducting an in-depth study of the composing practices of service-learning students working with community partners on new media writing projects. I also served for several months as the Information Officer for my own Graduate Employees Union. These may sound like technologically and rhetorically complex endeavors, which they are, but the first plot point in this story is about a young, technologically and rhetorically naïve graduate student who entered into a Ph.D. program filled with technologically and rhetorically advanced folks, surrounded by a sea of highly-integrated and effective community organizations, and who knew very little about technology-consulting, media-design, etc., in fact: he knew nothing about these things.

Still, he was offered an opportunity to work on a documentary-like project, new media reporting, his would-be mentor, Jeff Grabill called it, with a local organization known as the Allen Neighborhood Center. In response to negative and/or inaccurate media coverage of the work the Allen Neighborhood Center (ANC) does on the Eastside of Lansing, Michigan, he was asked to compose a 'multimodal history' of the organization that could more accurately represent for outside as well as community audiences what the organization is and what it does. At first he had no idea what this might look like as a finished product, but as he began to conduct videotaped interviews as he might for any oral history, using a digital video camera provided by MSU's College of Arts and Letters Documentary Lab, a certain overarching story began to develop: the story of the emergence and formation of the ANC as an icon of the Eastside community. Important to this status is the notion that the ANC is simply built from the existing practices of activism and neighbor-centered activity that have made the Eastside what it is. In this way, then, our hero would come to realize that what he was actually doing was mediating between an organization—whose central role was to mediate between the activities of various neighborhood groups on the Eastside and larger institutions at the city and state level—and larger public audiences.

After dozens of hours of videotaping events with the organization, editing together footage, and consulting with the ANC, he developed a fifty four-minute documentary exploring what the ANC was, what it did, and how it did it. The board members of the ANC liked it. They had some suggestions for revision, but overall they were satisfied. What they really wanted, however, was to use the video for fundraising purposes. It would probably need to be shorter to do this, however... and different aspects of the organization would

need to be emphasized... would it be possible to just reframe the video a bit to meet these new expectations, they asked? Of course our hero was somewhat taken aback by this request. Sure, he would do his best to repurpose the dozens of hours of footage he had collected, but, he wondered: why didn't they just ask for this in the first place if this is what they really wanted?

This question would plague our hero for the next several months while he invested dozens more hours creating a video that would suit the rhetorical situation that, it turned out, the ANC cared the most about: appealing to funders, and anyone else, in a short, pithy way, and especially emphasizing all the programs that the ANC housed, which ranged from foreclosure consultation services to a farmer's market and bread house (the rest of the story will make a lot more sense if we watch the ten-minute final cut of this video, and will save me the trouble of having to try to explain the ANC in a few sentences when it took me months to create a video which did so:

http://www.allenneighborhoodcenter.org/about/).[6] He would succeed in producing what he considered to be a pretty good ten-minute video that accomplished all the rhetorical tasks the ANC had asked for (the second time), but still, the earlier question would plague him. He wasn't angry, he just genuinely wondered: why didn't they just ask for this in the first place if this is what they really wanted?

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[6] A bread house, at least at it has been used in the Lansing community, refers to a location in a community where community members can attain free foodstuffs, usually bread but often other items that get donated, one or more days out of the week.

I realize now that wondering what went wrong, or more accurately what went right, with that initial project is one of the main reasons I am now writing a dissertation about doing new media writing with communities, and why I care so much about the definition of community media. What I want to illustrate with this story is one of the primary findings of the research conducted for this dissertation: infrastructures are not just things, not just material structures, they are also networks of carefully coordinated activity, networks of people, networks that rely on complicated forms of knowledge and practice to survive. In many ways, then, I am making a related argument to that of Jeff Grabill when he exhorts us to focus on infrastructure rather than information. When we do so, he argues:

> our attention shifts radically to what is indeed useful for individuals and communities as they seek to generate persuasive discourse about what is good, true, and possible...it shifts our design gaze to deep issues and problems. 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. (40)

So, like Grabill, I would exhort us to remember that infrastructures are not just material structures, not just 'computers' or 'wires,' they are networks of people, too, people working

on rhetorically complex activities that often have multiple audiences, activities that require not only technological know-how, but technological skill, not only knowledge of certain modes and genres, but skills suited to producing those modes and genres. The answer to my earlier question was staring me in the face the whole time, you see: the ANC didn't know what kind of video it wanted until that moment, because through producing the first video, through meeting and filming and editing and discussing and collaborating, I had helped create the infrastructure for the second video, the one that the ANC did want. And this is because, as I will endeavor to demonstrate throughout this dissertation, infrastructures are probabilistic enterprises: their creation, alteration, and/or maintenance is never set, but is instead based on the rhetorical actions of people working within networks of distributed activity, activity not only on material structures, but also on knowledges and practices. Infrastructures rise and fall based on the motivated and distributed knowledge work of individuals working collectively towards common goals, but goals upon which their perspectives may differ or even be antagonistic to each other. This means that the best ways for people from various walks of life, such as rhetoric and writing experts and their students, activists, community members, digital composers, etc., to build, maintain, and change infrastructures for the better, may be to see themselves as networks of writers in which new types of knowledge, products, and practices are created, knowledge, products, and practices that can then be used to do work in the world through (new) infrastructures.

In an article I co-authored with Jessica Rivait and Kendall Leon, we noted that the term "distributed knowledge work" is typically used to describe work that is collaborative and is done over computer-based networks. Business researcher Eli Hustad, extending Jean

Lave and Etienne Wenger's communities of practice, has called geographically dispersed electronic, collaborative partnerships distributed networks of practice (DNoP) (69). Within such a group, a distributed knowledge management strategy can be employed: the group is defined by a project of interest, maintains a flexible configuration, relies on a recursive, yet somewhat hierarchal structure, and engages in decision-making through distributed cooperation (or shared authority) (Ho, et al. 449). However, critics have demonstrated that the issue with distributed knowledge models is that they often represent the ideal situation rather than the actual complexities of knowledge work. Knowledge is often situated, and "problems of transferring, negotiating or co-constructing knowledge also vary with [different] distribution types" (Haythornthwaite 3, 7). For instance, while the first video was negotiated and co-constructed with the ANC, there was a gap in the infrastructure of the ANC, in both the material point of distribution and in the knowledge and practices both the board of the ANC and myself had about digital video, a gap that the second video needed to fill. Doing distributed knowledge work effectively with people you don't already know well, in other words, as often happens when helping to build new infrastructures, requires an attention both to which available material structures (such as meeting places equipped with display technologies and camera equipment), and to which available knowledge and practices (such as how to use a camera to upload and edit video and then distribute it to an audience) are going to be most effective for facilitating this work.

If infrastructures are probabilistic, in other words, then decisions that get made within them are rhetorical. Like me, then, rhetoric and writing experts, via their training as rhetoric and writing experts, might contribute to community media by being sensitive to the kairos of a given infrastructure or to the "appropriateness of the discourse to the

particular circumstances of the time, place, speaker, and audience involved" (Kinneavy 74). Whether helping to build a community radio station in their local area, or performing smaller, more tactical media-based contributions to local community organizations like I have in the Lansing area, rhetoric and writing experts should have a voice in this process because it is a rhetorical process, and also one that involves a fair amount of writing/knowledge work. Doing so might also enable more local communities to have a voice in the direction of their local infrastructures, but in any regard, doing so would involve seeing community media, and the multimedia writing that happens with community members within the networks that make it possible, as more than just a structural enterprise, but as an infrastructural one, as an enterprise involving distributed knowledge work among networks of people and the material structures that help sustain these networks.

Enabling Complexities: More Why, More How

The consequences of choosing not to have a voice in this conversation, on the other hand, would be the status quo of media consolidation by corporate interests, unless there already happens to be an active community media organization or effort in one's local community that is being fostered by someone else. As Robert McChesney argues:

> The corporate domination of both the [mass] media system and the policy-making process that establishes and sustains it causes serious problems for a functioning democracy and a healthy culture. Media are not the only factor in explaining the woeful state of our democracy, but they are a key factor. It is difficult to imagine much headway being made on the crucial social issues

> that face our nation given how poorly they are covered by the current U.S. media system. (7)

It is well known among media scholars that corporate media outlets have specifically defined ways of framing their stories, including framing due to "the editors' and working journalists' internalization of priorities and definitions of newsworthiness that conform to [a given news] institution's policy," a policy that often includes protecting its own relationships with other corporate interests (Herman and Chomsky xi; see also Deluca 88 and Howley 21). Helping to build community media, then, means helping to build grassroots infrastructures that allow local communities to have a voice in the way they are framed, because they get to represent themselves or agree to be represented by collaborators that they trust such as rhetoric and writing researchers, teachers, and students.

This is how I ended up doing community media work with the ANC: the local newspapers were messing up their name, misrepresenting their community, and not telling all the sides of the stories they did tell about them.[7] In an article published in the *Lansing State Journal* in September of 2007 concerning a march on the Eastside of Lansing, Michigan to 'take back the neighborhood' after two brutal killings over the summer, the

[7] For a particularly egregious example of this, see the article by Cochran cited in my works cited, an article produced through surprising Joan at what was supposed to be a private neighborhood association meeting.

headline reads: “Marchers 'take back' Allen community” (Geary).[8] Apparently, the journalist writing the story thought that because the neighborhood center facilitating the march was called the Allen Neighborhood Center, in reference to one of its cross-streets, that the community was called this, too. This is most glaring considering that the journalist is undoubtedly a Lansing resident, but not uncommon, according to both informal conversations and interviews with many of the staff of the ANC. Many of the staff have experienced the effects of both extremely positive and extremely negative press coverage of the neighborhood, which can affect such elements of the ANC’s work as its ability to retain funding. The ANC has done much to persuade those outside the community, however, that the Eastside is in fact a thriving place to live filled with opportunities and a sense of neighborhood camaraderie that is indeed unique.

This context explains the seemingly cryptic comment by Joan Nelson, the director of the ANC, quoted in the article. “Organizers weren't really comfortable with the name of Saturday's event, however,” the reporter writes, “‘The truth of the matter is the neighborhood was never lost,’ Neighborhood Center Director Joan Nelson said” (Geary). Decontextualized from the Eastside’s many-decades-history as an activist neighborhood, a neighborhood in which, as Joan would later say in an interview with me, “people stand a good chance of knowing who lives next door to them,” the comment comes off as defensive and bizarre, especially next to two large photos of Eastsiders marching to Hunter Park with signs in their hands (personal interview). But taken within this context, it seems self-

[8] The LSJ is a subsidiary of the Gannett media corporation, now the largest media conglomerate in the world.

explanatory. How could decades of dedicated work be suddenly wiped away by two murders, no matter how gruesome? The easy answer is, they couldn't, but this answer belies the rhetorical effects of the mass media on its audience, even an audience living only a few miles from the community being covered. If we can imagine such an audience, an audience who has perhaps never even set foot on the Eastside of Lansing, then such coverage can be damaging indeed, damaging not to the story that residents of the Eastside tell to each other about their own community, but damaging to the story that is being told about them by people outside the community.

My video work for the ANC, in other words, arose out of an incredibly complex rhetorical need, the need to be represented by an outsider (me) to a variety of audiences, an outsider who would not try to exploit those represented for some hidden motive (i.e., creating a newsworthy story). It was necessary for me to learn not only the story of the ANC, but to learn its infrastructure for storytelling. How would this new story be told and to whom? Who would be involved in the effort? Who would maintain it when I was gone? This was the first time, in other words, that I had begun to think not only as a new media composer, but also as a public rhetorician: I had to think of myself as a composer within several networks of knowledges, practices, and material structures, and the choices I made would affect how those networks would align to support the text I was composing, or not. The choices I made would affect whether or not, for example, enough of the ANC staff got invested in the project to make it meaningful, not only to them but to an outside audience who may not even realize the ANC has a broad array of staff members and volunteers.

Thus, not only must rhetoric and writing scholars who wish to produce new media with community members locate and integrate themselves into the networks of people and

material structures that make up local infrastructures, they must also be mindful of the meaning-making processes that happen within these networks. Such processes have already been studied within media systems by several contemporary media scholars (including the internet, Atton; community media initiatives such as local radio stations, computer networks, and street newspapers, Howley; and social movement organizations like Green Peace, DeLuca; to name just a few). Many of these scholars have found convincing evidence that new media infrastructures, as well as infrastructures that combine new and old media, have the potential to be more participatory, more collectively—and thus democratically—maintained and operated, and can thus focus more on local issues due to their "prosumer" nature, or the ways in which they allow user/consumers to become producers. This is due, in large part, to not only a technological but also a "cultural shift as consumers are encouraged to seek out new information and make connections among dispersed media content" (Jenkins 3). Henry Jenkins goes on to reflect on the takeover of folk culture by the mass media in the twentieth century, but claims that what he calls "convergence culture," or the culture emerging due to the clash between old and new media infrastructures, is a reemergence of a folk culture around the "common culture" of commercially produced popular culture (135-7). In the age of mass media, however, "the culture industries never really had to confront the existence of [the] alternative cultural economy base [produced by user-generated content]... Home movies never threatened Hollywood, as long as they remained in the home" (136).

Thus, "convergence culture represents a shift in the ways we think about our relations to media[. W]e are making that shift first through our relations with popular culture, but...the skills we acquire through play may have implications for how we learn,

work, participate in the political process, and connect with other people around the world" (23). This relationship between culture and media production/consumption is possible because, as Lisa Gitelman attests, echoing Star and Ruhleder, media are more than just platforms for disseminating information, they are "socially realized structures of communication, where structures include both technological forms and their associated protocols, and where communication is a cultural practice, a ritualized collocation of different people on the same mental map, sharing or engaged with popular ontologies of representation" (7, emphasis mine). In other words, media infrastructures are systems of meaning-making that get used by people, people who gather in space and time (if not always a bounded geographical space) in order to communicate through shared forms of representation and expression, forms that change over time because of their use by people. In addition, media infrastructures and the genres of communication found within them can be as important to communities as are more conventional forms of writing. They are important, because like more conventional literate texts (like academic essays) housed within other kinds of infrastructures (like universities), new media genres involve shared and culturally and historically situated forms of representation and expression, but unlike more conventional texts, new media genres often also constitute more publicly shared (and often contested) forms of representation and expression, and thus have the potential not only to be used by a sizable local community for meaning-making practices, but also to be used to reach audiences outside of it as well (e.g., new media genres often have more

potential for reaching broader and more diverse audiences than an academic essay would).[9]

This is why I am suggesting we "open" community media to rhetoric and writing experts, in the same way new media writing is being opened to us: the historical moment we are in—one where a "convergence" of old and new media infrastructures is allowing for groups of people that were previously primarily consumers of media to become producers of it—is ripe for the facilitation of new forms of university-community relationships, ones founded around the production, circulation, and consumption of new media. These newly mediated relationships can be similar to the types of ones currently being developed under the ospisis of community literacy and public rhetoric, but can also have the added benefit of increasing the abilities of community members to make, share, and broadly circulate their own new media genres, as well as to give rhetoric and writing teachers and students valuable opportunities to learn and practice these skills themselves, skills that are increasingly necessary to participate fully in our media-saturated culture. Linking Thomas

[9] Though defining a spectrum of publicity along which texts reside is beyond the confines of this chapter, and this dissertation, here I am drawing on the Deweyian tradition that assumes a public is built around issues, meaning that people come together not just to share but to contest meanings, often meanings from more 'official' sources like government agencies (see Matthews for a contemporary take on this idea). My point is only that a media text, like a website, is often going to fit this definition of publicity better for a local community than an academic essay would (unless of course that local community is composed of academics).

Deans's observations about the multiplicity of possible service-learning projects and the idea of distributed knowledge work, we could then create a more useful shorthand definition for community media by saying that it is new media writing and rhetoric made by, for, and with local communities. This definition would remind us that it doesn't matter so much who is making the media as long as it is made in a way that is sustainable and sound given the needs of community members.

Once again, in the wake of the pushes towards using computers in the classroom and hitting the streets in various forms, community media can be a natural combination of these efforts. Take a service-learning class that a colleague, Jessica Rivait, and I developed (in collaboration with Kendall Leon), and that I later researched, for example. The class was entitled *Rhetoric/Writing: Citizenship, Service-Learning, and Community Media*.[10] In this class, students chose from one of five-to-eight community partners that the instructor has formed relationships with before the semester started.[11]

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[10] 'On the books' this class is called *WRA 135: Public Life in America*. We adapted the existing curriculum to include community media. See footnote 34 for more information on this.

[11] I taught the class a total of three semesters as a linked course with a section taught by another instructor, and it continues under the care of another interested instructor at the time of writing. The last time I taught it the partners were: a local food co-op that wanted new forms of advertising, an art teacher who uses new media in his classroom, the CACMC, a senior care center that wanted newsletters, a local peace organization that wanted short books on peacemakers, a mentor initiative that wanted a website and social media

Four of the five major 'written' assignments that students completed involved researching, composing, and revising/editing various texts that could be directly beneficial to the community partner, including: a community media assessment report detailing research data on a target audience for the media text students will compose, several drafts of a new media (or old media) genre composed in close collaboration with the community partner, as well as a researched essay on a particular media and/or literacy-based problem of the student's choice that the community partner is facing (such as copyright issues, issues with a certain type of technology, best practices for delivery—oral or otherwise, best literacy practices for promoting a 'green' lifestyle, etc.) and several reflections and reports on developing and sustaining the project after the semester is over (more about the class can be found at: https://www.msu.edu/~rivaitje/WRA135Video1stDayS10.mov).

I present this assignment sequence not as an example to be emulated, necessarily, but as one that combines thinking about and practicing new media writing, using computers and other forms of technology in the classroom, as well as community literacy/public rhetoric. As I explained to students the first day of this class, these five emphases: rhetoric, writing/literacy, citizenship, service-learning, and community media make sense as components of one class because "[i]n a knowledge society, the work of citizenship is knowledge work" (Grabill 2). Grabill goes on to clarify what he means by this:

> when citizens find themselves in a situation in which they must challenge a powerful understanding of who they are, what they are capable of, or the utility and value of the physical space they inhabit, they find themselves at a

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campaign, and a student organization trying to expand its membership and media capacity—as a rule, all community partners got students placed with them.

> moment that is ambivalently rhetorical. They find themselves, that is, confronting audiences that understand knowledge to be produced by individuals and organizations of expertise, but who do not understand the production of knowledge to entail rhetoric. At the same time, they confront exigencies that demand new knowledge production on their part in order to tell an alternative story about identity, capability, and place. This alternative epistemological process *is* understood to entail rhetoric to the extent that it is characterized as something other than institutionalized expertise–something such as narrative or andecdote, or as emotional or interested. Thus, rhetoric exists in an uneasy tension with science, just as citizens and communities exist in an uneasy tension with expert institutions. The rhetorical ambivalence of this situation becomes explicit when these forms of knowledge converge. (14-15; emphasis his)

Like Grabill, I think that many students, as non-experts entering into various new (and often alienating and frustrating) rhetorical situations with individuals and groups who possess vast amounts of expert knowledge that they do not, have something in common with local community members facing similar rhetorical situations.

In other words, by teaching a first year composition class in this way, I believe I am putting students in rhetorical situations that will better mirror the types of rhetorical situations they will face in other classes, and as citizens, workers, and community members. In this way I agree with Anthony Michel, Jim Ridolfo, and David Sheridan that often "both the civic and the multimodal continue to be integrated into our classrooms in reductive, limiting ways... That is, we have students write about the civic sphere, not in it"

(805; emphasis in original). In place of current conceptions of public writing in the classroom, then, they offer an "admittedly utopian vision" of the public sphere in which it "becomes a space where non-specialists self-reflexively engage in a 'conversation' characterized by the rhetorically effective integration of words, images, sounds and other semiotic elements" (805). Integrating kairos, or the opportune moment, into their conception of public rhetoric, they further advocate extending rhetoric's reliance on the "available means of persuasion" to include "assessments of the material and discursive conditions that shape the production, distribution, and reception of the rhetor's argument" (805-6).

Rather than simply reflecting on (or even doing) new media writing, public rhetoric/community literacy, technology-enhanced teaching, etc., and the inherent rhetorical situations around any of these areas, why not have students reflect on and use all of them? Why not introduce students to all of the available means of persuasion at their disposal in the information and media-saturated culture in which they live? Likewise, Elenore Long attempts a redefinition of what the *community* of community literacy might mean, suggesting that it "might be best understood in terms of... discursive sites where ordinary people go public. From a rhetorical perspective, then, *community* [would] refer[] not to existing geographic locales as the idea of a neighborhood would suggest...but to symbolic constructs enacted in time and space around shared exigencies—in other words, *local publics*" (15, emphasis hers). To my mind, this definition of community as local public makes a good deal of sense for talking about how the production of a community media text might respond to local exigencies—such as the need for senior care center residents to

represent their lives to both their family members and fellow residents as well as to people beyond the walls of their short-term or long-term home.

In line with much of new literacy studies, then, I am claiming that community media texts—texts produced by, for, and with local community members by rhetoric and writing experts and/or their students—might come to replace some of the more traditional texts that are currently being produced in first year writing classes and other academic venues (like as part of research projects performed by rhetoric and writing professors). I think they might also be thought of as adaptations of the new media writing going on in many, but not all, composition classes and departments. Rhetoric and writing experts and/or their students, when composing new media texts, might produce these texts in deep partnership with local community members, with the purpose being the same as all community literacy texts: to mediate between broader cultural practices and more local ones (see Barton and Hamilton 6-13, Street 1-2, Brandt 3).

Mapping Complexities: The Why and How to Come

While I hope the above reflections have provided a strong disciplinary and theoretical background for this dissertation, there is much complexity still left to explore. In the next chapter, for example, I lay out a methodology for studying media infrastructures that I used to track the composing practices of two student groups as they endeavored to create new media writing projects with community partners in the above-mentioned service-learning class. This methodology involved using a type of observation-based research similar to documentary in which I filmed students doing discrete composing tasks (meeting, brainstorming, filming, editing digital video or HTML, etc.), in addition to

collecting interviews and written artifacts. I then analyzed the footage to describe both their collaborative activity and their relationships to the modes and technologies with which they were composing.

In Chapter 2, I thus describe this methodology in-depth, as well as the theoretical and empirical precedents for it, which largely come from the disciplines of education and professional writing, as empirical research into new media writing within composition-and-rhetoric-proper is scant. It was my goal to design a methodology that enabled me to fully describe the rhetorical and literate complexity of the activity I was studying, as new media writing is a multi-faceted and complicated form of knowledge work that is difficult to account for. It was also my goal to create a methodology flexible enough to help me say something about infrastructures. I first review research in new media writing in order to explicate previous objects of inquiry for this research, and then explain why these need to be expanded if we want to study the infrastructures that support this writing, instead of just the writing itself. I finish the chapter by detailing what guided the decisions I made during my research, which, I argue, should always be the exigencies of the research situation itself.

I begin to detail findings from this research in Chapter 3, arguing that students drew on their existing knowledge about new media genres, such as digital videos and interactive websites, in order to address social issues of common concern in community settings. What's more, students worked with community partners to generate new, locally situated knowledge. They modified or invented new genres (e.g., an online 'splash page' with Twitter integration), introduced new resources to their partners (e.g., websites that provide copyright-free music useful for digital video composing), and created sustainability

guides that enabled their partners to maintain and alter these projects after the semester ended. After exemplifying these findings through close analysis of my data, I ultimately argue for an iterative and situated conception of the elements of writing processes that is about understanding what the different components allow writers to do.

In Chapter 4, I reflect on the interactions between student composing and the infrastructure that it both impacted and was impacted by. My main finding regarding this interaction is that the student groups entered into a network of distributed knowledge work that not only influenced and was influenced by the infrastructure in and around the classroom, but that was also influenced by composing experiences that students had been part of before the class started. This further implies that writing infrastructures are actually systems invented through the mobilization of resources by writers, and that students can contribute to this work through their interaction with infrastructural elements.

In Chapter 5, I draw out this implication and other implications for thinking of community media as a kind of distributed new media writing work done with community members. Mostly I attempt here to provide heuristics for researching and helping to build infrastructures for community media by doing new media writing with communities. In doing so, I name what I consider to be important considerations in my experiences of trying to sustainably and democratically contribute to the local infrastructures I have worked with during my time in the Lansing area. As part of this reflection, I also provide considerations for bringing students into this kind of work in the most ethical ways possible.

CHAPTER 2: RESEARCHING WRITING INFRASTRUCTURES

In the previous chapter I argued for a shift in the way writing educators use emergent forms of media (or new media) in scholarly practice. Specifically, I claimed that thinking of new media writing as forms of community media might allow for useful interventions into local communities by scholars trained in thinking of writing as a set of practices, knowledges, and structural supports. These interventions might include, I also claimed, facilitation of the creation of new media projects and infrastructures to support them by, for, and with local community members. I also mentioned a class that my colleagues and I at Michigan State University developed that allowed for students to be part of this work, and a study I conducted into the composing practices of some students of that class. In this chapter, I will discuss the methodology I utilized to conduct this study, a discussion which will also serve as a forum for my argument for another type of intervention: researching writing infrastructures.

Since they are both structures and networks of knowledge and practice, the best way to study writing infrastructures is from the ground up. Though no researchers, to my knowledge, have conducted empirical studies geared toward understanding the infrastructure necessary for writing, per se, I draw on previous research on new media writing, as this is the genre my participants' writing most closely resembled, and the genre of writing that draws the most heavily on its infrastructure.[12] Before getting into this

[12] Both of Spinuzzi's works cited below are important exceptions to this statement, though it is still arguable that both of these articles are reports of empirical investigations of

research, however, I feel it necessary to take a moment to unpack what I just said: that new media writing draws most heavily on its infrastructure.

An important argument throughout this dissertation, and which I synthesize and make most explicit in Chapter 5 when I fully describe what a *rhetoric of infrastructure* could look like, is that writers utilizing any medium utilize an infrastructure, or a network of practices, knowledges, and material structures. All writing, then, has an infrastructure, but infrastructures of certain types of writing are more or less stable. In most university classrooms, then, new media writing, or writing utilizing the most emergent forms of writing available, will have the least stable infrastructure, or will, at the very least, demand more of its infrastructure than more established media. New media writing requires, in other words, a broader array of knowledges, and practices, and material structures, than a genre like the essay, a genre that has remained a relatively stable fixture in university classrooms for several generations now.[13] Like Chapter 1, then, most of what you will see

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writing networks rather than infrastructures, a distinction I get into in Chapter 4. The best precedent for studying infrastructures empirically is the article by DeVoss, Grabill, and Cushman, also cited below, but this article also represents more of a descriptive analysis than an empirical study.

[13] It may sound like I am saying that essays are written the same in the 21st century as they were by Montaigne, or something of the like, but I am not. By saying they are a 'relatively stable fixture,' I mean exactly that: the infrastructure for them exists, and has existed for some time. No genre is fixed; rather: genres are constantly in flux, but, I digress. My point is simply to say that the infrastructure (knowledges, practices, material structures) for

in the following chapter has emerged from my inductive discovery of this fundamental element of new media writing. My research into and practice of new media writing has made writing infrastructures *visible*, in other words, in a way that they weren't before. And this new way of *seeing* the elements of writing has impacted my view of it in important, irrevocable ways, ways that I hope to communicate to a professional audience (writing experts), who seem to thrive on having their views of writing perpetually challenged.

As far as the organization of this chapter, I am trying to accomplish two primary goals: 1) to describe and ultimately rearticulate the objects of inquiry of new media writing researchers from the current, most pervasive ones (e.g. modes) to a more expanded and holistic emphasis on new media writing networks and infrastructures, and 2) to provide heuristics, or problem-solving strategies, for thinking about the rhetorical moves one might make as a new media writing researcher interested in these new objects of inquiry[14]. As should become evident in what follows, I'm also arguing that these two larger concerns, rearticulating objects of inquiry and thinking about rhetorical moves researchers make, are key for developing sound methodologies that add knowledge about writing to pertinent bodies of literature, such as new media writing literature. It is my intent below to provide productive (rather than reductive) criticisms of existing trends within this literature in order to demonstrate new possibilities rather than truncating possibilities through an all-

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traditional media like the essay have become invisible to us because they have been with us for so long.

[14] Though a common enough term in humanities scholarship, I'm here drawing on Stuart Selber's definition (40).

or-nothing, I'm-right-and-everyone-else-is-wrong approach, an approach I have witnessed too often in academic arguments of this kind.

Modes of 'Mode': Objecting to the Primary Object of Inquiry within New Media Writing Research

New media writing research has recently turned toward questions of the interactivity between modes of expression and the new semiotic resources (e.g. new resources for making meaning) and writing processes that the production and consumption of new media texts makes available (for a few recent articles on production and consumption itself, see Devoss and Webb; Porter; and Tu et al). Work in this area has consisted of studies in workplaces, classrooms, and a few other sites (such as online), studies that mainly seek to describe how composing with multiple modes is done by various groups of people (e.g. for a recent workplace study, see Spinuzzi, "Compound"; for an online study, see Jones; Ranker looks at a classroom setting), to extrapolate relationships between various modes used by writers (e.g. Ranker; Bezemer and Kress; Mayer), and/or to describe the elements of new media writing processes (e.g. for a study on revision, see Jones; for a study on online identity as it connects to online writing see Lam).

Much like my efforts in Chapter 1 concerning community media, I see myself as simply seeking to extend work in the area of new media writing research by introducing a different perspective into a conversation in which researchers have been more focused on the interaction between various modes and on writing processes themselves than on the interaction between writers, their writing processes, and the infrastructures that support

them[15,16]. Currently, Bezemer and Kress have defined a mode as "a socially and culturally shaped resource for making meaning," and also claim that within modes there are "modal resources," a term which they do not operationalize, but which seems to mean something like a grammar of a specific mode (171). Furthermore, Mayer has attempted to link modes with channels of sense perception (sight, hearing, etc.) (363). From these definitions researchers have mostly attempted to ascertain how the modes of new media texts (such as the audio in a video, the text in a wikipedia entry, etc.) allow for new opportunities for meaning-making at the same time that they constrain others (Bezemer and Kress 171; see also Hull and Nelson; Ranker; Carey). As I suggest below, the rubber meets the road of new media composing not only within modes themselves, but also within the ways modes provide

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[15] Research on new media writing is, in fact, a conversation considered by many to be a subset of the larger conversation of New Literacy Studies, which has roots in the work of Brian Street, James Paul Gee, David Barton, Mary Hamilton, and many others. For a useful collection of new literacy studies research on new media writing, see Coiro et al, cited below.

[16] Articles like the ones I cited above concerning consumption and production *are* arguably about infrastructure-related issues. These authors seem to consider their work as relating to digital composition and not new media writing research, per se, however. Usually this work is not empirical, as well, and so is not precisely a research precedent for me. If pressed, I would argue that this work has brought our attention to the infrastructural level more than the other work I'm citing, however.

composers with rhetorical opportunities to do knowledge/writing work through infrastructures.

This is not to say that the findings of such researchers are not substantive or useful. It is an important contribution to rhetorical scholarship on new media, for example, to consider a la Bezemer and Kress that translation between modes is always occurring as the affordances (or possibilities and limitations) of one mode are chosen by a composer over another because of the perceived needs of an audience, such as if information originally encountered in a textual format is thought to be easier to understand if rendered visually (175). In an expansion of this relationship between modes, in one exemplary study into the affordances of a digital video called "Life-N-Rhyme" composed as part of a digital storytelling project run out of a community technology center, Hull and Nelson found that the various modes of the text studied, such as language, image, and music, are assembled in such a way as to maximize the expressive potentials of each mode (249-50). Each mode, they claim, builds on the one before it, accruing associative meanings so that the impact of each image, for example, carries with it the images that have come before it (250). This is not a simple addition of meaning, however, for ultimately they wish to claim that "a multimodal text can create a different system of signification, one that transcends the collective contribution of its constituent parts. More simply put, multimodality can afford, not just a new way to make meaning, but a different kind of meaning," a meaning that is no longer dependent on the meaning-making potentials of the individual modes, but that is a composite of all the modes of the text considered as a whole (225, 250).

These are important findings because they teach us about the rhetorical possibilities of new media texts, specifically that they make meaning and impact audiences in very

different ways than do more traditional texts, largely because the possibilities of meaning-making are expanded. At the same time, however, I think it's also important that we look at how composers of new media texts make meaning with them within actual infrastructures. How did the digital video that was described above, for example, impact, and how was it impacted by the actual networks of people that helped create it? Did it allow them to do any work in the world besides getting screened before audiences and posted to the web? Did it enable them, for example, to in any way change the infrastructure(s) that it arose from?

Like Paul Prior, in other words, I am convinced that multimodality is a "routine dimension of language use, as utterances can only happen in embodied, material, multisensory, multi-semiotic worlds," and is thus "not some special feature of texts or certain kinds of utterance, and certainly is not a consequence of technologies" ("Speech" 27). Following from the work of Bahktin, Prior et al argue that we thus need to rethink rhetorical utterances produced through literate activity as both mediated and dialogic, meaning "*distributed* over time and space and among people, artifacts, and environments and thus also *laminated*, as multiple frames or fields coexist in any situated act" (Prior, et al "resituating" 18, emphasis his). Thus, rather than thinking of new media as a completely new form of literate activity, perhaps we should consider them to be opportunities to rethink some of our fundamental assumptions about writing and rhetoric. Whereas much of this thinking has focused on the synchronic or individual speech act frozen in a moment in time, then, Prior argues for thinking of writing and rhetoric as fundamentally dynamic and historically situated activities.

I agree with Prior, then, that definitions of modes like those that have guided the above research are definitions that attempt to identify discrete, ontological units of

meaning and thus attempt to treat components of literate systems that are dynamic as fixed and stable (Prior "Moving" 24). Rather than trying to define how specific modes make meaning *as modes,* in other words, I think it is important to describe how specific modes make meaning *as components of infrastructures,* or how they come to life within the networks and material structures of which they are, after all, but components.

My original idea to study new media writing as infrastructural, in fact, came from a researcher in this conversation who pointed his empirical lens just a little off from the modes he was studying. Ranker, who studied the composing processes of fifth graders working on a digital video, states at one point that he finds much promise in the study of "how social interaction and reflective conversations during composing processes lead to particular types of uses and combinations of semiotic resources in multimedia composing environments" (230). In his own study, for example, although he finds that for two fifth grade boys composing a documentary video on the Dominican Republic, "what was already written, recorded, and imported into the audio track of the baseball chapter framed what needed to be done next," he was "constantly aware of the boys' conversations as a medium, of sorts, for reflecting on the relative roles and uses of these media. As the boys punctuated their meaning at various points in time through ongoing drafts [liked they did in the baseball chapter], they reflected on these moments of punctuation by discussing from where they had come and where they would go next" (214; 229-30). This says to me that, though Ranker chose to emphasize the ways the boys used a "nonlinear, intertextual movement between the creation of and use of media texts," their social interaction may have been key to this process (226).

What I hear Ranker saying from my own perspective, is that outside of the actual modes used for composing, there are complex things happening within the networks of people doing the composing. Had he tilted his gaze a little farther out of frame, for example, he may have noticed interesting things about the conversations these fifth graders had with their teacher, or their facility with the technology they were using. I'm arguing that new media writing researchers should expand our awareness beyond our usual objects of inquiry, which for writing researchers are writing processes and products, to the processes, networks, and material structures which support that writing.

(Re)articulating New (Media) Objects of Inquiry: Collaboration, Technology, and Genre

One of the processes I've become interested in because it seems to happen so often among new media writers I've interacted with is collaboration. Like the other objects of inquiry named in this section title, however, collaboration, though usually at least mentioned in studies of new media writing, often takes a back seat to considerations of mode. In addition, though a large body of research into collaborative writing exists, and individual studies within this conversation track "the conditions and variables bearing on the collaborative process," these conditions and variables tend to vary widely from study to study (Knievel 336). These conditions have included the "organizational environment" in which writers are composing, including the leadership structure of the organization within which writers are composing (Doheny-Farina) and "differences in understanding the organization's culture" (Locker quoted in Knievel 336). Some of the variables have included "differences in group processes and in writing processes" such as individual group

members "understanding of the rhetorical situation" and the "involvement" of individual group members (Locker quoted in Knievel 336). As Noël and Robert contend, however, the necessity of studying small groups of people during studies of collaborative writing tends to limit the generalizability of frameworks for organizing the various elements of these processes.

As I argue in Chapter 3, however, if we think of new media writing, or any kind of writing, really, as a form of distributed knowledge work in which writers work in tandem with each other, mobilizing different knowledges (i.e. the knowledge of how particular modes work) and practices (i.e. playing around with a video clip to get it to fit right with other clips) in order to achieve particular goals, then we would be more interested in how particular writers and groups of writers do this in particular situations, rather than in trying to generalize to all writers. The closest we could get to generalization will be how I demonstrate my findings in the next two chapters, I would argue: by providing *heuristics* for collaboration, or rhetorical moves that *might be* productive for writers to make *if they are in a similar situation* to the researched group. As Knievel also points out, much collaborative writing research has focused on a success-based model of studying collaboration, meaning that studies have focused on which variables allow for success or failure of collaboration, which is defined as coming to a final consensus on how to get work done, a consensus that allows for productivity during composing (336). I agree with Kneivel, however, that this either-or dichotomy (either a certain variable, such as discussion, leads toward successful collaboration or causes it to fail) assumes a kind of a priori determinism towards consensus that may cause researchers to misrecognize certain kinds of activity as unproductive when they really aren't.

I, myself, fell victim to this tendency in a pilot for the study I will be reporting on in the next two chapters, when I asked a group of student writers enrolled in my themed service-learning class *Rhetoric/Writing: Citizenship, Service-Learning, and Community Media* if I could pry into their new media writing processes for a semester. My goal was to study their writing processes and the ways they interacted socially during composing, because I felt that sociality was a key aspect of the networks and infrastructures of new media writing work I wanted to describe (and because of the precedents I cited above). It very quickly became apparent to me, however, that I couldn't determine, at the beginning of my study, what types of interaction or composing activity were meaningful for the video they were working on for the East Lansing Food Co-op, their partner organization. Sometimes students would bullshit with each other, for example, during composing sessions, and sometimes they wouldn't. Sometimes they would reach consensus, and sometimes a few students would do work while others did other things (sometimes things unrelated to their project). Their whole process seemed messy, non-linear, iterative, and difficult to even describe as a coherent process.

The only commonality I could find in their whole process, in fact, a commonality that would impact the way I conducted the actual study two semesters later, was a kind of iterative understanding the students developed about what were the best things to do at each moment of composing. I would later, in the actual study, zero in on the aspects of composing, such as meetings with community partners, in which this understanding was performed the most explicitly in the pilot. It would only become apparent to me later that both the students and their community partners were mobilizing a complex set of knowledges and practices (modal, technological, generic) in a very contingent and

pragmatic way. Had I gone in with a model in mind, a model based on the best practices of a zillion other writing situations that may have been very different than the one I was researching, I probably would not have come to realize this was happening at all.

Perhaps new media writing researchers might follow my lead in taking a more rhetorical and situated approach toward studying writing, as have genre theorists as of late, especially if they want to study writing as it interacts with infrastructures. As Amy Devitt says, drawing on Carolyn Miller's argument that genres are responses to recurrent social situations, and arguing for a more operationalized theory of genre: "Genres help people do things in the world. They are also both social and rhetorical actions, operating as people interact with others in purposeful ways. To say that genres are typified actions is in part to say that genres are classifications but classifications made by people as they act symbolically rather than by analysts as they examine products" (13-14). We could, after a little rephrasing in some cases, say the same about any of the objects of inquiry mentioned thus far: technologies are used for social and rhetorical actions, modes are used for social and rhetorical actions, etc. Like modes, however, genre has been largely used by new media researchers as a way of classifying the various meaning-making potentials of *discrete things called genres,* though the rhetorical nature of genre is beginning to become a central concern to these thinkers (see, for example, Graham and Whalen).

Next, though mentioned implicitly in all the literature I have reviewed thus far, material components of writing situations, such as technologies, are perhaps the least visible component within the conversation of new media writing studies. I believe Ranker's work to be representative. Here is how he describes the interface of the software the students he studied used to compose their text:

> Video Studio Editor offered several new types of semiotic resources as well. These resources took the form of selected parts of the visual representations available to them as part of the Video Studio interface as drafts of the project. For example, the Video Studio Interface, through its layout (which featured a film "reel" with distinct frames or places to insert images, a clipboard, and audio, video, music, and title tracks) offered up new semiotic resources for the boys to understand the current shape of their project and to use these resources in perpetuating their composing. (228)

What we see here is a very nuanced understanding of the modes his students were using as they are represented within an interface. What we are missing, however, is an understanding of the type of computer this interface is operating within, or the room within which this computer sits, or the relative positions of the two composers in relation to this interface. And though it makes a lot of sense to me why researchers have not paid attention to such material affordances up until now, it is my belief that such affordances can have just as important a bearing on new media composing processes as the modes being used, and, of course: this is exactly one of the findings I will report on in the next two chapters.

Besides broadening our focus away from modes, then, I'm also arguing that we should stop trying to figure out what things like modes, genres, technologies, and collaboration *are,* and should instead start and end with what they *do* in actual writing situations (and infrastructures). We should take as our main direction of inquiry the affordances components of new media writing provide for doing writing work. As I elaborate on in Chapter 3, this would involve a substantial shift from an ontological

perspective to a rhetorical one: rather than trying to track what things are, we would focus on holistically examining particular kinds of knowledge work with the understanding that all such work is highly contingent on the particulars of the writing/rhetorical situation and the infrastructure within which it takes place.

Toward a New (Media) Research Methodology, or My Favorite Researchy Moves

Let me be clear that I am not suggesting that everything about a writing situation or infrastructure can be studied at once. What I am saying is that infrastructures are complicated things, filled with people and all their attendant beliefs, attitudes, knowledges, skills, and practices, as well as technologies, genres, modes, and collections of knowledge about all these things. In order to study a writing infrastructure, one may need to stumble around inside one for a while, to try looking at different things before one finds a good vantage point. After creating the videos with the ANC that I mentioned in Chapter 1, for example, I continued to work with the Capital Area Community Media Center, but also became interested in service-learning. I thought that if I, with as little technological expertise as I possessed, could be a productive contributor to community media infrastructures in the Lansing area, why not freshmen writing students, many of which had much more technological know-how than I did?

At this same time, I had also begun to research the conversation of new media writing, and had stumbled upon some of the sources I cite above. As I mentioned before, it became clear to me that people were mostly interested in modes, processes, and products, but the research situation for new media writing seemed so much richer than that, at least as I had experienced it. As I began to design a first year composition and service-learning

class called *Rhetoric/Writing: Citizenship, Service-Learning, and Community Media,* I also began to consider how I would bound such a research situation. Where would I find new media composers who were composing projects that would be suitable writing processes to study? And better yet, where might I find composers who were doing new media writing in a community setting?

I decided that since no one to my knowledge has done empirical research on first year writers doing new media writing, and since my service-learning students were in fact a group of writers attempting to contribute to community infrastructures in an easily bounded period of time, that both my research and teaching interests would be best served in the classroom. I decided to conduct a pilot of a research project I envisioned in which I would videotape student composing processes. This seemed like a good idea because there seemed to be so much to document about the research situation. I wasn't sure what I really wanted to study. I had a hunch, however, that because infrastructures are systems of knowledges, practices, and material structures, because they come alive through work done by people, that within student composing activity I might find something worthwhile to study, maybe several somethings.

As I mentioned before, during this time I was also paying attention to empirical research into new media writing, much of which, I would find, was situated or ethnographic in nature (in addition the above-cited sources, see Moura for a good example of an ethnographic study; also see Leander for a good methodological description of new media ethnography). Other researchers seemed to believe that new media should be studied as a situated practice, though, as I mention above, I would part ways with them concerning their primary focus on modes. Again: I felt that researchers were treating

modes, or the resources writers use to make meaning, as a priori and pre-existent of particular writing situations (Spinuzzi's work is a notable exception to this). Their studies were fascinating and pushed me toward doing a situated study, as well as towards looking at the interactions between writers, modes, and other elements of the writing situation I mention above. This reinscription of modes as pre-existing seemed omnipresent, however. Consider, for example, the following excerpt of Moura's explanation of modes as part of her ethnographic study of embodiment and modes of communication:

> Communicative modes, like head movement, gesture, and spoken language are all systems of representation. Kress and Van Leeuwen (2001) affirm that a system of representation is a semiotic system that includes rules and regularities. In Norris (2004a), a communicative mode is never a static unit, but a heuristic unit, meaning that it can be defined in various ways and it has no clear boundaries. For instance, furniture can me a communicative mode or an element in the layout mode… The behaviors that constitute nonverbal communication can be categorized into seven types of nonverbal codes, according to Ciccia, Step and Turkstra (2003)…

Despite what I feel like is a circular explanation of mode, what I want to highlight here is how modes are explained as having 'no clear boundaries,' but then later categorized into seven types. I am not trying to pick on Moura, here, but simply to demonstrate one instance of a very grounded study starting in a very deterministic way: new media research is rife with thinking that transforms its elements into neat, generalizable categories.

To see if I was right about new media writing overflowing these categories, I decided to follow one group of student writers as closely as I could without exhausting

both myself and them. Because I believed that infrastructures were omnipresent in writers' lives, something that I detail in Chapters 3 and 4, I decided to conduct interviews with students right as they chose community partners for the class and I put them into work groups. I asked them about their lives as media producers and consumers before that point. I was trying to understand their experiences as new media composers before beginning the project. Would these experiences affect, in any way, their lives as composers during the class? Because I also wanted to understand how they worked together to compose, and how they figured out how to work together to compose, I also videotaped some of their composing sessions, most of their meetings with their community partner, and did a group interview with the students and their community partner at the end of the project. During this interview I performed a member check by composing some of the footage into a short, 10-minute video that seemed to represent their writing process. I wanted to understand what *they* thought was important or not important about their writing situation, and why they thought this.

Mostly, this pilot helped focus my attention. I realized that what I was most interested in was a given group of writers' *understanding* of their place within an infrastructure. This makes sense when we think of infrastructures as rhetorical enterprises: like a-choose-your-own-adventure story, writers have lots of options for what to do at each stage of composing, and each choice will take them (and some aspects of the infrastructure) in an entirely new direction. After months of research, I would finally find an emphasis to direct my attention, an emphasis useful in describing composers' understanding of the rhetorical situation they found themselves in. Gitelman claims that a *protocol* can be discerned for a particular media genre, or "a vast clutter of normative rules

and default conditions, which gather and adhere like a nebulous array around a technological nucleus" (7). Further, these protocols are socially formed and are not static, but change over time (8). I became most interested in what Gitelman describes as "the shared sense people have of what" a given media genre is, however, or in how students used different types of knowledge and practice (modal, technological, generic, collaborative) to come to a shared understanding with their community partner and each other of what, exactly, kind of project they were making, and the best way for them to make that kind of project (8).

This emphasis allowed me to tighten and revise what I was looking for in the real study. My interview questions made more sense (see Appendix A), for example. I understood better, after stumbling around the infrastructure students composed in for a few months, what to record and when, etc. I chose, for example, after mulling over the data from the pilot for a semester and seeking IRB approval, to study two groups of students enrolled in *Rhetoric/Writing: Citizenship, Service-Learning, and Community Media*[17]. I saw these students as potentially contributing to the infrastructure of several organizations and institutional entities I'd already been involved with, such as Writing, Rhetoric, and American Cultures, the department that housed the course, my graduate program in Rhetoric and Writing, a local food co-op, the CACMC, a local art classroom in a middle school, a mentoring initative, the MSU College of Arts and Letters Documentary Lab, etc. I thought that two groups would create a better chance of having researchable groups, and

[17] The pilot was conducted as part of a graduate seminar, and so the professor of that class functioned as my IRB board.

would also allow me some comparison across media genres if the two groups ended up composing in different ones[18]. The two groups I studied ended up partnering with the teacher in the art classroom, Eric Staib, and Dave Mahorney, the head of MSU Extension's Ingham County 4-H Mentorship Program, respectively[19].

Once again: in solidarity with other new media writing researchers, I'm arguing for a situated, empirical approach to such, especially if one wants to describe the infrastructures that support such writing. I would also argue, and feel that many new media researchers would agree, that the entire writing situation *itself* should guide decisions we make about what to look for, as arbitrarily looking only at genres, collaboration, or even *composing activity itself* can lead to overlooking very important aspects of the writing situation that may be pertinent to the particular infrastructure we are studying. This is because, as I discuss in Chapter 4, infrastructures are not only complex but also are only truly understandable from a heavily situated perspective. Thus, though many of the scholars

[18] Because I was the teacher of the students who would be my participants, Jeff Grabill, who functioned as my primary investigator, had to present the research to the students without me present and to to obtain consent from individual students. Then, after students articulated their 1st, 2nd, and 3rd choices for community partners and I made student writing groups, I had to send Jeff potential groups to see if any were researchable, meaning that all the students in the group had consented to my research. Luckily, after a few iterations, I ended up with two groups to study.

[19] All my participants signed off to have their full names used. They were given the option of choosing a pseudonym, but chose not to.

cited above *mention* components of new media writing processes that are pertinent to the study of new media writing, such as the kinds of social interaction participants engage in, the technologies they use, the modes they work with, the genres they compose in, and the types of knowledges and practices that are displayed, *all* of these elements may be pertinent to a study trying to understand writers' contributions to infrastructures.

Thus, even after I decided I was trying to document the writers' understanding of their position within their writing infrastructure, I started by looking at objects of inquiry that were more palpable, namely the kinds of collaboration, technologies, and modes used by students to reach this understanding. In the actual study, I focused on the same moments as the pilot: individual interviews, composing sessions, meetings with community partners, and a final, group interview with students and community partners. Such a framework belies the complexity of decision-making that went into each moment of data collection, however. The methodology for making these decisions that I ended up adopting most closely resembles situational analysis, a postmodern rethinking of grounded theory, though I did not take this type of analysis on fully as my research methodology. Intended as a supplement to grounded theory, and its emphasis on tracking "basic social processes," situational analysis invites researchers to create "situational maps" that "center on elucidating the key elements, materialities, discourses, structures, and conditions that characterize the situation of inquiry" (Clarke xxii).

In other words, while grounded theory assumed an orientation to basic social processes when engaging in qualitative research, situational analysis assumes that even this orientation is a metaphor or prior scheme for studying these processes (39). Thus,

while grounded theory attempts to be inductive, situational analysis is arguably *abductive*, a term I take from Ronald Schleifer and Jerry Vannatta's reading of Peirce.
For them, "[a]bduction seeks an explanation of a particular fact by finding some salient features of the particular that allow it to be explained by some more general causal principle: 'abduction,' Peirce writes, 'is the process of forming explanatory hypotheses'" (365). In other words, for Schleifer and Vanatta, hypothesis formation during medical diagnosis (which is what they studied) occurs not deductively (in which a hypothesis would be formed a priori), nor inductively (in which all data should be gathered before a hypothesis is formed), but by observing a "surprising fact," developing a hypothesis that might fit that fact, and then testing that hypothesis by collecting more data.

My own methodology for making research decisions, in other words, is closest to an abductive type of theory-building based on the research situation itself, because the 'surprising fact' was that I managed to compose a video for the ANC and to help build an infrastructure for that video. This was before my research study actually happened, but, as I mentioned in Chapter 1, it is a surprising fact that would plague me as a researchable moment. Would other new media composers be able to create infrastructures for their projects as they were making them? What was the relationship between infrastructures and new media composers, composing processes, and products? This prior scheme of thinking, in other words, a scheme relating new media composition to its infrastructure, would influence the way I conducted my research: I wanted to catch such a process in the act, so to speak.

In the same way, each stage of the research I have related thus far—from the prior-to-research situation of my experiences as new media composer to the pilot study to my

experiences in the classroom to the actual study—guided the next stage in heuristic fashion. I often didn't know what I wanted to study until I stumbled upon that surprising fact in the middle of a writing situation and started hunting around for an explanation for it. My methods tightened considerably throughout this process, though, as my heuristics became tighter and more systematic. I planned to videotape student composing sessions, for example, as well as meetings with their community partners. *How* I did this, though, was in response to the research situation. I had to decide, for example, what constituted a 'meeting' with a community partner. If a student just went to get some pictures of Eric's art students creating art, did that count as a meeting? As with any research situation, in other words, I couldn't study everything. I also enlisted my participants to help me make decisions: did they plan on discussing anything important next Tuesday? If they changed their mind, could they let me know?

Because this was teacher research, this added a new level of complexity to the research situation. At every step of the way I had to make sure that I wasn't doing anything as a researcher that seemed too much like being a teacher, even though there was inevitable overlap between these two roles. For example, while videotaping students, I would only provide assistance when it became clear to me that a problem could not be solved by the group itself, and when it was something that I would already know about come class time. Other student groups frequently e-mailed me or told me about technology problems in class, for example, so I felt free to provide that kind of assistance to my research groups. Mostly, however, I wanted students to feel free not to treat me like a teacher when I was in researcher mode, a shift that I knew was impossible to perform completely, but which students, surprisingly, did rather well at.

Students were very candid about choices they were making, for example, such as when one student, Ivory, couldn't make a composing session and her peers decided to proceed without her. There was some concern that this would affect her grade, but once I assured the other two students, Courtney and Valerie ('Val' from here on out), that I wouldn't be grading anything I saw during my research, they felt much more free to not always be on task during composing sessions I witnessed, or even to do work from other classes when they 'should have been' collaborating (somewhat to my teacherly chagrin). Mostly, then, I practiced an ethics of erring on the side of solid and repeatedly professed boundaries between my researcher- and teacher-selves.

This kind of heuristic-guided decision-making began as a kind of meta-analysis of my data, as with any attempt at grounded theory, and started as soon as the real study started. This situational awareness continued as I entered data coding and analysis-proper. I started, for example, when I had a significant amount of codable date, to build coding tags from what was present in the data itself, from what I was most interested in from previously published researched, and from what seemed most pertinent to the research situation (e.g. the writing infrastructure I was observing). These tags started out loosely clustered around collaboration, modes, and technology. As my understanding of the research situation grew through further coding, additional data collection, and my eventual member check, these tags would become more specific and descriptive (for a full chart of the final draft of my coding schema, see Appendix B).

The best way I could think to perform my member check was to do some preliminary coding as I had done in my pilot, but in a much more tightened and systematic fashion now that I understood the research situation better, and to edit what I considered

to be interesting/pertinent footage of each group into a kind of micro-documentary so that my participants could make sure that my initial findings were representative. In order to create this representation, I did my preliminary coding across as much of the data as I could by the time of the member check, and then tried, from this coded data, to select snippets that I thought represented the emergence of key group understandings of the project.

These methods of preliminary data analysis, however, also affected data collection, as the data I collected was subject to the affordances (limitations and possibilities of my knowledge and practical ability with genres, modes, and technologies) of digital video recording and production. Like a documentary filmmaker (generic knowledge/practice), for example, I began each shot of a composing session or community partner meeting with an establishing shot (modal and technological knowledge/practice), which is a shot within a scene that gives an audience a frame of reference so that they understand what is happening in the scene. Additional shots within scenes in documentaries, sometimes collected using different cameras, seek to document the pertinent kinds of activity happening in that scene, while returning to the establishing shot periodically to continue the frame of reference.

This is the main aspect of my data collection that is replicable and aggregable: in each shot I took, I sought to create an establishing shot/frame of reference from which to represent a given scene. What is not replicable/aggregable about this method, however, at least not in the same way that other methods might be, is what gets captured from there. In each specific scene, for example, I decided to follow the activity that seemed the most pertinent within that scene (maybe most composers in the scene were on Facebook on

their laptops, for example, rather than looking at the overhead projection of their project that one composer is working tirelessly at). What was pertinent in the next scene, and thus what caused me to stray from the establishing shot in that next scene, was often different, however (someone saying something interesting, a facial expression I wanted to capture that seemed somehow key to understanding of the composing activity under way, etc.). This was all purposeful, of course: I was attending to pertinent micro-level moments in the writing situations I was observing (e.g. participants discussing the best way to capture a shot, framing a clip in a video editor, etc.), and trying to holistically and abductively uncover what was really important within that writing situation, given my interests as a researcher.

What built my data set and the coding scheme in Appendix B, then, was my recursive return to similar surprising facts along the way. As I mention later, for example, I began to notice early on that some of the questions my students asked didn't seem like questions, at least not as they impacted the writing situation. After doing some preliminary coding and returning to the next moment of data collection, I began to ascertain that these 'questions' were actually tacit suggestions. This, in turn, caused me to recode the small amount of data I had already coded to see if the pattern held, and it did. This was the overall pattern of my data collection, coding, and analysis: iteration, recursivity, and constant re-interrogation of claims.

This kind of constant reflexivity was possible due to the affordances of the medium I recorded most of my data in: digital video. Because I recorded a lot of elements: speech, action, body language, etc., I could return to footage over and over again to hunt for surprising facts I hadn't noticed at first. I was limited by what a digital video camera could

capture, however, such as when an annoying fan made some student comments unintelligible in a room in the library, or when Eric's exuberant middle schoolers made discerning conversations between him and my students a real challenge.

Another affordance of this medium was being able to incorporate participants into the research process by watching collected footage with them, however. When I checked with my members, for example, I showed them not only footage of themselves working together, but made claims in text after the clips that also fueled discussion with them about my preliminary claims, discussion I was again able to capture through my camera during the group interviews at the end of data collection. This allowed participants some reflexive control over how I described, thought about, and ultimately analyzed the footage I had collected. This is also exemplary of my use of the research situation itself in order to determine what gets represented from it: I chose to highlight the particular findings I present in the next two chapters largely because of what my participants and I hashed out as important.

This entire process, too, seems fairly similar to the process of building scenes for a documentary film. As Nichols describes, "[c]ontinuity editing…which works to make the cuts between shots in a typical fiction film scene invisible, has a lower priority. We can assume that what is achieved by continuity editing in fiction is achieved by history in documentary film: things share relationships in time and space not because of the editing but because of their actual, historical linkages. Editing in documentary often seeks to demonstrate these linkages" (28). The goal in my research through the medium of digital video, in other words, was not to represent the research situation in real time (which would be impossible unless an audience was willing to sit through hours upon hours of

footage), but instead to represent, in close collaboration with participants, the most important linkages in that research situation.

What composing activities should I highlight, and why? How would I best make sense of these activities to both my participants and an outside audience? What could I safely infer from these activities and what was too much of a stretch? These are all questions that I enlisted the help of my participants in answering (collaborative knowledge/practice). My understanding of my own research project, then, just like the situation I was studying, was built through practice and iteration over the course of the project, a practice still underway at the time of this writing as I seek to accurately describe in the next two chapters what I actually found through this research, and then to infer something about the infrastructures bearing on this writing/research situation.

The final piece of this process of analysis, besides the writing of these chapters, came in the form of a triangulation between data sources. Like every other element of my research process, this was done in an iterative and recursive manner in order to interrogate claims I had made to students during my member check. As can be seen from Appendix B, I had a lot of data at the culmination of this study, probably more than I needed. Such is the risk of qualitative data collection methods. In order to try to articulate claims from this slew of information, then, I elected to focus on claims made from the video footage, and then to purposefully seek out counter-claims in my other data. Did what they said in response to claims I made in my member check still make sense given their initial interviews, for example? Or their cover letters written for their major projects? This kind of triangulation happened in close proximity to the drafting of the chapters you are now reading: as I made claims, I would seek validity in my other sources of data. This move

allowed me to develop what I feel are more robust claims at the same time that it gave me a framework for wading through these secondary data sources.

Like my own understanding of my research, then, aspects of the students' understanding of their projects are only now becoming fully articulated as I have been through my data enough times to significantly interpret and represent them. And the process has even continued to the final editing stages of this dissertation: at the same time that this draft was sent to my dissertation committee members, my participants received a draft preceded by a short research summary that highlights the claims I think will be most important to them given the kind of writer that they are (e.g. student interested in new media, community organizer interested in social media, etc.). All of this recursive work has enabled me to boil down valid claims from incredibly complex examples of rhetorical decision-making in relation to writing infrastructure. These claims are inevitably a shorthand applied by myself, the researcher, to activities that far outstrip my ability to account for all aspects of them, but a shorthand triangulated through multiple forms of data collection, coding, analysis, and member-check. It is my hope that this iterative, situational, and abductive methodology has produced robust results that more accurately represent the research situation I studied. At the same time, in the following chapters I will also be careful to articulate which findings I am more or less certain of, which may need additional research to validate, and which are limited by affordances of the research situation itself.

CHAPTER 3: STUDENT KNOWLEDGE WORK AND NEW MEDIA WRITING

As I related in Chapter 2, in order to understand the complex composing decisions that new media writers make within a given infrastructure, I decided to study the new media composing processes of students enrolled in my class *Rhetoric/Writing: Citizenship, Service-Learning, and Community Media*. These students were placed in rhetorically complex writing situations, situations which impacted, and were impacted by, the available writing infrastructure at Michigan State University in ways similar to the ways in which my 'multimodal history' of the Allen Neighborhood Center impacted, and was impacted by, that organization's infrastructure (as well as elements of MSU's). Like myself, students had to mobilize and invent various kinds of knowledge and practice in order to make things like brochures, posters, bulletin boards, booklets, digital videos, websites, and Facebook pages. Also like myself, students had to write with and within available material structures, equipment, and materials (classrooms, computer labs, laptops, digital cameras, etc.). Finally, and as it also was for me, the biggest challenge of this process seemed to be doing so for a community audience they were unfamiliar with, and *with* a community partner that they had never met before the class started.

Because of this complex situation, and because these were first year writing students, I provided as much support as I thought conducive to their writing processes, support like homework assignments, in-class activities, readings, and major assignments that sought to break down this rhetorical task into manageable chunks.[20] My goal was to

[20] I detail the entire assignment sequence for the class in Chapter 1, page 25.

provide enough structure for the students that they wouldn't be lost with the new methods of writing that I was introducing them to, while at the same time providing enough flexibility to encourage them to draw on existing knowledges/practices developed in past writing situations as well as to invent new ones for the purposes of the class.[21] In fact, while observing the composing practices of the two student groups I followed during my research, Eric 1 and Team 4-H[22] as they were known in class, it became clear that

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[21] This gap between previous understanding and understanding necessary to complete assignments is central to many educational theories of development, which assume that a teacher's job is to scaffold or create a stepwise structure through the intellectual activities of the class, a structure that balances student needs with proposed learning outcomes (see, for example, Hartman; Jaramillo; and Young). In composition and rhetoric, this space has been referred to as the contact zone, but has cast the classroom largely as a political arena in which student and teacher 'meet, clash, and grapple' around attendant cultural discourses (see Bizzell; and Pratt). There is perhaps much work to be done to rectify this largely political conception (which I partially agree with) with a more developmental one (which I partially agree with). Britzman's work on injecting psychoanalytic theories and theories of power into views of student development seems like a step in the right direction (cited below).

[22] Typically for classroom exercises I would call students by their group name, which was a shorthand of their community partner affiliation. Eric 1 became known as Eric 1 because there were two groups of students working with Eric Staib, a local art teacher. The rest of

knowledge/practice associated with modes, technologies, and genres were some of the most important resources drawn upon and developed by these students to create new media.

My central argument in this chapter is thus that students leveraged these types of knowledge and practice throughout their composing processes in response to this complex writing situation. They did so by making connections between knowledge/practice that they had accumulated through past experiences with modes, technologies, and genres, and new knowledge/practice invented through the current writing situation. These past experiences would provide them with the necessary resources to respond to the situations I was placing them in, and their responses, I argue below, can teach us something about how writers use these types of knowledge/practice during new media composing. Ultimately, the way these students used these various types of knowledge/practice provides us with new heuristics for thinking about the components and activities associated with new media writing networks and infrastructures, something I explore more fully explore in Chapters 4 and 5.

One of these heuristics that I'm invoking already is the situated nature of these knowledges and their interconnection with practice. A better way of stating this, perhaps, is to say that students used knowledge as a form of rhetorical action in response to their writing situation. Students not only used writing technologies, for example, but used them in order to invent and mobilize a kind of technological knowledge, at the same time that their invention/mobilization of this knowledge better enabled them to use writing

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the groups were typically called Team [Community Partner Name], though I'm not sure when this convention arose.

technologies. Each knowledge set (technological, modal, generic) was used in reciprocal tension with practical writing decisions, in other words, and these practical writing decisions were the entire impetus to leverage these knowledges in order to perform as writers. Rather than continue with the awkward phrase 'knowledge/practice,' then, it should be assumed below that when I invoke a specific type of knowledge, I am actually invoking its deployment as a form of action in response to a writing situation.

I begin by detailing below specific findings regarding each of the knowledge types mentioned above (technological, modal, generic). For each kind of knowledge, I detail how students used it, describe what the use of it looked like in my video data, and explain how common it was in my overall data set. I close the chapter with implications for further research into the mobilization/invention of knowledge during new media composing. It is my hope in this chapter to exemplify the complexity of this writing situation as well as the complexity of student responses to it in the kind of granular detail that one can only reach through qualitative research. This chapter will also set the stage for me to describe, in the next chapter, how each group's mobilization/invention of knowledges interacted with the infrastructure that supported their composing, and ultimately will serve as an example-in-practice of my larger argument that writing researchers, teachers, and students might contribute to local communities by helping to build infrastructures through similar kinds of knowledge work.

Mobilizing and Inventing Technological Knowledge

My student participants utilized a variety of technologies during their composing processes, from computers to video editing and web design software to digital camcorders

and digital cameras. In order to use these technologies to produce something worthwhile, they had to mobilize and invent a large repertoire of technological knowledge. As evidenced by individual interviews with students before they joined their work groups for their respective community partners, all participants entered the class with significant amounts of technological knowledge. As part of their life before the class, they used technologies like Youtube, digital cameras, cell phones, web-design software, social media applications, and I-pods daily. All of the members of group 4-H, Kirk, Alex, Emily, and Shalin, had designed websites, either through school or on their own. One of the members of group Eric 1, Val, had produced programming for public access television, utilizing studio-grade equipment available through her high school. Even though participants like Courtney and Ivory from Eric 1, and Emily from 4-H, described themselves as having more experience consuming media rather than producing it, they still mentioned such technologically advanced tasks as designing simple websites and creating digital videos during their respective interviews.

All of the student participants, in other words, were fluent in enough technologies to not be intimidated by complex tasks like image manipulation, html coding, video capture, and video editing. Throughout their composing, in fact, students displayed an intuitive understanding of technologies, an understanding that appeared very mundane to them. In the words of Emily:

> E: For publishing things like Powerpoint and stuff I was never taught how to do it. I just did it. Like…just…easy…
>
> G: You just tried it out?

E: Yeah, because we had to do it for some class but I never-no one ever like-like walked me through it because it's just so basic.

All students interviewed made similar claims about technology: it was something they could figure out if they needed to. They had no delusions about things they were not capable of doing, like making a professional-looking website from scratch without any help, if that was in fact beyond them at their current level of expertise, but felt confident enough that if they valued or needed to use a certain technology, they could 'just do it.' Such confidence with technology, in addition to the brief histories of technology usage I was able to illicit through the interviews, exemplifies a collective repertoire of technological knowledge for each group dating back years and including long-term immersion with the newest available software, hardware, and devices. These were students who had never wanted for access to technologies they valued, in other words, but for whom levels of familiarity with particular technologies varied significantly.

This technological knowledge enabled individual students to mobilize abstract knowledge of available technologies and procedural knowledge of how to use them during composing that literally made their group projects possible. This was not purely by happenstance, of course, as one of the key homework assignments prior to placing students with community partners was a skills inventory (see Appendix D) for which students detailed not only what skills (broken into technologies and media, writing and research processes, and social skill sets) they possessed, but which ones they most wanted to develop or acquire over the course of the semester. The community partners for the class had needs, too, after all, and one of my obligations as a service-learning instructor was to place students in such a way that those needs had the best chances of being met. At the

same time, though, it was impossible for me to know how individual students reporting particular skills during a homework assignment would be able to mobilize their knowledge sets in complex ways during composing. It would turn out, however, that both student groups would succeed in doing just that. They solved every complex technological problem that arose, for example, such as how to get their project to display on a Smartboard in a wired work lab in the library into which none of the members of either group had set foot, or how to use iMovie, a program none of the members of Eric 1 had ever used before.[23]

At an equally granular level, students used technologies to solve lots of small problems regarding their new media projects. For the most part they did this in two ways, by discussing possibilities for composing and by discussing possible composing choices while composing. Out of all my coded data, for instance, 52% of all tags were instances of students making suggestions about or deliberating suggestions made regarding their project (Appendix C for a complete coding tally).[24] This means that a majority of the time I recorded student participants, they were discussing general ideas for what they might do with their projects or deliberating specific composing decisions while actually producing their projects. About 12% of the time, they mentioned a technology during this discussion,

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[23] As mentioned in Chapter 2, since this was teacher research, I, of course had a hand in solving some of these problems, but for research purposes I waited to see if students could solve them by themselves and the vast majority of the time they managed without my help.

[24] Percentages like these are not meant to represent any kind of statistically rigorous figure, but are instead simply indicative of rough measures of what participants were doing during the footage I recorded.

and about 5% of the time they started using a new technology during this discussion.[25] So: students spent a significant amount of their time discussing their projects, some amount of that discussion pertained to technologies in general and also to the use of technologies while they were being used to compose, and there were also periods when students were using technology to compose and not talking at all (though these moments were rare).

A clear example of technological knowledge invented/mobilized by students is visible in the following snippet of an early discussion between Val and Courtney (of Eric 1) and their community partner Eric Staib regarding how they might produce and deliver the digital video they were creating with him:

Courtney: We were like-we were gonna do the music and like everything we just wanted to showcase it in kind of like 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?

[laughs]

[Val and Courtney laugh]

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

[25] I will explain how I'm using the term technology very soon. The usage percentage is indicative of starting a new technology only because during coding I found it extremely difficult to count separate instances of technology usage when a student was using a computer for 15 minutes straight (for example), so I ended up only tallying the start of the usage of a new technology.

Val: Like words—

C: yeah—

E: And they can just click on that movie and go to it. We'll do that like in iDVD—

C: [inaudible]

E: huh?

C: Like the different chapters—

E: Um-hm

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.

C: Okay.

E: [inaudible]

C: So we were thinking if we could do that—

V: Did you want it on like a Youtube? Did you want us to like upload it to Youtube?

E: Probably, yeah. Probably do that kind of thing—

V: Okay.

…

E: You both—you're going to use a Mac for this?

C: Yeah. We're going to.

V: We haven't used the…um, the editing thing yet, but we are using a Mac.

…

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 [Name] who does our broadcasting—

V: Like for Lansing [inaudible]?

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.

What is important to note here is the way knowledge of technologies is displayed. Both the students and Eric mention things like Youtube, Channel 21, Macintosh computers, and iDVD. These technologies are used to do a kind of rhetorical work; they are used to invent an array of technologies to choose from for the purposes of composing. Both the students and Eric are proposing and deliberating the potential use of different writing technologies for producing and delivering their project before they begin to use them. These students know quite a few technologies. But more important for my argument, they leverage this knowledge to help invent possible solutions to a rhetorical problem: how to create a video that will meet complex, but ill-defined audience expectations for a community partner who is very open to possibilities. Finding technologies to help them do the work is not the issue;

the issue is choosing which technologies will work best to produce and deliver some kind of product to Eric, a product he can then deliver to his proposed audiences.

As I argued in Chapter 2, rather than debate the ontology of the components of new media writing processes (and the infrastructures they are part of), or what they intrinsically *are,* I would argue that in instances like these, students used and invented technological knowledge as a way to think about the best tools (that they were aware of and had access to) for producing and delivering their projects.[26] Sometimes they did so while composing, by discussing possible technological choices they might make as did 4-H during a composing session for the website they created:

Alex: You have to like, I don't know…

Kirk: Yeah, I'm trying right now.

Alex: …sneak it out of there.

…

Shalin: You could use screen capture

Kirk: Yeah, I—I agree with doing it in Word.

…

K: How would you post the image, would you have to save it?

Alex: Mmm…

S: It saves it to your desktop. If use the snipping tool or whatever you call it….

---

[26] I am in agreement with Stuart Selber that we should reclaim the tool metaphor for describing technologies (cited below). Additionally: I feel that this is the best metaphor to describe the ways in which the students I observed used technologies.

K: What's the snipping, snipping?

S: I don't know.

Alex: I don't think he has that. I have it.

S: [to me, smiling] I use command shift 4.

Me: Yeah, that's what I do.

S: [laughs]

Me: A Mac thing, yeah

S: [laughs]

…

[K uses one of the mentioned technologies on his computer…]

A: I've got it if you…

K: I have it online, but it doesn't look clean at all…[turns laptop around] It's really choppy for some reason.

…

A: I can send you this one.

K: All right.

A: You think it needs to be bigger than that?

K: Wait, what?

A: Does it need to be bigger than that?

…

S: let me see?

K: I think that we're good, because up here…

S: You can readjust on here, too [points to smartboard]

A: Hmm?

S: You can readjust it when you're ahead of there, can't you?

A: I think so—

S: I'm sure you will to.

A: but that will screw it up a little.

Here we see students deliberating a small element of production: what tools they think are best for moving an image from an existing website to Dreamweaver so that it can be added to the production process of the new website they are creating. Again, then, things like Word, Snipping, Command Shift 4, and a Macintosh interface are used as tools for performing rhetorical work. Students here are mobilizing and inventing technological knowledge by working together to come up with a way to move this image, and ultimately a way to continue their production of this website.

At the same time, students are using knowledge in a more procedural way as well, such as when Courtney asks Val if it's possible to include chapters in their final video, and Val says "Yeah, depending on what, like, editing thing you can make it in like a DVD format." Val here is mobilizing her understanding of the procedures of video production from past writing situations to invent an answer to this important question, a question that will determine the shape of the project. The members of 4-H similarly display knowledge regarding what each image-manipulation tool will actually allow them to do. In both cases, however, the knowledge is less probabilistic than the question of what types of image-manipulation tools are generally best, or what all the technologies that could be used to produce a video are. Val believes she knows what is possible, and what isn't, when

producing a video in DVD format. This, for her, is a simple procedure that doesn't need to be debated or treated as a probabilistic problem to be solved.

This is not to indicate a hard and fast distinction between the ways that students mobilized/invented knowledge. It *is* to indicate that students invented/mobilized both technological knowledge and their rhetorical knowledge of the writing situation to decide what technologies to use in their projects, and how to use them. In other words: technologies were used both probabilistically and procedurally, or as a kind of antecedent to knowledge. As I mentioned above, then, I am arguing that these students used technological knowledge as a form of rhetorical action in response to their writing situation. The technologies themselves were less important than the knowledge students mobilized/invented in relationship to these technologies, in other words.

The members of 4-H above are debating what's probably the best tool to get the image from one place to another (more probabilistic). Val perceives that she can definitely include chapters in the final product, based on her past experiences with the procedures of video editing and delivery software (more procedural). Regardless, they all have knowledge of technologies that they trust to guide them in making technological choices at each moment of the composing process. They mobilize these knowledges in order to invent new possibilities, as another group member suggests something that the person piloting Dreamweaver hasn't thought of, or as the group tries something the members have each individually done before and it doesn't work in that moment of the composing process.

This kind of probabilistic trying-out of solutions to these smaller problems further indicates that students were responding to what Lee, following several others, calls "perceived affordances," a term grounded in the belief that "text-making practices are not

determined by what the resources naturally offer but are shaped by how people perceive what various representational resources can or cannot do for them" (227). Another way to say this, then, is that based on past knowledge of technologies, students apprehended possible options for using tools for production and delivery in the present moment, and, from what they understood based on these perceived affordances, made the best choice they could.

As I will argue in the next chapter, however, the ways in which students mobilized knowledge as a group was highly dependent on the pattern of distribution of knowledge within each group. Certain students, for example, had different or more complicated technological knowledge. Some students had a better understanding of certain modes. And this distribution would affect how the students formed their network of distributed work, their writing group that helped contribute to local infrastructures. I mention this to give the reader a sense of why these individual knowledges are important within my larger argument, but turn now to the modal and generic knowledges displayed by the students.

Mobilizing and Inventing Modal Knowledge

Like technological knowledge, participants invented and mobilized what I came to understand as a knowledge of modes during their composing processes. As was the case with technological knowledge, during their initial interviews students indicated that they had lots of experience with and knowledge of lots of different modes. Students had used, made and were knowledgeable about such modes as Facebook status updates, web pages,

public service announcements, iTunes songs, blogs, and text messages.[27] At the same time, like technological knowledge, modal knowledge was not evenly distributed amongst all the students. Kirk, Shalin, and Alex, for example, had considerable experience producing the modes of web design (such as html, web-ready images, web templates, headers, footers, links, etc.), whereas Emily knew these modes mostly through her consumption of them via the Internet, though she didn't mention having design a simple html website for a class once. Val, too, had considerable experience with the shots, timelines, clips, and effects of digital video production, whereas Courtney and Ivory indicated and demonstrated significantly less knowledge in this area (though they did have some).

Like technological knowledge, however, students professed a certain confidence with the modes they had been immersed in. Even someone like Ivory, for example, who described herself as "the last person to see everything" in her individual interview, also indicated a proficiency with modes like Facebook quizzes and the meaning-making resources of digital video editing. Again, even the most 'modally-challenged' students considered the complex manipulation of modes like digital images, video clips, and components of social media to be basic elements of their daily lives, indicating, again, that individual students brought a wealth of modal knowledge to their group projects. And again, these knowledges would make the modally-complex projects the students were endeavoring to create possible.

As mentioned previously, students spent most of their time discussing and deliberating potential composing options. Roughly 19% of the time, they were discussing modes, meaning that they talked about the modes involved with their project almost four

[27] Again, I will define what I mean by modes very soon.

times as much as they discussed the technologies involved.[28] They only got tagged as using modes less than 2.5% of the time, but this figure is low for the same reasons usage of a technology is low.[29] Discussing modes was a big deal to students, as is evidenced by the following exchange amongst the members of group Eric 1 during a composing session:

> Val: [using iMovie] I just-I don't know how to…where the audio adjustment thing is? …Like I don't know how to move the music without moving all the clips.
>
> Courtney: It says it; there's an option.
>
> V: Aw, I just did iiiiiiiit!
>
> [Ivory and C laugh]
>
> …
>
> [Val plays the movie and the other students watch]
>
> V: Yeah, I think I'm going to move that to the beginning of the crater part.
>
> C: Okay.
>
> C: I kind of like the chaos in the background of the music.
>
> I: That's what I was just thinking.

---

[28] It is not clear to me from the findings of this study why this was, but could indicate that technologies, as more material aspects of multimodal writing situations and infrastructures, are considered part of the background of multimodal composing rather than the foreground (until, of course, they don't work). Much more research would be needed to verify this claim.

[29] See footnote 5. The same coding rationale applies to the usage of modes.

V: We could make the music louder than the-like what they're doing so it doesn't sound like they're trying to compete.

C: Okay, we definitely need a different song.

V: Well yeah, but…

C: But I definitely like the music… I think even with the-I don't think it sounds like it's competing, I think it's just giving it some like…

V: Character.

C: Maybe depth? Yeah, character

V: Depth?! [laughs]

C: Depth. Let's make it a mathematical equation and see if it works.

V: I kind of like this upbeat music a little bit.

…

C: I think we should get something upbeat that fits with the theme of, like, they're working on like…space projects...

Here we see students treating things like audio, movie clips, and music/songs much as Bezemer and Kress define modes: as resources for making meaning (171). Val wants to move the audio to a different place in the video clip because it will impact the way the entire composition is *means*. As the students watch the video, they try to describe the perceived affordances of these modes coming together into a composition. Perhaps the music and the background noise of the art classroom are competing or perhaps they give the video 'depth' or 'character.'

These resources are used to do rhetorical work, though, within the composing process. Val says she wants to move the music, a small unit of an overall iMovie project, to a

different part in the time sequence where it might be more rhetorically effective for its intended audience, a primary member of this audience being Eric Staib, who expressed to students early on that he wanted to capture the 'chaos' of his art classroom in order to deliver it to outside audiences such as other art teachers across the country. Courtney says she thinks the music works well in the overall video, that it gives the video 'depth,' which seems to mean that the music seems appropriate given the overall purpose of the video. In other words, though I could compare my research to Hull and Nelson's and the other empiricists I reviewed in Chapter 2 in order to validate my findings, though I could claim with them that new media allows for new meaning-making possibilities, could even mobilize the very data I'm exemplifying now in service of that argument, I am purposefully trying to push the new media conversation in a different direction.

I just think it is not empirically justifiable to claim that certain modes will always mean in completely generalizable ways, or will even accrue meaning in generalizable ways, as Hull and Nelson would have it. I coded a component of students' composing process, mentioned or used, as a mode, in other words, if it was a component that was used or mentioned as a resource for meaning-making *in the service of the production or delivery of their projects*. Modes were the building blocks of student projects, certainly, but they functioned in this way because students treated them this way. Again, this is a definition for modes as an antecedent to knowledge used as rhetorical action: something that is a basic resource for making meaning for one piece of new media may not function in the same way in the next; in fact I'd go so far as to say it probably won't. To evidence this, students often referred to different parts of the same technology/mode cluster in different ways as

evidenced by this exchange between Alex and Shalin of 4-H and Dave Mahorney, their community partner:

S: This is our website that we made.

A: A mock-up… The links, the top thing doesn't work yet, because, y'know…

…

A: Um, nothing works really yet, just because we wanted to show you the basic layout we have so far. Well, it's pretty simple, um…

D: That's what I need, pretty simple.

A: Yeah, I don't know what else to add to it—

D: So, you know, as long as you got those-yep, you got all headers there I was looking at.

A: And like, for the, uh, those buttons, those really wouldn't be…I feel like there's a different way to do it so that you could integrate the actual statuses from Facebook and Twitter there. So those are just kind of like placeholders.

D: Gotcha. I like that.

S: Especially Twitter, I know you can have like a running feed or whatever.

D: Sure. Sure.

A: And that would definitely be easier to maintain because then you're just typing news into Twitter and Facebook than editing this.

In this case, I coded Facebook and Twitter updates as modes rather than technologies because they were treated as basic resources for making meaning within the social media-infused website the students were creating. Alex mentions the 'actual statuses' that viewers of the website would see as opposed to Facebook and Twitter, the tools for delivering those

statuses to the website and its audience. It is also arguable, however, that the students and their community partner were treating these components as tools for producing and delivering modes: they mention buttons, typing news into Twitter and Facebook rather than editing the website. Is it justifiable, then, to treat the way Facebook and Twitter enable meaning making as a stable component of this writing process?

Again: knowledge is what seems to matter in this writing process, with available resources and tools becoming ancillary to it. As with technologies, for example, modes require lots of knowledge to be effectively used. And again, students often displayed more probablistic and more procedural rhetorical knowledges of technology. In the above instances, for example, Val is drawing on a probabilistic knowledge of how a video-editing timeline translates into what the video will look like, as well as a procedural knowledge (or lack thereof) regarding how to actually use that timeline. Courtney is drawing on knowledge of what qualities of music would probably work best in this particular instance of composing, as well as a more procedural knowledge that she has apprehended (either in the moment or from another writing situation) regarding how music works with other elements of sound (such as the noise of the art classroom).

It's also important to understand that mobilization of existing knowledge and invention of new knowledge by students was so highly interrelated as to be difficult to separate. I know from other parts of my data set, for example, that Val had not used iMovie before the class, which would explain her inability, at first, to move the music clip. Courtney knows that there's a way to do it, which is clearly past knowledge. And there is an invention of new knowledge going on because Val figures it out: she invents new knowledge for herself and the group, knowledge that is a combination of the past rhetorical knowledge of

herself and Courtney. Like the relationship of probabilistic to procedural types of knowledge, it's the *exact ratio* between the mobilization of past knowledge and the invention of new knowledge that seems impossible to ascertain in situations like this.

What we can be certain of is that, like technologies, students apprehended which basic resources for making-meaning were available from their past knowledge of modes in order to make moment-to-moment decisions for creating their projects. Alex says he 'feels like' there's a better way to integrate the modes of Twitter and Facebook into the website (more probabilistic), and then invents new knowledge with Shalin when he states in the moment that having a running Twitter feed would be easier to maintain (more procedural). This apprehension, mobilization, and invention was always fluid, then, always changing. Students checked in with each other, looked at a screen, noticed a particular resource for making meaning for the first time, deliberated what they understood about that resource, and then made a decision that combined all of these elements. As I explore in the next section, then, the mobilization and invention of technological and modal knowledge was highly intertwined with what I'm calling generic knowledge.

Mobilizing and Inventing Generic Knowledge

Like the other two types of knowledge discussed so far, students were immersed in various new media genres. As they engaged in activities like social networking, texting, researching things online to do with their friends, and projects for school, students used a variety of genres, including news websites, Facebook quizzes, school digital video projects,

and online social networks.[30] Near the end of interviews with every student, in fact, they strongly emphasized the social relationships behind the basic resources (modes) and tools of expression (technologies) involved with the media they used on a daily basis. All of the students, in fact, were asked to define for me what the value of modes and technologies were in their lives, and all of them said that the point of media should be to facilitate relationships between people. For example, during this final section of her interview, Courtney said:

> Definitely I like I think it the media project which I'm like Eric Staib, um, his, like working with children like I that's going to have the relationship where we're going to get to work with like an actual person versus sitting online…it's not only like media doesn't like I think I—think media—it connects people to ideas. It's like ideas of like the success of certain projects versus like the failures and I think definitely like in a classroom setting especially little kids and what it seems like to be an underprivileged area, um,

[30] Did you catch it? Earlier in this chapter I claimed that Ivory was familiar with the mode of the Facebook quiz, but now I just called it a genre. I will define genre soon, but obviously this dual usage in purposeful: in one instance I am claiming that a participant talked about a Facebook quiz as a resource for making meaning within her online social network. In another instance, I am claiming that this same piece of media was used to mobilize/invent generic knowledge by 4-H when they used a Facebook quiz to make an argument for a social media campaign as they the project they would deliver. Again: is it a mode? A genre? Both? Again I'd argue it depends on its usage in a particular writing situation.

> his little kids are like working on their art projects and I don't think people like a lot of people don't see the value in art and like I think showing like this kind of video will be able to show them like the value of like what these kids are learning.

In this way, I would argue that all student participants displayed nearly equal levels of a kind of social knowledge involving media, or a knowledge of the social expectations involving various kinds of media.

The rest of the students were equally suspicious of using media for media's sake, for instance: all of the students interviewed expressed some need to use media to impact the 'real world,' which I took to mean the offline world. Most of the students (Courtney, Ivory, Val, Shalin, and Alex) had engaged in intensive forms of service work such as helping elderly members of their church with life tasks that were difficult for them, or working as a tutor with special needs children, but more importantly: all of the students had engaged in lots of situations where they had to plug their individual knowledge into a group or network of other people in other to do some social and/or collective work.

Because of this past experience mobilizing this social knowledge, the high value students placed on this form of knowing, and the fact that the projects they decided to work on required them to carefully coordinate with each other to get work done, it only makes sense that students would spend the majority of their composing time interacting socially. Nearly 58% of all codes tallied were associated with a type of social coordination, in fact, which meant that students were making suggestions to each other (29% of the time), deliberating over these suggestions (a little over 23% of the time), or utilizing each others' suggestions (a little over 5% of the time). Unlike the other forms of knowledge discussed,

however, students displayed probabilistic and procedural elements of this knowledge in different ways. Students did not discuss available types or models of collaboration, for example, as they did with modes and technologies. What they did do, however, was make suggestions about and deliberate about what they thought was best for their project. Let's revisit the following conversation between Eric, Courtney, and Val to exemplify what I mean by this:

> Courtney: We were like-we were gonna do the music and like everything we just wanted to showcase it in kind of like 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? [laughs]
>
> [Val and Courtney laugh]
>
> 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
>
> Val: Like words—
>
> C: yeah—
>
> E: And they can just click on that movie and go to it. We'll do that like in iDVD—
>
> C: [inaudible]
>
> E: huh?
>
> C: Like the different chapters—
>
> E: Um-hm
>
> 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.

C: Okay.

E: [inaudible]

C: So we were thinking if we could do that—

V: Did you want it on like a Youtube? Did you want us to like upload it to Youtube?

E: Probably, yeah. Probably do that kind of thing—

V: Okay.

…

V: We'll probably start out, though, making it more of like a progression from each grade and then show it to you…once we like upload the footage…and then from there we can see if like that's the road you want to take or you want to go back with the hodge-podge of things…

C: So then it'll give you kind of an option.

E: I think we'll pick whatever works for you guys—that'll be your specific, what-you-want-to-do.

C: Okay.

E: Your idea—we'll run with that, and then we'll talk about transitions for videos, so they're all the same. Clean transitions. You know how some people will do powerpoints and stuff—they'll try to put every bell and whistle, like 'look at this little effect, okay look at this effect—

C: Because my dad will take like part—

E: It's annoying!

V: Yeah, it is annoying.

The social context of this conversation is equally important to understanding it. Val, Courtney, and Ivory had all expressed to me, as a group, that they were concerned about the direction of their project. They wanted to make a project that fit Eric's needs, but didn't feel he was giving them enough guidance. At the same time, they didn't want to over-determine the direction of the project, or to make something that wouldn't be useful to him.

They decided to suggest different directions the project *might* take, then, based on past conversations they'd had with Eric, and to feel him out for which direction he might prefer. In the above conversation, then, we see students being very careful to ask questions rather than making statements. Val says, "Did you want it on like a Youtube?" rather than saying something like 'I think we should put the video on Youtube.' Coding for what I'm calling generic knowledge, in other words, was about understanding something of the rhetorical context behind a participant saying something. Generic knowledge, in other words, became evident when individual students suggested a way or deliberated on the best way to move composing activity forward based on their knowledge of modes and technologies and their knowledge of the writing situation. It also became evident when students utilized each others' suggestions for the project.

Like my other two terms, modes and technologies, I cared more about what types of knowledge work students were doing with genres, in other words, then how to ontologically define this term. As Amy Devitt contends, in her landmark book *Writing Genres*, genre theorists are "shifting from a formalistic study of critics' classifications to a rhetorical study of the generic actions of everyday readers and writers." (1-2). This is because "people construct genre through situation and situation through genre; their relationship is reciprocal and dynamic. If genre responds to recurring situation, then a

particular text's reflection of genre reflects that genre's situation. Thus the act of constructing the genre—of classifying a text as similar to other texts—is also the act of constructing the situation" (21). I saw evidence of generic knowledge, in other words, when students made rhetorical choices with modes and technologies that were responsive to their understanding of the type of new media project they were working on *and* the social/writing situation they saw that project as part of.

Again, despite the deeply social nature of the way these students used media, we can see in the above sequence that the students are also as, if not more, invested with classifying the type of text they are creating. Is it a Youtube video? A DVD? A video focused on a single class or on multiple grade-levels? This makes sense given that students were not only deeply invested in the social affordances of media, as mentioned above, but were also immersed in a variety of different new media genres even before they began a class focused on community media. These students were already aware of the variety of new media genres available to them, both from consuming them on a daily basis and from having produced several of them. Once again, then: the invention of generic knowledge had at least as much to do with the mobilization of their past experiences with new media genres as it did with the need to invent new generic knowledge in response to their current writing situation: addressing an issue of common concern to a community partner, such as the ability to reach a geographically-dispersed audience of other art teachers.

Unlike modes and technologies, however, students mobilized and invented more probablistic forms of generic knowledge with their community partner, and more procedural forms of this knowledge with each other. As the percentages above suggest, for example, the vast majority of suggestions made didn't end up in final projects. The vast

majority of suggestions were what-ifs: they remained in the probablistic space of this is something we could do. Rarely: they went right into the project, as Eric's above suggestion regarding transitions would. Students were careful, as part of the genres they were creating involved a community partner, to be much more probabilistic and open to new ideas when meeting with their community partner. They made fewer suggestions and asked more questions. I read this as the students making every attempt to allow their community partners, during those meetings, to set parameters for the genre that would be created.

In meetings with each other, however, students acted more procedurally to get work done. Suggestions were rarely used without any comment by other students. Much of the time: they were deliberated, or elaborated on, added to, or argued against by other students until they seemed most fitted to the evolving writing situation, but this was all done in service of getting the job done, of figuring out what shape their project should take, what genre would best serve their community partner. By making suggestions, deliberating about those suggestions, and utilizing each others' suggestions, in other words, students began to create the social situation out of which their composing work would be accomplished, at the same time that they were constructing a genre to the specifications of their community partner. The new media genres students created, and the social expectations associated with those genres, were defined and assembled in the moment-to-moment choices students made during composing. Students were very careful, however, to make sure that their community partners were involved with key moments of this evolving social/composing situation.

I have used the term 'collaboration' to denote writerly behavior in knowledge networks like the ones I have described thus far. These students rarely reached consensus

in the way that success-based models of collaboration would suggest, however (Knievel 336). Where would consensus be located in the above conversation or in any of the conversations I've included in this chapter? Rather than all students consenting to a certain direction for their project, a kind of iterative, or additive generic knowledge was displayed: students responded to what other students had said about their developing text, pointed something out that might not be noticed or known, or asked questions that might move the composing process forward. Rather than consensus, the goal, even as it was expressed by students during member checks, was productivity: getting work done, or getting their project completed in what they perceived as the best way. Again: these were the genres students were producing, new media projects built from a common, social understanding particular to each group of students and their community partner.

I would eventually, for example, come to realize that student participants often used questions as gentler kinds of suggestion (8% of the time). Because Val didn't want to push Eric toward Youtube, but because he had mentioned Youtube, she asked a question rather than stating that's what she thought the project should be. Rhetorically, this pushed the project forward while also giving Eric the opportunity to move it in a different direction, towards a different genre: students were tacitly suggesting a direction in the above conversation, but were doing so in a way that suggested they understood how to make suggestions in a way that invited collaboration from others (mobilization of past knowledge) and was also pertinent to the writing situation (invention of new knowledge based on the current writing situation).

A similar moment is evidenced below during a composing session with 4-H in the library as Alex is altering the group's website template on the Smartboard:

Alex [using Dreamweaver]: There's a search bar

Shalin: Yeah.

A: Wow.

Kirk: That'd be good to have.

A: Does it work? [tries searching for something] No.

Shalin: [laughs]

Shalin: We can delete that, too. I don't know if people are going to be searching—

Emily: Yeah.

Shalin: —for stuff on that big of a website.

Alex: Yeah. [delete's search bar]

Again, I would be hard-pressed to designate whether or not this was successful collaboration. It sort of demonstrates consensus, but is, again, I think better described as a moment of getting generic work done. Alex calls the group's attention to the fact that there's a search bar. Kirk suggests they keep the search bar. This suggestion gets ignored, or (more likely) doesn't get heard by the other group members. Shalin then mobilizes past knowledge of how websites work to invent a suggestion for what the group should do, a suggestion that gets utilized. It is arguable, however, that Shalin *also* is mobilizing and inventing generic knowledge, here, too: he doesn't simply say 'I think that wouldn't be useful.' He gives a rationale for not including a search bar that he probably thinks will be persuasive to the group, and to composing an effective website within the writing situation of that group.

These findings further suggest that students also used perceived affordances of the writing situation in order to utilize their generic knowledges. They seemed to be constantly looking for moments in which to interject something that would be useful to the developing project, and that took into account all the possibilities and limitations of that project and the way their group worked as a group. Highly entwined with individual students' modal and technological knowledges, as well as the social dynamics of the group and their relationship with their community partner, then, the process of apprehension, mobilization, and invention of their evolving genres was as fluid and difficult to nail down as the other knowledges discussed above. As I argue below, findings like these should mitigate more careful arguments regarding what new media writing processes *are* and what they *should be like*.

Transitioning to Writing Networks within Writing Infrastructures

The above findings argue for an iterative or additive understanding of how writing work happens within specific networks of writers, especially writing that involves multiple modes and technologies (as most writing nowadays does). Rather than accumulating empirical research and theories that assume that components like modes, technologies, and genres can be identified based on what they *are,* we might save ourselves lots of trouble by describing what they do, or how they enable writers to perform rhetorical work in actual writing networks, as I have begun to do above. We might ask questions like: what basic resources do different kinds of writers use in their particular writing situations? What tools for production and delivery do they use? How do they interact socially while

composing and who is invited to be part of that interaction? What resources (knowledges, materials) do they leverage during these usages?

Aggregating such data might then give us a broader view of the writing process in general, and the new media writing process in particular. It might not. Perhaps there is no such thing as a 'new media writing process.' Perhaps there are only networks of writers mobilizing different kinds of resources and engaging in particular kinds of activities in order to get particular kinds of work done. This, in and of itself, however, would be an ontological understanding of writing processes: if all writers studied engaged in some kind of network, this would tell us something about writing. If that network existed within a nexus of people, practices, and material structures (or within infrastructures), that would tell us something, too.

As I hope to demonstrate in the next chapter, for example, the students mentioned above were in fact writing in networks nested within infrastructures, or work groups in which they were able to aggregate their separate, individual knowledges with available tools and resources in order to form organic knowledge-networks that facilitated their writing. These organic networks were understood by students as a kind of generic knowledge: as a cluster of perceived audience expectations, and modal, technological, and social affordances. These networks, furthermore, impacted and were impacted by lots of infrastructural components, such as the class itself, the department in which the class was taught, social media networks, and community partners' organizations. Through elucidating these relationships in the next chapter, I hope to further my argument for a rhetorical understanding of new media writing processes, and writing processes in general. Furthermore, I hope to explicate and demonstrate an infrastructural understanding of the

processes I observed, an understanding that provides actual, empirical evidence for the relationships between writers, networks, material structures, knowledges, and practices, an understanding that could substantially further our ability to research, teach, and make a difference through writing.

CHAPTER 4: WRITING NETWORKS AND WRITING INFRASTRUCTURES

In the last chapter, I argued that my student participants mobilized and invented knowledge of technology, modes, and genres in careful coordination with not only their fellow group members but also their community partners. I argued that this was a form of rhetorical action in the form of procedural and probabilistic knowledge-making based on perceived affordances. Here I argue that this student knowledge-making was also a form of networking whereas students coordinated with one another and with their community partner by sharing and making knowledge in strategic ways. I also argue that these students leveraged elements of infrastructure through their networking to accomplish their writing work. Students worked this way out of necessity. Their new media projects required coordination and the distribution of tasks and knowledge across everyone involved. Each project exceeded the capabilities of any one writer to manage himself or herself, in other words, and required the knowledge and capabilities of not only the entire student group, but also the community partner attached to each group, as well as the infrastructure available at MSU and the community partner's site.

My overall purpose in this chapter is not only to further analyze and elucidate these relationships via my empirical evidence for this student writing work, then, but also to mobilize this evidence in the service of my overall argument that such student writing work can be a useful addition to writing infrastructures such as writing programs and community literacy initiatives. It is my finding that the students I've been discussing mobilized and invented knowledge within the specific network they found themselves in, and in response to the resources/components they found available within that network.

This involved not only sharing and making knowledge with each other and with their community partners, then, but also locating and utilizing technologies, modes, genres, practices, spaces, kinds of expertise, etc. in order to address issues of common concern with their community partner, issues such as the ability to reach new audiences, to create new forms of media, and to document ongoing projects.

At a larger level, too, my argument in this chapter, an argument I forecasted in Chapter 2, is that the burdens of infrastructure are primary and felt more deeply in new media writing than in writing that uses modes longer established within universities, such as essayistic forms of writing. As I've mentioned in previous chapters, new media writing means greater potential to go public, but also means a proliferation of modes, genres, and technologies available to writers. Each of these components requires infrastructure, requires coordination, knowledge, practice, technologies and their various components, and particular ways of interacting with all these elements. It is these interactions with the MSU infrastructure that I ultimately hope to describe here, a description that will also create a grounding for the heuristics, or problem-solving strategies, that I provide in the final chapter for building new media infrastructures with communities.

'Net Work' vs. Network: Leveraging Resources to Learn

Students, collectively, mentioned many networks of people and resources in their initial interviews and throughout my research, including social media networks, school systems, their families, peer groups, volunteer organizations, etc. These networks supported students as they made and consumed media, did volunteer work, produced writing for school, etc. Students were familiar, in other words, with leveraging resources,

including coordination with other people who possessed knowledge they needed, in order to perform work as students, citizens, and volunteers. My interview data tells me that much of this work was similar to the kinds of writing work students performed as part of *Rhetoric/Writing: Citizenship, Service-Learning, and Community Media*: work that necessitated relying on others, that involved various, and often disparate, forms of resources (e.g. knowledges, modes, technologies, genres), and that was highly inventive and highly social in nature (e.g. designing a website for a client, building a Powerpoint presentation for a class, tutoring children with autism).

It is possible, in fact, that students had already worked in what I'm calling distributed knowledge networks before the class, though I have no way of verifying this claim. Much of the work they described in their interviews sounded similar to what I observed them doing in their student groups and with their community partners: namely mobilizing resources in a highly coordinated manner in order to address an issue of common concern, an issue that required knowledge work. The students, in other words, wanted not only to succeed in a college-level class, but also to produce useful media for their community partners. The community partners, in turn, wanted to work with students to create media for various reasons, often because they thought the students could help them reach new audiences or could simply do work for them that they didn't have time to do for themselves.

The particulars of this writing situation created an interesting distribution of work, in other words. 4-H, for example, was composed of a group of four students, three of whom had intermediate-to-advanced technological and modal knowledge that was directly applicable to their developing website, a genre usually called exactly that by students, but

called a 'splash page' by their community partner, Dave Mahorney of MSU's 4-H Extension. Dave had about the same level of web-related technological and modal knowledge as the three more advanced students, but the fourth student, Emily, had only a beginner's level grasp of website development (which was how she characterized herself).[31] In addition, Dave's brother and technology adviser, Jesse Mahorney, attended one meeting to lend his considerable social media and web-based expertise to the developing project. These factors strongly affected the ways in which the group, as a network, leveraged the resources available to them, including technologies like Dreamweaver, and modes like images from the existing 4-H website. Two of the web-design experienced students, Alex and Kirk, had Dreamweaver installed on their laptops that they used for school, for example, and thus became the key coders of the website. In other words: the way knowledge work was distributed throughout the group depended heavily on past knowledge that students

[31] I think a note here regarding how students were put into groups is warranted. As I mentioned in Chapter 3, students were required to fill out a skill set inventory sheet, in which they detailed their existing skill sets as well as those they wanted to work on most during the semester (see Appendix D). They also indicated their preferences for community partners, and in Project #1 reflected on how they would continue their work as writers and citizens with specific community partners. Based on this information and the needs of community partners, I, and any instructors sharing the same pool of community partners, then placed students in the ways that most met their preferences while setting them up for success.

possessed going into the project, and on how students mobilized that knowledge in relation to the resources the group perceived as they made moment-to-moment writing decisions.

In this way, each student group (4-H and Eric 1) and its attendant community partner (Dave Mahorney and Eric Staib, respectively), formed something like a distributed knowledge network. Following the findings of Spinuzzi and others (Haythornthwaite, Ho et al., and Hustad), I define a distributed knowledge network as the social and material interconnections between a group of knowledge workers engaged in deeply coordinative work, typically work that involves computer technology. Such a network is distributed because knowledge is shared or outsourced amongst its various elements, which include people, technologies, modes, genres, knowledge that gets mobilized in an ad hoc fashion to do specific kinds of work, etc.

Like the other terms I have used (e.g. technology, mode, genre), however, there are arguments for moving away from an ontological definition for a distributed knowledge network toward a relational one (see, for instance, Bay; Spinuzzi "Guest;" and Spinuzzi *Network*). Clay Spinuzzi views one driving force behind this move as a split between two prevailing paradigms for network theory: activity theory and actor-network theory. As he explains, in the context of a study of a telecommunications company:

> Activity theory provides a cultural-historical, developmental view of networks grounded in the orientation of particular activities toward particular objects. It foregrounds the development of competence and expertise as workers labor to make Telecorp a success… Actor-network theory provides a political and rhetorical view of networks and foregrounds the continual recruiting of new allies—both human and nonhuman—to

strengthen the Telecorp network. The two frameworks are very different, even contradictory, and can lead to very different conclusions. (*Network* 25)

Because of this basic inconsistency between these paradigms, Spinuzzi feels that the concept of the network is being abandoned by many theorists unnecessarily and argues for reclaiming it by grounding his thoughts about the concept in the actual network of a telecommunications company he calls 'Telecorp' (*Network* 12).

Spinuzzi's solution to this divide is to look at Telecorp's network through both lenses, and ultimately to attempt to describe what he calls the *net work* of Telecorp, or the ways in which assemblages of material components (e.g. Internet Help Desk workers, computers, fibers, sales reps, telephones, software) are "enacted, maintained, extended, and transformed; the ways in which knowledge work is strategically and tactically performed in a heavily networked organization" (*Network* 25). Later Spinuzzi lists what he feels are some of the essential qualities of knowledge work at Telecorp, or namely that it is "deeply interpenetrated, deeply rhizomatic: it has multiple, multidirectional information flows. Yes, work may resemble a process… But within the black box, work is performed by assemblages of workers and technologies, assemblages that may not be stable from one incident to the next and in which work may not follow predictable or circumscribed paths" (137).

Stemming from this, I would argue that my student participants exhibited some of these elements of networked/distributed knowledge work, and that the highly coordinated work I witnessed students performing almost rose to this level of 'deeply interpenetrated' and 'deeply rhizomatic.' As Deleuze & Guattari explain the notion of the rhizome, "any point in the rhizome can be connected to anything other, and must be." And "a rhizome may be

broken, shattered at a given spot, but it will start up again on one of its old lines, or on new lines" (9; also quoted in Spinuzzi, *Network* 11). As Spinuzzi goes on to explain, "[r]hizomes are made up of diverse, heterogeneous acts and materials that cannot and should not be categorized, placed in subject-object distinctions, or otherwise separated to generate strong explanations of their workings" (*Network* 11). So, while not quite as heterogeneous, diverse, and omni-directional as knowledge and textual flows within a telecommunications company, clearly 4-H was forced to work in a somewhat rhizomatic fashion, a fashion deeply interpenetrated with available information and other resources. 4-H had to, for example, learn and connect elements of infrastructure at MSU that had never been connected before (such as the knowledge base of two community organizers and the work lab in the MSU library). They did this in a mostly haphazard fashion, without sure direction, and by making moment-to-moment decisions about the next step in their composing process as that step became apparent and as the infrastructure needed for that step was ascertained.

Consider, for example, the following composing story reconstructed partially from video-taped data and partially from research notes I took after class sessions: the 4-H group meets with Dave for the first time to present a Facebook survey they have prepared regarding students in their social network and their feelings about mentoring. They ask him questions about the work he does through 4-H, how he wants to communicate that work to an audience, and, in general, what he wants to do through media. They get from the conversation that he wants some kind of social media. Through additional conversations, mostly over e-mail, they begin to suggest a simple website that integrates social media such as Twitter and Facebook. 4-H, during an in-class activity, works together to invent ideas for

a simple website. This consists of Kirk building the HTML framework of a website in Notepad and messing around with it, occasionally loading it via an Internet browser to see what it looks like. Alex searches for an open source web template online. Shalin and Emily contribute by explaining, mostly to Alex, what they think the overall website should look like and what it should do. Kirk gives some feedback about what the template should do as well between his HTML-playing. As a group, they find a suitable template and present it to the class and then a few days later to Dave. After some negotiation, Dave agrees to the template as a suitable starting point for the simple 'splash page' he wants.[32]

I give students a day off from class later on in the project to actually compose a full draft, suggesting they utilize the work labs in the library that have a Smartboard and a desktop computer with some software available. 4-H chooses to do this, and sets up a

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[32] In the interests of space and sense-making within this process story, I have glossed over what these negotiations looked like. It is worth noting that they also involved myself and another service-learning instructor, Jessica Rivait, whose Professional Writing students were also working with Dave. During the first meeting in which 4-H presented their prospective web template, Dave actually wanted Jessica's students to create the website, in addition to a new 4-H logo. After some discussion, he then proposed that 4-H create a technology plan for him. Upon reflection, however, we felt that this original plan was a recipe for failure, given the difficulty level of each project and the skill sets of each student group, and suggested he allow 4-H to create the simple website he desired and that he task the Professional Writing students with the logo and the technology plan, a plan which he eventually agreed to.

composing session in which Kirk initially does some of the coding for the website with Dreamweaver while Shalin, Emily, and Alex make suggestions and Alex simultaneously attempts to get the Smartboard to display the screen of the desktop. When even a library staff member can't get the Smartboard to work, Alex finally decides to try plugging his laptop into it and finally the Smartboard starts working, at least as a simple display. The only problem: Alex doesn't have Dreamweaver on his laptop. Kirk continues to code while the other group members make suggestions and Alex flicks back and forth between the existing 4-H website and his searches for a free trial version of Dreamweaver. Finally, Emily says that she wishes they could all see what Kirk is doing, and Alex asks Kirk to e-mail him the index.html file so he can code and everyone can make suggestions (see Appendix E). They finish the composing session this way: with Alex coding and the rest of the group making suggestions.

After this discussion, Alex makes a command decision that the existing template will not work, and communicates this to the group over e-mail. Shalin agrees. The other group members do not respond. On his own, Alex prepares another sample template using Dreamweaver and presents it to the other group members at the beginning of the next class. They agree it is simpler, cleaner, and discuss next steps. They present this preliminary website to Dave, whose brother joins the meeting, and as a group they discuss integrating social media into the website more fully. Over the rest of the semester, the

group continues to refine the website and creates a how-to-update guide for Dave that is usable in any format, including Notepad (see Appendix E).[33]

So: though we could draw a linear narrative through this story, it is clearly somewhat non-linear, recursive, haphazard, trial-and-error, and interpenetrated by a variety of information flows (social, technological, generic, classroom-based, community-based etc.). Again, however, these were students who didn't know each other, who worked together for a short time. So they did something like distributed knowledge work: they shared knowledge, they leveraged technologies and other resources together, they coordinated what they were doing with one another and with their community partner. Recently, Jennifer Bay has gestured toward a model of networked *learning* that I think fits better with what these students were doing, perhaps.

Bay's concept of networked learning is based partly in Spinuzzi's definition of net work, and partly on the premise that "[i]n workplace environments, professional writers operate in a rhetorical network that incorporates people, technologies, texts, and media. In these contexts, media and texts are just as significant, and a great deal of learning can occur as individuals interact with these sources." "Unlike in times past," however, "this network has expanded beyond the traditional workplace to include social and personal life." And thus, for Bay, networked learning is "learning that happens through interactions among

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[33] It also bears mentioning that 4-H also made a Facebook fan page for Dave early on in the semester, a fan page that became live shortly after they made it. This was not the main focus of much of the work of the group, however, and so I have chosen not to focus on it in the above process story.

individuals, sites, media, technologies, and materials." These types of 'interactions' seem to me like a learning model that assumes students will one day engage in work that is rhizomatic and informationally unstable, that requires interactions rather than hard and fast protocols for dealing with various kinds of knowledge.

This type of learning connects well with the above composing story, as well. What I observed was a series of interactions among the people, sites, media, technologies, and materials of the 4-H network, and the learning and knowledge work necessary to push those interactions forward. The 4-H network, then, was composed of the strength of those interactions as students mobilized and invented knowledge, made decisions, and interacted. It was more or less haphazard, rhizomatic, and kairotic at each stage: the moment-to-moment interactions were what mattered. The decisions and kinds of knowledge pertinent to one situation wouldn't necessarily be pertinent to the next. There was an accumulation of knowledge as the project was pushed forward, no doubt—as I described in the last chapter, a kind of iterative knowledge-making around modal, technological, and generic knowledges was exhibited—but it was often difficult to assess this accumulation of knowledge, to nail it down and account for it, so frequently did it change and mutate from decision to decision.

One way I have attempted to account for the learning/knowledge work students performed is by highlighting key elements of it as I did in the last chapter. In this chapter, I am attempting to tell stories about student composing that will give a picture of the interactions I observed as a series of interactions. Another key element of this story, is the types of interactions students engaged in around infrastructure available for new media composing at MSU. Through their networked learning, through their pseudo-net work,

students also needed to leverage various elements of this infrastructure in order to perform their work, sometimes, as described above, by plugging holes in it through their knowledge work. Another important element of this relationship between the student networks and the MSU infrastructure, was how these networks nested within this infrastructure, or how these networks interacted with resources available to them to produce new media, a description I turn to now.

Nested Net Work: Students Composing Infrastructure

Compared to knowledge networks, an infrastructure can be defined as the total system of available individuals, sites, media, technologies, and materials given a particular writing situation, a system that "emerges for people in practice, connected to activities and structures" (Star and Ruhleder 112). An infrastructure is composed of all the elements that enable writing work, including standards/conventions, cultural and communal practices, identities, and diverse purposes and needs, as well as more technological or structural elements such hard-wired networks, technologies, and information systems (Grabill 40). Star and Ruhleder provide a very complete list of the essential attributes and components of a given infrastructure:

- *Embeddedness*. Infrastructure is "sunk" into, inside of, other structures, social arrangements and technologies;
- *Transparency*. Infrastructure is transparent to use, in the sense that it does not have to be reinvented each time or assembled for each task, but it invisibly supports those tasks;
- *Reach or scope*. This may be either spatial or temporal—infrastructure has reach beyond a single event or one-site practice;

• *Learned as part of membership*. The taken-for-grantedness of artifacts and organizational arrangements is a sine qua non of membership in a community of practice [. . .]. Strangers and outsiders encounter infrastructure as a target object to be learned about. New participants acquire a naturalized familiarity with its objects as they become members;

• *Links with conventions of practice*. Infrastructure both shapes and is shaped by the conventions of a community of practice; e.g., the ways that cycles of day-night work are affected by and affect electrical power rates and needs. Generations of typists have learned the QWERTY keyboard; its limitations are inherited by the computer keyboard and thence by the design of today's computer furniture [. . .];

• *Embodiment of standards*. Modified by scope and often by conflicting conventions, infrastructure takes on transparency by plugging into other infrastructures and tools in a standardized fashion;

• *Built on an installed base*. Infrastructure does not grow de novo; it wrestles with the "inertia of the installed base" and inherits strengths and limitations from that base [. . .] (Monteiro, et al. 1994);

• *Becomes visible upon breakdown*. The normally invisible quality of working infrastructure becomes visible when it breaks; the server is down, the bridge washes out, there is a power blackout. Even when there are back-up mechanisms or procedures, their existence further highlights the now-visible infrastructure. (Star and Ruhleder 113, italics theirs; also quoted in DeVoss, Cushman, and Grabill 20-21)

Without analyzing the entire composing infrastructure of MSU, a task already completed by DeVoss, Cushman, and Grabill in the above-cited article, I will now turn to the elements of this infrastructure that the students I observed used in their composing work, and the ways in which student networks nested within this infrastructure (21-22). From there, I will tell the other composing story I have to tell, that of Eric 1, highlighting the ways in which the students used their network to leverage particular infrastructural elements.

The components of the composing infrastructure for Eric 1 and 4-H included:

- Individual students and community partners and their individual knowledges going into the project (modal, technological, generic)
- Individual student laptops and installed software, including Dreamweaver and iMovie
- Computer labs in the library which included a networked computer, a Smartboard, and some software
- The MSU wireless network
- The World Wide Web
- The Writing, Rhetoric, and American Cultures department and its attendant standards, requirements, and resources (including digital video cameras available for students to check out)
- The availability and methods of accessing the computer labs, the wireless network, and the digital video cameras

- The *Rhetoric/Writing: Citizenship, Service-Learning, and Community Media* curriculum and its attendant learning goals, homework assignments, major writing assignments, key terms, peer support network, etc.[34]
- The design and arrangement of both the classroom in which this section of WRA 135 was held and the library computer labs
- Community partner organizations and their attendant standards, requirements, and resources
- Audiences for the projects identified by community partners

All these components of infrastructure appeared in my data as things students used during their composing. Discussing each of them in detail would be a dissertation in itself, however, and certainly beyond the purview of this chapter. Instead I will focus on what I see as some of the key elements of infrastructure that students used, the elements that were most frequently used and that seemed to be the most important to students, based on how they interacted with them. These were also the elements that seem to form the largest constellation around student composing work: the elements students came back to the most. These elements are depicted in Figure 1, below:

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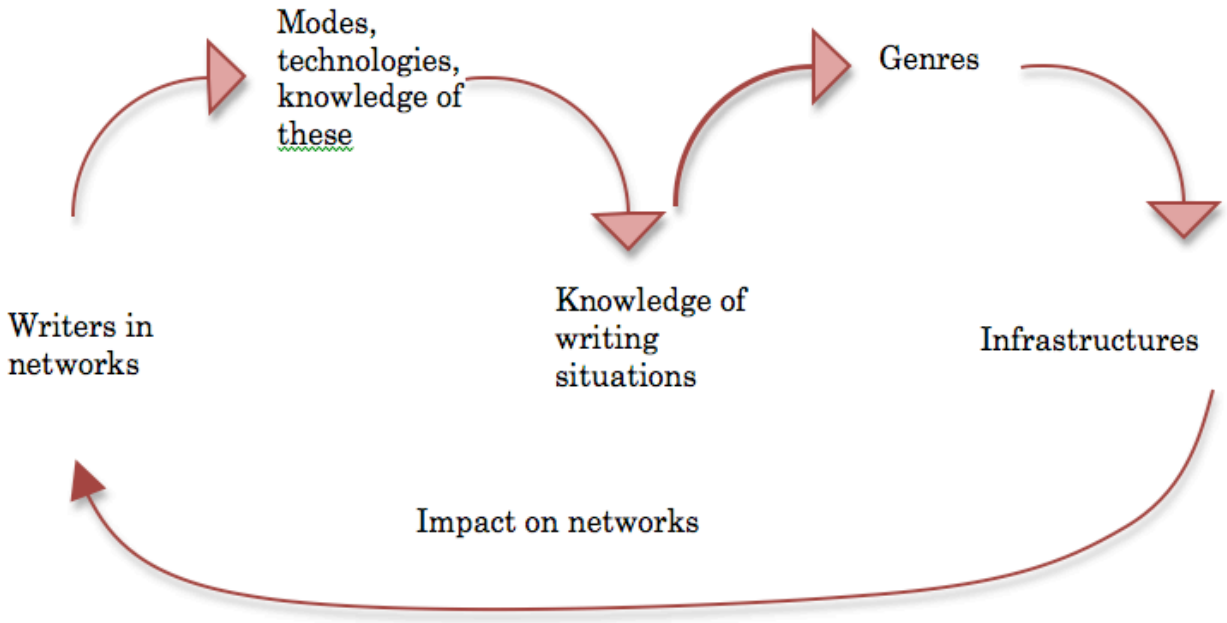
[34] The curriculum for the class listed 'on the books' at MSU, *WRA 135: Public Life in America*, was originally developed by Laura Julier and David Cooper and the process of its development is described in the book edited by them that is cited below. It was conceived as a class in which students did writing the served the public interest. Several colleagues and I created a version of the class that included new media as the central path to enter the local public sphere.

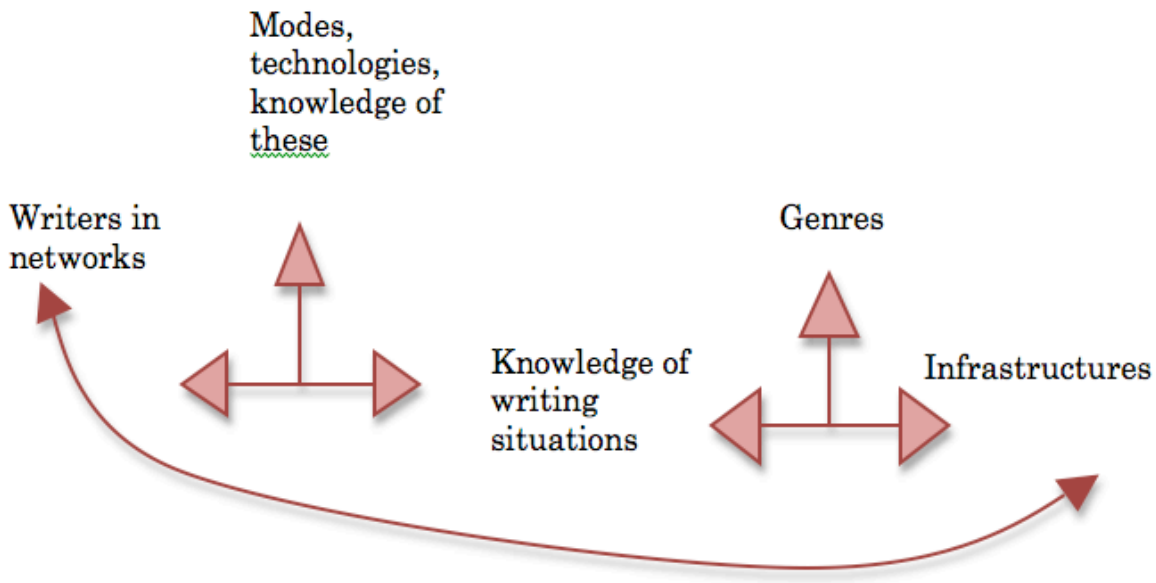
Figure 1. (Idealized) New Media Composing Process



Note: for interpretation of the references to color in this and all other figures, the reader is referred to the electronic version of this dissertation.

In Figure 1 we see a kind of closed feedback loop. As student composers mobilized resources, such as modes, technologies, and their respective knowledge about these components, and paired this resource mobilization with their understanding of the writing situation, they made texts that they then classified in relation to this writing activity (genres), texts which became part of infrastructures. The reality of this process was more like Figure 2, however, or perhaps an imagined combination of these two figures:

Figure 2. (Actual) New Media Composing Process



Students made moment-to-moment decisions that moved their project in many directions at once, but overall there was a progression toward a finished product. This was an iterative progression, however, filled with stops and starts, setbacks, decisions, and the mobilization of resources. Again, we can think of the notion of the rhizome and the interpenetration of their writing processes by a variety of information: often, all four student composers within 4-H were engaged in some kind of related but separate activity, for instance. 4-H also engaged in significant asynchronous forms of coordination by communicating over e-mail between meetings. At their first real composing session outside class, they developed and classified one text as meeting generic specifications for a simple website or splash page, only to fall back quickly into one group member's composing followed by the development of a new text that the entire group felt better met these specifications.

It was student interactions with technologies, modes, etc. within their networks that composed the infrastructure students needed for their writing. And the converse was also true: through composing infrastructures, or interacting with the disparate elements available to them, students strengthened their networks for the continued building of further infrastructure. This may sound like a perfect iterative loop, but again, it was a rhizome: as they sought out new technologies, modes, generic knowledge, etc. to build their projects, students made new connections among these elements of infrastructure in a multidirectional fashion, by doing many things at once and by handling many different types of information at once in a haphazard and iterative way. A new technology might lead to discussion of a new generic element, for example, or a new mode. There was no definite direction their work took. Instead, each moment of composing led them in a mostly unexpected direction.

I'm thus arguing that 4-H's composing process was a form of distributed knowledge work that iteratively, but eventually, produced a new genre for use in an infrastructure, the infrastructure of the 4-H mentorship website, specifically. This genre would have been very different had different students leveraged different resources in order to classify and create it the way that they did. The simple website the students created and their letter to Dave explaining how to integrate and sustain it, in fact, is best thought of as a record of the rhetorical responses of the members of 4-H to several smaller problems, such as what would best serve Dave's communication needs, Dave's level of expertise with web design, etc. (see Appendix E). Like the video I made for the Allen Neighborhood Center, then, 4-H invented an infrastructure for their project as they composed it. Another way of saying this is that they made what they felt like was good use of available resources in order to create a

project that they felt was best suited to those resources available to their community partner. The success and failure (there was some of both) of this invented infrastructure is something I will turn to in Chapter 5, because it can tell us something, I believe, about the successes and failures of infrastructures in general.

The composing process of Eric 1 was similarly messy, iterative, and infrastructurally productive, and involved the same rough patterns of resource mobilization that was procedural, probabilistic, and based in both past knowledge and knowledge invented in relation to the writing situation. Eric 1's composing process story starts when they meet with Eric Staib, their community partner and a local art teacher interested in new media, particularly digital video. Like 4-H, Val, Courtney, and Ivory set the tone for this meeting by asking Eric carefully crafted questions about the type of project he wants. In response, Eric excitedly describes shot angles for shooting his kids with a digital camera, putting this footage on Channel 21, and making Youtube videos from it. He invites students to immediately jump into shooting, and since the students haven't brought a camera of their own, I make the decision as a teacher-researcher to donate the camera I am using for my research to this endeavor, with the caveat, of course, that I will need it back the moment anything pertinent to my research happens. After all: if there is no activity for me to observe, then I have no research.

This becomes the main activity students engage in for some time: going to Eric's classroom and capturing video footage and photographs of Eric's students and their art work. Because of scheduling conflicts, Ivory can't attend the same class that Courtney and Val do, and so goes on a separate day to capture footage and photographs. This process lasts for a few weeks, but as mentioned in Chapter 3, the students, especially Courtney and

Val, quickly become concerned that the amount of footage and photos they are collecting is piling up with no shape to the project. They are equally concerned that when they ask Eric about the overall shape of the project, he tells them that whatever they decided to create will be fine, and then proceeds to describe various modes of the project, such as new shot angles he has thought of. I encourage them to come up with a scope for a project that will accomplish what Eric is asking them to do, to start making suggestions rather than just asking questions.

The scene that results from this suggestion is depicted in Chapter 3, but in general represents a major shift in the relationship between the members of Eric 1 and Eric. The students begin to make more suggestions during meetings, and to follow them up with questions. They continue to collect footage, but are now making decisions in coordination with Eric as to the shape of the project. Val, the student with the most video editing experience, begins trimming clips and putting them into an I-Movie project outside class. The group elects to meet outside of class around the same time 4-H does, and in a similar room. During this first official composing session, Val leads the composition of the project but continually asks for suggestions. Courtney is more vocal in this initial discussion, but Ivory participates significantly as well, largely by adding to, agreeing with, or problematizing Courtney's comments.

In two composing sessions, the group creates a rough draft of their project that they feel meets Eric's needs and wants. They show it to him and he has few suggestions. Despite this, they ask him several follow-up questions about where to go next. This is the pattern that continues for the remainder of this group's composing process: students utilize Eric's knowledge of digital video and his preferences as a resource that they mobilize in relation

to all the other resources they can find, including Val's understanding of video production, and the knowledge that Courtney and Ivory possess concerning iMovie, a technology Val has never used. The only time this pattern is disturbed is during the moment of delivery. The group reports that they are going to export their developing project as a Quicktime file. I think this is a problem, as Eric would have to re-import the file into iMovie, the program he uses to edit footage for his various projects, which would indelibly compress all the modes of the project and also lower its video quality. I suggest they just hand over their entire iMovie project and its associated files, tying this suggestion to a conversation we've just had about the sustainability of new media projects. After much discussion, my knowledge as their teacher prevails and they turn in their entire iMovie project to Eric.

Like 4-H, then, Eric 1's composing process was iterative and rhizomatic: the students made moment-to-moment decisions, decisions based on the modal, technological, and generic resources available, and decisions that took them in unexpected directions. Their process fits under the same general heuristic of distributed knowledge work that iteratively, but eventually, produces a new genre for use in an infrastructure, but is also very different in its shape of iteration. Eric 1 met more in person, for example, and interacted less over e-mail. They met with their community partner more often and elicited more feedback. In addition, the modes, technologies, and generic elements they composed in were radically different, requiring a prolonged period of capturing, uploading, editing, and exporting/rendering digital video and photographs.

Given the research reviewed above, it is arguable that as networks of writers do work, they leverage resources available within their infrastructure in order to accomplish specific tasks, and this leveraging affects infrastructures in various ways, sometimes

making interconnections within an infrastructure stronger or weaker depending on how these resources are leveraged. Based on my research, student net work, as depicted above, has a similar relationship to its infrastructure, though admittedly weaker than more engaged and durable forms of net work, such as would occur within a group of professional writers working in industry, or from within the board of a non-profit organization. Regardless: it can be very productive for university infrastructures, especially those that seek to enact missions of community engagement. As I've described thus far, the students I observed appeared very committed to networking and building infrastructures in a way that was as sensitive to the needs of their community partners as they thought possible.

Toward a Heuristic View of Writing Networks and Writing Infrastructure

Students producing new media, especially for/with a client or community partner, undoubtedly compose infrastructure as they go, through making interconnections within existing infrastructure that are not necessarily apparent, through contributing new elements to that infrastructure, and, as I will explain in the next chapter, by pointing out holes, breaks, and ruptures in existing infrastructure. I say 'undoubtedly' based on my own findings and experience, but at this point you may be asking: but don't students regularly fail to do this? Even students in a service-learning class with lots of access to technology? Or: don't community partners ever fail to appropriately interact with students, to make their knowledge and other resources sufficiently available to willing students? Certainly.

In fact, in the next chapter I will describe not only what I think makes it more likely for students to fail at networking and composing infrastructure, but instances in which this happened, even one involving one of the above research groups. I will not, of course, be

able to describe in detail other instances of failure, because I thoroughly believe students in classrooms should either be research subjects or not: I have seven students and three community partners who gave me permission to poke around in their writing lives; other students and partners did not. Nevertheless, drawing on the research I've represented primarily in this dissertation and teaching experiences I haven't, and won't directly, I will attempt to elucidate heuristics or ways of solving problems within university networks and infrastructures attempting to create new media with local communities. These heuristics will, of necessity, be tacit, tactical, and guaranteed only to work some of the time in other contexts, but will nonetheless hopefully be productive for other researchers, teachers, and students seeking to engage in similar kinds of infrastructure-building.

CHAPTER 5: THE WHERE OF NEW MEDIA WRITING

You might expect that a dissertation that has studiously avoided solidly defining one of its key terms would end with a chapter called 'the *what* of new media writing,' but that is exactly the point of this chapter: to argue that new media writing should be defined by its location in an infrastructure, rather than by what it intrinsically *is*, divorced of any specific infrastructure. In the rest of this dissertation I have endeavored to provide examples, findings, and contexts of new media that I have personally experienced in my efforts to do new media writing with community members. In this final chapter I will provide heuristics, or problem-solving strategies, for any readers interested in doing infrastructure-building. I also draw out the implication that writers leveraging resources to accomplish new media writing projects within networks helps build new media writing infrastructures.

I begin, below, with my much-awaited definition of new media, which is of course more a heuristic than a definition, because like all the terms used in this dissertation, I find new media useful more for its heuristic function than for what scholars agree it actually is. The reason I have held off defining new media until now is that I thought my heuristic definition for it would make more sense after seeing my data. My student participants pushed their projects forward by leveraging resources, most notably very specific and situated forms of knowledge, and from this rhetorical mobilization of knowledge 'opened' some of the most emergent genres of new media to their community partners, partners who sometimes knew the genre almost as well as the students did. I argue below that new media is therefore emergent in the sense of being the most emergent in relation to established forms of media that a *given community has access to within its infrastructure*.

Eric, the school teacher, was using new media by shooting and editing digital video because he is the only teacher in his school that does so. Dave, the 4-H mentorship facilitator, was using new media by trying to make the web presence of his initiative more interactive.

As I argue below, then, the problem within the loose aggregation of scholars and publications that could be called 'new media studies' is a problem similar to the one that 'community media' scholars face: too many of us are trying to figure out what it is, and how it is different from other forms of media, rather than simply trying to figure out *where it is* and *what it does*, or can do, for people using it. Perhaps, I suggest below, it would be more productive for scholars to shift their focus not only to the *how of new media*, then, or how citizens, workers, students, teachers, and community members are using new media to represent themselves and others, but also to the *where of new media*, or to the specific contexts in which emerging forms of media are taking root and being used to build networks and infrastructures. If we were to assemble such a map of new media, such an understanding of how it is used, by whom, and where, then we would perhaps be moving toward a *rhetoric of infrastructure,* or a collection of considerations useful for thinking about building the networks, material structures, practices, knowledges, and other resources essential for democratically and collaboratively sustaining new media writing wherever it may emerge.

(Re)defining New Media: Many Times and (Hopefully) for All

If it is not obvious at this point why I have chosen to abandon 'multimedia writing' as a framing term, let me briefly review: I whole-heartedly agree with Paul Prior's arguments in his works cited below that we would be hard-pressed to find a type of writing

that is not interpenetrated by a variety of different technologies, modes, and generic specifications. A book is not just a book anymore, but can be an e-book, a citation, an annotated bibliography entry e-mailed to an entire scholarly listserv, the list goes on. Writing is too flexible now *not* to be 'multimodal,' and so, I would argue, claiming that there is a specific kind of writing that is multimodal, as opposed to writing that is, unimodal(?), seems like a useless endeavor, an endeavor that doesn't get those of us who study writing and communication any closer to understanding the affordances of the zillions of communication and writing media available. [35]

As for the term 'new media,' collections of trends and definitions for it are plentiful within new media studies. A particularly good, oft-cited collection is Terry Flew's *New Media: An Introduction*, in which the author looks at "some of the key terms in discourses about new media," such as "digitality, interactivity, hypertextuality, dispersal, and virtuality" (13). I find this work useful for my own thoughts about new media because the author is aware that "a whole range of different practices and processes are subsumed by this blanket description" (9). Indeed. So much so, that the author fills a three hundred twenty page book with in-depth, historically-situated discussions of the history and senses in which media have come to be considered 'new,' the ideological connotations of this newness, and what these connotations mean for scholars silly enough to unproblematically

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[35] I define a medium along the lines of Bezemer and Kress, as a method or channel of "distribution involved in communication" (172). As with all terms, of course, though: I feel that what a medium is is less important than how it works, so when I use this term I am simply invoking a heuristic sense of how a message gets from point A to point B.

invoke the term new media. Like multimedia, then: new media comes to us far from baggage-free. In fact: one might argue that the term new media is just as problematic as multimedia, an argument I would completely agree with. As with all terms used in this dissertation, however, I have chosen new media over multimedia because I find the affordances of the former more useful for describing my experiences both as a scholar/researcher and as a teacher, and think that these affordances might be more useful to others.

Clearly many scholars agree. Bolter and Grusin have famously argued that new media are just an extension of all media forms, which exhibit affordances that they call the double logic of remediation. This logic occurs whereby "[o]ur culture wants both to multiply its media and to erase all traces of mediation: ideally, it wants to erase its media in the very act of multiplying them" (5). Lev Manovich has (equally famously) attempted to map "the general principles of new media that hold true across all media types, all forms of organization, and all scales" by "scrutiniz[ing] the principles of computer hardware and software and the operations involved in creating cultural objects on a computer" in order to "uncover a new cultural logic at work" (14; 10). If we add in the voices of the scholars that I have already reviewed who take new media or transitions from more traditional media forms as central to their work, then we have a clear consensus that a) the most recent media forms are altering (as well as being altered by) the way our culture works; b) this alteration is important to those of us interested in communication and writing; and c) we want to know how this alteration is occurring (e.g. Atton; Bezemer and Kress; Cushman "Toward"; DeLuca; DeVoss, Cushman, and Grabill; Gitelman; Graham and Whalen; Jewitt; Prior; Ranker; Rennie; Selber; Spinuzzi; and Wysocki, to name just a few).

More than that, of course, we can cull from these cited works (of this admittedly small group of scholars that I have found useful for thinking about new media writing) a large collection of considerations for thinking about resources essential to and made available by new media, resources such as various technologies, modes, genres, knowledges, material structures, and practices. As an emerging scholar joining this conversation, in fact, I feel incredibly daunted by what I might contribute to it. New media (or a discussed term similar enough to share most agreed-upon attributes) seems to have been defined many times, in fact, its affordances discussed in the context of a plethora of uses and users, and its history interrogated, critiqued, and elucidated. From the perspective located by my own experiences researching and teaching new media, however, we are still in need of a better understanding of three things: how it works in everyday situations, who uses it, and where they use it.

As with the other terms I have used in this dissertation, then, I would like to call for a moratorium on trying to once and for all define new media *and* on trying to critique its history, ideology, and cultural logics. I would like to call a moratorium on big thinking about new media and its effect on something as large as 'cultural transformation,' in other words. Or, at the very least: I would like to push this conversation towards a lot more situated investigations of what we might call infrastructural transformations. After all, forms of writing and communication are always used in dynamic tension with infrastructures, or with systems of knowledge, practice, and material structure. If there is one ontology I will add to this conversation it is this. And though there are a variety of permutations for how media emerge within a given infrastructure, as represented by the above scholars' work on such systems as available computer technologies (Manovich;

Selber), the Internet (Atton), established media corporations (DeLuca), and university writing systems (DeVoss, Cushman, and Grabill), we might begin to think of new media as the most emergent forms of writing/communication *within a given infrastructure* or local system of knowledges, practices, and material structures.

If we must think of what new media *is*, to invoke Gitelman, perhaps we could call it an emergent but shared ontology of representation within a given infrastructure, or a *new way of thinking about* what communication *is* that is shared by a specific network of people. New media is clearly more than a thing, in other words, more than a collection of wires, computers, fonts, and images; it also an idea, an idea that is important to a lot of different people for a lot of different reasons. Reducing new media to a thing belies this importance, actually, I would argue, because it reduces it to a set of reified technologies, modes, and/or genres. New media is what we strive to create with the most emergent forms of communication we can make sense of as writers and communicators within the systems of knowledge, practice, and material structure in which we write and communicate daily. It is the newest, most emergent, most 'cutting-edge,' or least established forms of writing/communication we can imagine using to reach audiences. It is writing that is always *always already new* to someone involved with a particular writing/communication situation, in other words, either to the writer/communicator, the audience, or both.

Such a shift would, I argue, require a move similar to the one I called for in Chapter 1: scholars would have to start paying more attention to and working within infrastructures local to them, but again, I feel this is a small price to pay compared to the rich infrastructural narratives, and new community projects, this shift might produce. All of these scholars, many of whom I have met personally, are constantly doing work similar to

the work both I and my student participants have engaged in: they are contributing to networks of writers and communicators, and mobilizing resources in order to do so. Whether they are explicitly trying to strengthen the connections between those resources, whether they are explicitly trying to build infrastructures, however: that is something I don't think we see enough of in new media scholarship. Again I would urge scholars of new media to do new media writing with local communities, to invest in creating shared ontologies of representation with their students, research participants, and local community members. Such new media writing might 'open' the work of classifying, interrogating, and cataloguing new media to other, extra-academic, systems of representation. Such new media writing, a new media writing borne of work of, for, and with members of local networks and infrastructures outside our usual scholarly haunts, would almost certainly add rich, contextualized, and infrastructurally productive accounts to our understandings of new media.

Outside to Where?: Toward Some Rhetorical Heuristics for Building (New Media) Writing Infrastructures

As I have mentioned and alluded to many times now, one of the most important implications of my research into and experiences with new media writing infrastructures is that they are probabilistic enterprises: they rise and fall based on the motivated and distributed knowledge work of individuals working collectively towards common goals, but goals upon which their perspectives may differ or even be antagonistic to each other. This means that the best ways for people from various walks of life, such as rhetoric and writing experts and their students, activists, community members, digital composers, etc., to build,

maintain, and change infrastructures for the better, may be to see themselves as networks of writers in which new types of knowledge, products, and practices are created, knowledge, products, and practices that can then be used to do work in the world through (new) infrastructures.

The *where* of this work can be wherever we find ourselves. I am thus in solidarity with Grabill as he advocates a rhetoric of designing technologies for citizen action "rooted in an epistemology that values *metis* and local expertise, requires the technologies and infrastructures to support knowledge-making practices, and therefore is focused on transformative and transgressive possibilities" (84; emphasis in original). A civic rhetoric must contain these elements, he argues, "[b]ecause those in positions of structured inequality—I have called them 'citizens'—can make things—arguments, documents, media—that enable reversals in particular places and at specific times" (84). To meet the specifications of Grabill's rhetoric of technological design, new media writing must therefore rise to the level of a *techne*, an ancient Greek concept identified with metis, or cunning knowledge (84). "Thus, *techne* becomes subversive, a way of inventing knowledge and persuasive discourse that seeks to counter domination" (85; emphasis in original).

For me, the *where* of new media writing has been manifold, for example: I have worked with various community organizations from a neighborhood center to my own Graduate Employees Union, from small student groups partnered with local organizations, to online social networks populated by like-minded people. In each of these infrastructures, each of these systems of resources for performing writing and rhetorical action, in other words, I have asked myself: *how can I be of use?* This is thus one of the first and most important heuristics for mobilizing resources within a new media writing infrastructure,

for helping to strengthen networked connections within such an infrastructure, for helping to build infrastructure: doing so in a way that is not of use to others, that does not try to counter domination, that does not, in a word, transgress, is worse than pointless: it is procedurally harmful to infrastructure-building.

Heuristic 1: Being of Use

Had I decided, for example, that the original video I had created for the ANC was somehow a more important statement about what *I* saw as the best representation of that organization, I would have failed to produce a video that the members of the organization felt was important for countering stereotypes about their neighborhood perpetuated by more established media systems. The video, as a more nuanced, better contextualized, or more 'post-narrative' new media composition, would've failed utterly except as being a useful experiment for my own edification. Building infrastructures starts by putting our egos aside, then, and rolling up our sleeves.

It does not start by putting blinders on, however. By using the term heuristic, I am invoking, along with Selber, the following connotation:

> From the Greek term *heuriskein,* meaning to discover or find, heuristics are problem-solving strategies that can guide students as they attempt to formulate possible responses to a writing or communication problem. As opposed to algorithmic approaches, which are precisely defined and structured, heuristic approaches provide a suggestive framework that can help students systematically probe the contingencies and dynamics of the author-to-readers intention structure, including the rhetorical situation. Whereas algorithmic approaches set down fixed

> rules for organizing an argument, for instance, heuristic approaches help students determine the most effective organizational pattern given the particulars and complexities of a specific communication situation. (95-96)

Outside of a student writing assignment, the current phrasing of Selber's very useful explication of the term heuristic might not appear to work well for thinking rhetorically about how to building new media writing infrastructures. I would claim that it does just this when we broaden "specific communication situation" to include the total system of resources available that one perceives at a given moment of writing/communication, however. In this broader context, a heuristic like being of use becomes a suggestive framework for communication and rhetorical action given the local ethics of a specific writing/communication situation.

My heuristics for infrastructure-building like being of use, in other words, are ethically "grounded in community or local standards," and thus have something in common with Porter's definition of a postmodern ethics:

> Ethics in the postmodern sense, then, does not refer to a static body of foundational principles, laws, and procedures; it is not to be confused with particular moral codes or with particular sets of statements about what is appropriate or inappropriate behavior or practice. Ethics is not a set of answers but a mode of questioning and a manner of positioning. That questioning certainly involves principles—but it always involves mediating between competing principles and judging those principles in light of particular circumstances. Ethics is decision making—but it is decision

making that involves question and critique. It is informed, critical, and pluralistic decision-making. (216; 218)

Being of use will rarely mean the same thing in two different infrastructures, then. Being of use means being kairotic, cunning, and aware of the affordances of infrastructural power dynamics, or of the complex interaction of standards, identities, and possibilities within a new media composing situation.

Within the story that I have told about the birth of one instance of new media, for example, a video for the website of a neighborhood center, there is another story, a more transgressive one. A meeting or so after the meeting in which our intrepid young new media composer receives news that his primary audience wants to reconceptualize the entire project, he is discussing the newly conceived project with the member of the ANC staff that has agreed to collaborate most closely with him on the revisions to the project. He is again surprised when the staff member seems surprised that he hasn't extracted from the dozens of hours of footage taken for the original project concise and well-thought-out commentaries on what she considers to be two of the most exciting programs the organization has recently developed: a farmer's market and a community gardenhouse.[36] She is also initially opposed to the idea of simply reshooting some footage where her and/or some other staff members could give scripted, concise explanations of these programs. "Surely I talked about them in my interview," she says, rather pointedly. As our hero continues to press that he should simply reshoot the footage, she continues to exhort

[36] This 'gardenhouse' is a greenhouse where community members can maintain their own beds for growing plants, as well as a hub for classes on community gardening.

him to look through the footage, just please: look through the footage. It occurs to him after some more back and forth that continuing to be of use in this writing situation means that he should, indeed, look for something in the footage that he knows isn't there.

How is this being of use, you may ask, and not just my inability to set boundaries with a willful community partner? Without researched precision, my sense is that my partner in this instance needed to feel like she was an effective communicator, needed to feel that she was contributing to the project. There was, after all, an imbalance of writerly power in my favor at this point: I was the one who had spent all the hours deeply involved with this footage, footage of not only herself, but of an organization she had spent years contributing to. She was also far too busy to edit the footage along with me. This was one of my main contributions to this infrastructure, in fact: the pain-staking, intellectual labor of building a story from disparate pieces of video footage, a process that anyone who's done it knows is one of the most time-consuming and frustrating types of new media composition available.

In other words: the affordances of this moment of composing, including power dynamics, technological knowledge, generic knowledge, etc., called for a concession, a good faith act of: *well, maybe I'm wrong. Maybe the footage is there*. The ideal would've been some kind of utopian collaboration in which my technological and generic knowledge was shared equally with my partner, but how often does being of use mean such an equally-balanced act of collaboration? How often does it resemble this moment: two knowers with very different conceptions of what it means to write, trying to come to a shared understanding of how a project should represent its subject? The latter has been my experience more often than not. More often than not, being of use has meant subtle

concessions or acts of transgression in service of larger goals, has meant deciding how to support one communal/local standard within an infrastructure (in this case: respecting a partner's local knowledge of their organization and the way it is represented), while potentially subverting or transgressing another (the need to explicate the nuances of digital video editing in the name of sustainability).

The largest way to subvert or transgress within a given infrastructure, then, is not to be of use to a particular network. This is a powerful act, an act that has consequences for all connected to an infrastructure. I have walked away from community partnerships after a semester, because it became clear to me that a given partnership was not in the best interests of writing students, was not conducive to student development as writing students. I have shifted certain students from the group working with the partner they clearly wanted to work with because I was concerned that they wouldn't be able to handle that partner's needs, either because of the skill set the partner required, or even because of a felt sense of how that student operated as a writer, gleaned from the few weeks I had spent with them. I have refused to partner with community members when I couldn't ideologically support their community project as something students should be doing for a service-learning class, such as when I discovered, for example, that one potential community partner wanted students to confront military recruiters in public schools.

To elucidate what being of use means further, I identify, politically, as a democratic socialist: http://www.guiseppegetto.com/personal-commitments/politics/. My problem in the above instance was not with kicking military recruiters out of public schools, then, a space I don't think they belong in in the first place. It was assigning a group of first year writing students who had signed up for a class called *WRA 135: Public Life in America* to

confront military recruiters in public schools. Even had I had some way of finding a group of democratic socialist students to partner with this organization, I don't know that I could've prepared them to engage in such a radical and transgressive act during the course of a semester. There are always limits to transgression, then, to when transgression tip-toes into some new form of domination.

As a teacher, I transgress by engaging students in infrastructure-building, a project they probably do not face in the majority of their college classes. This is also of use to community partners, though this can also proliferate into many considerations, such as concerning what kind of use students can be to someone they have just met. Being of use, then, is a complex heuristic, possibly the most complex I will present here. *To what use should I put myself?* One might ask, or, more specifically: *what value systems am I prepared to promote?* Infrastructures, like all systems of people, networks, and resources, are permeated by value systems, or heuristics for deciding what is good, true, and possible. Being of use is always the first heuristic, then, because it means being a kind of Jedi warrior. In an infrastructure, there is only being of use or not being of use; there is no 'try.'

When it became clear to me that one community partner, who was working with students in a colleague's class, for instance, was committed to interacting with students in a way that I judged to be dominating and even racist, I made the decision not to be of use to her organization anymore, and to ensure that students associated with me never had to be put in that position again, either. I wanted my students to be able to be of use, and a partner looking down on them because of their ethnic background obviously does not meet this criteria. Being of use means *having the capacity* to be of use in a given network and its infrastructure, in other words, which usually means a certain level of solidarity of values, a

likeness of belief about what is good, true, and possible. In order to be of use, one has to believe that being of use is good, true, and possible, in other words, and if any of these criteria aren't met, then one might ask oneself: *can I really be of use here at all?*

The same goes with students. Part of my project of infrastructure-building puts students in connection with new identities, value systems, and personalities, which I think is essential for their growth as they think about contributing to new infrastructures after the class is over. One can't often choose the exact combination of identities, value systems, and personalities one joins as a citizen or worker. When students have severely negative reactions to a new partnership, however, such as a student I had who would start each class session loudly explaining to the entire class that she hated her community partner and thought that they were stupid, these reactions should be challenged strongly. Students can find ways to dominate community partners, even community partners that have a position of authority within the university the students are part of. If this happens: being of use means challenging that student to rethink their behavior and to ask themselves if their view of what is good, true, and possible is really in conflict with their community partner's view of these things, or whether they are just (as I would eventually judge the above student to be) irritated because of the nature of the class and vicissitudes of working a community partner in general (such as this student's partner who wasn't giving them substantive feedback on their project).

Heuristic 2: Dwelling and Paying Attention

There is a growing trend within community literacy studies urging scholars, practitioners, and teachers of community-based pedagogies to pay attention to what Grabill

would call metis or local knowledge. Calling for a tactical rather than strategic orientation toward work with local communities, for instance, Paula Mathieu has warned about the trend "toward creating long-term, top-down, institutionalized service-learning programs," and has urged compositionists to "critically examine the kinds of projects or relationships we are seeking to inscribe and repeat" (96, 99). The kinds of relationships we should be building between universities and local communities, she goes on to say, should be grounded in "values inherent in more tactical projects: organic origins, a project orientation that frames the community as a source of knowledge, genuine community involvement in planning and evaluation, and a rhetorical sense of timeliness and the limitations of time" (114).

Similarly, both Himley and Schutz and Gere bemoan models of service-learning, such as the tutoring model, which encourage in students a certain "missionary zeal" to help down-trodden members of communities through their superior language skills (Himley 417; see also Schutz and Gere 133). Such models, as Himley points out, often end up figuring community members as "strangers," or "those who don't belong (yet) to mainstream American life because of race, class, life chances, immigration or other reasons" (421). For Himley, this figuring involves a discursive turn inscribed within the history of volunteerism itself, a history in which "white middle- and upper-class women in this country… went out into poor and working class neighborhoods to improve the material and moral lot of the less fortunate they found living there" (419). Citing similar issues, Linda Flower and Shirley Brice Heath have recently sought to redefine service-learning initiatives around the valuing of community expertise, or, in other words, "to

transform service into a collaboration with communities and learning into a problem-driven practice of mutual inquiry and literate action" (43).

This and other work, as well as several professional mishaps when I failed to do this, has influenced me to *dwell and pay attention* before undertaking projects with community members. In Chapter 1, I mentioned dwelling with the ANC before creating the video I would create for them, but within the exigencies of semester-long classes and the requirements of graduate school, teaching, and tenure, as well as the need to find community partners that work well with students, this kind of in-depth dwelling is not always possible. Let me focus our gaze then on what I found it useful to *pay attention to* when thinking about infrastructure-building.

I can't help but mention, for instance, that scholarship like the above seems to create a binary between institutionalized practices and localized ones. Service programs in which students are regularly and reliably sent into the community aren't really of use, but tactical, localized interventions avoid this kind of "top-down" approach that can so often figure community partners as "strangers." And though I don't particularly disagree with the *potential* for this to happen, I think that avoiding this kind of problem involves more than the very important reconceptualizations of knowledge-making and institutionalized practices called for. In addition to rethinking knowledge-making and what becomes a fixture in institutions, in other words, I would argue that we also need to rethink how and what we pay attention to within the infrastructures that support community-based projects.

As I've written about with Shreelina Ghosh and Ellen Cushman, there are some key considerations to attend to during the process of producing new media writing with

communities, considerations that can help us build infrastructures that are more responsive to community exigencies, and can thus help foster more democratic and collaborative relationships between ourselves, our students, and our community partners connected with those infrastructures. This involves constant "negotiation between positions, values, and stakeholders to come to some compromise that always includes and excludes selected people, practices, and resources" (3). An ethical framework for what we call "community mediation," or what I've called in this dissertation 'doing new media writing with communities,' then, would thus be one that:

> 1) attends to local community practices already in place,
>
> 2) that uses these existing practices as an infrastructure for producing media,
>
> 3) and that attempts to bridge both local and external understandings and values of the medium itself so that community practices are understandable to audiences both within and outside the community itself. (5)

These three, albeit complex, considerations, flesh out my heuristic for dwelling and paying attention. They are what I have found it useful to *pay attention to* when thinking about infrastructure-buidling, in other words. They involve a certain amount of dwelling: in order to attend to local community practices, for example, one must first understand what practices are important to a given community or network, but are more contingent, as is every heuristic I have presented in this dissertation, on the particulars of the writing situation and on the networks and resources sustaining it.

One might discover, as I and many of my students have, for example, that the first few interactions with a new partner do not reveal the most valued practices that will become infrastructurally important to the project. It is also possible that what the partner

values will change as new knowledges, practices, and resources are introduced to him/her. As we point out in the above article, then: paying attention within a new infrastructure, dwelling within it, is an active process. Trying to gauge complex understandings of a given medium with a partner, for instance, and finding potential audiences can take months or can be an ongoing project in-and-of-itself, a project that involves generations of students. My various community partners for *Rhetoric/Writing: Citizenship, Service-Learning, and Community Media* (including my research participants) are people that I have longstanding relationships with, and to which I have sent scores of students to during my time at MSU (though this is more true with some than others). Each semester I have learned a little bit more about their infrastructural needs, their understandings of the media and audiences they are trying to connect, and what practices they value the most.

Bringing students into this process means facilitating collaboration and coordination between students and community partners in a way that is based in this local knowledge of community partner infrastructures that students don't possess coming into the class. For me, this has involved introducing students to community partners early on in the class via digitally-recorded interviews and a sheet I have all new partners fill out called a "Community Partner Needs Assessment" (see Appendix E for this sheet; see the following link for some sample interviews: https://www.msu.edu/~rivaitje/WRA135Video1stDayS10.mov). Additionally, once it has begun, student and community partner collaboration inevitably results in a question from students that is a version of my own that sparked this entire dissertation: *why did they do X?* I would not be of use to my students were I to withhold knowledge I have about a partner I have worked with for years, or at the minimum have met much earlier than

students, nor would I be of use to that partner to betray some confidence that partner has placed in me to a group of students. Tactically and kairotically throughout the class, then, I decode what I understand about community partners for students and visa versa, while at the same time urging both parties to seek each other for explanations and consultations.

Ultimately, the above-cited community literacy scholars are correct, then: we do need to pay attention to local knowledge. I think that this paying attention can lead us all the way to the institutional level, however, and even to a transgressive (re)shaping of institutional practices founded in domination. Institutions, like infrastructures, like emergent media, are mutable: they can be changed through motivated and kairotic knowledge work. Dwelling and paying attention means committing to doing just this: to looking for ruptures, points of contention, and gaps in the systems of people, knowledges, and resources that surround us, gaps which we can build into by leveraging knowledge and other resources.

Heuristic 3: Getting New Media Writing to 'Stick'

This heuristic responds to an area of inquiry that is almost non-existent in new media studies and community media studies, but that has a firm presence in community literacy studies: *how can community-based projects become sustainable?* One of the best articulations of considerations important to answering this question has been made by Cushman:

> Service learning programs that have sustained themselves have incorporated reciprocity and risk taking that can best be achieved when the researcher views the [community] site as a place for teaching, research, and service—as

> a place for collaborative inquiry—with the students and community partners… The role of the professor as researcher must be firmly identified and carefully articulated when entering into service learning. When the professor enters into service learning as researcher and teacher, the program can have an increased likelihood of succeeding in meeting students' needs and in legitimizing itself as a serious, rigorous line of inquiry. (43, "Sustainable," emphasis hers)

What I hear Cushman saying here has been my experience as well: helping to sustain a service-learning infrastructure based around doing new media writing with communities at MSU has been about introducing students to networks within an infrastructure already in place, an infrastructure facilitated by my own research and service interests.

Within new media studies, we have calls like Wysocki's and Selber's to open new media to writing and to critically introduce technology into the writing classroom, calls I whole-heartedly agree with, but calls which I fear may end up reinscribing technology and new media as goods in and of themselves, rather than as tools and heuristics that can be used to do work for/with local communities. This is particularly evident to me in a recent argument by Jody Shikpa that advocates a "multimodal task-based framework for composing," which requires students to "determine the purposes and contexts of the work they produce" by generating "complex action sequences" to solve problems provided by the instructor, such as the need to create a researched argument (285-6, emphasis removed). Though at first glance such a framework may seem very similar to the heuristics I'm arguing for, there is no mandate in Shipka's framework that these "complex action sequences" lead to any recognizable genre that has the potential to do real work beyond

the classroom: the projects generated from such a framework are considered goods in-and-of themselves, the message being that if students are allowed to be creative with the media they use that this will somehow affect their entire relationship to media beyond the classroom.

Facilitating the creation of new media writing projects by students that become part of community infrastructures beyond the university has not been studied at all, to my knowledge, and I myself have only anecdotal evidence to report on this front. If experts in writing and communication heed my call to use community media as a form of practice for connecting their interests in new media and community-based pedagogies, if they want to help build new media writing infrastructures with communities, in other words, then this is something we all need to attend to as an area of further study. My own experiences with trying to get student projects to 'stick' in the infrastructures for which they are intended has not been as successful as I would've hoped, but elucidating some successes and failures might be productive for everyone, so here goes.

Starting with the two projects my research participants created, a simple, interactive website for a mentorship initiative and a digital video documenting the work of several grades of art students: one of them stuck and the other didn't. Eric's video got plugged immediately into his iMovie projects list where he remixes work to produce Youtube videos, mini-documentaries, and other new media works. Dave ended up leaving the 4-H mentorship initiative shortly after my students worked with him, and his replacement wasn't able to incorporate the website into the initiative's web presence because of institutional definitions of who controls that web presence (namely, the web development team at MSU). This exchange of information, however, sparked a new service-

learning relationship between a first-time service-learning instructor in my department and the new facilitator of the 4-H mentorship initiative. The product didn't stick, then, but a new network connection was made, one that might help the curriculum that is *Rhetoric/Writing: Citizenship, Service-Learning, and Community Media* survive at MSU now that I am finishing my time here as a graduate student.

In some ways, then: I feel the most hesitant to discuss the 'stickiness' of student projects, because I feel that the biggest determinant of said stickiness is, as Cushman would have it, my presence in the MSU infrastructure. There are still projects that I think might be better incorporated into partner organizations, some that are probably unsalvageable for whatever reason, and some that I'm just not sure about. The next stage of my research, were I a faculty member at MSU, would be to trace the connections of all these projects (around a dozen were produced during my time at MSU). What did they produce? What new connections between people and resources? What new forms of knowledge or practice? Did they cause any negative repercussions on the MSU writing infrastructure? These are questions I don't have satisfactory answers to, and so are the questions I must leave for further inquiry.

My sense, though, thinking back to projects that definitely 'succeeded,' like some booklets on peacemakers students made for a local peace organization, and some projects that definitely 'failed,' like a video made for a local food co-op, these 'successes' and 'failures' had little to do with student successes and failures, and more to do with the infrastructural capacities of their partner organizations. You may have guessed, for example, that the peace organization I just mentioned had made booklets like this before. They had, and in fact have a relationship with a publishing house to produce them, and,

perhaps because of this, have welcomed students to invent new ideas and images within this already-existing genre while giving students the structure that they craved while producing these products. This has been my experience with what we might call the infrastructural stickiness of student new media writing: the more prepared community partners are to recognize and incorporate student writing into their midst, the more they have some experience with a similar genre, in other words, and the capacity to produce that genre themselves, the more likely a student project is to become a more-or-less permanent resource within that infrastructure.

That being said, a study that traced student writing projects in this way would also need to be a study into networked connections that these projects facilitate. Were I to remain at MSU, for example, I would probably leverage longstanding partnerships in order to produce more stickiness of student projects. If a partner wanted to continue to work with me, for example, and had already rejected one student project, I would have a very collaborative and welcoming, but serious discussion with them regarding what had happened. Such a discussion might lead me to express to the partner that I thought their needs might be better met in the future by a professional writing intern or other member of the MSU infrastructure, or perhaps by a professional new media composer, were they inclined to pay for the service. Or such a discussion might lead to a re-envisioning of their workflow with students in order to create more usable deliverables in the future.

Of course: I consider the three heuristics just discussed to work in tandem with one another. In fact I could, if I were so inclined, describe a (obviously fictional) ratio between sense of being of use, degree of dwelling/paying attention, and relative stickiness of produced projects. There were a few partnerships, both connected to service-learning and

completely outside of it, for example, that I walked away from, and not because I had an ideological quandary with the position the partner was putting the would-be writer in. I walked away from some partnerships because the more I dwelt and paid attention, the more I discovered that I could be of no use to that network, outside of maintaining a status quo that I thought ineffective at best. Such was the case with one of the longer-standing partnerships I have had at MSU with an organization that I will keep anonymous: after twenty-one months of dwelling and paying attention, I learned that my suspicions that I could not be of use had been right from the start.

Further research into sustainability might also ask the question, then: are there projects that can't be sustained? Or shouldn't be? When does 'sustainability' become the maintenance of knowledges, practices, and material structures that aren't working for their stakeholders, worse, are dominating or oppressing them?[37] What is the obligation of a teacher, researcher, or activist to sustain an infrastructure? Until we have better answers to these questions, we can only do our best to be of use by dwelling and paying attention to infrastructures, and hope that the projects that matter will stick. My sense is that there is a whole 'underlife' to student projects as they leave the classroom that is rich terrain to explore, a project that is beyond the scope of this dissertation, but desperately needed as we consider the sustainability of new media writing and the infrastructures that make this sustainability possible.

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[37] I distinguish between these two terms in the way that Young does in her work cited below.

Learning Infrastructures Better: More How and Where, Less Why, Please

As I close this dissertation, a voice inside my head is saying: *but I like thinking about cultural transformation.* I know, little voice. It's exciting, and it's what we're trained, as people that come to this document by way the humanities, to think about. That and the affordances of various writing/communication media, of course. As I close this dissertation I find my thoughts echoed by Bump Halbritter's attempt at "exploring and establishing means for realizing common writing goals" (5). As he explains in the introduction to his forthcoming book, *Mics, Cameras, Symbolic Action: Audio-Visual Rhetoric for Writing Teachers*:

> This is a pedagogy for developing writers, not for perfecting forms of writing. It acknowledges openly that definitions for what writing is are in rapid flux. And it also acknowledges that writing may be understood as the various actions and products of writers. By looking and listening to what writers do, we may be able to 'hit upon' a definition of writing, eventually, that 'so sums things up that all the properties attributed to the thing defined [writing] can be as though 'derived' from the definition' (Burke, LSA 3). (5-6)

Besides thinking about redefining writing as new media writing with communities, this dissertation has been about actions and products I have encountered in various writing situations over the past several years. And it has been about trying to articulate common writing goals, and about the development of those goals, a process that will continue long into the future.

The technologies, modes, and genres of writing are changing rapidly, as are the contexts, networks, and people that sustain these resources. What brings all these

components together in various networks, communities, organizations, and institutions, what builds infrastructures, in other words, is what has driven the impetus behind this dissertation from the start: writing and writers. Writers are writing infrastructures, and infrastructures sustain writing. Writing is both verb and noun, action and product, but so is 'infrastructure' (though it makes a crappy verb). Writing infrastructures both contain the action of writing and enable it, both contain resources for remixing into products, and sustain (or fail to sustain) those products.

And to extend this line of thinking one further remove: don't cultures sustain, and aren't they sustained by, infrastructures? How do we learn to write but in networks of other writers and among resources available to us for writing? How do we grow, shape, and transform the communities and cultures we define as ours but to contribute our knowledges, practices, and material resources in tacit, mundane, and innovative ways? How do we travel from one writing network to the next, one writing infrastructure to the next, but by tactically mobilizing the knowledges, practices, and material resources from one writing situation to the next? Such a view of 'culture' would be, as Lindquist would have it, "concerned with examining how the meanings attached to resources are produced locally, through the *emics* of cultural practice" (7, emphasis hers).

Perhaps, like new media writing infrastructures, the cultures of new media writing are produced from the ground up, through emics, or meaning-making practices. Right now we have a great idea of the *etic* or most expansive view of new media writing, of its technologies and modes, but do we understand how new media writers make meaning through situated practice by mobilizing these resources? I believe this is where our real power lies as experts in new forms of communication and writing: in the situated space of

writing infrastructures, in the places where knowledge is mobilized as a rhetorical action and can thus affect such important layers of cultural transformation as who gets represented, who doesn't, and who our messages reach. I believe our real cultural power is infrastructural power, in other words, and it's high time we made the most of it.

APPENDICES

APPENDIX A

INTERVIEW SCRIPTS

Interview Script for Student Interview:

Instructions Prior to Interview:

I'd like you to bring with you to our first interview two pieces of media—documents, bulletins, posters, brochures, photographs, videos, tapes, CDs, computer files, website addresses, etc.—that you think represent the kinds of media you create or use most often. One should be more from your personal life and one more from your professional life (or this can be different aspects of the same media). When I meet with you to conduct and record the interview, I will ask you about the things you brought.

Interview Script:

Phase One: Introduction to be read to participants

As was mentioned during the informed consent process, this study will investigate 1) multimodal composing processes, 2) how students discuss and collaborate on their projects during composing, and 3) what infrastructures (such as MSU, local community organizations, the class itself) are involved with these processes[38]. In order to begin to understand some of the norms you're coming into the class with, I'd like to ask you some questions about the way you have used/made media in the past.

Phase Two: Questions

- What are the purposes of each of these pieces of media?
- Why/how did you initially acquire/make these media? Can you tell me the

[38] Notice that at the time I conducted these interviews I was using the term multimodal and multimedia. My results indicated that these terms were imprecise, given the phenomenon I was observing, and that 'new media' was a better term. The most full discussion of why I feel this term is better can be found in Chapter 5.

story of how you got them/made them starting with how you first thought about wanting them/wanting to make them? What caused you to think that these kinds of things might be good for you to have/make?

- At what moment did you feel that these media had become useful? Can you describe the first time you remember them being useful? What are they supposed to do for the people that use them/interact with them? How does this relate to how you use them/interact with them?

- Are there other pieces of media you thought of bringing, but didn't? What do they do for you? What are their purposes? Why did you first think of getting them/making them? At what point did they become useful?

- Where do you lie on the spectrum from media user to maker? What about the spectrum from personal to professional? Do you use media more for personal or professional purposes or some combination, would you say? Who do you usually use media with, or do you use them by yourself more?

- In general, what kind of media-user/maker would you say that you are? Why would you say you use/make media like these?

- How will the media project you're going to be working on in this class relate to what kind of media user/maker you already are, do you think? What do you hope to add to the organization you'll be working with this semester given what we've talked about concerning the reasons you use/make media like these?

Group Interview Script:

Phase One: Introduction to be read to participants

As has been mentioned before, this study is investigating the ways students express norms for making multimodal writing projects with community partners as part of a service-learning class. In order to begin to make sure that I'm correctly identifying the norms you've expressed during your composing sessions and during meetings with your community partner, I'd like to show you some of the footage I captured of you this semester, and then ask you some questions about it.

Phase Two: Questions

- Can we start by all of you telling the story of how the creation of your multimedia project went this semester? What was the initial idea for the project? How did it turn out? Feel free to point to aspects of the project or the video footage I showed you to highlight your story.

- Overall: do you feel that the video footage I showed you was representative of your composing processes while working on this project? What, if anything, did I not represent that you felt was important? Why was that thing important for your process?

- How do you feel your experiences in this class compare to your experiences using/making media in the past? Was there anything that you did that was highly related to some experience you had in the past with media? Was there anything you did in this class that was completely new?

- In general: how has your work this semester with each other affected the way you think about media and how it's used by people like yourselves, if at all?

- How do you think your media project might be used in the future? How would you like it to be used, if you could imagine any possibility for it, and what might get in the way of this possibility? Do you have any ideas about what it might take to continue the project in the future?

APPENDIX B

CODING SCHEME

Bin	**Indicator**	**Tags**	**Types of Data Expected**
Modes used while working with production technologies	Participants mention a specific mode in the context of the production of their project	Prod: MentM	Footage from individual student interviews
	Participants mention a specific technology in the context of the production of their project	Prod: MenT	Footage from community partner meetings
	Participants use a specific mode to produce their project	Prod: UseM	Footage from composing sessions
	Participants use a specific technology	Prod: UseT	Footage from group interview

	to produce their project		
			Student artifacts: e-mails; in-class writings; major projects 2, 3, and 5; cover letters for major projects;
			Research journal reflections about things that happened in class or were otherwise unrecorded
Moments of collaboration	Participants make an explicit suggestion regarding their project	Col: Sugg	[SAME]
	Participants ask a question regarding their project that functions as an	Col: Quest	

	implicit suggestion		
	Participants deliberate suggestions regarding their project (more than simple yes/no)	Col: Delib	
	Participants utilize each others' suggestions regarding their project	Col: Util	
Modes circulated via a delivery technology	Participants mention a specific mode in the context of the delivery of their project	Del: MentM	[SAME]
	Participants mention a specific technology in the context of the delivery of their project	Del: MentT	

	Participants use specific modes to deliver their project	Del: UseM	
	Participants use specific technologies to deliver their project	Del: UseT	

APPENDIX C

CODING TALLY

Eric 1 Tally

Name of tag	**# counted in all video data**	**% of total tags for this group**	**Tag**	**#**	**%**	**Tag**	**#**	**%**
Prod: MentM	120	21	Col: Sugg	115	20	Del: MentM	3	Less than 1
Prod: MentT	46	8	Col: Quest	43	7	Del: MentT	13	2
Prod: UseM	17	3	Col: Delib	138	24	Del: UseM	0	0
Prod: UseT	42	7	Col: Util	41	7	Del: UseT	0	0
Total	225	39		337	58		16	3
Grand total tags for	578	**% Of Total Tags**	60					

group		**for Both Groups**						

4-H Tally

Name of tag	**# counted in all video data**	**% of total tags for this group**	**Tag**	**#**	**%**	**Tag**	**#**	**%**
Prod: MentM	64	17	Col: Sugg	84	22	Del: MentM	11	3
Prod: MentT	70	18	Col: Quest	35	9	Del: MentT	7	2
Prod: UseM	6	1.5	Col: Delib	87	23	Del: UseM	0	
Prod: UseT	6	1.5	Col: Util	11	3	Del: UseT	0	
Total	146	38		217	57		18	5
Grand total for	381	**% Of Total Tags**	30					

group		**for Both Groups**						

All Tags Tally

Name of tag	**# counted in all video data**	**% of total tags**	**Tag**	**#**	**%**	**Tag**	**#**	**%**
Prod: MentM	184	19	Col: Sugg	199	21	Del: MentM	1	14
Prod: MentT	116	12	Col: Quest	78	8	Del: MentT	2	20
Prod: UseM	23	2	Col: Delib	225	23	Del: UseM		
Prod: UseT	48	5	Col: Util	52	5	Del: UseT		
Total	371	39		554	58		3	34
Grand total	959							

APPENDIX D

STUDENT SKILLS WORKSHEET

WRA 135: Student Skills Worksheet

Directions: The following set of questions asks you to account for and evaluate the skillsets you already possess and will develop further develop over the course of the semester. You are expected to advance individually and to make contributions to your team in three areas:

- Technologies and Media
- Writing and Research Processes
- Social Skill Sets

At the beginning of the course, your instructors will assist you in answering those questions that fall under each skill set areas. At the end of the course, you will be asked to review your initial answers to these questions and assess your growth in these skill set areas.

You will receive credit for filling out this form. This form will not be used to evaluate you for a major grade; your instructors will use it to place you with an appropriate community partner, based your responses and their responses to the community partner assessment form. You and your instructors will also use this form to reflect on your skill set development throughout the course.

Community Partner Preferences:

List your top three choices of community partners to work with this semester. For each one, be sure to include a sentence or two explaining why you think you would be a good fit with that community partner, given what you've written below (DO THIS LAST).

1.

2.

3.

PERSONAL INFORMATION Please give the following personal information so that we may contact you.	
NAME AND RANK	Give your name and rank (i.e., freshman, sophomore, etc.).
MAJOR	Give your actual or prospective major.
EMAIL/ CONTACT INFO	Give your MSU email address, other relevant contact information, and indicate the best way to reach you.

Technologies and Media

In the area of Technologies and Media, you should indicate what technologies and types of media you have worked with before and what your level of mastery is which each of these technologies and media. Technologies and media include but are not limited to: desktop publishing software (brochures, newsletters, powerpoints, letters, posters, etc.); web design programs (websites, links, videos, databases, etc.); visual design software (video, photo, layout).

Assessment of Technology and Media Level of Mastery

Answer the following questions at the beginning of the course.

What technologies and types of media can you already produce (out of the ones listed in the above paragraph)? How have you used these technologies and types of media in past projects (in school, work, home, or community)?

Indicate your level of mastery with each of these technology and types of media listed in the above paragraph (and explain what tasks you can do with these skills). Which of these technologies and types of media do you want to develop a higher level of mastery with this semester and why?

WRITING AND RESEARCH PROCESS

In the area of Writing and Research Processes, you should indicate to what extent you are able to plan, research, draft, and polish written products. You should also indicate to what extent you are familiar and proficient with academic research techniques: this includes (but is not limited to) searching for particular kinds of information at the MSU library, online, or elsewhere, or interviewing, surveying, or conducting focus groups.

Assessment of Writing and Research Process Level of Mastery

Answer the following questions at the beginning of the course.

What kinds of written products have you written before (letters, essays, captions, text for online documents like webpages, movie scripts or other text)?

What kinds of written products can you produce with a high level of mastery? A medium level of mastery? A low level of mastery?

Indicate your level of mastery at completing each stage of the writing process (including inventing, arranging, revising, and delivering written products). Which of these writing skills do you want to develop a higher level of mastery with this semester and why?

What research skills do you already have (out of the ones listed in the above paragraph)? How have you used these skills in past projects (in school, work, home, or community)?

Indicate your level of mastery with each of the research skills listed in the above paragraph (and explain what tasks you can do with these skills). Which of these research skills do you want to develop a higher level of mastery with this semester and why?

SOCIAL SKILL SETS

In the area of SSS, you should indicate your level of mastery using the following social skills: collaboration, communication, interpersonal skills, etc.

Assessment of Social Skill Sets

Answer the following questions at the beginning of the course.

What social skills do you already have (out of the ones listed in the above paragraph)? How have you used these skills in past projects (in school, work, home, or community)?

Indicate your level of mastery with each of the social skills listed in the above paragraph (and explain what tasks you can do with these skills). Which of these social skills do you want to develop a higher level of mastery with this semester and why?

APPENDIX E

COMMUNITY PARTNER NEEDS ASSESSMENT

WRA 135: Community Partner Needs Assessment

Directions: The following set of questions asks you to assess the sets of skills that you and your organization will most need students to develop. Students are expected to advance individually and to make contributions to their team in three areas:

- Technologies and Media
- Writing and Research Processes
- Social Skill Sets

At the beginning of the course, we will assist you in answering those questions labeled "Assessment of Organizational Needs" for each of the above categories. At the end of the course, you will be asked to review your initial answers to these questions and to complete those questions located in the sequence labeled "Final Feedback for Individual Students" for each of the individual students you worked with.

This form will not be used to evaluate students, but students will get credit for doing their own self-assessments and for responding to your feedback for them at the end of the semester. This form will also be used to place students with you at the beginning of the semester.

PERSONAL INFORMATION Please give the following personal information so that we may contact you.	
NAME AND TITLE	Give your name and title.

ORGANIZATION	Give the full name of your organization.
EMAIL/ CONTACT INFO	Give your email address, phone number, and the best way to reach you.

Technologies and Media

In the area of Technologies and Media, you should indicate what technologies and types of media will be required to produce the project students will be making with your organization. Technologies and media include but are not limited to: desktop publishing software (brochures, newsletters, powerpoints, letters, posters, etc.); web design programs (websites, links, videos, databases, etc.); visual design software (video, photo, layout).

Assessment of Organizational Needs

Answer the following questions at the beginning of the course.

What projects will students be working on, and which of the above will be required for the project students will be working on? Are you familiar with any of these? Do you, as an organization, have access to any of these?
What level of mastery will students need at the beginning of the semester to begin work on this project, and what level will they need to be at by the end of the semester?

WRITING PROCESS

In the area of Writing and Research Processes, you should indicate to what extent your project will require students to plan, research, draft, and polish written products (what kinds of written products does the project require and by what process would you like these products produced?) You should also indicate what kind of feedback you plan to give students on their projects in order to improve them, as well as what feedback you expect from them. Research techniques you might want to let students know you need from them may include searching for particular kinds of information at the MSU library, online, or elsewhere, or interviewing, surveying, or conducting focus groups with members of your organization.

Assessment of Organizational Needs

Answer the following questions at the beginning of the course.

What kinds of written products will your project require (letters, essays, captions, text for online documents like webpages, movie scripts or other text)?

In general, what kinds of writing skills do you think these products will require students to begin the semester with, and what kinds will they need to develop over the course of the semester?

What research techniques do you think will be required of students for this project?

What research skills should students begin the semester with and which ones should they develop over the course of the semester?

How will you give students feedback on their project, and what kind of input would you like from them about it?

SOCIAL SKILL SETS

In the area of SSS, you should indicate how you would like students to work with you and with community members. This can include collaboration, communication, interpersonal skills, etc.

Assessment of Organizational Needs

Answer the following questions at the beginning of the course.

How would you prefer students collaborate with you/community members, communicate with you/community members, and in general interact with you/community members.

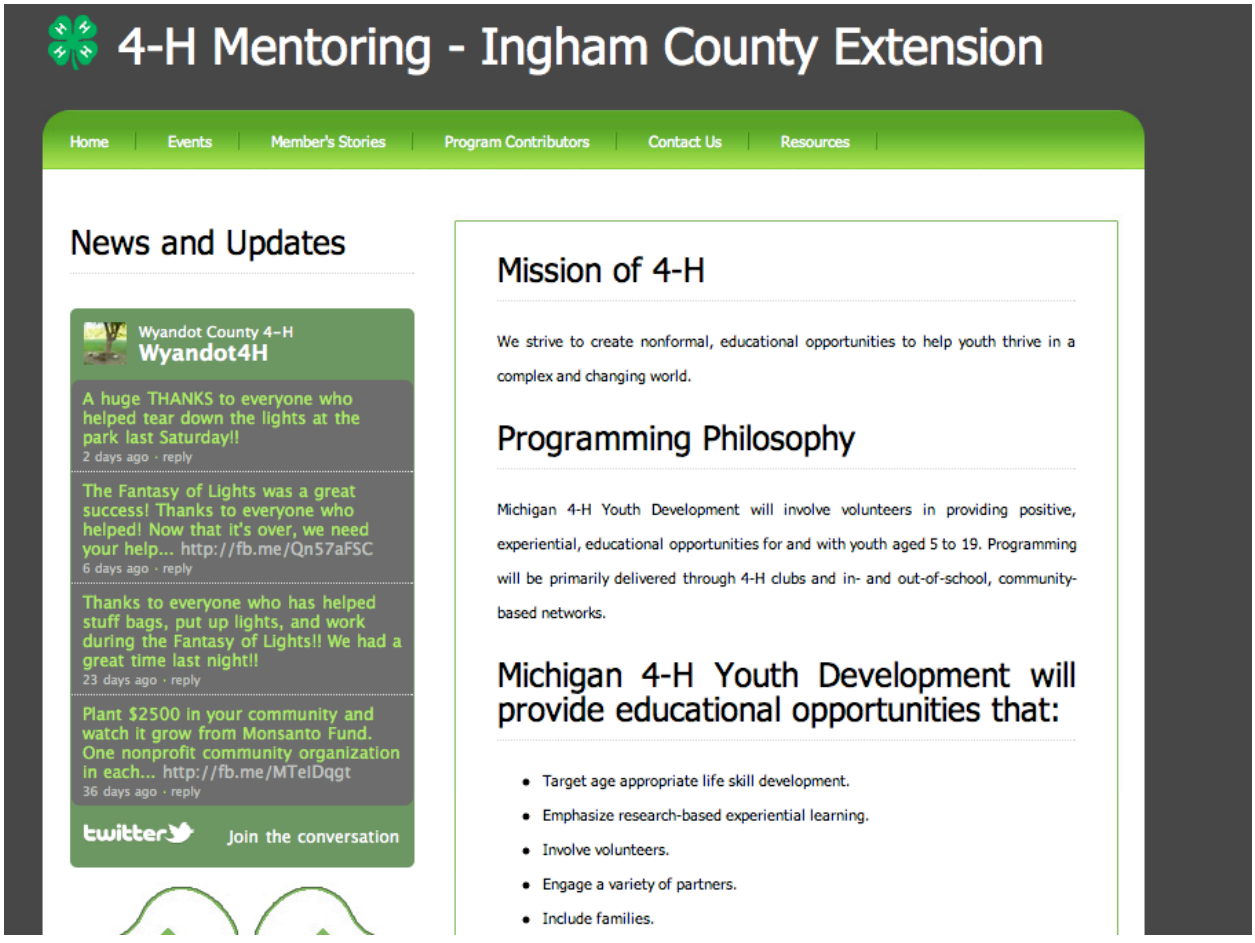
What should students be able to do at the beginning of the semester in these areas, and what should they be able to do by the end?

APPENDIX F

TEAM 4-H NEW MEDIA PROJECT FINAL DRAFT AND COVER LETTER

Figure 3: Screenshot of 4-H's Website

Note: smaller text not necessary for the interpretation of this figure.



5/3/2010

Hey Dave,

We know you possess skills to update the website, but just in case you need some advice, here are the basics. All the steps described below can be done with any web editing program, even notepad.

Index

- Changing top logo
  - In the images folder, there is an image called “image08”. This is the top logo. This can be changed to fit into the top space of the site. For example, rename the image you want to use as “image08” and put it there. Be sure that it is a .png file.
  - To remove the 4-H text that is already there, you can remove it by going into index.html and contact.html and doing it through there.
  - If you want to place an image of a different file type or name in that spot, go into style.css, find “image08.png” and replace it with the name of the image you'd like to use (and file type) while making sure that it is located in the images folder.
- Twitter Feed
  - Go to http://twitter.com/widgets where you can customize your own “widget” for the site.
  - Search for “<script src="http://widgets.twimg.com/j/2/widget.js">” and then select that line plus about thirty lines down (until </script>) and delete (or paste over the code provided by Twitter in the previous step.)
- “Bottom” logo
  - Same procedure as changing the top logo, except the image is called “image04.jpg”. However, you will want to edit the preexisting image by integrating the logo you want into it, as part of “image04.jpg” contains a design element of the site.
- Content
  - We trust that you know how to edit the content.

Contact

- Image
  - Just make sure that the image is in the /images folder and you should be good. The current image is called “dave.jpg”, and the location/name of the file can be changed by editing contact.html
- Content
  - Same as content in index.html

Additional Pages

- The easiest way to do this is open one of the existing pages (index, contact) then choose “save as” from the file menu and name it something different while saving it in the same place.
- Then in all of the current pages, find the list that contains all of the navigation terms in it (find <li class="first">Home) and place the name of the page in quotations after the a href tag. Most of them have “#” in place of a url.

Other Pertinent Information

- We found the template at http://www.freelayouts.com/templates/Efflorescence-Green
- The author of the template has a Creative Commons 2.5 license on it, which means you are free to change the site and distribute it, but you must attribute the original work your “remixing” is based on to them. You can find the copyright information

on the bottom of each page. http://creativecommons.org/licenses/by/2.5/

Feel free to email us if you have any more questions (we're more useful than Guiseppe),
Alex Xxxxxx xxxxxxx@msu.edu
Emily Xxxxxxx xxxxxxxx@msu.edu
Kirk Xxxxxxx xxxxxxxx@yahoo.com
Shalin Xxxx xxxxxxx@msu.edu

APPENDIX G

TEAM ERIC 1 NEW MEDIA PROJECT FINAL DRAFT AND COVER LETTER

The final video can be found at: https://www.msu.edu/~gettogui/Eric1Project.mov

Ivory Xxxxx, Valerie Xxxx, Courtney Xxxxxx

Guiseppe Getto

WRA 135 sec. 1

3 May 2010

Group Cover Letter

Over the semester we have created this project and while doing so we have taken various steps to produce the video that you will be receiving. We began by doing a project where we worked as a group to develop a plan on what we wanted the video to entail based on the types of things we discussed with you and how you wanted the final project to look. With this plan we were able to research the types of media that members of our intended audience, being parents and teachers, would prefer. Once we had all of the developmental ideas and data figured out we were able to begin the process of creating our video. Collecting footage was a process that gradually took place throughout the semester. Our intention was to focus on one big project from beginning to end for each of our classes. The purpose of this was to show the creative development of the students. With the footage collected, we imported it onto the macbook our experiment with iMovie began.

The first step was we went through our couple hours of footage and edited out useless footage like blank clips or accidental recording of the ground. With the workable clips, we

arranged them into sections and placed them in an order that continued the flow of the movie, yet maintained the essence of collage. We then played around with all of the effects that make the video worthwhile to watch. We experimented with transitions, speed of the clips, and certain audio aspects. We had to find music that was free, yet without copyright. We found the royalty free music website; http://incompetech.com/m/c/royalty-free/index.html?genre=Funk, which provided us with a simple way of finding music, with its various genres and songs. Once we found the songs that fit the sections of the video, we had to transition the songs and fade out the background audio. After hours of editing the video finally was complete.

Knowing that creating videos was something you enjoyed we have given you our project along with all of the footage we collected. Some future project ideas could be to make a chaotic collage of all your classes or a clip talking about why the children enjoy art class using the interviews that Ivory did in the hallway with your fourth grade class. Those are just some ideas that we felt the intended audience would enjoy based on the research that we did. Some ideas we have for project we did would be to put it on YouTube. You could also put it on the channel 21 broadcasting station because we tried our best to ensure that it was not copyrighted in anyway. Something the parents might enjoy is a distributed DVD that they could take for memorabilia of their children's elementary school art process. Overall this process was an interesting experience and we hope you enjoy the final product as much as we enjoyed creating it.

WORKS CITED

WORKS CITED

Atton, Chris. *An Alternative Internet*. Edinburgh: Edinburgh University Press, 2004. Print.

Barton, David, and Mary Hamilton. *Local Literacies: Reading and Writing in One Community.* New York: Routledge, 1998.

Bay, Jennifer. "Networking Pedagogies for Professional Writing Students." *The Writing Instructor*. May 2010. http://www.writinginstructor.com/bay

Bezemer, Jeff, and Gunther Kress. "Writing in Multimodal Texts: A Social Semiotic Account of Designs for Learning." *Written Communication* 25.2 (2008): pgs. 166-195.

Bizzell, Patricia. "'Contact Zones' and English Studies." *College English* 56.2 (1994): pgs. 163-9.

Bolter, Jay David, and Richard Grusin. *Remediation: Understanding New Media*. Cambridge: MIT Press, 1999.

Brandt, Deborah. Literacy in American Lives. New York: Cambridge University Press, 2001. Print.

Britzman, Deborah P. *Lost Subjects, Contested Objects: Toward a Psychoanalytic Inquiry of Learning*. Albany, NY: State University of New York Press, 1998.

Clarke, Adele E. *Situational Analysis: Grounded Theory after the Postmodern Turn.* Thousand Oaks, CA: Sage, 2005.

Coiro, Julie, Michele Knobel, Colin Lankshear, and Donald J. Leu, eds. *Handbook of Research on New Literacies.* New York: Lawrence Erlbaum, 2008.

Cochran, Gretchen. "Eastside Streetwalking." City Pulse. http://www.lansingcitypulse.com/index.php?option=com_content&task=view&id=1463. Posted November 21, 2007. Accessed April 1, 2008. Web.

Cooper, David D. and Laura Julier, eds. *Writing in the Public Interest: Service-learning and the Writing Classroom*. East Lansing, MI: The Writing Center at Michigan State University, 1995.

Cushman, Ellen. "Sustainable Service Learning Programs." *College Composition and Communication*. 54.1 (2002): 40-65.

Cushman, Ellen. "Toward A Praxis of New Media: The Allotment Period In Cherokee

History." *Reflections*. 4.3 (2006): 124-43.

de Certeau, Michel. *The Practice of Everyday Life*. Trans. Steven Rendall. Berkeley: University of California Press, 1984.

Deans, Thomas. *Writing Partnerships: Service-Learning in Composition*. Urbana, IL: NCTE, 2000.

Deleuze, Gilles and Felix Guattari. *A Thousand Plateaus. Capitalism and Schizophrenia*. Trans. Brian Massumi. Minneapolis: The University of Minnesota Press, 1987.

DeLuca, Kevin Michael. *Image Politics: The New Rhetoric of Environmental Activism*. New York: Guilford, 1999.

Devitt, Amy J. *Writing Genres.* Carbondale, IL: Southern Illinois University Press, 2004.

DeVoss, Danielle Nicole, Ellen Cushman, and Jeffrey T. Grabil. "Infrastructure and Composing: The When of New Media Writing." *College Composition and Communication*. 57 (2005): pgs. 14-44.

DeVoss, Danielle Nicole and Suzanne Webb. "Media Convergence: Grand Theft Audio: Negotiating Copyright as Composers." *Computers and Composition* 25 (2008): pgs. 79–103.

Doheny-Farina, Stephen. "Writing in an Emerging Organization: An Ethnographic Study." *Written Communication.* 3.2 (1986): pgs. 158-85.

Flew, Terry. *New Media: An Introduction*. UK: Oxford University Press, 2002.

Flower, Linda, and Shirley Brice Heath. "Drawing on the Local: Collaboration and Community Expertise." *Language and Learning Across the Disciplines* 4.3 (2004): 43–65.

Geary, Nicole. "Marchers 'Take Back' Allen Community." *Lansing State Journal.* 16 September 2007, Sunday ed.: 1B+.

Getto, Guiseppe, Ellen Cushman, and Shreelina Ghosh. "Community Mediation: Writing in Communities and Enabling Connections through New Media." *Computers and Composition*. 28.2 (2011): Pgs. 160-74.

Gitelman, Lisa. *Always Already New: Media, History and the Data of Culture* Cambridge, MA: MIT Press, 2006.

Grabill, Jeffrey T. *Writing Community Change: Designing Technologies for Citizen Action*.

Cresskill, NJ: Hampton Press, 2007.

Graham, S. Scott, and Brandon Whalen. "Mode, Medium, and Genre: A Case Study of Decisions in New-Media Design." *Journal of Business and Technical Communication* 22 (2008): pgs. 65-91.

Halbritter, Bump. *Mics, Cameras, Symbolic Action: Audio-Visual Rhetoric for Writing Teachers*. Forthcoming from Parlor Press.

Hartman, Hope J. "Scaffolding and Cooperative Learning." *Human Learning and Instruction* New York, NY: City University of New York Press, 2002. Pgs. 23-69.

Haythornthwaite, Caroline. "Communicating Knowledge: Articulating Divides in Distributed Knowledge Practice." *Paper presented at the annual meeting of the International Communication Association*. New Orleans, LA. May 2004.

Herman, Edward S., and Noam Chomsky. *Manufacturing Consent: The Political Economy of the Mass Media*. New York: Pantheon, 2002

Himley, Margaret. "Facing (Up To) 'The Stranger' in Community Service." *College Composition and Communication* 55.3 (Feb 2004): 416-438.

Ho, Cheng-Ter, Yuh-Min Chen, Yuh-Jen Chen, and Chin Bin Wang. "Developing a Distributed Knowledge Model for Knowledge Management in a Collaborative Development and Implementation of an Enterprise System." *Robotics and Computer-Integrated Manufacturing* 20 (2004): 439-456.

Howley, Kevin. Community Media: People, Places, and Communication Technologies. Cambridge, UK: Cambridge University Press, 2005.

Hull, Glynda A. and Mark Evan Nelson. "Locating the Semiotic Power of Multimodality." *Written Communication* 22.2 (2005): pgs. 224-261.

Hustad, Eli. "Exploring Knowledge Network Practices and Evolution in Distributed Networks of Practice." *Electronic Journal of Knowledge Management* 8.1 (2010): 69-78.

Jankowski, Nicholas W. and Ole Prehn, eds. *Community Media in the Information Age: Perspectives and Prospects*. Cresskill, NJ: Hampton Press, 2002.

Jaramillo, James A. "Vygotsky's Sociocultural Theory and Contributions to the Development of Constructivist Curricula." *Education* 117.1 (1996): pgs. 133-40.

Jenkins, Henry. *Convergence Culture: Where Old and New Media Collide*. New York: New York University Press, 2006.

Jewitt, Carey. *Technology, Literacy and Learning: A Multimodal Approach*. London: Routledge, 2006.

Jones, John. "Patterns of Revision in Online Writing: A Study of Wikipedia's Featured Articles." *Written Communication* 25.2 (2008): pgs. 262-289.

Kinneavy, James L. "Kairos in Classical and Modern Rhetorical Theory." *Rhetoric and Kairos: Essays in History, Theory, and Practice*. Phillip Sipiora and James S. Baumlin, eds. Albany: State University of New York Press, 2002. Pgs. 58-76.

Knievel, Michael. "Police Reform, Task Force Rhetoric, and Traces of Dissent: Rethinking Consensus-as-Outcome in Collaborative Writing Situations." *Journal of Technical Writing and Communication*. 38.4 (2008): pgs. 331-62.

Lam, Wan Shun Eva. "L2 Literacy and the Design of the Self: A Case Study of a Teenager Writing on the Internet." *Handbook of Research on New Literacies.* Coiro, Julie, Michele Knobel, Colin Lankshear, and Donald J. Leu, eds. New York: Lawrence Erlbaum, 2008. Pgs. 1189-1213.

Leander, Kevin M. "Connective Ethnography of Online/Offline Literacy Networks." *Handbook of Research on New Literacies.* Coiro, Julie, Michele Knobel, Colin Lankshear, and Donald J. Leu, eds. New York: Lawrence Erlbaum, 2008. Pgs. 33-66.

Lee, Carmen K.-M. "Affordances and Text-Making Practices in Online Instant Messaging." *Written Communication.* 24.3 (2007): pgs 223-49.

Lindqust, Julie. *A Place to Stand: Politics and Persuasion in a Working Class Bar.* Oxford, 2002.

Long, Elenore. *Community Literacy and the Rhetoric of Local Publics*. West Lafayette, IN: Parlor Press, 2008.

Manovich, Lev. *The Language of New Media*. Cambridge, MA: The MIT Press, 2001.

Mathieu, Paula. *Tactics of Hope: The Public Turn in English Composition*. Portsmouth: Boynton/Cook, 2005.

Matthews, David. *For Communities to Work*. Charles F. Kettering Foundation: Dayton, Ohio, 2002.

Mayer, Richard. "Multimedia Literacy." *Handbook of Research on New Literacies.* Coiro, Julie, Michele Knobel, Colin Lankshear, and Donald J. Leu, eds. New York: Lawrence Erlbaum, 2008. Pgs. 359-76.

McChesney, Robert W. *The Problem of the Media: U.S. Communication Politics in the 21st Century*. New York: Monthly Review Press, 2004.

Michel, Anthony J., Jim Ridolfo and David M. Sheridan. "The Available Means of Persuasion: Mapping a Theory and Pedagogy of Multimodal Public Rhetoric." *JAC*. 25.4 (2005): pgs. 803-844.

Moura, Heloisa. "Analyzing Multimodal Interaction: within a Classroom Setting" *Visible Language* 40.3 (2006): pgs. 270-91.

Nelson, Joan. Personal Interview. March 30, 2007.

Nichols, Bill. *Introduction to Documentary.* Bloomington, IN: Indiana University Press, 2001.

Noël, Sylvie and Jean-Marc Robert. "Empirical Study on Collaborative Writing: What Do Co-authors Do, Use, and Like?" *Computer Supported Cooperative Work.* 13 (2004): pgs. 63-89.

Porter, James E. "Developing a Postmodern Ethics of Rhetoric and Composition." *Defining the New Rhetorics*. Theresa Enos and Stuart C. Brown, eds. Newbury Park, CA: Sage, 1993. Pgs. 207-26.

Porter, James E. "Recovering Delivery for Digital Rhetoric." *Computers and Composition* 26 (2009): pgs. 207–224.

Pratt, Mary Louise. "Arts of the Contact Zone." *Profession* (1991): pgs. 33-40.

Prior, Paul. "From Speech Genres to Mediated Multimodal Genre Systems." *Genre in a Changing World.* Charles Bazerman, Adair Bonini, and Déborah Figueiredo. West Lafayette, IN: Parlor Press, 2009. Pgs. 17-34.

Prior, Paul. "Moving Multimodality Beyond the Binaries: A Response to Gunther Kress's 'Gains and Losses.'" *Computers and Composition* 22.1 (2005): pgs. 23-30.

Prior, Paul, et al. "Re-situating and Re-mediating the Canons: A Cultural-Historical Remapping of Rhetorical Activity." Kairos 11.3 (2009). http://kairos.technorhetoric.net/11.3. Accessed: November 18, 2009.

Ranker, Jason. "Composing Across Multiple Media: A Case Study of Digital Video Production in a Fifth Grade Classroom." *Written Communication* 25.2 (2008): pgs. 196-234.

Rennie, Ellie. "Community Media in the Prosumer Era." *3C Media: Journal of Community, Citizen's and Third Sector Media and Communciation*. 3 (2007): pgs. 25-32.

Rivait, Jessica, Guiseppe Getto, and Kendall Leon. "Service-Learning Partnerships as

Distributed Knowledge Work: Community Media within Local Infrastructures." (unpublished manuscript).

Schleifer, Ronald and Jerry Vannatta. "The Logic of Diagnosis: Peirce, Literary Narrative, and the History of Present Illness." Journal of Medicine and Philosophy 31.4 (2006): pgs. 363-84.

Schutz, Aaron and Anne Ruggles Gere. "Service-Learning and English Studies." *College English* 60.2 (February 1998): 129-149.

Selber, Stuart A. *Multiliteracies for a Digital Age*. Carbondale: Southern Illinois University Press, 2004.

Shipka, Jody. "A Multimodal Task-based Framework for Composing." *College Composition and Communication*. 57 (2005): pgs. 277-306.

Spinuzzi, Clay. "Compound Mediation in Software Development: Using Genre Ecologies to Study Textual Artifacts." *Writing Selves/Writing Societies*. http://wac.colostate.edu/books/selves_societies/. Accessed: April 15, 2009.

Spinuzzi, Clay. "Guest Editor's Introduction: Technical Communication in the Age of Distributed Work." Technical Communication Quarterly 16.3 (2007): 275-277.

Spinuzzi, Clay. *Network: Theorizing Knowledge Work in Telecommunications*. New York: Cambridge University Press, 2008.

Star, Susan Leigh and Karen Ruhleder. "Steps Toward an Ecology of Infrastructure: Design and Access for Large Information Spaces." *Information Systems Research* 7 (1996): pgs. 111–34.

Street, Brian. "The New Literacy Studies." *Cross-Cultural Approaches to Literacy*. Brian Street, Ed. London: Cambridge University Press, 1993. Pgs. 1-21.

Tu, Thuy Linh, Debra Wexler Rush, Alicia Headlam Hines, and Alondra Nelson. "Communities on the Verge: Intersections and Disiunctures in the New Information Order." *Computers and Composition* 14 (1997): pgs. 289-300.

Wysocki, Anne Frances. "Opening New Media to Writing: Openings and Justifications." *Writing New Media: Theory and Applications for Expanding the Teaching of Composition*. Wysocki, Anne Frances et al, eds. Logan, UT: Utah State University Press, 2004. Pgs. 1-42.

Young, Iris Marion. *Justice and the Politics of Difference*. Princeton, NJ: Princeton University Press, 1990.

Young, Michael F. "Instructional Design for Situated Learning." *Educational Technology*

Research and Development 41.1 (1993): pgs. 43-58.