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Thirdspace Professional Development as Effective Response to the Contested Spaces of Computers and Writing

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THIRDSPACE PROFESSIONAL DEVELOPMENT AS EFFECTIVE RESPONSE TO

THE CONTESTED SPACES OF COMPUTERS AND WRITING

by

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In the physical spaces of writing classrooms and the conceptual spaces of writing practice and pedagogy, knowledge about computers is constructed by many individuals, groups, and institutions. Each has a stake in defining what computers mean for education and the role computers should play in the everyday life schools. Some of these stakeholders are immediate members of our school communities, such as students, teachers, administrators, and technology support staff. Some are not, such as politicians, researchers, and computer manufacturers. The effect of these often competing stakeholders is one of contested space. Writing teachers encounter contested space when we decide to make computers a considered part of our teaching. Contested space too often creates a lack of technical and pedagogical resources for computers and writing instruction. The most successful writing teachers are able to improvise and collaborate in order to create or gain access to these resources.

This dissertation draws on Edward Soja's Thirdspace theory and case studies of three successful computers and writing teachers to describe contested space, its effects on writing instruction, and approaches to professional development. Soja's theory helps us identify how the physical Firstspaces and conceptual Secondspaces of computers in our

schools are shaped by powerful stakeholders. Thirdspace, the third spatiality of Soja's

trialectics, describes the improvisational experience of computers and writing instruction.

It also suggests a set of core beliefs that we can use to help plan and facilitate

professional development activities that support the multiliteracies and sense of agency

teachers need to transform the contested spaces of computers and writing in their

classrooms and schools.

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Dedication

I dedicate this dissertation to Brandy and Mars, forever and ever.

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Chapter One:

Contested Space and the Case for Thirdspace

"Space calls for action, and before action, the imagination is at work."

The Poetics of Space, Gaston Bachelard

The field of Rhetoric and Composition has come far in making computers and writing a core, considered part of our professional identity as literacy experts and educators. It wasn't all that long ago that computers and writing existed in the margins of our field (Inman), when there was a sense of those of us who "do computers" and those of us who do not (Selfe, "Technology" 412-413). Three agents of change helped us make the transition. The first was technology itself, notably Web 2.0 and the growth of the portable computing market. These communication technologies demanded our attention in ways that previous technologies did not. Second were arguments by members of the computers and writing community who made the compelling and convincing case for why our field must "pay attention" (Selfe, "Technology") to new media (Anson; Barber and Grigar; Blair and Takayoshi; Gee; Kress, *Literacy*). Finally, there is the collaborative work of teacher-researchers throughout our field in building a "flexible critical vocabulary" (Lunsford, "Writing" 170) to describe and better understand the multimodal nature of digital composition and the multiliteracies of digital communication (Grabill and Hicks; Herrington; Hull and Nelson; Selber).

Now more than ever before, the Rhetoric and Composition community has a shared commitment to computers and writing and a theoretical foundation for such research. Our most pressing concern today is to see that same transformation happen at the local level of our schools, writing programs, and classrooms. This is where we struggle the most to make sense of and keep pace with technology. At the local level, we still struggle with how to assess our students' multimodal compositions (Katz) and to have those assignments validated by assessment in departmental writing programs that preference print modalities (Selfe, "Movement;" Tulley). We find ourselves having to continually make the case for the importance of knowledge-making with new media to our English department colleagues (Cushman, "New Media"). Most importantly, we understand the multimodal literacies our students need outside of school (Welch), but we struggle to find or make the professional development opportunities needed to include more new media in our writing programs and individual classrooms (Anderson). Each of these issues suggests a common problem - that within our school communities, writing teachers encounter different and often competing definitions of computers and the role of computers in education. When we decide to make computers and new media a considered part of writing instruction, we experience these differences as *contested space*.

The Problem of Contested Space

Here is how I understand the contested space of computers[1] in school: Spaces include *physical* locations such as our school buildings, media labs, and classrooms. They also include *conceptual* locations which are performed whenever we talk about

computers within our school communities. Conceptual space can be "seen" (at least partly) in artifacts such as policy statements, curricula, and syllabi. By *contested*, I mean that within both spaces, knowledge about computers is socially constructed by a number of individuals, groups, and even computer devices themselves, each of whom has a stake in defining how computers are used in school. Some of these stakeholders are community members, including students, teachers, administrators and staff. Some are not, such as politicians, academic researchers, and computer manufacturers. These stakeholders have different thoughts, beliefs, and feelings about the role of computers in school. Sometimes their thoughts, beliefs, and feelings align with our own and our goals for multimodal teaching; sometimes they do not.

Our experience of contested space takes many forms - when we struggle to acquire needed hardware and software, negotiate students' use of laptops and cell phones during class, explain how our multimodal assignments meet state or program expectations for writing instruction, and look for training and pedagogical support. In these moments, teachers improvise in order to negotiate contested space. We use open-source alternatives to expensive proprietary software. We ask our colleague who knows Photoshop and seek the technical expertise of our students. We use our own cameras and other multimodal tools or borrow from others. In their 2006 survey Ball et al found that writing teachers wanted more professional development opportunities to help them teach multimodal composition, that there was an overall lack of effective support (Anderson). This resonates with my own experience and suggests that writing programs and individual teachers are the one with the expertise to make this support happen.

Writing in the field of Human Geography, especially Edward Soja's "trialectic" of Firstspace, Secondspace and Thirdspace, helps me begin to make sense of the contested space of computers and think through how best to act at the local level of our schools, writing programs, and classrooms. Through the perspectives of Firstspace and Secondspace, we begin to understand the complexities of contested space and the constant negotiating that writing teachers do in order to teach effectively with computers. Through the perspective of Thirdspace, we become more critically aware of the improvisational nature of that negotiating. More importantly, Thirdspace provides a heuristic for focusing that improvisation to affect change and ensure technical and pedagogical support for computers and writing in our schools.

Contested Space from the Perspective of Thirdspace

Soja's writing on the relevance of space to the human experience is representative of a "spatial turn" happening across academic disciplines (Finnegan; Warf), including Rhetoric and Composition (Dobrin and Keller; Reynolds). This research argues that the spaces of our everyday lives, from city sidewalks to Midwestern small towns to our world's bioregions, hold political, economic, and cultural meanings that are worth exploring, that they are not *merely* the landscapes upon which human experience plays out.

Soja's primary claim with Thirdspace is that spaces matter. Our ability to "think differently about the meanings and significance of space," prepares us for a "strategic re-opening and rethinking of new possibilities" within space (*Thirdspace* 1, 81). As Soja unpacks this idea over the course of three books, it becomes a multifaceted theory that is

simultaneously a tool for mapping the spatiality of human experience, a declaration for

the role of space in the traditions of critical thought, and a guide to sociopolitical action

(*Postmetropolis*; *Postmodern*; *Thirdspace*). Thirdspace theory is as complex as the

human geographies it attempts to describe. This is intentional. As Soja explains,

Thirdspace is a "purposefully tentative and flexible term that attempts to capture what is

actually a constantly shifting and changing milieu of ideas, events, appearances, and

meanings" (*Thirdspace* 2). This flexibility allows Thirdspace to be adapted and used to

consider the spatial dynamics of any problem, question, or issue, academic or otherwise.

Soja writes:

> Whether we are attempting to deal with the increasing intervention of
>
> electronic media in our daily routines; seeking ways to act politically to
>
> deal with the growing problems of poverty, racism, sexual discrimination,
>
> and environmental degradation; or trying to understand the multiplying
>
> geopolitical conflicts around the globe, we are becoming increasingly
>
> aware that we are, and always have been, intrinsically spatial beings,
>
> active participants in the social construction of our embracing spatialities.
>
> Perhaps more than ever before, a strategic awareness of this collectively
>
> created spatiality and its social consequences has become a vital part of
>
> making both theoretical and practical sense of our contemporary
>
> lifeworlds at all scales, from the most intimate to the most global. (1)

I adapt two ideas from Soja in order to understand contested space and how we

can respond. Because we are "intrinsically spatial beings," our thoughts, beliefs, and

feelings about computers are observable in our school spaces. Firstspace and

Secondspace can help us "see" and "imagine" how our spaces are contested by the many individuals and groups who have a stake in decisions about computer definitions and use. Also, Thirdspace can be used as a heuristic for critical action. More specifically, Soja's concept of "thirding-as-othering" helps us "re-see" and "re-imagine" by creating *other* spaces in which all involved with literacy education in our schools can collaborate to solve the problems of contested space. (*Thirdspace* 60 - 65).

Firstspace

Firstspace is physical space. It can be observed and measured. It is at least as small as the private spaces of our bedrooms and homes and at least as big as the geopolitical spaces of nations. We can learn about ourselves by studying our Firstspaces. As Soja writes, spatiality from a Firstspace perspective "takes on the qualities of a substantial text to be carefully read, digested, and understood in all its details" (Soja, *Thirdspace* 75).

We can metaphorically map the Firstspaces of computers in school, taking a spatial inventory. This includes architectural spaces designated for computer use, such as labs and multi-media centers. It includes elements of design, such as the availability of computers in student unions and other common areas, the arrangement of computers in a classroom, and the presence of laptop carts. Firstspace also includes all of the "in-between" spaces that computers can go because of wireless technologies and portable computing devices (making every space a designated computing space). Finally, the Firstspace of computers in schools includes technology itself, the laptops, cell phones, and tablets brought to school spaces by students, teachers, but also the software licenses,

firewalls, Internet filters, course management suites, projectors, smartboards, and networks purchased, installed, and (to a great extent) controlled by school and department administrations.

A Classroom Example of Contested Firstspace

Mapping Firstspace helps us "see" how computers are contested. There are two computer labs in Andrews Hall where I teach. One lab is located on the second floor of the building. It is the only classroom on the floor, the rest of the space devoted to faculty and departmental offices. It is a small room, but has enough PCs to accommodate a full class of twenty-four students. The lab is primarily used by faculty who request it as their primary classroom for the semester. Other teachers can reserve the room for occasional use; however, this has become increasingly difficult as more teachers in the department require a dedicated computing space. The second lab is located on the basement level, which holds most of the building's classrooms. This is a designated student lab maintained by the Information Services department. As such, it can not be reserved by English department faculty for class meetings.

The limited availability of instructional computing space is problematic for our writing program. Individual instructors have very few options when planning multimodal projects that require significant in-class work. Similarly, the writing program must contend with these limitations when revising the aims and scope documents of existing courses or introducing new courses involving technical or digital writing. Of course, these issues are partly historical. As computers first made their way into the building, they did so under the old paradigm wherein computing for English studies meant word

processing and therefore something that students could do outside of class, either at home or in one of the other general purpose labs on campus. Like many writing programs, ours will have to find creative ways to address the problems of computer access.

The Firstspaces of computers in school reflect certain administrative assumptions about the relationships between students, teachers and instructional technologies. Within the traditional, non-lab classrooms in Andrews Hall, the tensions of contested space are more pronounced. These rooms look like those at many colleges and universities. The walls are painted white or beige and the floors are tiled or have industrial carpet. Each room has around twenty-five desks arranged in rows facing a whiteboard, in front of which is a table and chair. A multi-media station sits in a front corner of each classroom. Its cabinet is painted flat-black and holds rows of media hardware with dials, buttons and blinking lights. Bundles of insulated wires and cables spill out from the back of the cabinet and onto the floor. An opaque projector sits on top. The station has a flat-screen monitor, keyboard and mouse, and the whole setup feeds to an overhead projector mounted in the center of the ceiling facing the front of the room.

When viewed through a Firstspace lens, the room and media station represent a pre-ordained theory about instructional technology. The media station implies that technology is important to learning in this classroom space. However, the position of the station at the front of the room and the fact that it is locked down with an administrative password says that the teacher and department hold authority over its use. The traditional lecture arrangement of desks, instructor table, and whiteboard is practical considering the diversity of classes using the space. For a writing class, chairs and bodies can move. We

can disrupt the spatial arrangements that put the teacher front and center. However, the

media station cannot move. And while students may gain access to the media station

(after I type the password), they do not have authority over its use, or a sense of agency.

This is very different than other writing tools they use in that same space

Secondspace

Secondspace is conceptual space, or the space of ideas. It they are not entirely

separate from Firstspace, as Secondspace often begins with and returns to material things

in Firstspace. Spatiality from a Secondspace perspective "is primarily produced through

discursively devised representations of space, through the spatial workings of the mind"

(Soja, *Thirdspace* 79). So, Secondspace is where we think, dream, imagine and re-

imagine about the geographies of Firstspace. Knowledge-making from a Secondspace

perspective involves how spaces are conceived.

There is the private Secondspace of our individual thoughts, beliefs, and feelings

about technology both in school and in our lives outside of school. These we may or may

not share (or share only versions of) with our colleagues. There are also socially-realized

Secondspaces. Because it is not entirely separate from Firstspace, we can map the latter

by looking for those moments when and where we talk about computers in our schools,

including school board and departmental meetings, in-service workshops and training

seminars. These are examples of *formal* Secondspaces in the sense that they are

purposefully organized and work towards some programmatic or administrative end(s) -

revising curricula, learning a new course management suite, purchasing new laptops.

There are also *informal* Secondspaces where knowledge about computers is socially

constructed at the margins of formal Secondspace discourse. This includes "hallway talk" and other moments where teachers seek technical help, share assignments, tell stories, and express frustrations about technology outside of organized moments.

Secondspace often involves artifacts, such as academic goal, policy, budgetary and curricular statements, as well as syllabi and assignment handouts. Secondspace both shapes and is shaped by these artifacts, and as objects of Firstspace, they can be read to reveal how the technology stakeholders in our schools create contested space. The following section looks at one example of contested Secondspace and its artifacts.

Government Stakeholders as an Example of Contested Secondspace

Computers historically enter our schools through top-down models of technology distribution. This happens in Firstspace as local schools and school boards make computer purchasing and distribution decisions based on funding, perceived need, available equipment and any number of other factors which will vary between states and school districts. It also happens in Secondspace through State and departmental curricular requirements and other formal decisions about computer use in school. This means that stakeholders outside of local writing programs and teachers' own classes have considerable influence in defining what computers mean as literacy technologies and what role they play in writing instruction. Writing programs and teachers experience contested Secondspace when the thoughts, beliefs, and feelings of these stakeholders do not align with our own or work against what we know to be true of multimodal composing and multiliteracies.

Federal "technology and education" programs since the mid 1990s have played a significant role in creating contested Secondspace. They have done so first by forwarding a *narrative of necessity* wherein learning how to use computers is seen as vital to students' (and America's) future success in education, innovation, and the global marketplace. Second, they tie federal technology funding to accountability as measured by standardized testing.

The public release of the World Wide Web and the rhetoric of the "Information Superhighway" gave rise to a sense of urgency in legislative spending for technology. Selfe provides an excellent analysis of this moment. As Selfe explains, federal education and technology programs during the Clinton Administration sought, in an era of post-Cold War uncertainty, to secure America's leadership in foreign and domestic technology research and production. These programs were fundamentally about educating and enculturating a student population who would one day become the creators and consumers of emerging technologies (Selfe, "Technology"). The administration's flagship program was America's Technology Literacy Challenge which, in its own words, "envision[s] a 21st Century where all students are technologically literate" (411). The narrative was further solidified in the public conscience through a number of often-cited speeches and papers by prominent government figures and research groups (United States, "Goals;" "President's") as well as significant coverage by the popular press (Gore; Levy).

The federal government's involvement in technological literacy education gained more ground under the George W. Bush Administration's No Child Left Behind and Enhancing Education Through Technology programs which advocated and provided

funding for technology-based assessment, curriculum development, and teacher training. More recently, The American Recovery and Reinvestment Act signed by president Obama in 2009 allocated $650 million to states in the form of an Innovation Fund for technology spending in schools provided that, like the No Child Left Behind program, schools could document sustained improvement in student performance and achievement (United States, "American").

The accountability and measurable outcomes clauses in government technology and education programs further problematize our Secondspaces. Standardized testing has become the primary way to document, at Federal and State levels, sustained improvement in student performance and achievement (Gallagher), and it is the writing assessment part of standardized testing that is a significant source of contestation for computers and writing in our schools. Anne Herrington and Charles Moran explain this tension quite effectively: "At the same time that new forms of writing – and thus literacy – are emerging in our culture and in our classrooms, forces of assessment and standardization exert a counter-pressure, asking us to prepare students to produce conventional, formulaic print texts in scripted ways" (2).

This is familiar and frustrating ground for middle school and high school teachers who are held accountable for measurable success on state writing tests. Writing teachers, as Herrington and Moran argue, are stuck between wanting their students to be successful writers in 21st century literacies while also being successful writers in high-stakes tests rooted in 19th century forms of the essay (2). In the Secondspaces of writing pedagogy, these teachers encounter powerful government stakeholders who often have very different definitions of literacy and how best to teach computers and writing.

Thirdspace

Thirdspace is both physical and mental. It is a spatiality that includes First and

Secondspace perspectives and yet is also something different. As Soja writes,

"Everything comes together in Thirdspace: subjectivity and objectivity, the abstract and

the concrete, the real and the imagined, the knowable and the unimaginable, . . . mind and

body, consciousness and the unconscious, . . . everyday life and unending history"

(*Thirdspace* 56 – 57). We can find digital examples of Thirdspace in our everyday lives,

even if we aren't "plugged in" to the latest gadgets or the social network de jour. The

relationship between Web 2.0, portable computing, and society is worth looking at in

more detail. Not only are current trends of design and use collectively an example of

Thirdspace, one with which we are all familiar, they are also important contributors to

contested First and Secondspace.

Digital Thirdspace in Society Today

We are experiencing a techno-cultural shift away from the desktop paradigm that

has been the foundation of personal computing for the past thirty years. The tower,

monitor, keyboard, mouse, and wires are the trappings of the old paradigm. Within it,

creating, managing and sharing information begin and end with the hardware of the

desktop computer and its self-contained operating system. The trappings of the new

paradigm are portable devices, wireless connectivity and online applications. These

technologies allow users to create, manage, and share information *outside* of the

traditional desktop model. If the old paradigm is characterized as static, individual, and stationary, the new paradigm is dynamic, collaborative, and mobile.

Technology theorists describe these design trends as persuasive or ubiquitous computing. Greenfield describes the lived experience of these trends as "everyware." Pervasive computing is about dispersing the "atoms and bits" of our information economies (Negroponte) to a theoretically endless number of objects, all of which are capable of sharing information. Some of these technologies we already think of in terms of networked communication - laptops, netbooks, tablet PCs, and cell phones. Others we do not think of in those terms, but already have, or soon will, the ability to share information across the network - mp3 players, driver's licenses, store "club" cards, and GPS trackers. Paralleling the development of pervasive computing devices is the trend towards virtual servers, or "cloud computing." Rather than confined to a computer hard-drive, information and composition happen online "in the cloud" of Internet servers and server-side programming. Examples include Google Docs, Picasa, Rhapsody, automated backup and "access anywhere" services. Working together, pervasive and cloud computing mean that our bits move with us. They allow us to experience computers as a fluid part of our lived environments. Greenfield argues that it is this experience, not the technology, that matters (Greenfield).

Greenfield uses the term "everyware" to describe our relationship to the new paradigm. Everyware "permeates places and pursuits that we've never before thought of in technical terms. And it is something that happens out here in the world, amid the bustle, the traffic, the lattes, and gossip: a social activity shaped by, and in its turn shaping, our relationships with the people around us" (Greenfield 16). This is the

experience of digital Thirdspace. It is simultaneously real and imagined, private and public, individual and collaborative and yet is also something else entirely. It is where the many domains of our lives share space, sometimes interact, and often create new spaces.

Digital Thirdspace in the Classroom

The Thirdspaces created by "everyware" are part of our classrooms whether or not we teach multimodal composing or use new media. As such, they are another means by which computers in schools and writing classrooms are contested. My writing syllabus has a paragraph asking students to keep their cell phones and laptops closed during class meetings. I wrote the paragraph into my very first syllabus much as I had seen it (regarding phones) in the syllabi of my college professors. I have since added language that frames this request in terms of "being critical and conscientious technology users" and "classroom community." However, something about that paragraph bothers me now. It doesn't reflect the technological change happening in our (aside from the media station) low-tech classrooms in Andrews Hall. It suggests that cell phones and laptops are somehow disruptive to the work of a writing class, that they don't belong.

My students and I regularly use our cell phones and laptops during class. Most of the texts we read are online, either PDFs, web articles, or videos. Try as I might, I can't convince the majority of students to print copies and write as they read. But then, neither do I. Most of us read from the screen during class. Some of us highlight and comment with PDF readers. We also use our cell phones and laptops to look up information relevant to class discussions. Of course, students occasionally text message and browse

the Web. However, these things are no different than other forms of "underlife"

(Brooke). They feel more pronounced because the "rules of appropriate use" are so

clearly codified in the physical space of our traditional classroom and the ideological

space of my syllabus. Furthermore, this digital underlife is really only pronounced to me,

as I am the only one who seems to find it distracting. Whether this is true or not, I don't

know. What I do know is that the students I teach, especially in the last two or three

years, have a different relationship with the cloud. They are natural Thirdspacers with

technology. For them, every space is a computing space.

Thirdspace as Heuristic for Change

        Our cell phones and laptops are Firstspace artifacts of Thirdspace practice. The

student Facebooking in class enacts a spatiality that blends home, work, and school life in

a way that is *other* than what is prescribed by the classroom spatiality. This can create

contestation, but there are moments where this spatial othering is transformative, notably

when it critically re-imagines the rules of First and Secondspace in productive ways.

When this happens, Thirdspace becomes a heuristic for critical thinking and action. This

is part of a "critical strategy" Soja calls "thirding-as-Othering" (*Thirdspace* 60 - 65).

Thirdspace challenges binaries and boundaries, including the historical/social binary of

knowledge-making and the physical/mental boundary of how we experience spaces. It

"transform[s] the categorical and closed logic of either/or to the dialectically open logic

of both/and also. . ." (60). Within the new computing paradigm, students contest the

binaries of school life and life outside of school, academic tasks and everyday tasks.

When we are critically aware of contested First and Secondspaces, we are likely to find

examples of transformative Thirdspace activities already happening in our schools and classrooms.

   In the composition classes I teach at UNL, we spend much of the semester workshopping print copies of our writing in small groups. Two groups in the last year decided to use Google Documents during class meetings. These students had the same writerly conversations as the other groups, but they also edited, inserted comments, highlighted lines of text and moved larger chunks around in real-time. I was impressed by how much more active and collaborative this made the workshop process. Google Docs was not suggested in the syllabus or discussed in class. These students created "an-other" workshop space despite the predefined theory of computer use in our low-tech classroom. Their awareness of and agency with pervasive devices and cloud computing contested the classroom and pedagogical spaces, but in productive ways. I still don't fully understand how a writing group using Google Docs differs from a print-focused group. However, I know that it is something that I will need to figure out, especially as more students have access to laptops, tablet PCs and other portable devices.

   The improvisational use of technology by students in those classes is just the sort of transformative Thirdspace thinking that can help writing teachers respond effectively to the contested First and Secondspaces of computers in our schools. As my examples of cell phones, laptops and Google Docs show, digital Thirdspaces happen naturally as part of the "ecologies of writing" today (Dobrin and Keller 145 - 153). However, the physical and conceptual spaces of computers in school demand so much of our attention that we risk not seeing the big picture of possible change. As Soja says about the First and Secondspaces of cities, "... a pronounced concentration on real and/or imagined surface

appearances places certain constraints on our ability to recognize cityspace - as an active arena of development and change, conflict and resistance, an impelling force affecting all of our lives" (*Postmetropolis* 11). Thirdspace thinking, our ability to "see" *an-other* space, is something we learn. We should find inspiration in our already improvised moments of teaching computers and writing. These will suggest a more focused, applied approach to revision in writing programs and classrooms

Chapter Case Studies

The presence (and even absence) of technology in our classrooms creates complex spatialities. Thirdspace, along with First and Secondspace, are clearly important for understanding new media and digital writing. Thirdspace theory is also important to our understanding of teaching as a complex spatial act, as the decisions teachers make about technology when planning a writing class will always be informed by the contested spaces computers occupy. The purpose of this dissertation is to explore the spatiality of teaching writing in this time of fast-moving technological change by looking closely at three highly successful teachers improvising the First, Second and Thirdspaces of computers in their writing classrooms. Chapters 2 - 4 are case studies of three such teachers, each of whom has created their own Thirdspaces in response to the First and Secondspaces they encounter in their schools. In each case study, I will seek to describe the physical Firstspace for teaching writing with technology each teacher inhabits, the conceptual Secondspaces that make up the formal and informal ideas about digital writing she brings with her to the classroom, and, most importantly, the dynamic Thirdspace that emerges in her teaching.

The teachers I asked to participate in this study are all veteran Writing Project teacher leaders. I met each through my own participation with the Nebraska Writing Project (NeWP), and I had many opportunities to work with each teacher when I was a participant and co-facilitator in NeWP Summer Institutes and a participant in institutes sponsored by the National Writing Project. Many of our conversations were about our shared interest in teaching computers and writing. As such, I learned something about technology in each teacher's school and classroom teaching. When planning this dissertation, I knew that I wanted to talk to teachers who have different backgrounds as computer users and who successfully teach computers and writing. These teachers were obvious choices to ask to participate.

The three teachers of my case studies have very different personal and professional backgrounds as computer users. Rachel is an expert with social media, course-management suites, and composing with audio and video. She taught with some of the earliest networked technologies used in schools and follows Web trends closely. Rachel makes Thirdspace connections in order to acquire the technical and pedagogical resources she needs while at the same time helping her school revise Firstspace access to computers. Karen has experience working on scholarly and instructional technology development teams and has a working knowledge of advanced Web site and database design. She makes extensive use of Web 2.0 and cloud-based computing in her teaching and professional projects as well as her life outside of school. Her use of Web 2.0 argues for a rethinking of the space of composing today as necessarily interactive, collaborative, experimental and fundamentally Thirdspace. In conversation, Susan often distances herself from her computer expertise. She's the first to say "I'm not good with

computers." Susan identifies herself as "senior faculty" in her school community and feels a tension between her expertise with "traditional" print forms of writing and the digital expertise of new teachers and incoming students. Susan's dual stance on digital writing and teaching informs a critical perspective she brings to her classroom and Thirdspace professional development projects.

I conducted interviews with each teacher to gather information for chapters two, three, and four. I conducted two interviews with Rachel. Both were two hours in length. To accommodate Rachel's schedule, the first interview was conducted at a coffee shop in Lincoln. Rachel brought her laptop and example student writing from the computers and writing projects she teaches. Some of these texts were in digital form stored on compact disc. Others were print form. Rachel shared examples of student-created Web pages, multimodal essays, video montages, and PowerPoint collages. The second interview took place in Rachel's high school classroom. Following this interview, Rachel showed me the technology she has in the classroom, including the software available on her instructor laptop and class PC. Rachel also gave a tour of the school building, including each of the four computer labs. During the tour, she elaborated on points raised during both interviews. Our second meeting concluded in Rachel's classroom, where she shared additional examples of assignments and student texts.

I conducted two interviews with Karen. Each was two hours long and took place in her campus office. Karen did not share student writing with me, but she demonstrated many of the Web sites and networked applications that are important to daily writing and communicating in her professional and personal life. Following both interviews, I had opportunities to observe the computer classroom in which she regularly teaches.

I conducted one two-hour interview with Susan. The interview took place in her classroom. Susan shared example assignments and student texts, including multimodal albums and photo essays. She also showed me the Mimio interactive projector that she is learning to use and teach with, the two computers in the room, and the course management software she uses daily. Following our interviews, we toured the library that has the computer lab Susan uses most often with her classes.

I conducted one thirty-minute follow-up interview with both Rachel and Susan and one follow-up email exchange with Karen. These conversations were for clarifying information and discussing topics relevant to my research and not covered in the previous interviews.

My case study research was conducted with approval from the University of Nebraska institutional review board and under the supervision of Professor Robert Brooke. The interviews were conducted with the written informed consent of each teacher. Each teacher was informed verbally and in writing of the scope and purpose of my research and how they and the information they shared would be protected during the research processes and after. Interviews were recorded with permission and transcribed by me for reference during the process of writing this dissertation. Audio recordings and digital transcripts were stored on flash drives and secured in my campus office. Identifying information was removed during the transcription process and in the text of this dissertation through the use of pseudonyms and removing identifying names. The teachers I interviewed were informed of the risks of participating, namely the possibility of being identified by members of the Nebraska Writing Project and National Writing Project. It was explained to my informants that they should only share with me student

texts that they already had written permission from the student to share. Rachel and
Susan had many such examples as both teachers regularly require written permission to
post texts online or share print copies in local public contexts. Finally, informants were
offered opportunities to ask questions about my study and have those questions answered
before agreeing to participate. It was also made clear that they were free to withdraw
from the study at any time and without adversely affecting their relationship with me, the
Nebraska Writing Project, the National Writing Project, or the University of Nebraska.

Rachel, Karen, and Susan choose to make computers and new media a considered
part of their teaching. Their students compose with blogs, open-source software, and
other media not always provided in the Firstspace or supported by the Secondspace of
their schools. The writing assignments and projects they teach go beyond the
expectations for instructional technology as outlined in state curricula or departmental
course guidelines, and they therefore encounter contested space often. I believe that
paying careful attention to the Thirdspace improvisations of these teachers in the
contested spaces of their professional lives can help all of us (as teachers and
administrators) understand what is happening, and what is needed, in the emerging area
of digital writing. I will explore this in chapter five by outlining a set of "best practices"
for planning Thirdspace professional development activities in our schools.

Chapter Two:

Rachel – Improvising in Contested Space

Rachel lives in a small town in Southeast Nebraska where she has taught high school English for the past fifteen years. Rachel's teaching is full of multimodal composing and multiliteracy practices. Students in her classes write "traditional" print essays, but they also create multimedia essays, websites, blogs, and wikis. They learn how to revise print writing, but they also learn how to edit audio, video, images, and HTML. Rachel teaches computers and writing because she believes strongly in the ability of multimodality to help students "think differently" about their subjects and how to convey their ideas to an audience. She also believes strongly in the sense of ownership and authority that writers find when they share their work with an audience, which is easy to do with digital media. Rachel follows web trends closely and is an early adopter of many Net technologies. This awareness of trending technologies is yet another reason Rachel teaches with the Internet.

Despite the amount of computers and writing Rachel teaches, her classroom is relatively low-tech. It looks like any other high school English classroom with desks, a whiteboard, bookshelves and literature-themed posters on the walls. There is a student PC on a table at the back of the room. Rachel has a second PC on her desk, as well as her school-issued Macintosh laptop. Rachel successfully teaches computers and writing in this space because of her ability to improvise within the contested First and Secondspaces

of computers in her school. Rachel finds or makes opportunities for the technical and

pedagogical resources she and her students need to write with the Net and new media.

This improvisation has been personally transformative for Rachel, as it has helped her

acquire functional and rhetorical computer literacies.   It has also been transformative for

her school community. Where computers and the Net were once primarily instructional

tools for the school's business education program, they are now used in classrooms

across content areas and in a variety of ways. By improvising in contested space, Rachel

enacts a critical literacy that argues for change in the First and Secondspaces of

computers in her school. The sense of agency she finds through this work has helped her

affect change with computers and writing at the state and national levels through her

work as a teacher-leader in the Nebraska Writing Project and National Writing Project.

Connecting Classrooms Through Digital Thirdspace

When Rachel first taught with the Internet in 1994, computers in her school were

used primarily by the business education program for classes such as computer

fundamentals and business economics, and by individual teachers for course maintenance

tasks such as writing handouts, tests, and tracking attendance. These uses informed both

the First and Secondspaces of computers in the school creating issues of access for

teachers in other content areas who wanted to teach with the Net and new media.

While Rachel had a desktop PC in her classroom, as did most of her colleagues, it

was not connected to the Internet. Going online meant using the school's only computer

lab. The "business lab," as it was called, was the primary teaching space for most of the

school's business education classes. The room had enough PCs to accommodate a full

class of students and instructor, and the computers were designed with the business classes in mind, as they ran the text-based UNIX operating system needed for specialized accounting software. Students connected to the Net via the similarly text-based Lynx browser rather than the newer multimedia browsers capable of accessing the emerging World Wide Web. Rachel had difficulty getting her classes into the lab because of the limited number of free periods. When she could schedule time, she had to plan her assignments and activities around the available software.

Rachel encountered obstacles to teaching with the Net in the formal Secondspaces of administrative support and the informal Secondspace of teacher lore. The school district provided training with the UNIX operating system and Lynx browser in the form of one and two-day in-service workshops. Beyond this, the district offered short-term classes on a variety of teaching topics. Rachel took advantage of those classes specifically focused on education technology, including a class on Web page design and coding HTML. Rachel says that these in-service meetings and technology classes focused primarily on functional computer skills, with little discussion of the pedagogical possibilities and concerns of teaching with the Internet and World Wide Web. Aside from teachers in the business department, Rachel did not find other colleagues in her school who were interested in teaching with computers and the Net. She says that teachers in other content areas viewed computers primarily as word processing machines. Most did not use computers for writing assignments, preferring students to compose with pen and paper "as they had always done."

The issues of access to computing spaces and relevant software as well as how computers were defined by the school community were problematic for Rachel. Her

improvising in contested First and Secondspace was key to her ability to teach digital writing.   She made do with what was available, including rearranging schedules to get her classes into the business lab, using print handouts that modeled digital texts, and using PowerPoint and Microsoft Works as substitutes for Web design tools. "That part was probably more difficult than anything," she says, "having to teach in a more traditional way to something that was very non-traditional. I felt so constrained by the lack of software and hardware to do what I wanted to do. But I also was incredibly determined to do it."

Rachel's determination came from her observations of how new media helps students "see and talk about their writing in different ways." When Rachel explains seeing writing "in different ways," she talks about her students' awareness of audience and her own ability to talk with them about audience in a more "real" way rather than always conceptual (when only writing with the teacher and classroom peers). Rachel's thoughts on audience follow what we have known about the reader/writer relationship since the earliest research on hypertext. The medium foregrounds the writer's rhetorical decision-making because of the awareness of audience as co-creator of the reading experience as well as the sense of writing/contributing/participating with the broader audience of the Net (Aarseth; Bolter; Faigley). We've seen a return to these aspects of the reader/writer relationship with the revival of performance and delivery (Hawisher and Selfe; Porter, "Recovering"). As Landow says, when composing in online spaces, "all writing becomes collaborative writing" (104).

Rachel often stayed after school to access the Internet in the business lab. "I remember going in late at night and just exploring," she says, "I did a lot of that." Using the Lynx browser meant that Rachel had access to some of the Net's earliest communication protocol. One of those was the Bulletin Board System (BBS), a precursor to today's message boards and forums. "I remember that green screen," Rachel says about reading and writing on the boards, "I would just find people. I would type in certain words, and I'd end up finding people." She remembers finding a family friend who worked in a government lab. "He was so surprised that I was able to find him, and that I was even on the boards to begin with."

The bulletin board became an important Thirdspace for Rachel. It combined her personal and professional lives and yet was a space altogether different from the two. She eventually found other teachers in this "other" space. "I know it's bizarre," she says about connecting with people in the days before Linkedin, Facebook, and Twitter, "but that's how we met." Rachel began a regular correspondence with two high school English teachers. One lived in Hawaii, the other in Tennessee. These teachers shared Rachel's interest in computers and writing, but neither had taught with the Net. Rachel proposed a cross-class project using the BBS system. The three decided on a literature exchange whereby students could meet asynchronously online to share their thoughts on a common set of readings selected by Rachel and her online colleagues.

For Rachel, the reading exchange meant reserving the business lab, which wasn't easy. It also meant learning the BBS protocol well enough to teach it to her students and to secure a private board for posting. Two discussion threads emerged during the exchange. One was the class discussion of the readings, with students and teachers

contributing. The second was a private discussion between Rachel and her colleagues

in Hawaii and Tennessee. This second thread was where the three teachers discussed the

problems and successes they encountered with their first online project. It was the

support space where they collaboratively learned the BBS software, planned each week's

topic, and discussed pedagogical questions such as assessment.

Connecting with other teachers online and the sustained collaboration of the

literature exchange were important for Rachel. Not only did she find others who shared

her interest in computers, she found a valuable resource for technical and pedagogical

support that she did not find in the administrative space of in-service meetings and

classes or the local school community. She says about the exchange:

> It made me realize that there were other teachers out there who were
>
> interested in some of the same things I was interested in. I always felt like
>
> I was the lone person in about everything I did. Part of going online was
>
> just trying to find other people that I could talk to and stay connected with,
>
> people that were interested in the Internet. In the beginning, I spent a lot
>
> of hours online just talking to teachers and saying, "Hey what are you
>
> doing," and, "How do you go about this?"

Rachel responded to the obstacles in the formal and informal Secondspaces of her school

through critical improvisation, creating two layers of Thirdspace. One was for herself as

a teacher connecting with other teacher through the bulletin board. The other was

helping her students gain access to the Internet where they connected with other literature

students.

<u>Connecting Rachel's Thirdspace to Literacy Studies</u>

Rachel's experience with the literature exchange resonates with what we know about the uses of literacy in communities. Here I draw on theory from New Literacy Studies (Brandt; Gee, *An Introduction, Social*; Street "At Last," *Literacy*) including related sociolinguistic ethnographies (Barton and Hamilton; Finders; Heath) and research on how teachers acting locally can affect institutional change (Porter; Routledge). The issues of access in the Firstspaces of Rachel's school and the Secondspace views of computers as tools for the business education program were informed by the *literacy practice* surrounding technology in the school community. Rachel experienced this as contested space, which she negotiated by creating an online Thirdspace. Her third-space collaborations helped Rachel acquire the functional and rhetorical literacies she needed to teach with the Net at the time. It was also the start of a critical literacy that helped revise practice in her school district.

As Street writes, "literacy is a social practice, not simply a technical and neutral skill, that it is always embedded in socially constructed epistemological principles. It is about knowledge: The ways in which people address reading and writing are themselves rooted in conceptions of knowledge, identity, and being. Literacy, in this sense, is always contested, both its meanings and its practices..." (Street, "At Last" 418). The term "literacy practice" is important to understanding Rachel's story in three ways. First, it draws attention to the ways in which the meanings, uses and technologies of reading and writing are socially constructed within communities like Rachel's school. Second, it emphasizes that this social construction is informed by how individuals feel and think

about reading and writing as well as by political, economic, and cultural institutions that may or may not be represented by members of the community. Finally, some of these institutions, often because of their connections to "mainstream" society (Heath), hold more power over literacy discourses and therefore more influence in shaping literacy practice in the community.

One way to "see" the social knowledge-making of practice is to locate specific *literacy events*, the "activities where literacy has a role" (Barton and Hamilton 7). Events are specific moments and activities where communities, and individuals within communities, use reading and writing to solve problems, sponsor learning, navigate bureaucracies, and otherwise "get things done." Literacy practice is the broader social context in which events take place. Literacy events involve *texts*. As Heath explains, "A literacy event is any occasion in which a piece of writing is integral to the nature of participants' interactions and their interpretive process" (445). Texts are the print or multimodal documents used in events and are usually subject to the rules of practice.

A high school English class is an example of an event involving a number of literacy activities, such as class discussion, small-group workshops, and freewriting, and using different kinds of texts, including assigned readings, student drafts, and journals. These activities are shaped by formal and informal social rules defining literacy practice in "the Senior English class." Formal rules are represented in texts such as the syllabus (which is itself shaped by departmental goals and policy statements and state standards), essay prompts, and grading policies. Informal rules are less visible, but just as informative to practice. Students shape informal rules through their expectations for the class and teacher, how they think and feel about the activities of the class, and collective

patterns of behavior that emerge during class discussion and writing groups. Teachers

shape practice by things like how they respond to student writing and how they

participate in class discussion and when they join student writing groups.

As literacy events, the in-service training and district-sponsored classes in which

Rachel participated were shaped by the literacy practice of computers in her school. It is

difficult to know exactly what that practice was in the mid-90s. We have some sense of

how her school community thought and felt about computers from what Rachel says of

the lack of use outside occasional word processing. We also know that Rachel felt like

the "lone person" while trying to teach with new media and the Net. The computers

themselves, because they are objects of Firstspace and therefore reflect the thoughts,

beliefs, and feelings of stakeholders, reveal something about the institutions that

informed literacy practice. As Barton and Hamilton write, "practices are shaped by

social rules which regulate the use and distribution of *texts* prescribing who may produce

and have access to them [emphasis added]" (7). Following Brandt and Clinton, I broaden

the definition of "texts" to include the use and distribution of the technologies of writing

"whose meanings are not usually created nor exhausted by the locales in which they are

taken up" (338). That is, the technologies of writing have rules of use and access that are

predetermined *before* they are used by community members during specific literacy

events.

Oftentimes, the stakeholders determining meaning are political, economic, and

cultural institutions who may or may not be represented within the membership of the

community. Because of the scope of their influence and connections to "mainstream"

culture, these institutions, including education (Barton and Hamilton), often assert dominant beliefs about literacy (Heath; Gee, "What") and the technologies of literacy (Baron; Inman; Grigar). Blackboard and other course management suites used in K-College schools are examples of this. Blackboard has a commercial interest in building a stable, uniform set of course tools that are easily adopted in a variety of K-College settings. Schools lend institutional authority/backing when they license the software and automatically enroll students, teachers, and courses across the board. This often means that Blackboard is the least troublesome, if not only, option for teaching and writing online, though it constructs teachers' options at the local level in certain ways that some find problematic.

Rachel's school district, as an institution of education, held a dominant belief about computer literacy practice that was informed by stakeholders in the business department and local community. Rachel says that there were no administrative guidelines stating that other classes could not use the business lab; however, the effect of the lab's location, scheduling, and available hardware and software was much the same. As Rachel is careful to point out, this is not necessarily problematic in and of itself. The business education program is important to Rachel's school and local community, and it offers courses not available in many high schools in the state. The program has strong ties to the business community, which sponsors internships career fairs, job shadowing, and mock interviews. Rachel's town struggles with the same problems that many small towns in the Midwest have struggled with in the last thirty years, including the decline of family farms (Davidson; Wood) and urban migration (Carr; Longworth). In addition to offering a unique set of courses, Rachel says that her school district and community

"have a good sense of the economic potential in teaching kids business skills and getting them to stick around." The internships and other partnerships help to strengthen the connection between the town's youth and local career opportunities after graduation. "You want to support that," Rachel says, "especially if your community is really behind it."

However, that commitment shaped literacy practice in ways that often, and unintentionally Rachel says, marginalized teachers and classes in other content areas. "The business department always got new technology because they could argue for it," Rachel says, "How am I going to argue if I'm just going to use word processors? It doesn't take much to run a word processor." Rachel says that this is one of the reasons the department has always been well-funded with technology. It made sense, she says, that the lab space was designed and designated primarily for business classes. They regularly taught with the specialized software that students would need to know in business settings outside of school.

The literature exchange was an important literacy event for Rachel. The school district's support of technology for the business department inadvertently created contested space for teachers in other content areas. Rachel experienced this contestation in the Firstspaces of the school building and in-service events and in the Secondspaces of discourse about the role of computers and the Net in learning. Rachel's ability to improvise in contested space helped her locate teachers with similar interests and develop an-other space for technical and pedagogical support. Rachel says that the sustained nature of the project was especially important to her. It helped her acquire the functional skills of using a message board in a classroom setting, including teaching students how to

log on the Internet and use the Lynx browser to retrieve and reply to posts. Working

collaboratively with other teachers on a common project helped her begin to understand

the rhetoric of message boards, including how to write thread prompts, write posts that

encourage dialogue, and understand how that dialogue is different online than face-to-

face.

Arguing for Change in Contested Spaces

Barton and Hamilton write that, "literacy practices are as fluid, dynamic and

changing as the lives and societies of which they are a part" (12). The literacy practice of

computers in Rachel's school changed quickly with the rapid growth of the Web in

society and declining computer costs, but also because Rachel argued for change. She

argued two things in particular: 1) that all teachers in the school have reliable access to

computers, the network, and relevant software; and 2) that teachers have opportunities for

sustained pedagogical support with educational technologies. She argued both directly to

school administrators and indirectly through successful teaching with technology,

collaborations, and sponsoring her colleagues' multiliteracies.

Rachel continued to make connections online, some of which led to additional

multi-class projects. She collaborated with an English teacher in Nebraska who was

teaching students to design Web pages as part of a literature assignment. Like the

literature exchange, Rachel stumbled upon these student pages while surfing the Web

after school. The two teachers organized a semester-long project they called the Young

Writers' Forum. Students wrote and workshopped poetry and prose and then emailed

drafts to two professional authors who agreed to participate and offer written responses to

student drafts. Students then created Web pages to showcase their finished work. These were combined with selected responses from the professional authors and published on a free commercial server.

Rachel and her classes had access to a new computer lab for the Young Writers Forum. A year after the literature exchange, the school district purchased Windows machines for the business lab. She had complained earlier, but was not sure if this had any effect on the new lab. Her school saw the changes coming, she says. The older UNIX computers were used for the second lab, which was designated as general purpose for classes and individual student use. The school made do with the space they had, re-purposing a room that was much smaller than the business lab. Rachel taught her student the basics of HTML, and they worked together to code pages for the Forum. However, students could not check their work on the text-only Lynx browser. Rachel brought a Windows computer to the lab to help, but she says it was a cumbersome process.

Access to computers improved because of the new lab, but the UNIX operating system was showing its age and was better suited for word processing than composing with new media. Rachel made do with the software and access restrictions of the business lab while she was teaching the literature exchange. By the time she taught the Young Author's Forum in 1998, it was clear to her that access to more computers was not enough if they were not sufficiently compatible with current Net technologies. "I complained," Rachel says, "'why does the business department have Windows? The rest of us should have Windows. Everybody should have access.'"

Rachel was able to argue her case for better access with the success of the Young Writers Forum. She emphasized both the collaborative learning of the project and how

the Web provided a more immediate and real sense of audience for writing. "I said, 'You see what I am doing. Here's the potential.' This was something everyone can go online and see." She says that of all the computers and writing assignments, the Forum made the most impact because it showed how computers were more than just word processing machines for writing classes and how the Web was a composing space and not just a tool for research. "People were really interested in what students had done by creating these Web pages. The Young Writers Forum was probably the one project that was key to people understanding what we could really do with these computers." Soon after, the school district's technology coordinator came to Rachel for help writing a state technology grant aimed at improving writing instruction in the state. The district was awarded the grant which funded a new lab in each of the district's three schools (including a third lab for the high school).

The grant came with two noteworthy requirements that further shaped practice in problematic ways. First, the labs could only be used language arts classes for the first year. Rachel says that this restriction created problems. Not all of the language arts teachers wanted to use the lab, and the room sat empty for a number of hours each day. "A lot of teachers complained," she says, "''There's nobody even using it. Why can't we use it?'" Second, the grant required the school district to purchase writing instruction software. Rachel helped with the purchase and found the commercial writing software to be "mediocre" at best. "They just weren't very good," she says, "We had this software we bought and spent a lot of money on. I didn't use it that much. I felt kind of felt bad about that because it just sat there. You don't need a software program to teach people how to write." So while Rachel was an effective change agent at the local level, the

Firstspaces of computers in her school were still heavily shaped by stakeholders at the

State level.

For the past five years, Rachel has taught versions of a place-based community

research assignment with a multimodal final project. These projects have been

challenging despite the significant increases in computer access, including the acquisition

of a laptop cart. They require new stuff all the time it seems. Rachel feels a tension

between how the Web is evolving in society and what she believes writers need to know

and her school's ability to "keep up." As conflicts arise, she relies on the sort of

Thirdspace thinking that led to her first online collaboration. She finds "an-other" option.

Rachel knows from experience that bureaucracies of school can be slow-moving. She

makes formal requests to the principle, but she also works with the district's technology

coordinator. "Whenever we want something," she says, "he is the person who is either

going to make it or break it." As her students' multimodal compositions become more

complex, they require more dynamic software and network access. Rachel gives a recent

example where she had to choose between the limited audio software that came with the

computers or request a commercial license. Rachel found an open-source alternative that

was free and had everything they needed. The tech-coordinator installed this software

right away. Rachel also finds creative uses for existing software, such as using

PowerPoint to create multimedia essay collages. "I started off using PowerPoint because

I knew I had it," she says, "I also wanted to use it in a way that is creative and shows

students that there are other ways you can use that program, another way of telling a story

than just a print essay."

Rachel is self-aware about how often she asks the tech-coordinator to install software, approve sites on the Web filter, and other things, as well as how often she makes formal requests to the principle. "That's probably the toughest thing," she says, "just being the squeaky wheel all the time, but I know people listened." Rachel believes that her school still needs squeaky wheels. Like Rachel, they are the ones arguing for change either directly to administrators or indirectly through successful, if difficult, improvisation in the Thirdspaces around technology in school.

Thirdspace as Institutional Critique

As Barton and Hamilton write, "socially powerful institutions, such as education, often support dominant literacy practices." These dominant practices can be seen as part of "whole discourse formations, institutionalized configurations of power and knowledge which are embodied in social relationships" (12). Knowledge about computers in the literacy practice of Rachel's school is shaped in part by the importance of the business education program to the school and local communities as well as accountability to state requirements for grants. Rachel's thirdspace-thinking helped her negotiate the physical and ideological borders created by this practice. She collaborated with school administrators, colleagues across content areas and online, students, and her town community in order to acquire the technical and pedagogical resources she needed to teach computers and writing. In so doing, she enacted a "thirdspace as critical engagement" that is "characterized by its fluidity within and between different positions and by its potential for unexpected encounters to flower between one site and another" (Routledge 407).

Rachel's critical engagement with Thirdspaces has been most successful arguing issues of access arising from aspects of practice. This is the sort of spatially-situated institutional critique that Porter, Sullivan, Blythe, Grabill, and Miles say is possible and necessary at the local level of the individual school and teacher(s). "Though institutions are certainly powerful," Porter et al write, "they are not monoliths; they are rhetorically constructed human designs (whose power is reinforced by buildings, laws, traditions, and knowledge-making practices) and so are changeable (Porter, "Institutional" 611). Because institutions are *spatially* constructed, they are less intimidating, more accessible and more changeable at the local level. Because institutions are also *rhetorically* constructed, rhetorical action is required for change to happen (619-622, 630-631). This can be performative, such as when Rachel shares class assignments with her colleagues, helps them problem solve new hardware, and talks with administrative staff about what software the labs need. It can also be textual, such as when she co-authors technology grants and helps students publish their digital texts. Rachel found or made the "spaces for reflection, resistance, revision, and productive action" that exist in all institutions (613). As the authors write, "space itself is a major factor in achieving systemic change; timely deployment and construction of space (whether it be discursive or physical) can be a key rhetorical action affecting institutional change, and once created, the space can operate independently of the sponsoring agents" (630). The computers and labs that Rachel helped her school acquire and create continued to argue through their presence and use even after her direct involvement. Rachel says that use of the labs and laptop cart have increased significantly. "It was a

slow progression," she says, "Now everyone uses them." The labs and cart now have waiting lists, she says, "It's grown exponentially."

Rachel's critical engagement with Thirdspaces has been less successful at arguing for sustained pedagogical support for technology. While more teachers are using computers, few teach multimodal composing. Outside the use of specialized software (such as with the business education program), they are primarily used for research and word processing. Rachel says that the challenges of getting her colleagues to try writing and teaching with new media include the amount of time involved and what writers learn. "It's a lot of work," she says, "and you really have to be invested in it pedagogically - that learning to communicate in these different forms has benefits for writers. If you can't see that benefit, or imagine it, then I don't think you are going to invest the time into it."

In-service meetings are still the primary space for professional development with technology in Rachel's high school, but they remain focused on functional skills training. Rachel believes that in-service meetings, or similar forums, are an important starting place for showing the benefits of teaching with new media and the importance of multimodality to writing instruction today, especially if those moments provide opportunities for dialogue. "If the three of us who teach with technology the most had an in-service day where we talked about what we're doing and why we're doing it, I think we would see more people at least attempt to try something with technology." Rachel also believes that teachers need opportunities for sustained collaboration beyond the one-day workshop. This is something that teachers can organize themselves, and some do she says. However, it is also something that needs the involvement of the technology

coordinator, principle, and other support staff. "I think that a lot of people, including administrators, think that teachers *are* using our school's computers," Rachel says, "and they may be, but in limited ways. Part of the problem is that we don't really know what our colleagues are doing because we don't celebrate it enough. We aren't asked to share things with other teachers. We have so much going on with assessments and other issues pressing on us that technology takes a back seat."

The model of in-service structuring Rachel describes is heavily informed by her work as a teacher-leader in the Nebraska Writing Project (NeWP) and National Writing Project, both excellent examples of professional development Thirdspaces. Rachel was instrumental in helping NeWP "go digital." She used the coding skills acquired from teaching Web pages to create the first version of the NeWP Web site. She also used her experience as a critical improviser in contested space to help her NeWP colleagues imagine technical and pedagogical support for computers and writing. This was important Secondspace work for the program. Rachel gives as examples a series of technology development teacher study groups that she helped organize and facilitate. These groups brought together teachers from across the NeWP network to collaboratively learn about teaching digital writing. The groups were opportunities for teachers to learn or practice functional new media skills (such as creating a blog), share class assignments, and projects, and discuss the problems and successes of teaching computers and writing in their local schools. The technology study groups which Rachel helped plan made a strong case for broader revision to the NeWP mission.

Following the success of the technology groups, Rachel collaborated with other NeWP teachers interested in technology to organize and facilitate a technology advisory

board that helped guide NeWP's emerging computers and writing activities. Rachel says that this work led to her becoming the technology liaison between NeWP and the National Writing Project (NWP). She collaborated with other technology liaisons as they planned computers and writing activities in their own states. The team also advised NWP directors on technology matters at the national level and organized projects such as conference presentations and workshops. Rachel names professional writing retreats as a meaningful project she worked on with her NWP technology liaison colleagues. The retreat provided a week-long space for NWP teachers across the country to come together and share computers and writing projects from their classrooms, workshop essay drafts, and discuss writing for publication. The retreats are examples of how Rachel's involvement in professional development activities helped affect change in computers and writing instruction at the national level, just as the NeWP study groups helped affect change at the state and local levels. The task remaining for Rachel is to shift this work for change from the Thirdspaces of NeWP and NWP to the First and Secondspaces of her school district.

Chapter Three:

Karen – Collaboration and the New Space of Composing

Karen is an associate professor at a Midwestern land-grant university where she teaches composition, literacy, and rhetoric courses, and administers a learning community program for undergraduate students. Karen sees collaboration as an obvious part of composition practice. This is evident in her writing classes, which include significant amounts of group work both online and face-to-face. She regularly teaches in a dedicated computer classroom allowing her and students in her writing classes to make extensive use of new media for print-form as well as multimodal composing, much of which involves collaboration. Students in Karen's classes often co-author singular texts or collaborative wikis and hyperlinked blogs. They write together online, including on a class discussion board, and peer writing groups are supported with online draft exchange and response spaces. Blackboard is central to much of this work as well as routine course maintenance tasks. Karen teaches with Blackboard's interactive tools, such as group pages but is just as likely to use free versions and open-source alternatives, some of which she acquires through various technology projects with which she is involved.

Collaboration is also an important part of Karen's professional activities beyond the classroom, including her work with a number of technology development teams beginning in graduate school. Karen names three such teams that have been formative in her personal and professional commitment to computers and writing; a digital humanities

project designing online literary archives, a development group creating a hybrid course management and e-portfolio suite for an undergraduate writing program, and a course wiki for writing in the discipline of history. Each of these teams created a new technology for writing and writing instruction, and the resulting group work created sustained Secondspaces for imagining and re-seeing as the design teams shaped Firstspace tools for computers and writing. The collaborative work of these Secondspaces involved defining an issue or question involving computers and writing, determining a suitable digital platform, and building a new literacy tool for writing and writing instruction. In each example, the resulting literacy tool - an archive, a course management suite, a wiki - contributed to teaching, research and writing in the local school community and beyond. However, the Secondspace learning was in many ways more important. It was important for individual team members. Karen acquire theoretical and practical computing skills, including advanced coding and database design and had many opportunities to imagine what computers mean for her own writing pedagogy. The Secondspace learning was also important for the sponsoring academic communities as the collaborative efforts of each team contributed to knowledge about computers and writing in literary studies, a writing program, and a writing course.

Karen's commitment to collaboration is also evident in her use of the Web as a Thirdspace for writing across the domains of everyday life. She makes extensive use of Web 2.0 applications and portable computing devices both in and out of school. Most notably, she uses Google's interconnected suite of cloud-based applications to write, organize information, share files, and communicate across the Web and between her home and work communities. Karen says that with almost every collaborative project

with which she is involved, professional or otherwise, she uses one or more of these applications. She uses group pages for information sharing in her neighborhood association and the parent teacher organization at her children's school. She creates documents for professional projects and for co-authored texts. She also uses Facebook, Twitter, and other social networks, some of which are for friends and family, some for colleagues, others for both.

Karen's experiences with and commitment to collaboration in her teaching, professional activities, and use of cloud-based computing and networking reflect how recent evolutions of the Web have transformed the scene of composing. As literacy experts, we know that writing is not a solitary act. However, the actual task of writing - the labor of the writer putting words to paper or screen - has traditionally been a solitary experience punctuated by brief moments of sharing. This does not describe the space of writing with today's Web and certainly not with the directions the Web is moving. A review of any popular Web site, from news to entertainment to academic research, reveals a complex ecology of information delivery and sharing that is user/writer-centered and fundamentally collaborative in ways that the "old" Web could not have been. Karen's stories in this chapter argue for collaboration as not only a fundamental part of composing in today's digital world, but also a fundamental part of the professional development activities we create in order to revise the contested spaces of computers in our schools.

Imagining Secondspace Digital Scholarly Editing and Firstspace Digital Archives

While in graduate school in the 1990s, Karen collaborated with a small group of faculty and other graduate students at her university in planning and designing digital editions of literary works. Karen's involvement with the project began in a then-new digital humanities summer course taught by a professor who Karen says was interested in HTML, database design, and digital books. The coursework included learning how to code HTML as well as reading about and discussing current research on digital editing in the humanities. The class spent time creating what Karen admits were "ugly" Web pages, but she says the conversations around that work were important. They talked about how texts change when moving from the print form of the book to digital forms and what the Web means for academic research.

Digital books have been available on the Web since the early 1990s. (Offline, they date back to at least the 1960s.) The biggest and most well-known online collection at the time Karen was in graduate school was Project Gutenberg, a website that offers free access to plain-text versions of works in the public domain, many of which are difficult to obtain in print form. Karen's professor, as well as others in the emerging area of digital humanities, had a different vision for literary texts online. They argued that digital editions need to adhere to the same (or similar) editing standards of print scholarly editions if they are to be useful for academic study (Hockey, "Creating;" McGann, "Rationale;" Unsworth, "Electronic"). Sites like Project Gutenberg rely on OCR and volunteers to render print books into digital form. Not only does this allow more opportunity for errors, they argued, but it overlooks the important decisions that go into publishing scholarly editions, such as how a manuscript changes over the course of its

publishing history and developing critical apparatus (Hockey, *Electronic* 124-144; Smith, "Electronic"). Digital humanities scholars further argued how the Web provides important opportunities to expand the idea of the scholarly edition into something more archive-like (Unsworth, "Networked"). Not only does the Web make delivery of text faster and cheaper (at least for readers), but a well-designed archive would provide writers access to scanned copies of historically important editions of an author's work as well as letters, notebooks, and other archival texts that are difficult to access outside of specialized public and private collections (Smith, "Because").

For example, a student in a high school literature class or a university researcher writing about Emily Dickinson's "A Spider Sewed at Night" could see images of the original manuscript, the first publication in 1891, subsequent publications where the layout of the poem changed, as well as letters to family members where Dickinson mentions spiders (Belasco and Price). With appropriate editing and coding, these documents could be transcribed and made searchable. Sites like Project Gutenberg lacked the advocated scholarly editing practices, including standardized coding and markup protocol, robust and dynamic database structures, and attention to the material conditions of the originals.

After the summer course, Karen participated in a number of small-group projects coding manuscripts for the archive being developed at her university. This gave her opportunities to participate in the conversations about digital scholarly editions and archives on campus and with researchers at other institutions developing the first digital archives. Karen emphasizes the sense of community and newness of what they were attempting to create - both the archive itself and the practice of scholarly editing online.

Shillingsburg described the same while arguing for the difference between digital

scholarly editions and other early versions of online books:

> The point is that scholarly editors form a small, committed, intense, and in
>
> a sense manageable group. If it sets the standards for its own community,
>
> then Gutenberg [and others publishing digital books] can do what they like
>
> - they will anyway - but scholarly editing will have a system that works: a
>
> system that improves on the printed scholarly editions in ways that we
>
> determine. (27)

Karen says that creating something as authoritative as what her professors

imagined meant "recognizing the importance of each edition of a book and how it

changes," which necessarily meant asking very specific question about the minute aspects

of manuscripts and historical texts. Online literature archives raised many technical and

theoretical questions about what happens to books, manuscripts, letters, and other texts

and artifacts when they are edited for digital publication. She says that the work of

coding documents was often "tedious," as were many of the debates that emerged from

the process of moving from print to digital. "Do you preserve spellings, smudges,

formatting, and how do we deal with those things digitally?" These were important

arguments, she says, because nothing like it had been done before. Despite the

tediousness, Karen's participation in the design teams, and by extension the broader

digital humanities community, was important to her. She says:

> Even though it was very boring work, it was engaged, [especially] the
>
> conversations about why this was important. There was nothing, at that
>
> point, very deliberate. It felt more like part of a movement. People were

talking about things, and it was very much who I knew and where I was at the moment in shaping my thinking.

Karen says that she often came to very different conclusions from those of her professors and peers, especially the potential for collaboration beyond the scholarly editing community and the possibilities of a more open and interactive archive. "I want more people to be able to read [these texts]," she says, "I have this hard-to-find book on my desk. I've scanned it and put it online. Now we can all read it at the same time and add things to it."

Karen's story of editing a digital archive illustrates the importance of Secondspace imagining to professional development projects that include significant amounts of group work. This Secondspace is evident when Karen talks about "being part of a movement" and "feeling on the cutting edge of creating digital text." That her team and the broader digital humanities community were creating something new for research and writing is obviously important to literary scholarship. Sites like *The Walt Whitman Archive*, *Rossetti Archive*, and the *William Blake Archive* provide researchers and writers a more comprehensive look into both the material history of literary works and the cultural contexts in which they were written and read than what is possible in print, while at the same time adhering to the editing practices required of scholarly editions. However, the collaborative process of building such archives was in a way more important than the resulting texts, as these scholars, both in local and disciplinary contexts, helped to create the practice of digital scholarly editing and lay the groundwork for the future of digital scholarly editions. The Secondspace work of imagining scholarly

editing in the digital age was also personally important for Karen. She names the archive project as the starting place for her interest in computers and writing. While she acquired functional computing skills, the collaborative nature of the project provided space for critical literacy learning, notably her own understanding of the increasingly collaborative direction in which the Web was moving. "I felt like they were missing the point," she says, "but they weren't. They just had a different take on the project's purpose." This Secondspace learning for Karen was huge.

Karen's story also speaks to the importance of multiliteracy learning and multimodal pedagogies in graduate education and K-12 pre-service teachers, where Thirdspace professional development can become a part of teachers' professional practice before joining full-time faculty communities. Blair, Graupner, and Nickoson-Massey argue that this learning for emerging professionals must be collaborative, that it must include opportunities for graduate students and faculty (including those not specializing in technology) to work together in organizing and facilitating technology projects beyond the individual computers and writing course(s). They write:

> We must understand graduate curriculum in new ways in order to remain competitive and innovative as a discipline, as a series of formal and informal collaborative knowledge-making spaces in which expertise and power are shared among and between students and faculty—in and beyond the space of the classroom so as to prepare our students for careers either within or outside of the university. Only then can the opportunities for such literacies develop and extend beyond the single technology course to include both the formal and informal sites of professional development of

graduate students in rhetoric and composition, a process that will remediate our

current and future roles as writing teachers and researchers. (22)

Such "collaborative knowledge-making spaces" ensure that graduate students have

opportunities to develop professional identities as knowledge-makers, assume

responsibility for their own ongoing multiliteracy learning, and explore teaching and

research with multimodal composition (13-15).

Yancey further emphasizes the need for these spaces to be sustained throughout

graduate school. About revising the rhetoric and composition graduate program with her

colleagues at Florida State University, Yancey writes, "[In] short, it quickly became clear

that rather than digital technology serving as the focus for a single course, it would be

threaded throughout the program. Instead of offering a specific (and often pedagogical)

course focused on computers, we would include it as both method and concept

throughout the program" ("Re-designing" 7). Karen's involvement with the archive team

is exactly the sort of collaborative and sustained space Blair et al and Yancey advocate.

Furthermore, it is fundamentally Thirdspace and requires Thirdspace-thinking to imagine

and plan, especially if our departments or writing programs offer limited or no

technology-focused rhetoric and composition courses or ongoing digital projects with

which graduate students can be involved.

As chapter two argued, teachers' Thirdspace improvising can help to transform

writing in our schools on a programmatic level. In creating a digital humanities course

and connecting it to sustained group work on the archive, Karen's professor for the

summer course created a learning space where graduate students learn from and

contribute to a sustained knowledge space developed from semester to semester. As

Anson and Miller-Cochran explain, one of the problems graduate programs face is that our individual courses often tend to evolve "laterally" (38). Rhetoric and Composition programs revise courses based on many things, including faculty teaching interests and current scholarship. Anson and Miller-Cochran say that despite these revisions, individual sections of our courses remain largely "disconnected" both as a learning space for students and as a learning space for the program. They also say that making connections with new technology can change this to a "vertical" evolution where individual courses and student learning evolve both spatially and temporally (39). "The collective work of a particular class no longer needs to remain locked in its temporal moment, disappearing at the end of the term and invisible to successive groups of enrolled students," they say, "We argue that meaningful connections can occur not just between instructors teaching the same course, or between students within a section of a class, but also across space and time, between sections of the same course" (39). As such, our graduate writing spaces become more like the interconnected, interactive, sustained writing space of today's Web.

Collaboration and Programmatic Revision through CMS Design

Karen joined her second technology development team at the university where she taught after graduating. This was a smaller group of faculty and staff. Like the literary archive, this team planned and built a new literacy technology, a hybrid course management and e-portfolio software suite. While Karen contributed to the broader discourse of computers and writing scholarship by presenting two conference papers on

the project, this team's work was primarily focused on shaping technology at the local level of their department's writing program.

The team's initial goal was to explore the possibilities of combining print-form essays and hypertext markup for classroom instruction and writing workshops. They designed and built software with which writers could compose or upload drafts to a secure database on a university server and then markup or "tag" textual features such as topic sentences, thesis statements, supporting points, and paraphrases. The team had two guiding questions: 1) how might the dynamic medium of hypertext change the workshopping process; and 2) how might the process of tagging a draft help writers see and revise their writing differently? Karen explains that tagging key features of drafts could obviously be done in low-tech fashion with colored markers; however, the digital medium allowed the full class and peer writing groups to collate and share tagged features "on the fly, in the moment." For example, Karen describes one impromptu class discussion on thesis statements. Because students had tagged their thesis statements, Karen was able to pull just those sentences and display them on the overhead projector with just a few clicks. The discussion that followed was then supported with real examples from current drafts with just a few clicks of the software.

The development team's next goal was adding an e-portfolio layer to the software and sharing the suite with the department community. Karen collaborated on the conceptual ideas and helped plan what features the e-portfolio layer would include. The software was piloted by a small group of English department teachers who volunteered to use it with their composition classes. This pilot group helped the development team troubleshoot technical issues. They also shared how they had used the software,

including the sorts of artifacts writers chose to include, and ideas for future versions of

the software. The benefits of the e-portfolio were obvious for Karen and the extended

team of designers and pilot teachers. "It seemed like such a very clear improvement,"

she says, "to [move to] an electronic portfolio that not only showed process and did all of

the wonderful things that a portfolio does, but also allowed greater expression in new

media and more opportunities for reflection. The tagging feature could help students

point to things different ways than a paper portfolio."

Following the pilot group, the department writing program required all first-year

composition classes to teach with electronic portfolios using the in-house software.

Karen says that the technical support was there to facilitate the move to e-portfolios.

Each composition class met for a training session in the computer lab during the first

weeks of a semester. There was also, an internal grant for graduate students to staff the

lab and help students with their e-portfolios, especially during high-traffic moments of a

semester. However, Karen says that the pedagogical support and argument for e-

portfolios were less visible. "There were mixed feelings about it. As a grass roots

collection of people creating this [software], it was great. As soon as it moved to

something that everyone teaching the course had to do, it got difficult, as programmatic

change often does. It was a radical change in the course."

Karen says that in hindsight, the development team saw the need for an

"intermediary stage" during which teachers could gradually move towards integrating e-

portfolios in their classes. "I would have invited more people to try it out for a full year,"

she says, "And then try to do more showing of what you get. What do some of these

final portfolios look like?" Karen believes that more "showing" of the portfolio process

would have helped make the argument for the e-portfolio as a synthesis moment for learning in the course. It is important, Karen says, that teachers "come to those conclusions themselves and feel more like they have some say rather than getting them all to "buy-in" to course software they had no say in."

As with the literary archive, the Firstspace literacy technology the team created was important and the Secondspace learning even more so. Karen says that the learning for her partly involved how she teaches concepts of audience to student writers. "This project was really what cemented my commitment to working with computers in my teaching," she says, "It seemed to me to help reify what we're talking about when we're talking about audience." Composition has a deep history of scholarship on audience, and yet many of us find it challenging to teach. We design activities that help writers think in terms of audience addressed versus audience invoked (Ede and Lunsford), imagine and write to an ideal audience (Ong), reading out loud (Elbow), or some other writing strategy that helps us and them make sense of this very complex thing. For Karen, piloting the software in her writing classes and sharing the experience with the design team helped her connect what she knew to be true about audience from the research as well as her own experience as a writer with technology-based writing activities that helped her classes better explore concepts of audience in their own writing.

The Secondspace learning was also important to the community of writing teachers and the writing program. The pilot team had opportunities to participate in the development process and therefore helped the team revise the software to meet local needs rather than relying on a commercial course management suite built by someone

else and designed for broad appeal. In this way, the broader community helped shape

the software and therefore help the team make an argument for teachers to have more

authority over the shape of technology in their schools, a professional development

activity that is easily overlooked as we respond to and revise contested computing spaces.

Where Rachel is an example of a teacher whose Thirdspace improvising helped to

transform the Firstspace of computers in her school, Karen is an example of a teacher

using Thirdspace collaborations to transform the Firstspace of technology itself. In the

contested space of computers in our schools, computer hardware and software often seem

the furthest removed from our ability to revise contested space, and yet they absolutely

require our expertise and revision. There is too often too big of a difference between the

shape of technology in our schools and classrooms and the shape of technology in the rest

of society. Yancey made this point in her 2004 CCCC chair's address, "Never before has

the proliferation of writings outside the academy so counterpointed the compositions

inside. Never before have the technologies of writing contributed so quickly to the

creation of new genres... How is it that what we teach and what we test can be so

different from what our students know as writing?" ("Made" 298). Davidson describes

the same gap, but in terms of more recent developments of Web 2.0., arguing that our

response must necessarily be a version of "Humanities 2.0" wherein we no longer think

of technology and humanities as a "binary" but as a "necessarily interdependent,

 conjoined, and mutually constitutive set of intellectual, educational, social, political, and

economic practices" (708). Furthermore, Davidson argues for the responsibility we have

as humanists in shaping technology. She says:

[We] need to acknowledge how much the massive computational abilities that have transformed the sciences have also changed our field in ways large and small and hold possibilities for far greater transformation in the three areas—research, writing, and teaching—that matter most. We are not exempt from the technological changes of our era, and we need to take greater responsibility for them. We should be thinking about them critically, considering what they mean for us, and working to shape them to the future that we desire. (708)

This may be difficult to wrap our heads around and imagine doing in the already busy spaces of our teaching. It means recognizing that just as computers and writing is our job, so is shaping our literacy technologies.

In 1994 (just as the World Wide Web went public), Haas and Neuwirth argued against teachers taking an instrumental view of the technologies of writing. Part of their argument involved a perceived "division of labor" wherein teachers take the stance that "computers are not our job" - we study writing; others study computers (325). As discussed in chapter one, we have come a long way as a field in claiming computers as a fundamental part of our expertise as writers and teachers of writing. As such, we have fulfilled part of Haas and Neuwirth's call to claim computers as central to our work. If the division of labor still exists, it is in our stance regarding the shaping of technology itself, which Haas and Neuwirth and Davidson tell us is essential. As the following excerpt explains, this shaping is fundamentally a response to the power that stakeholders outside of our schools have in defining what technology means for education:

Those with a knowledge of literacy, its myriad manifestations and its

ramifications, must become actively involved in shaping the complex of

technology that, in turn, shapes our literacy, our cultures, and ourselves.

We (and our students) are "written" by the technologies we use, or, more

accurately, those with the knowledge, power, and desire shape the

technologies that in turn shape us. We are advocating here that those in

literacy studies take greater responsibility in "authoring" technology - that

is, engaging in sustained and critical dialogue about technology, both its

shape and its use. (330)

It seems the problem of shaping literacy technology now is largely located in

Secondspace. As Haas and Neuwirth argue, our research "need not openly express the

cultural dominant 'computers are not our job' to support that dominant. Research that is

concerned with literacy and computers but remains unconcerned with shaping that

technology can have the same impact" (328). Planning professional development

activities that successfully respond to contested space necessarily means recognizing that

we can and should make or otherwise more actively construct the literacy technologies

we use to teach computers and writing.

The hybrid CMS/e-portfolio is exactly the sort of shaping Haas and Neuwirth

advocate. In creating the program and sharing it with the department writing community,

Karen and the development team provided "grounds for opposition" (328) to the

commercial software licensed by the university. As previously mentioned, claiming

responsibility for the shape of new media technologies in our local schools might be

difficult to imagine. Outside of navigating the bureaucracies of formal acquisition, there

often seems but two choices, teach the technology we have (which may or may not be what we need) or do not. Rachel's Thirdspace improvising shows one *other* option to this binary, repurposing software (such as her creative uses of PowerPoint). Karen's collaborations illustrate two more *other* options. The literary archive and CMS/e-portfolio teams created software themselves. While this seems like the least plausible option, it is not necessarily. Karen says that the coding for their software was done by a member of the English department's technology support staff. Departments across disciplines and at all education levels are increasingly creating faculty and staff positions to manage existing technologies such as course management suites and help teachers with new media projects. Technology resource departments are also available at many colleges, universities, and school districts, making collaborative project for in-house design possible. The final *third* option involves looking to the open-source community for software that meets our teaching and learning needs. This option is simple, but powerful for change, as Karen's following collaborative technology project illustrates.

Revising Firstspace Technology Across Disciplines

Karen recently collaborated with two colleagues, one from the Department of History and the other Computer Sciences, on a grant-funded instructional technology project. The grant's purpose was to explore the uses of new media to teach writing in the field of history. The team's goal was for students to collectively write a class wiki as a way of helping them analyze scholarly discourse and what it means to research, think, and write as historians. The history professor was the primary instructor for the course, while the computer science professor led the technology development. "I helped them

shape the prompts," Karen says, "and think about the pedagogical components of the project as well as create the rubrics we used." Karen also taught one session of the course, where she showed students how to compose, edit, and link articles in a wiki.

The team encountered significant problems finding suitable wiki software. They began by designing and building from scratch. This allowed the team to create software that did exactly what they needed; however, the user interface was too basic. "It was a computer-sized grey box nightmare," Karen says, "and you can't do that anymore." Karen and the team concluded that current trends in online interface design needed to be incorporated into their program, but this required too much additional time. The team's second option was Blackboard's built-in wiki. The obvious benefit of Blackboard was its widespread availability on campus. However, Blackboard came with its own set of interface issues despite being commercial software. "One of the problems with Blackboard," Karen says, "is that it was created before Web 2.0. They just keep building on and adding layers so that none of the [new] features are easy or intuitive." Karen says that at the time, Blackboard did not have a discussion page for the wiki, a key feature in most wikis that gives collaborators a space in which to propose and negotiate changes made to published articles (Richardson 67). More significantly, the wiki did not allow more than one writer to edit a page at a time. This was a problem for in-class use where several students might want to edit the same page. It was also a problem outside of class as pages were inaccessible if a writer left one in edit mode for an extended time.

The team used Blackboard for one assignment and then abandoned it for an open-source wiki built by a graduate student in the Department of Computer Sciences. The open-source wiki had the right combination of contemporary interface and usable design

and it was easy to modify for the purposes of the course. "The beauty of having something custom made is that it is custom made for *you*," says Karen. However, the team encountered problems during the grant writing process when the open-source wiki was denied because of its beta status. Like the legacy design of Blackboard, Karen says that this is one of the problems of working with institutions that have competing ideas about technology and learning. "The best example of how the institution's mission is too far removed from what's happening in the classroom was this grant. A vast part of the grant was gutted by taking [the open-source wiki] out, by saying, 'We're not supporting beta software.'"

Karen's experience with the wiki team suggests two things about collaboration as response to the contested space of computers in school. First, open-source software is often a viable alternative to commercial software, especially when that commercial software unnecessarily limits writing instruction or otherwise constructs digital writing spaces in problematic ways. The team was ultimately required to use Blackboard after their third option was denied during the grant-approval process. This itself is an example of the power institutions have in defining technology. However, Karen was able to use the open-source wiki developed by the team with her own writing classes. This is something she could not easily have done on her own. While Karen has the technical skills to install and modify similar software, she does not have administrative-level access to university servers or knowledge of the security protocol required to ensure student privacy and server integrity. Collaboration helped Karen make contacts in other

departments and subsequently shape a literacy technology for writing instruction that is authentic to current design in ways that she says the Blackboard wiki is not.

Karen's acquisition of the open-source wiki reinforces the necessity of writing teachers making connections with knowledgeable technology experts in their schools and districts. This is especially important for K-12 teachers. In some ways, Karen has more institutional authority over classroom technology (e.g. administrative access to classroom computers) than Rachel. As Rachel said in chapter two, the technology co-coordinator for her school district was invaluable in helping her get access to software and Web sites otherwise unavailable to teachers and students. However, open-source software comes with its own set of problems for K-12 teachers. For example, Rachel's high school considered moving to OpenOffice, a free, professional quality office productivity suite originally developed by the open-source community in partnership with Sun Microsystems. They decided against the move because of what they understand as the need for students to be functionally proficient with the more common Microsoft Office software.

Karen's experience with the wiki team also suggests that collaboration can be transformative for teachers writing across disciplines and content areas. It was Karen's idea to use a wiki, as it seemed the best fit when her team members first described the grant. The history professor was familiar with wikis, but had never taught with one. Karen says that they worked together to figure out how to incorporate the wiki into classroom practice and the broader scope of the course. Karen says, "It really pushed this history professor to do things he hasn't done before." Wikis are far from exclusively a computers and writing tool; however, Karen's expertise as a writing teacher and with

composing online brought new perspectives to the project. Not only did Karen teach

the functional skills of using a wiki and the rhetoric of composing with them, she also

challenged her colleagues to think differently about writing instruction. "One of the

things that's fruitful and challenging in working with people in other disciplines is that

they don't necessarily have the same ideas when you talk about writing. Things that

seemed really obvious to me where not obvious to them." She gives the team's initial

group-work activities with the wiki as an example. "Everything about groups was really

isolated, as if 'This is our group's work and we can't see what other groups are doing.'"

She argued for an open approach to the group articles. "You've got to see [what others

are doing], and you've got to be able to link to other people. That's crucial. I'm not

worried about anyone copying anyone else. You might learn from how other groups

approach the assignment." Likewise, Karen had opportunities to learn about clickers in

the classroom. Clickers are a site of significant study of instructional technology in

academic fields, like history, that often have large class sizes.

Karen's collaborative projects sponsored her multiliteracy learning with new

technologies. They also created spaces in which she could explore their meaning for her

own writing pedagogy and make connections with her understanding of the user-

centered, interactive, and highly connected composing space of Web 2.0. Collaboration

helped her acquire a sense of agency with technology that helped her transform the

Firstspaces of writing in multiple learning spaces, including her own classroom. The

Secondspace of her writing pedagogy is also transformed through her collaborative

learning with other teachers.

Chapter Four:

Connecting Print and Digital Expertise

Susan lives in a small town in eastern Nebraska where she has taught high school English for the past thirty years. She currently teaches sophomore and senior literature and composition classes as well as the occasional special topics class, including literature of the Holocaust and Nebraska Literature. Susan has been a teacher-leader with the Nebraska Writing where she was co-director for eight years, led over ten Rural Institutes, participated in a Digital Storytelling project for the Rural Sites Network, and has co-facilitated three online institutes.

When I first contacted Susan, she was quick to tell me that she is "not a computer person" and named colleagues whose classrooms and teaching she thought were a better fit for my research. I knew from working with Susan in the Nebraska Writing Project (NeWP) that she feels this way about technology. I talked to Susan more about what I wanted to learn about her experiences with computers, emphasizing that I wanted to talk to teachers with a wide range of technology backgrounds and commitments. Susan was not resistant to being interviewed, only hesitant that she had anything to offer a dissertation on computers and writing.

The hesitation Susan feels about her computers and writing expertise comes, at least in part, from the changes happening in technology and education. Susan sees a generational gap between her knowledge and use of computers and new media and that of the new teachers joining her school's faculty and the students now coming up through her

English classes. It is the same gap popularized in news media (Carnevale; Nussbaum; Ramde; Rossetto) and researched in academia (Bennett; Helsper), including Composition studies (Vie; Yancey). For Susan, the generational differences are significant. She is concerned about her own ability to adapt to her changing work environment as well as the learning needs of these new students. However, Susan successfully teaches several assignments that rely heavily on computers and the concepts of composing new media writing. She does so by getting technical help from her students and other teachers while relying on what she knows about good writing and writing instruction with more traditional texts.

Susan's dual stance on technology helps her take a critical position on computers and writing. Her experience with and commitments to computers and writing differ from Rachel and Karen's. Karen sees computers as an obvious part of the writing classroom, just as they are a part of her personal and professional life. Rachel actively seeks out or creates communities to help her bring new media into her classroom and curricula. Susan does not see new media as an obvious part of teaching writing. Susan seldom seeks out new media with which to teach, nor does she look to change the role of computers in her school or writing program. Susan integrates computers and new media, but with serious critique.

It is important that we have teachers like Susan at the table when we plan and conduct professional development Thirdspaces that address the problems of contested space. Because of her dual stance on digital writing, Susan benefits from professional development Thirdspaces as they give her a space in which to move from a stance of engaging computers as a necessary part of teaching today to one of lifelong learning with

technology. Her experiences teaching computers and writing also suggest certain

things about the activities of Thirdspace professional development - that they should

provide opportunities for teachers to make connections between their expertise with print

and digital writing, find a sense of agency with technology, and develop multiliteracies.

Finally, the generation gap that Susan describes is clearly not a binary, as she

demonstrates by successfully teaching digital writing. The metaphor is problematic when

it is repeated and reinforced in the informal Secondspaces of our schools, when it creates

the perception of a division between those who "do computers and writing" and those

who do not. Professional development Thirdspaces provide a means by which we can

begin to re-shape problematic Secondspace narratives.

Technology in Susan's School

Susan presents the identity of a digital immigrant (Prensky) during workshops, in-

service meetings, presentations and other moments where teachers gather to talk about

teaching computers and new media. She is hesitant about using newer technologies,

preferring to stick with what she knows. "I learned just the little I had to learn to be able

to email, take roll, put my grades on Powerschool," she says, "The things I had to do here

at school." She still uses Netscape, even though this causes problems accessing many of

the Websites she regularly visits. She has difficulty troubleshooting technical problems

and relies on functional skills as she first learned them, such as always using the "file

menu" rather than shortcuts. "I don't really know how to go out and explore all these

other things," she says, "And you know, I'm not alone."

Susan's high school has increasingly added new types of technology over the last fifteen years. This includes both computer hardware (with space to accommodate), as well as course management and administrative programs. Susan does not use all of this technology; however, the things she does use, such as email and student tracking software, have meant significant changes to her. While Susan's school is not as saturated with instructional technology as Rachel or Karen's, there is a significant amount, and they are important to the daily life of the school. There is a computer lab that teachers can reserve for their classes. When the lab is not available, teachers can check out a laptop cart and take it to their classrooms. Like many high schools, the presence of instructional technology varies between classrooms according to availability and need. However, every room has either a Smartboard or a Mimio board. These were funded by a state grant, and teachers chose which they wanted at the time. Desktop PCs were installed for each teacher in 1996, but were replaced by instructor laptops purchased with No Child Left Behind money. In addition to a variety of software installed on individual machines, two types of networking software are used school-wide. The Angel course management suite allows teachers and students to upload and share files from school and home. The Powerschool program is used by teachers and staff for administrative tasks such as tracking grades.

Susan's Computer Use

While Susan distances herself from computers and her technology expertise in conversation, a significant amount of her professional life both in and out of school is spent using technology. Susan's classroom has several types of technology. Susan

received a district teaching award in 1999 and used the money to buy a television,

VCR, and DVD player. The tall, metal cart sits in a corner of the room. The classroom

also has a Mimio board which Susan chose for its ease of use compared to the

Smartboard.

Susan lives across the street from her school, and does not own a computer or

have Internet access at home. Even though she has the instructor laptop, Susan prefers to

go to school when she needs to write and use the Web. On a typical school day, she uses

Word to write handouts and tests. She uses the Powerschool administrative software to

take role, lunch count, and enter grades. Susan explains that it is especially important

that the Powerschool data is up to date, as parents can access grades at any time from

home. Susan does not use the Angel CMS herself except for the calendar function.

Unlike Powerschool, there are no departmental requirements for the software. Some of

Susan's students keep assignments for her class on Angel, but she does not teach or

require its use. She has a school email account for both work and personal emails, and

checks it hourly.

Susan also has accounts on a number of teaching-related sites, such the National

Writing Project, the University of Nebraska - Lincoln (UNL), The Nebraska Center for

the Book, and the Nebraska Writing Project's social network. She regularly uses these

sites for research and for collaborating on the many professional activities with which she

is involved. This includes co-teaching two semesters of a university Place Conscious

Teaching class with a professor at UNL and facilitating the first weeks of two Rural

Institutes online. Susan says that the technological aspects of these activities mean a

significant amount of extra work for her. Like Rachel's online collaborations and

Karen's development teams, these activities create third-spaces of multiliteracy learning. Within them, Susan combines aspects of her classroom pedagogy, professional interests in place-based writing and teaching, and experience as a computer user in ways that develop all three.

Susan teaches her students multimodal composition even though she does not use the language of multimodality and despite asserting that she is "not a computer person." In this, she resists the digital immigrant identity. Her Nebraska Literature class is one example. Susan designed the Nebraska Literature class to meet the requirements of the state curriculum, reading, writing, critical thinking, and research skills, but also her own place-based teaching pedagogy of "[using] our community and our state and our region to learn." The class is filled with place-based activities, such as field trips and oral heritage interviews. Students collect research and compose in multiple forms of media about the literature read and the places and people visited throughout the semester. One field trip is to Nine-Mile prairie, a 230 acre area of preserved, undeveloped tallgrass prairie just outside of Lincoln. Students bring their own cameras to help them explore, document, and write about their experiences and observations of the prairie. Most of her students own digital cameras or cell phones. She says that they take pictures all the time and share them on social networking sites. Susan says about the use of cameras:

> They are first of all a learning source. Cameras, especially when you go to
> a place like the prairie, make students look at it in a whole different way.
> They have to look very, very close. I think the camera is just a powerful,

powerful thing for helping them concentrate on what the hidden beauties and the hidden aspects of these places are.

This is an example of how Susan takes a critical approach to computers and writing. She brings technologies like digital cameras into her teaching only when she sees a strong, pedagogical purpose, rather than using them because they are readily available (with cell phones), to document the trip, or because they are fun.

At the end of the year, Susan's students work in groups to create albums that represent what they learned in the class. They select writing samples, photos, and other visual and text elements that combine to tell a story. In doing so, they learn about multimodal rhetoric such as how to juxtapose images and text to tell compelling stories. Susan does not directly teach many of the functional skills of the editing and layout software. She relies on the librarian, principle, and other resource people to help teach students the programs. She also relies on student expertise, as their working knowledge of computers helps them problem solve and figure out even new and unfamiliar software. The small group environment allows students to get technical help from peers, co-sponsoring their own functional literacy learning as well as Susan's. Each student gets a copy of their album. They share them with family and friends, and many display their albums during graduation parties. In years past, copies were shared with the local assisted-living home.

Susan says that she wants to include more types of new media in more of her assignments. She recently switched from poster boards to Powerpoint for the two speech presentations she teaches every year. Even these are too "static," she says and don't reflect the dynamic nature of the digital texts and virtual communities her students find

captivating and that they engage on their own outside of school. She wants to use film

with her oral history projects. "That's something I'd like to learn to do myself," she says,

not just because of the changes happening in her school and with her students, but to stay

current with the changing digital world. At the same time, Susan is cautious about

adapting new technology. "I always struggle with how much of this needs to be done in

school if students already know it," she says, "to just do it in school because its fun and it

looks good is not enough of a reason. It still has to help with their thinking, reading, and

writing skills." Finally, Susan wonders what her Nebraska Literature class would look

like if she had more resources available to her, more people like the librarian and

principal.

Generational Differences in Faculty Computer Use

Susan identifies two types of teachers when she talks about technology in the

contexts of her school and professional activities like the Nebraska Writing Project. She

describes teachers like herself as "senior faculty" and "more traditional." These teachers,

Susan says, are often late adopters of technology and often do so only as things like email

and course management suites find widespread use in their schools. They assign print

forms of writing more than multimedia, and are more likely to use word processing and

writing by hand than Web 2.0 apps like Google Documents.

For example, Susan says that her students really like the Angel software that the

school uses. It allows them to easily share and work on documents between home and

school. Teachers can also use the program to post assignments and handouts, especially

for students who miss school. Some of the newer teachers at Susan's school use Angel,

but most of the long-time teachers do not. This is partly due to a lack of sufficient training. "I think Angel is something, as a faculty, we don't use as much as we should or could," she says, "That again is because we are an older faculty and haven't had a lot of in-service on how to do that. And that's probably something that we need to do." It is also partly due to some teachers not wanting to change from what they already know, Susan says.

Susan recognizes that programs like Angel and Powerschool play an increasingly important role in the day-to-day life of her school. She related a recent discussion with the new principle regarding a student absence. "We have a new principle now, who is young," Susan says, "He said, 'Oh, you're going to have a kid that's home sick for a week? Why don't you Skype the lesson to him?'" Susan laughs a bit as she talks about the idea of Skyping a lesson to a student, not because it is a bad idea, but because she knows the significant obstacles such a task would involve for her. The assumption implied by the principle's suggestion is that programs like Skype are an obvious solution to the problem of keeping absent students up to date. It is not an obvious or easy solution for Susan, but she acknowledges that she will likely have to learn programs like Skype as they become more common in schools like hers. "That's going to come," she says, and that's not all bad."

The other type of teacher Susan describes as "young" and "connected." They are often early adopters of technology, both hardware and software. They use computers and the Internet more often and in more diverse ways for writing, accessing information, and communicating with colleagues and students. They are also more likely to teach multimodal composing or otherwise use computers and new media in the classroom.

Susan gives as an example the NeWP writing marathons, day-long retreats where writers meet, write, share, and eat while moving from place to place at noted urban and rural spots in eastern Nebraska (Louth; Southeastern). "I just have noticed it in things I've done with the Writing Project now with these really young teachers. When we go on a writing marathon, they take their laptops, and they're on them continually, the whole time. They're just connected. They're learning in a whole different way," Susan says. "We went out to this old church for a writing marathon in Eastland. I would say 'I wonder about this or that.' Five minutes later, somebody has pulled it all up on their computers." Like her students today, the younger teachers Susan describes find computers to be a natural extension of both work and everyday activities, especially when those activities involve communication and information. "See that's just habit," Susan says, "That is a habit that people my age don't have unless they're just totally immersed in technology." The suggestion to Skype a lesson to an absent student would likely be much less intimidating for teachers who are more functionally literate with the Internet, even if the school does not provide technical support or training for Skype.

Recent Student Classes and their Relationship to Technology

Susan also sees differences between how her students today learn compared to those from even a few years ago. Most notably, she sees differences in their ability to read and write longer texts in genres other than personal narrative. Susan suspects that this might have something to do with the amount of reading and writing they do online. "Those of us who are old veterans here, are beginning to see in ways that we can't quite articulate, because we don't have all of the background in the technology, that kids are

learning differently now," she says, "and it has something to do with the fact that they are the kids who've grown up with this total access to technology."

Susan gives as an example her most recent Senior English class and the literary analysis paper that she has taught for the last thirty years. Most of Susan's Senior English students go on to college, and the class is taught with that in mind. She says that the literary analysis is just the kind of paper these students will likely write in a college literature class. The books she assigned this year included *The Kite Runner*, *Three Cups of Tea*, and *Night*. Like the traditional college literary analysis, Susan's assignment requires students to write a short summary of one of the books, a review of what others have said about it along with their own thoughts. Susan says:

> The seniors that I just had, they were really, really good kids. Nice kids, all the way through. [They were] interested in *everything*, but probably the poorest group of writers that I have ever graduated. I was just so frustrated with their writing. They could write personal things. They wrote beautiful personal responses to that literature, but they could not do that traditional literary analysis that kids have done in this classroom for thirty years.

Susan explains that recent classes have increasingly had trouble reading and summarizing the secondary research required by the literary analysis. In the past, Susan took students to Love Library on the UNL campus and required them to locate books, select and copy the chapters or articles they needed, and summarize those texts in their papers. Susan did not take her students to the library last semester because of the extra

help they needed writing the secondary research. Instead, she used handouts of articles that she selected and then underlined the key points of each article for her students. "Then we'd read the handouts together in class," Susan says, "and they just struggled with that - rewording the material into their own words. They just couldn't do it. It was too hard."

The second example Susan gives is her most recent Sophomore Literature class. Like the Senior class, this class was similar to Sophomore classes she has taught in the last two or three years. That is, they are further evidence to Susan that something has changed about the students she teaches today. The focus of this class was Nebraska authors and "sense of place" in writing. These students were good readers and writers, Susan says, and she was excited about the poetry and narratives they would write. "They didn't write poetry because that was too much of a risk," she says. Her students did write the responses to each assigned book, but she says that those responses were too predictable. In addition to not taking risks with their writing, Susan felt like this class struggled with moving beyond safe answers. "They are 'right answer' kids," Susan says. "They read the books. They did nice responses to them. They got the idea that they were going to write about how this taught them the sense of place. They could do that. Only once in a while would I get some little sparks of somebody who was pushing themselves a little deeper, going beyond just the obvious."

As for answers to why her students in recent semesters have struggled with the literary analysis, Susan is not sure. "I don't know if that's related to technology," she says, "My sense is that it is from other things I've read, because kids are used to the sound bytes, the short things, the immediate looking stuff up and getting on Google or

Wikipedia where it's all condensed." She sees a change in her students ability to, or perhaps experience with, incorporating ideas from longer texts into their research papers. "The literary analysis takes some contemplation and some reading of what somebody else said about this book," she says, "and they had very difficult time doing that." About the Sophomore class which she will teach next year as Seniors, Susan says that they will be "much better writers, but I don't know how much I would be able to push them into that thinking mode, although they are all completely capable of it because they are smart, and they have that potential."

Susan believes that her teaching needs to include more new media if she is to prepare this generation of students to effectively communicate their ideas in a digital world. However, she worries about what might be lost in the process, the important writing skills they learn with assignments like the literary analysis. To illustrate her point, Susan shared a National Writing Project article about the book *Teachers are the Center of Education: Writing, Learning, and Leading in the Digital Age*. One quote she shared reads: "When kids make a video about something, they know it a lot better than if they were writing a research paper … There are a lot of decisions involved when they decide how to match up music, sound effects, audio, who to video or what shot to take. There is a deeper embedded knowledge required" (NWP). "That is what I would struggle with," she says, "what the philosophical reason behind using technology is."

Susan seriously questions many of the new media writing assignments and activities that she reads about or learns from other teachers during professional development activities like local in-service and the Nebraska Writing Project. "I'm too old of a teacher and too traditional to say that multimedia can substitute for the research

paper. I have a problem with assignments that do these things unless there is involved

in them the same skills that I see happen when my students write an analysis of a novel

and incorporate research into it." Susan knows that her students learn the functional

literacy required to work with things like audio and visual files through their heavy use of

Web 2.0 applications (especially social networking) and computing devices (especially

cell phones, laptops, and game systems). However, she wants to know that new media

and multimodal assignments teach the writing skills that she knows students learn with

traditional print essays. Too often those things are not evident in the digital assignments

she observes, or they are overshadowed by the technical requirements. Finally, Susan is

cautious that too much of a focus on new media does not teach students to develop

complex ideas in the same ways that essays do, nor the ability to express those ideas

through sustained pieces of writing.

> What I want to know is in this digital world, where is the place for
>
> thoughtful reading and contemplation of what you've read and being able
>
> to write that back in a way that makes sense to somebody else? It seems
>
> to me the world that our students are going to go into requires that more
>
> than ever. I keep telling them, "You've got big stuff on your plate for
>
> your generation to take care of." It's not just sound bytes and pictures and
>
> stuff flashing around, all wound up in one little sentence, one bumper
>
> sticker, one sound byte of solution. It's far more than that. That's why I
>
> teacher literature, because I think literature helps get kids to that point.
>
> And the way my students respond to *Night* and *Three Cups of Tea* shows
>
> me that these students were still able to do that, but they weren't able to

move beyond that into reading more difficult material and doing that literary analysis.

Digital Divides and the Generation Gap

While Susan never used the terms "digital divide" or "generation gap" during our conversations, her stories about the younger teachers in her school and the new generation of students suggests that there is a technology gap between them. Both are problematic terms that need to be understood with some context. However, I believe that they are ultimately useful terms to have on the table as we consider the importance of diversity to collaborative teacher initiatives in our schools.

Research on the digital divide in the mid-90s through the early 2000s was a response to a Utopic vision forwarded by the Net's early digerati, writers and thinkers like John Perry Barlow, Ted Nelson, and Stuart Rheingold. This research asked tough questions about what individuals need in order to participate in the new frontier of free information and expression. One obvious answer was that individuals needed a computer and network connection and basic skills to use them. As governments, independent groups, and academics began tracking demographic statistics on computer use amongst populations, researchers began to see just who was using computers and how. The significant disparities they found were first described in terms of the "haves and have nots" or the "info-rich and info-poor" of technology in society (Haywood; Loader; Wresch) and then in terms of various "gaps" as the complexity of the inequalities of computer use became more visible. These gaps included race (Hoffman; Monroe; Wilson) gender (Bauer; Cooper) socioeconomic status (Moran; Servon). *Access* was a

key word, and a number of private and public initiatives arose to try and solve the

problems of access to computers and digital information (MacLean).

A critical turn occurred in the mid-2000s as researchers reflected on what we had

learned so far about the digital divide. There was evidence that the gaps were narrowing

(A.G.M. and van Dijk; Jochen and Valkenbur); however, disparities remained. Focus

shifted from the "have / have not" binary to a closer analysis of the social aspects of

computer and Internet use. As Warschauer summarized these findings in 2003:

> The stratification that does exist regarding access to online information
>
> has very little to do with the Internet per se, but has everything to do with
>
> political, economic, institutional, cultural, and linguistic contexts that
>
> shape the meaning of the Internet in people's lives. Thus the inequality
>
> that does exist is social, not digital. The notion of a digital divide suggests
>
> that the divide can be breached by giving someone an Internet address and
>
> e-mail account. ("Dissecting" 297)

Two things were clear. First, the either/or binary was an insufficient way to describe the

problems of the digital divide. And two, technological determinism was the least

effective way to respond to those problems. (Vie provides an especially thorough

account of this moment in Composition scholarship.)

An increasing number of academic disciplines were now generating scholarship

on the digital divide, deepening our understanding of the social consequences of

computers and the Internet. However, this understanding was often localized within

fields of study. Each used different definitions and indicators, and there was a notable

lack of interdisciplinary research as well as qualitative and long-term studies (van Dijk).

Gunkel says that the definition of digital divide became difficult to pin down with any

certainty. "It not only names different kinds of technological and social differences," he

writes, "but, even when it appears to refer to the same object, does so differently at

different times and in different contexts." This "plurality," Gunkel argues, is desirable

because it speaks to the nature of the divide. Echoing Warschauer, Gunkel says that the

digital divide is really "a constellation of different and intersecting social, economic, and

technological differences, all of which are properly named 'digital divide'." In his

"critique" of how the term is used in research, Gunkel summarizes, "What is necessary in

this situation is not the application of some rigid and univocal definition, but a flexible

characterization that can respond to, and function in, this protean environment. Because

the problems of the digital divide have been, and probably will continue to be, moving

targets, the term's definition should be similarly mobile."

The mobility Gunkel advocates is absolutely essential to our understanding of the

digital divide as it relates to Susan's experience with computers and writing. What Susan

says about the younger faculty and new generation of students in her school suggests a

generational gap, one of the more well-documented gaps to emerge from the

reassessment of digital divide research in the mid-2000s. If we are to find meaning in

that term, especially for the purpose of developing professional development activities in

response to contested space, then we must understand it dynamically and not as an

either/or, have/have-not dichotomy of older versus younger computer users.

Furthermore, we need to see the individuals on each side of the implied divide *as*

individuals, having varied and nuanced relationships with technology even as they share common traits.

Like the digital divide, the generational divide has many definitions. Broadly, it refers to the perceived differences between those who grew up using computers and the Internet and those who first learn to use computers as adults. The "born digital" generations are variously labeled Generation Y, Generation M, Net Generation, and Millennials. Surprisingly (or perhaps not), there are few descriptive labels for older computer users. The most commonly cited is "digital immigrants," which, along with "digital native," is also one of the more popular metaphors for describing the generational gap.

Published in 2001, "Digital Natives, Digital Immigrants" outlines Prensky's theory of a deep techno-cultural divide between current generations of students and their teachers. Prensky argues that the volume, variety, and time spent using computers and new media have "radically" changed today's students and how they think and learn (1). Prensky describes this difference in terms of "digital natives" and "digital immigrants." "Digital natives" not only grew up with computers, the Internet, and video games, but they are "native speakers" of that language. They are accustomed to images before text, quick access to information, hypertext, being connected, and games over "serious" work (2). Their teachers and parents may have learned to use those technologies, but they will always be "digital immigrants" and will always have something of an "accent" with technology (2). This accent, Prensky says, is evident in the way that they talk about, use, and socialize with technology, and it is never completely lost. The problem, Prensky

says, is that today's schools and teachers are not prepared to meet the unique learning needs of this new generation.

What is important for Susan and teachers like her is that the metaphors of the generation gap and digital immigrants are not entirely accurate. Susan feels a tension between her computer literacies and the fast pace of technological change in society. There are reasons for this tension, just as there are real differences between how she and her younger colleagues and students experience technology. When Susan talks about relying on the file menu to cut-and-paste and the difficulty she has exploring computing shortcuts, she is describing a form of *cyberdiscursivity* - when digital mediums do not work in ways that are familiar to our print literacies (Jacobsen). Susan's colleagues and students likely do not encounter cyberdiscursive moments as often as she does. In fact, their extensive use of computing devices and networks makes them better problem-solvers with unfamiliar technologies. As Susan says, it is "second nature" to them.

Finding meaning in the generation gap means recognizing the multiliteracy learning that teachers like Susan find in professional development Thirdspaces. It also means recognizing just how problematic the binary suggested by the metaphor is, especially when it shapes the informal Secondspaces of computers in our schools. The problem with the digital immigrants metaphor, or any other broadly-cast label for "today's students" and "today's teachers," is that it takes on a life of its own our day-to-day talk and work as writing teachers. We tell ourselves and others, "I'm not really a computer person" and "My students know more about computers than I do." Like all metaphors, it takes a very complex thing and makes it manageable, easier to conceptualize and communicate. But by emphasizing the perceived differences between

"older" teachers and their "connected" students, we risk falling into the either/or, have/have not, native/immigrant binary. It simplifies the individual experiences of both students and teachers.

Susan is clearly not the digital immigrant Prensky describes. Susan may perform the identity of a digital immigrant in conversations with other computers and writing teachers, but her use of computer in and out of the classroom suggests that she does not believe that identity too deeply, just as it is not entirely true. Susan incorporates computers into her teaching, but with serious critique. Her dual stance towards her pedagogical use of technology suggests a reshaping of the "computer person" identity and the Secondspace narrative that gives it undue meaning in our departments and schools. The Firstspace consequences of the narrative are very real for teachers like Susan. "Those of use don't do technology," she says, "we never get asked until last. It's always at the end of something. By the time we learn how to do it, everybody is on to something else."

Moving Toward a Stance of Lifelong Learning with Technology

In her essay "Inventing Myself in Multimodality: Encouraging Senior Faculty to Use Digital Media," Journet relates her experiences learning and teaching multimodal composition for the first time as a "senior faculty member." Her story echos Susan's - notably Journet's apprehensions about her lack of technical knowledge, students' evolving digital literacies, and the place of multimodal composition in writing instruction. Journet believes that the apprehension teachers like her and Susan feel is partly from "being a novice" all over again, especially considering how long she says it

takes to "'feel 'authentic' in the classroom'" (111). But while Journet struggled with some of the technical aspects as well as pedagogical questions, she says that she was not entirely unprepared for the move into learning and teaching multimodal composition. Journet argues for the wealth of expertise that teachers like her and Susan already have that is relevant to multimodality. She writes:

> But most of us, I suspect, are already qualified in important ways to do this kind of teaching. We share a disciplinary concern with rhetoric and meaning-making; we have experience teaching classes that focus on the process of composing and the production of texts; we are often highly experienced critics of visual and aural productions, such as films, television shows, music, or theater. That is, while we may not be technologically savvy, we do not start from nowhere in thinking about multiliteracies. (113)

Journet offers advice for computers and writing faculty as they make the case for multimodal instruction. This includes dialogue with senior colleagues about the technical and theoretical points of multimodality, organizing professional development activities, especially ones that allow them to produce their own compositions and experience the power these digital forms can have (and just how much they have in common with the alphanumeric texts we know so well), and opportunities for colleagues to discover for themselves the personal rewards and fun that are inherent to creating in new media.

Journet's advice mirrors that of the K-College teachers who shared their professional development stories with DeVoss, Eidman-Aadahl, and Hicks for their book *Because Digital Writing Matters*. The author's make a distinction between teachers who

use technologies like Web 2.0 for their own purposes, and those who teach digital

writing. Opportunities for professional development help the first group move to a stance

of "lifelong learning" with technology and computers and writing pedagogy (135 - 140).

Susan engages a critical literacy that is one approach to this learning. When she

participates in professional development activities like a hybrid online/face-to-face Rural

Institute or an online Place Conscious Writing course, she finds a digital Thirdspace for

multiliteracy learning. She also finds space for her to practice that critical position and

make informed decisions about why and how to include new media and multimodal

composing in her writing pedagogy.

Chapter Five:

Imagining Professional Development Thirdspaces

The evolution of computers in society has had a profound effect on the writing

classroom. Computers were once located in specialized spaces in our school buildings.

They are now in every space. This change is located partly in Firstspace and is the result

of decreasing computer costs, increased power, versatility, and portability, as well as

access to a diversity of connected devices, wireless hotspots, and telecommunications

networks. The change is also located in Secondspace. Our school communities

understand computers as useful and often necessary to virtually all aspects of school life

and learning, from enrollment to course management to class maintenance, word

processing, and research. Teaching computers was once a specialized area of knowledge

and instruction in school and was often the job of technology support specialists,

computer science teachers, and computer lab coordinators. Now, we all teach computers

in one way or another.

The ubiquitous presence of computers in our schools reflects how the space of

composing itself has changed because of the Internet. The composing space of the

Internet was once specialized, an observable but distant frontier written by virtual

pioneers and homesteaders (Rheingold; Wolley) who were themselves specialists. The

composing space of the Internet today is user-centered and authored, collaborative,

experimental, and ever-present. The constellation of Web 2.0 features combined with

networked devices and increased use in society creates Thirdspaces of composing

where the domains of home, work, and school, our public and private lives, reading,

writing, and information mix and remix in an experience that is simultaneously singular

and plural. The call for writing teachers to pay attention has never been louder, as these

composing spaces will continue to evolve in surprising ways and at a pace not seen in the

history of literacy technologies.

   The changes in networked technologies and the spaces of composing complicate

the First and Secondspaces of our classrooms and schools even before we consider the

powerful influence of technology stakeholders. Computers do not make our teaching

lives easier, especially when it comes to organizing our classrooms and managing time.

Studies continue to show that even our most common computing activities, such as email

and personal and professional social networking, create an "information overload" that

adds a significant amount of time and stress in the workplace (Soucek and Moser;

Marulanda-Carter and Jackson). Even when we have access to the hardware, software,

and technical support we need, computers still come with all kinds of functional

complications. This includes compatibility problems, a constant stream of updates,

maintenance, privacy and security issues to name but a few with which we are all

familiar. Things get even more complicated when we decide to teach multimodal

composing or writing activities that use new media. Our before-class preparation

requires more time and planning, and facilitating classroom computing activities often

requires us to take on the additional roles of computer technician and troubleshooter.

   Computers also complicate the Secondspace intellectual work of writing practice

and pedagogy. The ever-evolving Net constantly challenges our definitions of text and

composing. As such, we feel the pressure to stay current with computers and writing research; however, this requires making time for research and reading and often re-imagining our classroom teaching in part or in full. Yet despite these and other obstacles, writing teachers at all grade levels find ways to bring computers into their teaching in important and meaningful ways.

Computers argue for our attention and demand that we take a stance regarding their role in the Firstspaces of our writing classroom and the Secondspaces of our writing pedagogy, but what should that stance be? We clearly can't take the position of a Luddite and completely distance computers from our teaching. We also can't just teach writing *with* computers, that is, fall back on thinking of them as tools for instruction or course maintenance. What we can and should do is fully claim computers and writing as what we do as writing teachers. As the authors of *Digital Writing Matters* argue, there is a leap to made from just teaching with computers to making them a considered part of our classrooms and writing pedagogy, and this involves adopting a stance of "lifelong learning" with computers and writing (135 - 140). Such a stance can be difficult to do alone and amid the bustle of our teaching lives. Therefore, our schools must *also* adopt a stance of "lifelong learning" with computers and writing. In my own experience and that of Rachel, Karen, and Susan, our schools too often confine computers and writing learning both spatially and temporally, as is represented in familiar in-service meetings and training seminars. I argue here for writing teachers, administrators, program directors, and technology coordinators, to collectively imagine, plan, and facilitate professional development Thirdspaces that give teachers, and everyone involved with

writing instruction, the technical and pedagogical support that they need to effectively teach computers and writing.

When we take the stance of lifelong learning, as individuals and teaching communities, not only do the everyday complications of teaching with technology become more pronounced, so too does the contested nature of computers in our schools. I have attempted in this dissertation to describe the state of contested space as one of multiple groups and institutions simultaneously defining computers for us. I chose Thirdspace theory because I believe it is useful for describing the ways in which knowledge about computers and computers in education is constructed in our schools. The literature of space and the human experience clearly shows that knowledge is spatially as well as socially constructed (Bachelard; Garreau; Mitchell; Tuan; Reynolds). The experience for writing teachers is one where the physical Firstspaces and conceptual Secondspaces of computers and learning are shaped by economic, political, and cultural stakeholders both in and outside of our schools.

Thirdspace theory adds, *thirding*, or "thirding-as-othering," to our problem-solving toolbox, and this is most important feature. If the First and Secondspaces of computers in schools are contested, then teachers, administrators, technology coordinators and others need opportunities to engage the sorts of activities that allow us to freely experiment and imagine with computers and writing in ways that support personal as well as programmatic learning and change. Thirdspace encourages us to creatively imagine *third* options, *other* options that revise the either/or binaries of contested space, such as the have/have not of hardware and software and the "computer person / not a computers person" identity of writing teachers. The practice of *thirding*, of

being critically aware of alternatives to binary choice, offers us an endless well from which to draw inspiration and ideas as we plan professional development activities with computers and writing in our schools.

The Shape of Professional Development Thirdspaces

What should professional development Thirdspaces look like? In a way, this is difficult to answer considering the many localized differences between the First and Secondspaces of our schools, including the access we currently have to hardware and software and our programmatic writing goals. Soja intends Thirdspace to be a flexible, adaptable concept. This is one of its strengths and the reason it has been adapted to so many contexts outside of human geography. As a heuristic for the purposes of our problem-solving in contested space, we can hold on to the idea of Thirdspace as the improvisational practices we *already* engage every day in order to successfully teach computers and writing. The stories of the three teachers in this dissertation offer examples of what this Thirdspace practice looks like.

Rachel created her own sustained Thirdspace by connecting online with teachers and students at other schools. Her improvisational use of the bulletin board system, email, and free Web servers allowed her to circumvent a "this or nothing" choice created by how her school defined technology as primarily the domain of the business department. The resulting online projects, including the literature exchange and Young Writers Forum, were their own Thirdspaces for writing and learning across geographic space. Through this practice, Rachel found a sense of agency and source for argument that helped her help her school district revise their Firstspaces of technology.

Karen uses collaboration and group work to create sustained Thirdspaces that not only support her own professional development with computers, but help to create or otherwise shape the literacy tools important to her school communities, some of which she is able to bring back to her writing classes, giving her and students in those classes alternatives to commercially developed and licensed software. This collaborative work also co-sponsored her colleagues' multiliteracy learning.

Susan networks with resource people who help her acquire the functional skills required of new media. This networking takes its own form of individual Thirdspace that exists both simultaneously *within* her classroom, school building, and professional organizations and *alongside* her ongoing learning about computers. Where Susan says that she is often the last one asked about new technology in her school, this is not so with her professional activities outside of school, such as the Nebraska Writing Project, where her critical position regarding technology and education provides important insights to decisions about computers and writing in the network.

Our task now is to move from Thirdspace as an improvisational practice we engage in our own classrooms and teaching to one that is deliberately proposed and realized in our teaching communities. The technology institute sponsored by Karen's local National Writing Project site is one example of this. As she explains, the institute gives participants "time and space to reflect on their teaching and opportunities to experiment." That time and space provides an important Secondspace (reflecting) that is both individual and in the Commons of the institute's group work. It also provides an important Firstspace (experimenting) where teachers learn computers and writing with other teachers. Rachel saw the same need for time and space with computers and writing

in the Nebraska Writing Project when she helped plan and facilitate the site's first technology mini-institutes and when she volunteered her time and resources to create the site's first Web page. That online presence has become a valuable space for communicating, networking, and sharing student and teacher writing across the mostly rural state. These things suggest the National Writing Project (NWP) and local site networks as inspiration for imagining professional development Thirdspaces in our schools.

Brooke, Coyle, and Walden suggest the same. The After-school Writing Circle project they write about was developed by Nebraska Writing Project (NeWP) teachers in response to the contested space of writing instruction in Nebraska schools, where state-mandated standardization and "prepackaged curriculum materials" increasingly pre-determine the Secondspaces of teaching writing (369). Inspired by the NeWP institute model, the After-School Writing Circles gave students a Thirdspace for writing that was both a part of school and yet separate from regular school work. The writing circles provided students space and time for self-discovery of their own writing within a supportive peer group and away from the standardized curricular requirements of the district. The teachers who organized the writing circles formed a study group for sharing their experiences of the project and discussing relevant professional readings. As the authors' explain, this was an important professional development Thirdspace:

> This teacher study group functioned for us as a Thirdspace much like the way the After-School Writing Circles functioned for children. . . as a "real-and-imagined" space existing both within our current educational setting and at the same time as an alternative to it. Just as the After-

School Writing Circles created a Thirdspace where children could grow from

the energy they experienced as writers, so this teacher study group created

a space for us to develop as educational professionals. (373)

The problem of institutionally shaped Secondspaces that the After-School Writing Circles

study group were responding to is similar to the contested spaces of computers Rachel,

Karen, and Susan encountered. All of these teachers demonstrate that the problem of

contested space is best responded to with Thirdspace professional development activities,

and that these activities, regardless of the form they take, share certain traits.

Examples of Professional Development Thirdspaces Using Technology

Rachel, Karen, and Susan have each planned and facilitated what the National

Writing Project and local site networks often refer to as advanced institutes. Rachel

helped organize two writing retreats sponsored by the National Writing Project and

focused on publishing about technology and writing. Karen co-facilitated a summer

technology institute at her local site. Susan regularly co-facilitates the Nebraska Writing

Project's Rural Institute which has recently experimented with a week-long online

workshop before meeting for two weeks face-to-face. Each of these teachers' institutes

are examples of professional development Thirdspaces that are full of the kinds of

Thirdspace activities that allow teachers to experiment and imagine with computers and

writing outside (and yet alongside) the contested realities of computers in their own

schools.

The National Writing Project advanced institutes are a "next step for sites whose

teacher-consultants are ready to become in-service leaders—ready to go beyond sharing

their inquiries and demos to become flexible and well-prepared agents of professional

development within a school, whether through a study group or some other format"

(McGonegal). Most teacher participants in an advanced institute have been through the

initial Summer Institute that forms the foundation of the NWP model. Both the Summer

Institute and advanced institutes are planned and facilitate at the local site level and

therefore differ from site to site. However, they all share the common commitment to

"teachers teaching teachers." The advanced institutes are often structured around the

same activities of the Summer Institutes. This includes lots of writing, small group

workshops, sharing of best teaching practices from participants' own classrooms, and

professional reading and research. The key difference is that advanced institutes are

often specifically focused on issues and topics important to teachers in the local site

network, or they provide teacher-participants a space in which to collaboratively write,

workshop, and discuss classroom-based and published research in a more focused way

than what they are able to do in the summer invitational.

Rachel's work developing the Nebraska Writing Project's online presence and

organizing computers and writing activities in the network led to her joining the National

Writing Project's team of technology liaisons. The team meets annually to share and

help each other plan technology initiatives in their local sites. They also sponsor annual

workshop retreats focused on professional writing and publishing. Writing Project

teacher-leaders from across the United States meet for four days at different state

locations. These retreats "focus on writing about the profession of teaching, giving

teachers a chance to write about their practice, make claims about policy, enter into

discussions about school reform, argue about ideas concerning literacy and learning, and address a variety of other concerns about teaching writing" (Check et al. 5). Rachel co-planned and facilitated two such retreats that took place at the Lied Lodge and Arbor Day Farm in Nebraska City. Both of Rachel's retreats were specifically focused on computers and writing research and publishing. Each day of the retreats followed a set routine of activities. Participants met in the mornings for announcements and to review the day's schedule. Mornings were reserved for individual writing and research, and participants were encouraged to find a quiet space in which to work, whether on the grounds of the lodge, reserved conference rooms, or their own suites. Early afternoons were reserved for small group workshops. Teachers met with a sustained group of four or five colleagues and shared what they wrote that morning. Late afternoon sessions included a variety of activities, including guest speakers who shared their experiences with both writing and editing for publication, small group discussion of articles chosen by the facilitating team, and full group discussion of questions and issues encountered during the day's writing and workshopping activities.

The professional writing and publishing retreats provide Writing Project teachers the space and time they need to do the research and writing that Rachel says is absolutely important to both individual teacher learning and countering the institutional stakeholders who increasingly control the Secondspaces of education. "We designed these retreats to emphasize the power of our research to make change," Rachel says, "Many teachers feel like they dot have anything to share, and that's just not true. Teachers need to let people know what they are doing in their classrooms. We need more of us to get our ideas out there, to write about our experiences." Rachel says that holding the retreats over several

days and away from school is important because it gives teachers (especially K-12) the time that they need to write and gather their research, time that is difficult to make during our busy teaching schedules. The sharing that happens during small group workshops and poster-board sessions, as well as hearing from other teachers who have published, helps develop a sense of agency with teacher research. The collaborative activities of the retreat "help teachers understand the power of their research," Rachel says, "We need to write these kinds of pieces because public education is under fire and has been for the last twenty years. We've got to speak out and have our voices heard." Rachel says that one of the strengths of the retreats she co-facilitated was the emphasis placed on digital publishing. Not only did teachers have opportunities to learn from colleagues' successful computers and writing practice and pedagogy, they learned how to use blogs, wikis, and other forms of digital publication to make their voices and classroom research heard within their local schools and beyond.

Karen has helped plan and facilitate summer institutes specifically focused on teaching writing with technology within her local site network. Workshop participants come from all grade levels (including post-secondary) and across content areas. Karen says that while the technology institute changes from year-to-year based in part on who is facilitating, experience from previous summers, and emerging technologies, certain core activities are constant. Over the course of the three-week institute, each teacher shares a technology-based writing assignment, project, or activity from their own classroom. The sessions begin with a brief presentation of the assignment accompanied by a handout that describes the assignment, names the purpose and goals, and provides information such as related published research and links to useful Web sites and software. Institute

participants are then given time to do the assignment themselves and often write or compose about topics with which they have a personal interest outside of teaching. Karen described one example of a presentation on multimodal essays using video editing software and voice-over recording. After the brief introduction to the assignment, including some basic instruction on how to edit video, institute participants were given time to practice using the software to make their own video essays using photographs brought from home. Karen says that participants collaborated informally as they worked and helped each other learn the software. This was followed by a full group discussion session during which teachers shared their experience learning the software and composing their own video essays.

Karen says that the summer technology institutes allow teachers to not only share part of their own teaching with technology, but to learn multiliteracies and multimodal composing "in a supportive context where there are other teachers learning right along with you." The summer workshops bring together teachers with a range of skills, comfort levels with, and commitments to computers and writing. As such, a good deal of multiliteracy co-sponsoring happens, especially during the group work of learning and writing with new technologies. Karen says that the small group and full workshop discussions also give teachers "opportunities to work and talk through" their learning, whether it's an assignment they brought to the workshop or one they learned, before moving back to their classrooms.

Like Rachel, Karen says that the technology institute "is what teachers always need, some time and space to reflect on their teaching and opportunities to experiment." In this case, that time and space is separate from the classroom and school where the First

and Secondspaces of computers are defined in certain ways. Yet at the same time, it is full of computers and writing practices of participant's classrooms and schools as they share lessons and projects involving technology. The institute activities Karen describes are simultaneously individual and collaborative, and the learning is both personal and professional. The collaborative Firstspace experimenting with new hardware and software and the Secondspace imagining of how that technology might be incorporated into existing classroom practice and pedagogy is important. It is an example of the kind of learning and personal/professional transformation that happens within the Writing Project model (National; Wilson). It also describes the kind of learning that happens when we design professional development with Thirdspace in mind.

Susan regularly co-facilitates the Nebraska Writing Project's Rural Institutes. Recent Rural Institutes have experimented with a hybrid online and face-to-face model. Using the University of Nebraska's Blackboard system, participants meet virtually for the first week of the institute. Susan says that this first week works as an introduction to the institute, to the other participants, and to the concepts of place-based writing and teaching. Teachers begin by posting an autobiographical statement and photograph. The week is then spent reading essays and book chapters posted by Susan and her co-facilitators and discussing the readings on Blackboard's message board. Susan says they often select readings by Wendell Berry, *Rural Voices* (which contains essays written by NeWP Rural Institute teachers), and Georgia Heard's *Awakening the Heart*. This initial week spent online is followed by two weeks of four day-long sessions held at a different rural town each summer. Activities during these weeks include writing, small group workshops, field trips, and designing place-based teaching units. Susan says that she and

her co-facilitators share their own writing, both poetry and prose, during the first days

of the second week. They also offer prompts to help participants begin their own writing.

However, Susan says that inspiration for most of their writing comes from the five or six

field trips that the group takes to places such as the Buffalo Bill Ranch State Historical

Park, the Platte River, and the Fort McPherson National Cemetery in Maxwell, Nebraska.

During the third week, teachers plan and write a place-based unit that they can teach in

their classes. Participants workshop their units in small groups as well as with the

facilitators. The finished versions are then uploaded to the Blackboard space where they

can be read and downloaded by the rest of the institute.

The Rural Institute is certainly a professional development Thirdspace in the same

ways that Rachel and Karen's advanced institutes are Thirdspaces. While the Rural

Institutes are not focused on computers and writing, they do show how the Net can create

a digital Thirdspace to support any kind of professional development activity. "Nebraska

is small places within big spaces," Susan says. The teachers who come to the Rural

Institutes often drive an hour or more each day to participate. They teach in small

schools where they are often the only teacher for their subject across multiple grade

levels. Susan says that the Internet helps bridge the spaces between these teachers. Most

are very familiar with using the Internet to support their teaching because of their rural

locations. This includes taking classes online. The Rural Institute gives them an

opportunity to make connections with teachers across the state who share similar teaching

interests and issues. "I think they're glad to have that knowledge of one another, to know

that [these teachers] exist out there and that they can use technology to stay in touch.

Susan says that quite often, online workshop spaces will emerge informally during the

second and third weeks of the Institute. "It's the idea of technology bridging the spaces between them, because they are in schools very far apart from one another and this makes it much easier for them to communicate."

Susan says that since using the Internet during the first week of the Rural Institute, the co-facilitators hear participant teachers exchanging email addresses and offering to send each other links, lessons, and handouts more often. Here she makes a connection to her own school, where teachers and administrators regularly distribute hard copy articles and teaching materials to boxes in the faculty mailroom, most of which seem to go right into the trashcan. Susan wonders how this sharing might be different if teachers in her school had an online space, like that in the Rural Institutes, to share and discuss. "We do everything else online," she says, "We take attendance. We take lunch count. So why couldn't we share some of the pedagogical issues of education or some of the internal problems of our own school online?" Rachel, Karen, and Susan all emphasize the difficulty in getting teachers engaged with digital Thirdspaces like the one Susan describes. However, Susan's experience with the hybrid online/face-to-face model of the Rural Institute suggests that such digital Thirdspaces are more likely to be successful when they emerge from organized professional development activities.

Developing Professional Development Thirdspaces

As described in chapters 2-4, Rachel, Karen, and Susan used improvisation and collaboration to create Thirdspaces in the contexts of their local schools. These Thirdspaces helped them negotiate, and often revise, the problematic realities of contested computers and writing First and Secondspaces. Their shared experiences,

combined with their work facilitating Writing Project advanced institutes, suggest

that the professional development activities we plan should be:

- designed and led by teachers,

- situated in, or representative of, local school contexts,

- sustained over a period of time, and

- facilitated with an ethos of shared exploration of new writing technologies and
  inquiry into writing practice and pedagogy.

Furthermore, the advanced institutes suggest a set of core beliefs that help create the kind

of Thirdspace learning experience needed for teachers to transform the contested spaces

of their classrooms and schools. Our professional development activities with computers

and writing should:

- Include a diverse representation of the teaching community at all levels of
  professional development, including planning, facilitating, participating,

- Be guided by an inquiry question or questions,

- Include moments for individual and group reflection and assessment,

- Allow teachers to share successful computers and writing projects, assignments
  and writing activities from their classrooms,

- Provide opportunities to "go public" with learning within local teaching
  communities.

The following sections explore each of these core beliefs in more detail and within the

context of the research presented thus far.

Professional Development Thirdspaces should include a diverse representation of the teaching community.

Solving the problems of integrating technology in the Firstspaces of our classrooms and schools and the Secondspaces of writing practice and pedagogy should be the collaborative work of many. This includes teachers, administrators, writing program directors, technology coordinators, and anyone responsible for literacy education in our schools. Rachel and Karen both describe how too often, formal moments of teacher learning with technology in their schools are led only by technology experts like their districts' technology coordinators or representatives from the companies from which they purchase hardware and software. There are obvious parallels here between relying on technology experts and what we know about problematic "banking models" of instruction in the broader contexts of education (Friere; Shor). It works to distance writing teachers from the expertise we already have as well as from fully claiming technology as what we do. This includes our responsibility and ability to shape our computers and writing spaces.

Relying on experts also works against our ability to share the wealth of technology expertise we already have within our communities. Professional development Thirdspaces help us revise the whole notion the technology "expert." Our schools are full of teachers with diverse experiences and skills with technology. Rachel is an expert at designing Web pages, both the functional skill of page architecture and the rhetorical skills of design. Karen has a deep knowledge of cloud-based applications and how to use them to support writing and communicating in groups. She also brings a critical literacy of how new media construct online writing spaces in certain ways and what this means

for the classroom. Susan, even as she describes herself as "not a computer person,"

brings knowledge of photography both as a learning activity and a composing medium.

As Karen's technology institute demonstrates, bringing together the diversity of

technology skills already represented in our teaching communities, and within a

Thirdspace that values group work and experimentation, helps teachers co-sponsor

multiliteracy learning. It also gives them a valuable set of new resources for teaching

computers and writing. This includes knowledge of new hardware and software,

assignments and activities that others find successful in the classroom, and strategies for

negotiating issues that arise from incorporating technology in our teaching. Rachel's

professional writing retreats not only help teachers find a powerful voice for their

classroom research, but do so in ways that represent and value teachers as experts of

writing for publication.

When our professional development Thirdspaces include a diverse representation

of literacy educators in our schools, we also help to ensure that we do not marginalize

teachers from the process of shaping our First and Secondspaces. What Susan says about

senior faculty always being consulted last when it comes to decisions about technology in

her school suggests that there is the perception of teachers who "do" technology and

those who do not within her Secondspace of computers. The problem for Susan and her

colleagues is that they do not get to contribute to the decision-making process, further

reinforcing the perception (and resulting reality) of that divide. The problem for the

school is that the resulting Firstspace may not support teaching with technology across all

classrooms and grade levels. There are many reasons why teachers might be reluctant to

include new media and multimodal composing; therefore it is important that we include

teachers who, because of problematic Secondspace narratives, or some other reason, feel marginalized because of contested space.

Professional development Thirdspaces should be guided by an inquiry question or questions.

Because Thirdspace is both real and imagined, it encourages experimentation and exploration, and our professional development Thirdspaces should allow time and space for significant amounts of Secondspace imagining. A question(s) grounded in the contested space problem we are attempting to address helps us focus this important intellectual work. Inquiry questions give a source of inspiration for Secondspace imagining, a sense of direction for our professional development activities, and something to return to during the important moments of individual and group reflection and planning.

Karen explains the importance of having inquiry questions when describing one teacher presentation during a technology institute. The presentation involved a commercial software program that allows groups to meet online and collaborate using writing, audio and video. The teacher leading the activity demonstrated how she uses the software to teach peer response. After a brief introduction, institute participants moved to small groups to practice using the software by workshopping their own writing. They were asked to think about how they might use the software in their own classes, both the logistical requirements that would be involved and the implications for writing group pedagogy. Karen says that having these guiding questions helped foreground the work of inquiry into teaching practice that might otherwise be glossed over by the fun (and

sometimes frustration) of learning new software. "The [activity] could proceed, and as participants work, they talk with one another about how they might use the application," Karen says. "I remember distinctly an elementary school teacher getting really excited about [the program] saying it was a great way to help students practice writing detailed descriptions. This meta-conversation went on for a while and then, without prompt or signal, everyone returned to the task." The time spent using the group collaboration software was important, as it was new to most of the institute participants. The questions provided for the activity were equally important. As a Thirdspace, the activity provided time and space for learning that was separate from the writing classroom and yet informed by classroom practice. It was a personal learning experience. It was also a professional learning experience, and the conversations in the margins of the activity and during the concluding full-group discussion supported both.

Staying current with computers and writing research is important, especially considering the pace at which new writing technologies emerge and how quickly they become important to communication and information in our everyday lives. Rachel, Karen, and Susan's advanced institutes all incorporate reading and discussing current scholarly research as part of collaborative inquiry into the problems of contested space. Their professional development activities suggest that teachers benefit from time and space to read and discuss published literature relevant to computers and writing in our own classrooms and schools.

Rachel emphasizes just how busy teacher's schedules are and how often we don't or can't make time for research. Susan says that while teachers and administrators in her school often share copies of articles, there are no spaces (either online or face-to-face) for

discussion. Professional conferences provide a version of group discussion space, but they are not sustained and are often removed from important local contexts (regional conferences are sometimes the exception). Professional websites such as NCTE and The Chronicle of Higher Education are another option, but again, are removed from local contexts. Karen's summer technology institute is an example of a professional development activity that includes time and space for reading and discussion. Because the workshop is organized by local teachers, books and articles are chosen for their relevance to the local issues of contested space and the computers and writing projects that teachers are already doing or planning. Because it is a Thirdspace, the theory and pedagogy presented by the research becomes an additional voice in the group work of Secondspace imagining and Firstspace experimenting.

Professional Development Thirdspace should include moments for individual and group reflection and assessment.

The intellectual work of Secondspace imagining must at some point move back to the Firstspaces of our classrooms and schools. A teacher in Susan's Rural Institute must eventually move from learning and discussing place-based teaching to planning a unit that he will teach the following semester. A teacher in Karen's technology institute who learns about and enjoys composing video essays (and sees a place for them in her teaching) must eventually move back to her classroom with a solid plan for the activity. Rachel, Karen, and Susan all say that writing helps teachers make this transition.

In our own classes, we assign many types of "writing about writing," including learning letters for portfolios and other synthesis moments during the school year.

Students in our classes write responses to each other's' drafts, as do we. The writing

groups we plan are supported by meta-writing, such as author's notes and revision plans,

wherein writers process current thoughts on a draft in preparation for sharing and then

organize their thoughts after peer feedback. These are important pauses during the

writing process, a moment to stop and look at where we've been, where we are going,

and come up with a plan for smoothing the bumps we encountered along the way. This is

equally important for professional development activities.

We need pauses to work out Secondspace imagining on paper and screen. Karen

says that this kind of reflective writing plays an important role in the technology institute.

"We would introduce workshop participants to a new technology, let them practice with

it, and then ask them to reflect on their experience or how they might use the application

in their classrooms. Then we would have people share their responses with the rest of the

group and people would [discuss]." Rachel gives an example of how the writing retreat

facilitators asked participants to respond to their colleague's writing and projects.

Whenever teachers shared writing, they included author's notes that encouraged readers

to "bless" or otherwise provide words of encouragement for the author's writing,

"address" specific questions posed by the author, and "press" concerns or ideas that the

reader encounters in the draft.

Our professional development activities need to include time and space for

reflection. This is important for individuals, especially when learning new technologies.

This is important for the group, and can be the moment that redirects our Thirdspacing to

the guiding inquiry question(s). It also gives us opportunities to assess the progress of

our activities and plan and negotiate changes in direction. Writing should play a role in

these moments, and is how we begin to make the transition from Secondspace imagining to Firstspace reality.

Teachers need opportunities to share successful computers and writing projects, assignments, and activities from their classrooms within collaborative Thirdspaces that encourage experimenting and imagining.

Professional development Thirdspaces help teachers acquire a sense of agency with new media and computers and writing, co-sponsor multiliteracy learning, and learn multimodal composing. These things happen best when they are grounded in the real contexts of our own computers and writing assignments, projects, and activities. As such, our professional development activities should recognize the successful teaching already going on in our schools by finding ways for teachers to share their classrooms with colleagues. The activities we plan should also sponsor the sort of personal/professional learning that Thirdspace supports. This includes making time and space for Firstspace experimenting and Secondspace imaging.

Rachel, Karen, and Susan's advanced institutes are all examples of what this sharing and learning can look like. Karen's technology institute is the most obvious example, as the video essay and collaboration software group activities described above show. Karen's summer technology institute provides time and space for teachers to share assignments from their classrooms, practice the assignments for themselves, and then share their experience of the assignment in small group and full-workshop discussion. This is exactly the sort of sustained space that encourages agency with computers while also helping teachers acquire multiliteracies within a context of learning assignments,

projects, and activities their colleagues have found to be successful in the classroom. Because it is a space *other* than the First and Secondspaces of participants' schools, and yet contains aspects of both, the activities allow for experimenting with computers and writing in ways that are not restricted by the contested space of computers in those schools. The learning that happens during this sharing and doing emerges from the physical/conceptual, real/imagined juxtapositions of Thirdspace.

Teachers work to revise the contested spaces of computers when they have opportunities to "go public" with their Thirdspace learning within their local teaching communities.

As this dissertation argues, professional development Thirdspaces can transform the contested spaces of computers in our schools. The case studies in chapters two, three, and four show teachers improvising and collaborating in order to successfully teach computers and writing in First and Secondspaces that did not always adequately support their computer practice and pedagogy. At times, they were able to affect change in their schools through those successes. This change depended heavily on making their teaching visible to the school community. The advanced institutes in which Rachel, Karen, and Susan participated argue the power of organized professional development activities built on concepts of Thirdspace to provide broader contexts for going public. These institutes provide spaces that are outside of school, full of teachers' best practices, and supporting the kinds of multiliteracy learning that help teachers acquire agency to transform contested space. The opportunities to "go public" that make this transformation possible happen within the institutes, as participants share and workshop. They happen within participants own schools when they return to their classrooms and share what they

learned. They also happen within national discourse on computers and writing, as many make opportunities to publish in professional journals, at national and regional conferences, and on the Net.

Professional development Thirdspaces give teachers opportunities to "go public" with their computers and writing teaching within a collaborative inquiry space. This is time and space in which to "re-imagine" and revise our computers and writing practice. The group-work process in itself can is transformative. However, if we are to "re-imagine" and revise the contested spaces of computers in our schools, we must make opportunities to move from Thirdspace experimenting and imagining to First and Secondspace action. The professional writing retreats Rachel co-facilitates help teacher-participants learn the professional side of publishing, including the submission, selection, and editing processes. It also helps teachers learn about the processes of teacher research by working on their own projects in small group settings. Just as important, they learn about using the Net as an alternative medium for publishing to regional and national audiences. The institute Karen co-facilitates concludes with a technology fair where participants invite teachers from the concurrent Summer Institute to come and learn about the technologies, projects, and assignments explored during the institute. Teachers in the Rural Institute go public with their learning by sharing their final place-based units on Blackboard. As Susan says, many of them continue this online sharing after the institute concludes. Most of the teachers in all three advanced institutes receive a small stipend to cover travel expenses. One of the requirements of the stipend is that teachers conduct some form of professional development activity that shares what they learned with their local school or school district.

Conclusion

The space of composing is changing with the evolution of Web 2.0 applications, cloud-based computing, "everyware" (Greenfield), and the corresponding ubiquitousness of these technologies in everyday life. All are collaborative, experimental, and in motion. Professional development Thirdspaces like those described in this dissertation represent a composing in the Commons with a resulting revision to the Firstspace of each teacher's classroom and the Secondspace of her or his ongoing learning with computers and writing. Thirdspace not only supports a kind of pedagogical inquiry that is different (or absent) from our individual schools, but also supports the critical literacy required to shape the technologies with which we teach writing.

Thirdspace does not suggest a specific model for professional development, but rather a way of thinking about how to plan and facilitate our professional development activities. These activities can take many forms. Rachel, Karen, and Susan describe multi-class projects taught over the Internet, technology development teams, a summer writing workshop, and networking with technology resource people. What is important about these activities is that each creates a learning space that is not tied to the outcomes of our teaching spaces and yet contains aspects of those spaces that we identify as contested and in need of change. The learning that happens in professional development Thirdspaces such as these is both personal and professional. The activities are both individual and collaborative. They create space and time to bring together our identities as writers and writing teachers in ways that we often cannot in our day-to-day work as writing teachers.

The goal of professional development Thirdspace is to return to the contested spaces of our schools with new insight and better prepared to transform them. Because the First and Secondspaces of computers in our schools are contested, we need this *other* space. We bring to it aspects of our contested spaces, but in ways that we are free to do the important work of experimenting and imagining. The core beliefs described above and throughout this dissertation are all necessary to facilitating the kinds of learning and transformation that Thirdspace makes possible.

Note

1.   Two of my terms are worth clarifying briefly. I use *computers* as an umbrella term for not only desktops and laptops, but also cell phones, tablet PCs, iPads, and other portable computing devices that can access the Internet. I use *new media* to refer to the full range of applications that facilitate writing and communication online, such as blogs, wikis, and social networks. This term was more popular during the late 90s and early 2000s than it is now, and most of these technologies are no longer considered "new." However, I believe that "new media" is useful for the way that it describes the constantly evolving state of technology and the uses of technology in society.

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