Complex people, actions, and contexts: How transformative digital literacies do (and do not) get taken up in a comprehensive high school

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COMPLEX PEOPLE, ACTIONS, AND CONTEXTS: HOW TRANSFORMATIVE DIGITAL LITERACIES DO (AND DO NOT) GET TAKEN UP IN A COMPREHENSIVE HIGH SCHOOL

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ABSTRACT

Complex People, Actions, and Contexts: How Transformative Practices Do (and Do Not) Get Taken up in a Comprehensive High School

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Digital literacies have become central in today’s society, used in various personal and public incarnations (Coiro, Knobel, Lankshear, & Leu, 2008), occupying prominent space in social and professional worlds (boyd, 2014; Leu et al., 2011). Despite digital literacies’ centrality in society, schools have a notoriously difficult time integrating these into curriculum and instruction (O’Brien & Scharber, 2008). Accordingly, I asked: How do teachers in a large, public comprehensive secondary school navigate the challenges and benefits of digital literacies within the structure of Washington High, the curriculum, and their pedagogy?

Using a case study design both ethnographic and collaborative in nature, I examined teachers’ beliefs and practices to investigate how digital literacies were being used in the classroom, as well as why. Data included a school-wide survey, participant interviews and observations with six teachers, and informal meetings with school staff, most notably the vice-principal. Data was analyzed through the lens of theories of literacy curricular design (New London Group, 1996) and an eye toward New Literacies (Lankshear & Knobel, 2006).

Notable results include the finding that technology at Washington often plays out in fairly traditional, teacher-directed, “old wine in new bottles” (Lankshear & Knobel, 2006, p. 55) sorts of ways. However, this study also concludes that why this is so moves far beyond these teachers’ individual beliefs and practices. Their contexts (unreliable
technology, control of uses imposed by the administration), their cultures (narratives of adolescents needing protection from themselves and others), and compulsory schooling itself (traditional conceptions of time and space, narrow definitions of success, high-stakes testing and teacher evaluations) all play dynamic and complicated parts in how digital literacies get taken up, along with teachers’ own beliefs and practices. As such, I draw upon theories of complex personhood (Gordon, 1997) and complexity thinking (Davis & Sumara, 2008) in positing ways digital literacies may be utilized in relationship to schools. Implications address these practices’ collaborative, creative potentials to transform schools.
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CHAPTER ONE

RATIONALE

Five years ago I was teaching a creative writing class in a suburban school outside of Cincinnati. The paper load was intense – I had 100 and some odd students and they were turning in writing every week. Not only did I find commenting and critiquing difficult to maintain, I was also mindful of the need to provide the students with different perspectives than mine, a wider audience. I was also eager to bring more technology into the classroom. This was something my district was encouraging, and I knew how prevalent my students’ technology use was outside of the classroom. To achieve all these purposes, I set up and started using a class wikispace, establishing a space designed for students to post and respond to peers’ weekly writings.

At first, the response to the wiki was positive. In the school’s computer lab, students had fun setting up their profiles, choosing personal icons, and playing with the site. They liked the idea of posting and responding online. However, as the term wore on, I noticed a distinct attitude set in – wiki weariness. Enthusiasm flagged, and responses to writing, despite being a mandated, graded portion of the class, tapered off.

I investigated this phenomenon by talking to the whole class and then zeroing in on students who self-identified as posting and responding to writing online in the “real world.” A few explanations came to light. My students felt strangled by the control I maintained of the site. I had laid ground rules for how to respond, had specified deadlines for peer responses. There was no feature that allowed authors and commenters to talk back and forth; the conversation ended after the responders had posted their critiques. This, needless to say, was not the way students were accustomed to conducting their
online writing lives outside of my classroom. Yet, there were reasons I had set up the wiki the way I had. I wanted to make sure students were getting timely feedback about the pieces they had written. I hesitated in making commenting too free, afraid writers would get feedback that was more hurtful than constructive. I also felt the need to have a way to assess student participation. In school culture, this often comes along with a grade. In other words, there were distinct tensions between the way digital literacies operate as social practices in the natural world and the structures and traditional confines of typical school practices (what I mean by “digital literacies” is defined more fully in this chapter and the next). I had, unwittingly, stumbled into those tensions, and the result was not that satisfying – for me, or for my students.

My struggle with incorporating digital literacies in authentic and transformative ways is illustrative of the struggle many teachers are facing. There are compelling reasons to integrate digital literacies into schools, curriculum, and instruction, but there are also challenges that come along with this. Speaking broadly, schools tend to be traditional institutions, resistant to change (Tyack & Tobin, 1994). In order for digital literacies to stand a chance in schools, concepts such as plagiarism, authorship, and expertise have to be taken up and reevaluated (Lankshear & Knobel, 2006; Thomas & Sassi, 2011; Vasudevan, DeJaynes, & Shmier, 2010). So how do teachers deal with this? How do they perceive digital literacies, both their importance and their place within the classroom? How do teachers navigate digital literacies within their own curriculum and instruction? These are the questions that this study addresses, and it addresses them within the context of a large, urban high school, an environment not the most commonly represented in research literature.
In this chapter, I first discuss the prevalence of digital literacies in social and work worlds, with particular focus on the promise many scholars and theorists see in these literacies. Next, I elaborate on the inherent mismatch between the traditional conception of school and the way digital literacy practices typically function. In consideration of this contextual mismatch, I outline what the stakes may be of ignoring digital literacies in schools. I note that much of the research concerning digital literacies has taken place out-of-schools and/or has detailed socioeconomically privileged youth. I make the case that we need a variety of populations and backgrounds researched in order to avoid too broadly categorizing the social and academic practices of digital literacies. Finally, I end with the assertion that by researching the beliefs and practices of teachers making efforts to include digital literacies in curriculum and instruction, we may walk away with helpful and specific understandings.

**Changing Literacies in a Changing World: What is meant by “Digital Literacies”?**

Few would protest that with the advent of the Internet, how people interact with text has changed in important ways (Coiro, Knobel, Lankshear, & Leu, 2008). Gone is the expectation that text can only be approached in a linear manner, with the reader beginning at “the beginning” and finishing at “the end.” Hyperlinks ensure that we can lead off reading in the middle of a text and navigate to somewhere new; in fact, some texts now have no clear and finite ending point. Text has come to include other aspects besides words on a page – images and sounds are integral to understanding (Brown, 2000; Lankshear & Knobel, 2006; C. Luke, 2002; Mills, 2010). Oftentimes, the line between consumer and creator is blurred, with readers adding their own commentary, or remixing a text, or creating something together through the sharing of dialogue (Gee,
As Coiro et al. (2008) pointed out, while our ideas of what constituted a text and how one should properly interact with a text held steady for around 500 years (noting the privileging of white, middle class definitions of literacy here), within the last 30, we’ve been forced to drastically rethink and redefine what is possible to constitute as a text. We’ve had to rethink what it means to read and write these texts. Not only do digital literacies possess some key differences from other types of literacy, many also show tremendous promise in how they may be used.

**From Consumers to Creators**

While we are all familiar with the panicked cry of those who believe that texting, instant messaging, and YouTube will be the death of reading and writing as we know it, others are quick to point out how digital literacies have revitalized communication. C. Luke (2002) has suggested that digitally mediated literacies have ushered in an “explosion of writing” (p. 137), with a return to letter writing the likes of which hasn’t been seen since the eighteenth century. Digital literacies can expand our sense of audience. Bruce (2002) explains: “The notion of a community of writers thus seems more real and present than ever before” (p. 7). Others enthuse the learning potentials of something like the web, where users are encouraged to “link, lurk, and watch how other people are doing things, then try it themselves” (Brown, 2000, p. 14). The process of “learning by doing” and then being able to reference help as needed and “just in time” has been championed as a highly effective approach to learning (Gee, 2005).

Above all else, however, those who extol the virtues of digital literacies’ possibilities point out that these sorts of practices allow the participant to become not just a consumer of text, but also a producer, a creator (Bruce, 2002; Gee, 2012). Different
than other literacy practices, digital literacy allows more free range in our ability to push back with our own responses (Brown, 2000). Graham and Benson (2010) refer to this as “creating knowledge rather than simply gathering it” (p. 94). Participants of digital literacies are able to create and post their own media, information, and designs and gain extended audiences without the professional credentials that have traditionally been required to do so (Gee, 2012). The multimodality possibilities of digital literacies – their integrated incorporation of text and video and images and sound and movement – open the doors wide to the creator. People adroit at using digital literacies are able to incorporate their possibilities in complex and sophisticated ways. Digital literacies are used to communicate, to discover, to critique, and to reflect (Tierney, Bond, & Bresler, 2010).

Those who elaborate on the possibilities of digital literacies see their power in the social realm. Sites of social practices like Facebook, Twitter, Tumblr, and fansites speak to these (boyd, 2014). Along with this, though, many note the influences digital literacies have exerted on the world of work.

**Digital Literacy in the Workplace**

Grim predictions about computers completely taking over the role of human workers has not come to pass. Instead, a common perception in the workplace is that ideal job candidates are able to use computers to creatively and expertly expand upon their own thinking (Warschauer & Matuchniak, 2010). “Adaptability” has become the buzzword du jour, with other qualities such as critical thinking skills, problem solving skills, collaborative skills, leadership capabilities, imagination, curiosity, and initiative extolled and thrown into the mix (Partnership for 21st Century Skills, n.d.). Gee (2004)
refers to the most competitive of young people in today’s job market as being “shape-shifting,” (p. 105). These youth understand the need and can market themselves as being willing and able to change with the times, to adapt themselves to new situations. Workers often operate in tandem with one another, collaborating and building off one another’s exploits. The work process becomes synonymous with “continual learning, un-learning, and re-learning” (Bruce, 2002, p. 8).

Workers today exist in a world operating under “fast capitalism.” This is in contrast to the “old capitalism,” a model that worked on principles of mass production, where workers could make successful livings by following directions and mastering specific skills. To be successful in the world of “fast capitalism,” well-rounded workers are expected to take on more responsibilities, fill more roles, and practice new forms of hybrid literacies, some of which mix the interpersonal with the formal, such as email (New London Group, 1996). As such, digital literacies have a central place in this “new capitalism” work world (Gee, 2004). Some have attributed the rapid growth of the Internet to be partially a result of the changing nature of the economy and workplaces (Leu et al., 2011).

Representatives of the business world have expressed concern that students are not being prepared in schools for the roles they will be expected to fill. The aforementioned Partnership for 21st Century Skills was formed in 2002 as a coalition between business leaders, education leaders, and policymakers because of a belief that: “There is a profound gap between the knowledge and skills most students learn in school and the knowledge and skills they need in typical 21st century communities and workplaces” (Our Mission section, para. 3). Of course, the mixing of businesses with
educational sites is always going to be fraught with complications and controversy (Apple, 2006).

Still, in a global economy where information is power, having astute abilities to harness the power of digital literacies seems a necessity (Leu et al., 2011). If the job of schools is to prepare students for the outside world, both socially and professionally, it seems prudent that digital literacies are addressed within curriculum and instruction. Yet, there are significant reasons, both structurally and institutionally, why this has proven to be more difficult than simply shepherding in these practices.

**Schools’ Conceptions of Literacy in a Changing World**

As many have noted over the years, schools are not known for their capacity to change. School is often expected to look and feel a certain way; there are conventional expectations for what it means to “do” school. How we divide up subject matter, the portioning out of bodies to certain physical locations for set periods of time, the dynamics of what instruction can and should look like – all of this often gets molded to a traditional “grammar of schooling” (Tyack & Tobin, 1994) that can be intimidating in its scope. The institution is so well established and its practices so routinely enacted that it can be difficult to break away. Teachers are often overwhelmed by day-to-day obligations and tasks, locked behind closed doors without much encouragement to collaborate. They are often products of a system that many of them have mastered. Accordingly, teachers tend to teach the way they were taught, not straying much from the format that has been more or less in place since the beginning of compulsory schooling (Lortie, 1975).

This does not bode well for the incorporation of these “new” literacies, especially if, as O’Brien and Scharber (2008) assert, “[E]ducation as an institution is populated by
persons who work to preserve practices of the past, few of which depend on or explore
the advantages of digital literacies” (p. 68). Additionally, schools have a history of being
shortsighted on what changes in the outside world can or should mean for the school
worlds. Those making decisions in schools may be likely to note the power and
prevalence of digital literacy tools, but they may be less likely to confront how these tools
are fundamentally changing the fabrics of literacy (Bruce, 2002).

Even with schools’ notorious intractability aside, there are some very real reasons
that bringing digital literacies into the classroom is not a simple “lift and insert” sort of
process. There are some specific and tangible factors that make the alignment of
traditional school settings and digital literacy practices a tricky feat.

A Tricky Marriage

Fundamental differences exist between digital literacies and the more traditional
school-based literacies found in classrooms. While this will be further elaborated on in
the next chapter, I note here that digital literacies often hold different assumptions and
aim to accomplish different goals and functions than that of print-based text. Digital
literacies are often more participatory, more collaborative, and more distributed than
traditional literacy practices, along with being less published, less individuated, and less
author-centric. In short, digital literacies reflect a different sort of mindset than what we
typically find in the reading and producing of more conventional literacies. Incorporated
are different kinds of social and cultural relationships; they are based around different
values, priorities, and desires than might be seen with traditional compositions (Kress,
2003; Lankshear & Knobel, 2006; Mills, 2010). This being acknowledged, significant
tensions can be felt when digital literacies are wrangled into the template of schools and
schooling. Many of these practices don’t translate well to mandated scheduling and the set and established routines of schools (O’Brien & Scharber, 2008).

Basic understandings of what constitutes a “text” can run up against one another. While schools and teachers tend to value print above all else (Graham & Benson, 2010; King & O’Brien, 2002), digital literacy aficionados value multimodality and see the images and sound components of the text as inseparable from the print (C. Luke, 2002). Valuing print over multimodality may blind educators to youths’ talents and developed epistemologies with digital literacy practices (King & O’Brien, 2002). Time takes on other meanings, with schools imposing deadlines for finished products that don’t have the same urgency or even the same sensibilities of time as it relates to digital literacies. For example, many digital literacy practices are used more to continue a service than create an end product (Buck, 2012; Lankshear & Knobel, 2006). Even the nature of how knowledge is conceived can be at odds. In school, information is often understood as a “limited commodity” (p. 41) doled out by the teacher and the textbooks. With digital literacies, sources of information and who takes on the role of the expert is limitless (King & O’Brien, 2002).

As the prevalence of digital literacies rises, so do tensions between schools and youth over concepts such as “authorship,” and what constitutes something like plagiarism. Students fluent in digital literacies practiced in contexts outside of school may well have different norms than their teachers about what is and is not acceptable (Thomas & Sassi, 2011). In digital literacy practices, collaboration and the taking up of others’ work and refashioning it as something new is quite common and expected.
Many scholars and researchers have noticed this trend. Lankshear and Knobel (2006) call this “remixing.” Thompson (2008) has called this “digital intimacy.” Gee (2004) uses the term “affinity space,” where people come together to share space and collaboratively build knowledge based on common interests. Brown (2000) invokes the concept by Claude Levi-Strauss of “bricolage,” where one finds pieces of text – an object, tool, document, picture, piece of code – and uses it to build something new and different. There is an art to this. In order to be “an effective digital bricoleur” (p. 14) one must employ thoughtful consideration about how the product is truly “new,” what unique message the reconstructed text now projects.

In practices such as these, the concept of one lone author is abandoned. This collaborative approach to text is hard to reconcile with the ways schools have typically been configured. Some scholars are optimistic about change. Bruce (2002) states: “The case of the solitary writer in the garret, or more pertinently, the student ‘doing his/her own work’ may soon be seen as the anomalous case of writing” (p. 7). Still, reconciling these differing views of authorship can be challenging, to say the least. Teachers and schools would have to ask questions about assessment, about the assigning of grades, about the roles of collaboration in and out of the classroom. In considering how to incorporate digital literacies in school, teachers would have to be willing to not only teach students how to cite correctly, but also first to rethink their own preconceived notions of plagiarism (Thomas & Sassi, 2011).

Along with concerns about plagiarism, teachers may be wary of incorporating digital literacies, finding their roles in the classroom less central and the traditional hierarchies challenged (Mahiri, 2011). Fear of students’ vaster knowledge, lack of
professional development and training in teacher education, and malfunctioning tools may all come into play (Tierney et al., 2010). While the research on teachers and digital literacies will be further explored in the next chapter, it’s of interest that Mahiri (2011) advises: “Getting beyond the reliance on page-based methods require[s] more than just increasing the teachers’ technological proficiency. It require[s] a fundamental shift in their perspectives about teaching, and these kinds of shifts are difficult to make” (p. 129). Add to this the public expectations for teachers to educate all students to world-class standards as the population grows ever more linguistically and culturally diverse (Cochran-Smith & Fries, 2005), and it becomes understandable how digital literacies may find their way to the backburner.

One other tension of note between the school world and digital literacies are the conflicting messages schools receive about how central their role should be. While schools may be aware that the 21st century calls for students to have skills in digital literacies, the high-stakes standardized testing that exists in this country is largely print-centric and aims to assess mainly traditional print-based literacies (Kellinger, 2012; Leu et al., 2011; O’Brien & Scharber, 2008). Schools operate from assumptions denoting a linear epistemology, often operating under a straightforward “A” to “B” to “C” logic with a prevailing single correct answer. Pitting a school’s desire to attend to needed digital literacy skills against test scores that may well determine a school’s resources and viability creates “diametrically opposed goals,” that of “standardization and that of differentiation” (Kellinger, 2012, p. 524).

What’s more, ignoring digital literacies in our age of high stakes assessments sends the message to teachers and students that these practices are “extras.” Despite
digital literacies’ established roles in work contexts, in the world of school, their prevalence and importance is often downplayed. They can be conveyed as add-ons to an already existing curricula rather than a fundamental shift in the way educators view literacy (O’Brien & Scharber, 2008). Emphasizing accountability over all else, it is likely that teachers return to educating students on test objectives, ignoring multimodal forms of text for print-based ones (Tierney et al., 2010). This “misalignment” amongst public policy, assessment, and instruction creates a hostile environment for anyone trying to incorporate digital literacies into his or her classroom in transformative ways.

Even if digital literacies were to be included on high stakes testing, there are those who worry about whether these new literacies would be assessed in authentic ways (Tierney et al., 2010). This, again, requires a fundamental shift of perspective. Digitally created texts would need to be assessed on more than just print – spatial design, visual design, linguistic design, and audio design (C. Luke, 2002).

In an age of standardization and high stakes testing, some contend that, unless we guard against the possibilities, there are those who will “begin the serious task of domesticating the new literacies” (A. Luke, 2002, p. 203). In some cases of attempting to reconcile the worlds of school and digital literacies, these practices have been equated with technological tools and divorced from their sociocultural contexts. Skill and drill on the computer, remedial, individual, “at-your-own-pace” instruction – these applications run the risk of losing the positive possibilities digital literacies represent (Kellinger, 2012). In this corrupted version of digital literacies, it is likely that more affluent students “have teachers and a rich, challenging, and collaborative curriculum” while students from lower socioeconomic backgrounds “are placed in front of computers and, despite being in
a room full of their peers, replicate the factory model of learning at the individual level” (Kellinger, 2012, p. 527). Ito (2006) notes class discrepancies becoming ever more apparent in the burgeoning field of “edutainment,” where game design based on academic content but “with a wrapper of entertainment style” becomes all the more “targeted towards accelerating the achievement of successful children” (p. 139).

When trying to align digital literacies with the school world, tensions abound. Yet, many warn of the consequences of ignoring or leaving out these literacies, particularly with student populations not from upper or middleclass socioeconomic backgrounds.

**An Obligation to Teach?**

There is much research depicting youth employing sophisticated uses of digital literacy (Abrams, 2009; Black, 2005; Chandler-Olcott & Maher, 2003; Cowan, 2010; Dowdall, 2009; Jacobs, 2006; Lewis & Fabos, 2000). However, it’s important to remember that just because youth are skilled with digital literacies outside of the classroom, it is not a certainty that they can leverage their practices for social, cultural, or economic gain (Moje, 2009). Unlike learning about things like how to use social networking sites or using other digital tools for entertainment, youth may be less likely to locate, try out, and master technologies that will serve them well in education and the workforce, unless they are given a clear incentive for doing so (Ng, 2012). As boyd (2014) phrases it, “Many of today’s teens are indeed deeply engaged with social media and are active participants in networked publics, but this does not mean that they inherently have the knowledge or skills to make the most of their online experiences” (p. 176). Youth may have achieved mastery of some skills, such as navigating and producing
hypertext, but they may lack other skills, such as critical analysis of sites (C. Luke, 2002). Additionally, it’s important to remember that not every youth is an adept user of digital literacies solely because or her or his age. For instance, some students who are comfortable and adroit at traditional literacies in traditional classrooms may struggle with the different logics of new literacies (Vasudevan et al., 2010).

**Digital Literacies as Social Justice**

Finding ways to leverage digital literacy skills into social, cultural, and economic capital is easily seen as an issue of social justice and equity. If digital literacies are ignored within schools, this does not bode well for adolescents who are not given opportunities to develop the literacies of the post-literate world within school, especially among those populations that do not find post-literate literacies clearly embedded in their lives outside of school…Without addressing in schools the various literacies within contemporary society and building upon adolescents’ post-literate experiences, schools run the risk of becoming anti-educational sites. (Hagood, Patel Stevens, & Reinking, 2002, p. 81)

Digital literacies are simply too big and too important to be ignored.

Schools are once again attempting to enact a delicate balancing act. On the one hand, separating digital literacies from their social practices results in maintaining the status quo and further normalizing of the same-old-same-old functions of school (Bruce, 2002; Kellinger, 2012). On the other hand, some have noted the way that nonprint-based design activities are often incorporated in non-critical and laissez faire sorts of ways (Graham & Benson, 2010). Some emphasize that while enthusiastic educators may be
tempted to import the most enjoyable aspects of youths’ digital literacy practices directly into the lessons, educators must make sure that what drives them are educational decisions, not social ones (O’Brien & Scharber, 2008). Recognizing youths’ out-of-school literacies while not over-romanticizing either the youth or the practice has in some cases been difficult (Mills, 2010). Students need to be taught how to critique and analyze their digital literacy practices even as they use them for their own specific purposes (Lewis & Fabos, 2000).

While these issues are true of any school educating any student, these issues are often magnified in urban school districts, particularly those serving students from lower socioeconomic backgrounds. It has proven true that, like with so many aspects of schooling, when it comes to digital literacy practices the rich get richer and the poor get poorer (Leu et al., 2011). This may be amplified by youths’ out of school practices.

Ito et al. (2010) have documented the fact that youth tend to use digital literacies in both relationship-driven and interest-driven ways. Much of the promise of the potential learning possibilities of digital literacies comes when participants utilize them in their creative and generative forms (Gee, 2012). The creative practices happen more organically for those who are interest-driven rather than relationship-driven (Ware & Warschauer, 2005). For youth who are motivated more by relationships than interest within the digital world, it may be even more important to address the potential creative possibilities of digital literacies within schools if we hope to disrupt the familiar patterns of inequity.

Clearly, there are advantages to being producers rather than just consumers. Producers help shape and create; they gain more power. In contrast, consumers are
subject to what the producers have given them. They are constrained in their choices and have less power to enact changes (Knobel & Lankshear, 2002). With this being said, some researchers have asserted that those from upper socioeconomic backgrounds are more likely to use digital literacies in these creative, generative ways than youth from lower socioeconomic backgrounds (Beach & Bruce, 2002). These behaviors moved beyond the typical assumptions about access. One study found that students are more likely to play games online than engage in things like programming, web page development, or creative production. The authors concluded: “…access alone does not imply that young people have the same experiences; the ways in which computers are used mean more than whether someone is ‘wired’ or how long they can stay connected” (Beach & Bruce, 2002, p. 148).

An additional study found that youth from families with higher socioeconomic (SES) statuses tend to pursue their interests with digital literacy in ways that benefited them with school success more than youth from families with lower SES statuses. In this study, a fourth-grade private school student used digital literacies to run for class president. He created online quizzes, posted speeches, and took polls. This was contrasted with youth from low SES backgrounds. These youths’ practices centered more on downloading pictures and pasting images into reports. Print was largely ignored (Ware & Warschauer, 2005). If schools do not “do the work necessary to help youth develop broad digital competency” (p. 180), boyd (2014) argues, than they are helping to reproduce digital inequality as more privileged youth develop skills and are given opportunities outside of the classroom. Because, as previously discussed, being competitive in the world of work now means being able to leverage digital literacies for professional gain,
finding ways for schools to reconcile digital literacies and school structures has become a matter of social justice. Next, I contend that, when it comes to digital literacies, more attention needs to be paid to a variety of populations and contexts.

**Looking At Practices Across Populations**

With the study of new literacies in general, one concept presupposes all others. Literacy does not exist without context. It is shaped and perceived by and through culture, language, politics, history, and community. Digital literacies are no different. They are always used and understood within contexts. Assuming a universal picture of digital literacies falls into the same trap as the static and limited autonomous view of literacy commonly held by schools (Street, 1995).

Despite this, within the research, there has been a tendency to focus on the digital literacy practices of youth in middle- to upper class families with plenty of resources (Moje, 2009). We are still limited in what we know, for instance, about youth media in urban school contexts and what this means for both teaching and learning. Jocson (2012) asks what form new literacies are taking in the classroom and how these are affecting “non-dominant students” (p. 298). To combat the relative lack of knowledge, efforts need to be made to vary research and adjust assumptions by looking at a wider and more diverse range of populations and their ways of accessing and using digital literacies, along with perceptions of them. Because, like any literacy practice, people are socialized into digital literacy practices (Mills, 2010), a wide variety of perspectives are needed. Research needs to be conducted that examines digital literacy practices across different cultural, class, and regional groups (Moje, 2009). Outside of school settings, boyd’s (2014) near decade long qualitative and ethnographic study of “networked teens” showed
just how different practices and tools can be from place to place, group to group, youth to youth. For instance, boyd (2014) was struck by how social media sites had become vastly segregated. As Facebook gained in popularity, many white youth migrated to the site while many youth of color preferred to remain on MySpace. In noting how most of the youth presented these choices as simply being aligned with preference, the researcher reflected, “[M]ost teens give little thought to the ways in which race and class connect to taste. They judge others’ tastes with little regard to how these tastes are socially constructed” (p. 169). This finding is unsurprising given society’s overall failure to engage in racial analysis. Thinking about who gets to define what literacies are, what they can and can’t look like, is important, particularly as this helps determine youths’ experiences in and out of school (Hagood et al., 2002).

The Context of the Study

By elaborating on the prevalence and place of digital literacies, the difficulty (but necessity) of using these effectively in schools, and the need to explore a variety of contexts and populations, I contend that my case study may add to an important and growing area of study. In this study, I worked with administrators and teachers at Washington High School¹, an urban school about ten miles outside of a major metropolitan area. I examined how teachers in this district both perceived and utilized digital literacies within their classrooms and teaching practices. In looking at both a broad brushstroke glimpse of the teachers through a school-wide survey and then a more specific interview-observation examination of a few digitally minded teachers, I sought to

¹ All names are pseudonyms
learn more about how dedicated educators view and manage digital literacies in modern times. To this end, I asked:

- How do teachers in a large, public comprehensive secondary school navigate the challenges and benefits of digital literacies within the structure of Washington High, the curriculum, and their pedagogy?
CHAPTER TWO

REVIEW OF THE LITERATURE

In considering how teachers both perceive and use digital literacies within the context of school, the study is informed by the existing conceptual and empirical literature. First, this paper elaborates on the theory that literacy is a social practice and locates digital literacies within the field of multiliteracies. Next, I turn to the literature in fully fleshing out a definition of digital literacies, a concept whose nebulous origins have some labeling the term itself as inherently “squishy” (Chase & Laufenberg, 2011, p. 535). From there, I briefly review some of the literature focusing on digital literacies within schools, noting especially that much of the work has been conducted in suburban and/or affluent school districts, a hazard that may fall perilously close to historic practices of privileging some people’s “ways with words” (Heath, 1983) over others. Finally, I review the literature concerning tendencies to confuse tools of technology with the concept of new literacies and discuss difficulties teachers face with bringing digital literacies into the classroom. The review ends by elaborating on how teachers’ attitudes and beliefs may impact their ability and willingness to attempt the inclusion of digital literacies into curriculum and instruction.

Literacy as a Social Practice: The New Literacy Studies

Multiliteracies. New literacies. Multiple literacies. New Literacy Studies. These terms, common to empirical and conceptual literature, have slightly different connotations when put into practice. For instance, the use of the term “new literacies” often holds with it an expectation for inclusion of digital media. Use of “multiple literacies” does not hold this same inclusion of technology, although denoting it will
bring to mind the importance of multimodalities. With “multiple literacies,” the
importance of cultural practices as a context for literacies is often stressed (Cervetti,
Damico, & Pearson, 2006). Generally speaking, those using the nomenclature of “New
Literacy Studies” have conducted much of their research outside of schools, while those
concerned with “multiliteracies” have made it a mission to locate their concerns and
research within schools (Rowsell, Kosnik, & Beck, 2008). Despite these discrepancies in
what the terms denote, all of these theoretical and research groups have a basic ideology
in common.

That ideology centers on the concept that literacy should not be limited to a view
of the singular, but instead the plural – “literacies” (Gee, 2012). In the words of Gee
(2000b), “Reading and writing only make sense when studied in the context of social and
cultural practices of which they are but a part” (p. 180). In other words, literacy is not
merely located in the mind of the reader and the text with which she or he interacts. Also
important is how she or he has been socialized and apprenticed with these texts (Gee,

While this theory will be elaborated on further in the following chapter, it is worth
noting that viewing literacy as a social practice removes any illusions of seeing literacy as
a purely neutral, decontextualized practice (Street, 1995). Instead, this understanding of
literacy is well aware of the social institutions and social groups that make literacy
practices possible, acknowledging the privilege and power that comes along with groups
and institutions. Gee (2012) states:

[P]olitics…and literacy are integrally and inextricably interwoven. This is so
because ‘reading the world’ always involves an interpretation of ‘the way things
are’ in terms of what is appropriate, normal, natural, or right in regard to
distribution of social goods. Since ‘reading the world’ and ‘reading the word’ are
inextricable interwoven, so, too, then are politics and literacy. (p. 62)

Viewing literacies as being used to enact (or counter) social practices allows one to see
the usefulness of literacy. It can lead one to broaden or to reconsider “what counts” as
literacy (Cervetti et al., 2006). It can also make evident the way schools have a long
history of privileging some people’s “ways with words” over others.

**Different “Ways with Words”**

Heath’s (1983) classic longitudinal ethnographic study brought to light the myriad
ways three different communities – a working class black community, a working class
white community, and the more affluent “townspeople” – all employed purposeful, rich,
and socially useful language skills and literacies. She also demonstrated the ways in
which the townspeople’s children were rewarded in schools, showing that this privilege
was directly linked to the way children’s home practices aligned with school practices.
Many others have documented how children of middleclass (often white) families see
themselves reflected back in the curriculum and teaching, while those from poor and/or
racially minoritized families find their own practices discounted and ignored (Apple &
King, 1977; Sleeter, 2005; Willis, 1977). Drawing on Du Bois’ (1897) ideas of double
consciousness, Sleeter (2005) compares this to some students getting a curriculum that
serves as a mirror reflecting back an image of the self while some students are forced to
look through a window into others’ lives.

Discussions of literacy have played greatly into this debate. Gramsci (1971)
noted:
The most striking continuity in the history of literacy is the way in which literacy has been used, in age after age, to solidify the social hierarchy, empower elites, and ensure that people lower on the hierarchy accept the values, norms, and beliefs of the elites, even when it is not in their self-interest or group-interest to do so. (p. 57)

All of this is to say that when schools place premium value on traditional schooled literacy (Barton, Hamilton, & Ivanic, 2000) – with its print-centric emphasis, reliance on textbooks and short answers, five-paragraph essays, and the like – they are potentially robbing students the opportunity to call upon their skills in non-school-based literacies. These can include skills with digital literacies (King & O’Brien, 2002).

Research in the New Literacies Studies emerged as one way of counteracting this narrative of traditional literacy. Researchers provided much evidence of the sophisticated, complex, and nuanced literacies youth and others employed that are not typically sanctioned by schools. This has included a look at youths’ use of graffiti (Moje, 2000), ELL students’ willingness to write extensive fan fictions outside of school (Black, 2009), a “struggling” students’ expert use of literacy in work and church contexts (Knobel, 2001), and the sophisticated use of language in a teenage girl’s instant messaging practices (Lewis & Fabos, 2000). Studies such as these have gone a long way in demonstrating the richness and complexities of non-school based literacies.

However, New Literacy Studies have also undergone criticisms for focusing primarily on out-of-school practices without specific or practical ways of applying findings in an educational context (Kim, 2003). Considering the practicalities of research is also an important consideration for those undertaking it. Mills (2010) cautions that
educators must be careful not to over-romanticize non-school practices. She advises that we should recognize the power of out-of-school literacies students bring to the classroom, while still being mindful of “the textual encounters that students need to traverse” (p. 253) in different contexts. Being aware of both possibilities and structural realities is a difficult but important balance for which to strive, and the reconciliation of digital literacies with the institution of schooling is no exception. When thinking about this pairing, it is useful to have a clear definition of digital literacies from which to work.

**Defining Digital Literacies**

When defining digital literacies, it is worth noting why I most often choose this terminology over similar terms such as new literacies or multiliteracies. As previously noted, all of these terms share similar roots, if subtle differences. In her exploration of these different frameworks, Rebmann (2013) notes the variances that distinguish new literacies from multiliteracies, amongst them new literacies’ focus on “new contexts” and “new information and communication technologies” contrasted with multiliteracies’ focus on “multiple designs” and “multiple discourses” (p. 247). However, despite their differing focal points, Rebmann maintains, all of these terms have at their core expectations of: 1) multimodality; 2) exploration of people’s contexts; 3) recognition and exploration of sources of power; and 4) intertextuality (p. 254). These are also the essences with which I work in evoking concepts of “digital literacies.” However, in talking with the teachers, using “digital literacies” proved much more accessible and less esoteric than terminology such as “new literacies” or “multiliteracies.”

It’s true that definitions of digital literacies can get messy (Chase & Laufenberg, 2011). Conflating digital literacies with simply practicing literacy through technological
tools doesn’t really cover it, as oftentimes these are only ways of repackaging the same old tasks with fancy digital tools – “old wine in new bottles” (Lankshear & Knobel, 2006, p. 55). Alvermann, Hutchins, and McDevitt (2012) noted that when Paul Gilster coined the term digital literacy in 1997, his emphasis insisted on critical thinking as opposed to mere technical competence as being the key component of digital literacy.

Like the larger umbrella of “literacy” under which they fall, digital literacies are situated social practices. Leu et al. (2011) notes their deictic nature, claiming that the fast and often changing modes of digital literacies also plays into continual change in their nature and meaning. Gee (2012) elaborates on a concept he calls capital D Discourse, meaning that literacy and language are wrapped up in socially recognized identity kits. In the world of digital literacies, this may have special salience. The way that people use these digital literacies helps determine if they are recognized by others as “belonging” in particular digital worlds. So how does one belong? Mills (2010) provides a list of features synthesized from the research about emerging patterns in digital literacies. She describes them as: “digital, pluralized, hybridized, intertextual, immediate, spontaneous, abbreviated, informal, collaborative, productive, interactive, hyperlinked, dialogic (between author and reader), and linguistically diverse” (p. 256).

Digital literacies fully honor the notion of multiple intelligences by capitalizing on other mediums and modalities besides print (Brown, 2000). Besides typical print texts, digital literacies also include visual texts (images, videos, animations, photos), audio texts (voice, music, sound effects), as well as gestural and spatial modes (Leu et al., 2011; O’Brien & Scharber, 2008). One needs proficiency with multimodality in order to both “read” and “write” digital texts (Mills, 2010). Hallmarks of digital literate individuals are
the abilities to adapt to changes quickly and to develop skills that are at once technical, cognitive, and social emotional (Ng, 2012).

O’Brien and Scharber (2008) define digital literacies thusly:

[D]igital literacies [are] socially situated practices supported by skills, strategies, and stances that enable the representation and understanding of ideas using a range of modalities enabled by digital tools. Digitally literate people not only represent an idea by selecting modes and tools but also plan how to spatially and temporarily juxtapose multimodal texts to best represent ideas. Digital literacies enable the bridging and complementing of traditional print literacies and other media (p. 66-67).

Martin (2008) elaborates on digital literacy as having three key components: digital competence (wherein participants can demonstrate both appropriate skills and attitudes), digital usage (the user is able to translate skills and attitudes into practice), and digital transformation (where the participant relates to and identifies with the innovation and creativity required of these literacies). An important distinction to be made is that digital literacies, in their purest form, are transformative, changing how we’ve been accustomed to make meaning of ourselves by changing the tools. They carry with them different expectations, different possibilities – they require different mindsets – than that of traditional literacies.

**Relationship-driven**

One salient feature of digital literacies is the way these practices are so relationship-driven. While some have argued that spending time on digital devices is isolating for youth, others have noted the ways in which they have fostered interaction
(boyd, 2014; Bruce, 2002). In a longitudinal and extensive study commissioned by the MacArthur foundation, Ito et al. (2010) documented the central role digital media plays in youths’ social interactions, noting especially the roles of social networking sites such as Facebook and (at the time) MySpace. Additionally, in her exploration of networked youth, boyd (2014) discussed how youths’ decreased access to public spaces has led them to seek out time and space with their peers through social media.

As opposed to producing something such as a final text, many forms of digital literacies exist to allow participants to interact with one another and to mediate these interactions (Lankshear & Knobel, 2006). Ito et al. (2010) explained the intricacies with which youth “performed” friendships on sites such as Facebook, making decisions about which “Friend” requests to accept, how to organize buddy lists, and how to address their different friends. Relationships may play out entirely through these digital literacies, or they may supplement and affect relationships occurring “in real life” (IRL). These relational aspects of digital literacies also play into changing concepts of identity.

Identity and Digital Literacies

Identity and literacy are inextricably linked. Leander (2003) describes looking at literacies as analyzing “practices of the self” (p. 394). This takes on additional dimensions with digital literacies. Vasudevan et al. (2010) posit that digital literacies give us cause to reconsider concepts such as “authorship, identity, aesthetics, and love” (p. 6). Studies have documented the way youth have played with and experimented with different voices and different aspects of their identity, changing roles at will. This has included changing word choices and rhetoric styles to experiment with different genders, ages, and personalities (Lewis & Fabos, 2000), and trying on different fictional identities
through specialized digital literacies such as gaming and fan fiction (Ito et al., 2010; Chandler-Olcott & Mahar, 2003).

Lewis and Finders (2002) have noted how new media and technology have begun to “blur the social and institutional spaces in which adolescents and their teachers perform their identities,” suggesting that all need to become at ease with “the ambiguous nature of identity” that this creates (p. 113). These recommendations, however, butt up against the realities of many schools. The barring of personal digital devices (such as student cell phones), restrictive and policing firewalls on school computers, and public focus on sensationalistic adolescent practices (such as “sexting”), point to an uneasiness with the role digital literacies play in identity. This may be compounded by the fact that digital literacies often have differing views of “what counts” as authoritative knowledge from the traditional notions of schools.

Knowledge and Digital Literacies

The typical hierarchical and authoritative structure about “what counts” as knowledge is disrupted in digital literacy practices. Instead of the expected teacher/student dynamic, the role of “expert” is more fluid, with the norms of interaction set by the members of the community (Mills, 2010). Depending on one’s expertise, peers take turns helping one another and fulfilling leadership roles. Within this model, who is in charge and who can contribute is contextualized according to the specific situation (Lankshear & Knobel, 2006). Examples of building knowledge and “who” counts as an authority can be found in the way “experts” in the field provide online gaming tips (Gee, 2003) or provide savvy advice on how to build websites (Chandler-Olcott & Mahar, 2003). Black (2005) elaborated on examples from her research that showed ways in
which ELL youth were able to write extensively on English-language fan fiction anime sites. As their fellow writers sought to incorporate Japanese words into their writing, those for whom this was a first language were called upon to play the expert.

What this means is a move away from the traditional school view of seeing information as coming from one or two expert resources (the teacher and the textbook). Instead, users of digital literacy are more likely to see “legitimate” knowledge and expertise as being collaboratively built with others (Mills, 2010). Rather than learning how to master a certain digital literacy in a formalized and authority-based environment, participants are more likely to take a “discovery learning” approach, due to the vast amounts of information available (Brown, 2000). This approach to learning is perhaps not uniquely related to digital literacies. In many nonhierarchical societies and systems, it is not unusual for the formal role of teacher to be unassigned, with legitimate peripheral participation serving organic functions of apprenticing learners into practices (Lave & Wenger, 1991).

Another prime example of how authority is shared and reimagined with digital literacies exists. People form cultures and subcultures around digital media and new literacies in fashions never imagined by the designers of the technologies. Users of digital literacies fit technologies to new social purposes and reinvent literacy practices that the assumed “authority” of the technology could not foresee. Forms are hybridized, new vocabularies and languages are created, new textual features and practices are developed (A. Luke, 2008). These expectations of shared expertise and authority would not exist without a commitment to collaboration, another salient feature of digital literacies.
Collaboration and Collective Intelligence

Thinking about the role of collaboration in digital literacies is best illustrated with the concept of the Web 2.0 mindset. With the creation of the Internet, early online information sources fit more into the traditional school-based literacy mode (or Web 1.0 mindset). Sites such as the Encyclopedia Britannica Online offered their content (first on CDROM, then on the Web) as read-only. Interested parties could access the text, view pictures, even videos, but they did not personally influence the text. The authority was very much vested in the site itself (Lankshear & Knobel, 2006). In this model, the emphasis was placed still on individual publishing and consumption (Mills, 2010).

As the Internet evolves, however, Web 2.0 tools make it ever more simple to interact and produce content. In contrast to the authoritative Encyclopedia Britannica, new literacies conceptions look at sites such as Wikipedia, an online encyclopedia that is dependent on the collective and collaborative efforts of the public to shape, make, and police it (Lankshear & Knobel, 2006). This “participatory culture” (Jenkins, 2009) moves people away from being bystanders into active collaborators, creating and shaping the content which others consume, and in turn create and shape. In this model, collaboration is not just allowed, but expected; it is built into the design. This can be exemplified by examples such as the Creative Commons project (n.d.), a nonprofit organization that seeks to provide legal ways for users to both provide their own creations for others’ use, and to draw from others’ creations. The underlying assumption here is not one of individual ownership. Instead, the belief is that being able to freely draw from and build upon one another’s work fosters creative innovation in a way that individual authorship does not. Collective intelligence becomes more essential than the individual intelligence.
often prioritized through instruction and assessment in school settings (Lankshear & Knobel, 2006).

**Digital Literacies as Ongoing Conversations**

Still another distinguishing factor of digital literacies is how they may be used to enable and continue services rather than simply producing a final product (Lankshear & Knobel, 2006). For instance, some online fan fiction writing sites exist so that participants can take on the guise of a character and role-play. Black (2009) provides the example of “Mary Janes,” a term given to characters loosely based on the author’s identity, whom interact and create new stories with established characters. The story is meant to continue.

Buck (2012) maintains that in thinking about digital literacy, it is useful to think in terms of what Brooke (2009) calls “medial interfaces” rather than “textual objects.” Her argument insists that if we focus our attention on digital text as something static to be studied, we will find ourselves missing the larger picture in a manner that will “blind us to many of the rhetorical affordances of new media” (p. 11). Instead, she proceeds to explain, we should focus on the interfaces that allow continuous writing activity to flourish. She advocates an “ecologies of practice” mindset for studying mediums such as social networking sites where the focus is on the activity, not the discrete texts that result.

Leander (2003) adds an additional layer to this idea, suggesting that we need to think about ways to see studies of classrooms, schools, and communities as a “nexus” rather than a “container” (p. 395). Leander and Rowe (2006) suggested that thinking in straightforward binaries – such as “in school” and “out of school” – proves problematic in that these things will always be informing and shaping one another. In discussing the
“third space” that occurs as students’ real worlds and schools’ and teachers’ imagined lessons and classrooms come into contact, Leander and Rowe demonstrate the hybridity that comes into being. Students’ uses of literacy – including their digital uses – are not contained and limited to one point in time.

Still adding to this concept of many texts not ever truly being finalized is the idea of “remix.” As texts are taken up again and reshaped, woven with other texts, and given altered meanings, the concept of one final product becomes ever murkier (Lankshear & Knobel, 2006). Interpreting these texts also may entail different skills than those needed for traditional texts.

“Reading” Digital Literacies

Leu et al. (2011) have argued that there may be differences between digital literacy reading comprehension and general reading comprehension, requiring additional reading skills, practices, and dispositions. To be sure, the multimodal nature of digital literacies presents different reading challenges, beginning with contending with what makes a text truly multimodal. Some have stressed that multimodality is more complicated than just words added to sounds added to pictures. A rich multimodal text calls upon its modalities to play off and inform one another in ways that are not possible to reduce to the sum of their parts. A well-constructed multimodal text has the potential for complex and rich interpretations and meanings; the non-print based part of the text cannot be seen as “add-ons” (C. Luke, 2002; Mills, 2010).

Additionally, Brown (2000) suggests that even more complicated than the incorporation of text and image is the sheer volume of information a reader has to navigate. He states: “The real literacy of tomorrow entails the ability to be your own
personal reference librarian – to know how to navigate through confusing, complex information spaces and feel comfortable doing so” (p. 14). An illustration of this comes in a study of students’ afterschool uses of digital literacies. Alvermann et al. (2012) write about the strategies of one student, Brad, who, when faced with multiple pieces of information onscreen had learned to focus on the middle of the screen where the most important information was typically found. He scanned captions before doing in-depth reading, and considered a website’s color-coding scheme to help him determine where desired information was located.

A final note in attempting to define digital literacies: In thinking about the distinguishing features that make up digital literacies, several scholars caution that thinking of these literacies as being completely dichotomous and separable from traditional literacies is not in itself a useful construct (Alvermann et al., 2012; Bruce, 2002; Mills, 2010). To avoid pitfalls and to avoid short-term or overly simplistic thinking, researchers should resist the urge to categorize simply as “old” or “new.” Alvermann’s et al. (2012) study showed clearly that young people’s Web-based literacies do have some overlaps with those traditionally found in school, and Bruce (2002) advises that “old” forms of literacy are not being ad hoc “replaced” by new literacies. Instead, he posits, “[T]hey simply enrich a growing matrix of multiple genres and media” (p. 12). As I conduct my study, it will be useful to note the features commonly found in digital literacies while simultaneously avoiding binary thinking that limits text to existing as either “old” or “new.” After all, hybridization is still another determining characteristic of digital literacies (Mills, 2010). Depicted in Figure 2.1 is a summary of the characteristics I use in defining digital literacies.
Next, the literature concerning the digital literacy practices of youth will be reviewed.

**Youths’ Digital Literacy Practices**

Following in the tradition of the New Literacy Studies, researchers have sought to explore and document youths’ out-of-school practices with digital literacies. Scholars maintain that becoming more aware of adolescents’ practices can lead to more effective pairings of educational goals and multiple ways of constructing and displaying knowledge (Vasudevan et al., 2010). Cowan (2010) stresses that this is a necessity, maintaining that, “Although the term digital divide typically refers to issues of technology access and availability, it is also an apt description for the frequent disparity between home and school literacies” (p. 29). When examining the literature on youths’
practices, it appears, in balance, however, that much of this literature focuses on adolescents from middle-to-upper-middleclass backgrounds, often from suburban school districts, often white and English-speaking. Less research has sought to examine the digital literacy practices of youth from lower socioeconomic backgrounds or from urban school districts, at least within educational settings.

Much of the research focuses on individuals or small groups of youth and their uses of digital literacies (Abrams, 2009; Chandler-Olcott & Maher, 2003; Dowdall, 2009; Jacobs, 2006; Lewis & Fabos, 2005). Research that focuses on adolescents from lower SES backgrounds often focuses on questions of access (Mills, 2007) and ways that schools can “close the gaps” (Blummer, 2008; Smythe & Neufeld, 2010; Voithofer & Winterwood, 2010). Research also examines one specific digital literacy practice at a time, such as street youth zining practices – collective youth-produced texts that blend the creators’ art, poetry, essays, and music, either digitally or paper-based (Rogers & Winters, 2010). Research into digital literacy practices of youth outside of the non-dominant demographic is sparser than the documenting of practices from youth from more privileged backgrounds.

Representative of research on youths’ digital literacy practices include literature such as a case study profiling two adolescent girls and their multiliteracy practices, a study widely cited in the field. These young women participated in online discussion groups, created websites, and produced fan fictions and fan art, practices that gave them opportunities to be designers and mentors to other online participants (Chandler-Olcott & Maher, 2003). The participants were drawn from a suburban middle school in upstate New York where more than 95% of the students were of European American descent.
Other research includes the social networking site practices of a white, middle class, 12-year-old girl (Dowdall, 2009), and the out-of-school practices of three “struggling” male gaming aficionados (Abrams, 2009). In this case, the boys selected came from a New Jersey suburban public school, widely recognized by *Newsweek* as one of the “top 500 schools in the nation” (Abrams, 2009, p. 339).

It was also typical for research to focus in on specific types of digital literacy practices, such as instant messaging (Jacobs, 2006; Lewis & Fabos, 2005). The results of these studies suggested that by participating in purposeful uses of instant messaging outside of school, youth were achieving the roles of text producer, consumer, and distributor (Jacobs, 2006). The research also showed the highly sophisticated use of language within adolescents’ messaging and their abilities to manipulate tone, voice, word choice, and subject matter outside of school (Lewis & Fabos, 2005). Again, the research participants were largely European American and from middle- to upper class socioeconomic families.

In looking at these studies as a whole, a few themes become clear from this segment of the population studied. Technology and digital literacies are extremely important to adolescents and widely used in their out-of-school lives. Many of the youth studied were extremely adept and savvy with these new literacies, but there was no place or ways of capitalizing upon these competencies within schools. Much of the research suggests that this is one area that should be reexamined and considered (Blummer, 2008).

In contrast, literature concerning digital literacy practices of youth from low SES and/or urban backgrounds often fit into narratives of “lack of access.” One example is Mills (2007) case study that shows how students who did not have digital literacy...
opportunities in their home environments were further ignored or denigrated by teachers for their lack of knowledge. Coming from a “lack of access” framework, some researchers seek to establish what effects providing more access to technology and digital literacies might have on students. This has included providing a home computer and training to low-income families (Ba, Tally, & Tsikas, 2002), implementing afterschool programs aimed at teaching students digital storytelling and hybrid texts (Ware & Warschauer, 2005), and purposefully including more multimodal literacy tools into the urban secondary classroom (Tierney et al., 2010). While these studies did examine how youth from urban and low-income families were using digital literacies, they tended to be from an intervention position.

Some research highlighting urban youth has included digital literacies without focusing primarily on these literacies’ specific roles in youths’ lives (Hill, 2009; Kinloch, 2010). While these touch on the matter tangentially, they do not zero in on these practices and the significance of those practices in youths’ lives. Still other work elaborates on digital literacies, but in non-traditional settings, such as a program partnering with the Chicago Public Library (Digital Youth Network, n.d.), or a non-traditional high school seen as students’ “last chance” (Mahiri, 2011).

As mentioned early in the literature review, “new literacies” have a history of frontloading the technology aspect of these particular literacies. It may be that how different social and cultural contexts shape and affect practices has been somewhat misplaced in the shuffle. More attention needs to be paid to a variety of different voices, from diverse socio-, cultural, ethnic, class, and linguistic backgrounds. Otherwise, we run
the very real risk of falling into the previous pitfalls of privileging some people’s “ways with words” (and, in the case of digital literacies, other modalities) over others’.

To conclude this literature review, I discuss literature that suggests schools have a tendency to equate technology as being the equivalent of new literacies. Next, literature is reviewed that theorizes some difficulties teachers might have in bringing digital literacies into classrooms. Finally, I turn to literature on teachers’ beliefs that may explain who is most likely to try to incorporate digital literacies into her or his classroom and why these teachers may be fruitful sources of information.

**Technology is Different Than Digital Literacies**

In discussions of the so-called “digital divide,” installing and providing money for technological tools is often seen as a panacea for inequities. However, it has proven far easier to get these tools installed than to help teachers and their students use the tools in integral and transformative ways (Fishman & Pinkard, 2001; O’Brien & Scharber, 2008). Researchers have found that simply incorporating technology is not something that will automatically benefit the school, teachers, and students. Oftentimes, in fact, finding ways to incorporate technologies effectively increases the workload and demands on teachers, at least at first (Bruce, 2002).

Fishman and Pinkard (2001) found that one common problem, especially in urban schools, was that teachers and administrators tended to get caught up in planning how to gain technology without carefully, explicitly considering how the technology will or should be used. Surrounding students with technology becomes an end unto itself, despite the fact that research is, at best, inconclusive about whether simply having access to technology is in and of itself a benefit. Technological tools have also been shown to go
by the wayside when teachers don’t have access to professional development aimed at helping them utilize tools and/or practices (O’Brien & Scharber, 2008).

Additionally, others have noted that “technology” is often taught as its own separate class, presented as discrete and out-of-context “technology skills,” often within the computer lab. In this model, digital literacies are not truly being utilized as students are “learning the technology” instead of “learning with technology.” This use of technology ignores the possibilities of multimodal digital literacies serving and being served by core curriculum (Tierney et al., 2010).

One other way that technology can be mistaken for digital literacies is when teachers become focused primarily on the technological tool itself. Teachers may be enamored by the eye-catching graphics the technology enables, for instance. Foci such as these can lead to more teacher-centered classrooms that miss the spirit of digital literacies where students are isolated rather than connected. In some cases, schools may focus on the thing itself, rather than the practices it enables (Bruce, 2002).

To avoid confusion over technological tools with digital literacy, Mahiri (2011) stressed instructional design over digital tools. Mahiri quoted the principal of the digitally literate school in which he participated, who said: “It’s really about imagining the kinds of things you want students to create and thinking about the design and intersection of the kinds of applications that will allow them to do these things” (p. 136). In Mahiri’s estimation, the key to incorporating digital literacies into the classroom in real and transformative ways is to help teachers see new media as “central to their designs for student learning” (p. 142).
Teachers and Digital Literacies

Research has shown that teachers often do not incorporate “new literacies” very effectively (Hagood, Provost, Skinner, & Engleson, 2008; Yeo, 2007). Even teachers who use digital literacies extensively in their personal lives struggle in finding means to weave them into the classroom (Graham & Benson, 2010). A variety of reasons have been suggested for why this may be so. Teachers, often once successful students in their own schooling histories, tend to be individuals beholden to tradition (Graham & Benson, 2010; King & O’Brien, 2002; O’Brien & Scharber, 2008). While many outwardly espouse the values of computer literacy, a high number of teachers seem reluctant to employ practices that do not serve or are in opposition of traditional curricular objectives (Hagood et al., 2002).

It may be that teachers over-value print or believe that the “pleasures” of multimedia might distract students from the “real work” of the classroom (King & O’Brien, 2002). It may be that teachers perceive youth-favored practices such as social networking sites as trivial and banal (Merchant, 2010). Teachers may feel threatened by releasing some control in the classroom and reordering the hierarchy (King & O’Brien, 2002; Mahiri, 2011). It may also have to do with students’ perceived “superior” knowledge when it comes to digital literacies vs. teachers’ lack of experience, a perceived lack of support, guidance, schooling, and professional development, or fear of technological failure (Mahiri, 2011; Tierney et al., 2010).

Interestingly, while common sense might dictate that those closer to the generation of “digital natives” (Prensky, 2001) would be the teachers most likely to incorporate digital literacies into the classroom, research has not shown this to be so. One
study showed that while preservice teachers liked using multimodal texts to supplement their lesson plans, many of the teachers felt uncomfortable using them as a focal point for the lesson (Graham & Benson, 2010). Another study suggested that this might be due to the fact that young, beginning teachers have the most urgent need to be perceived by students as legitimately performing the role of teacher. While many of the young teachers in the study used digital literacies extensively in their own uses outside of the classroom, inside of the classroom they eliminated these, saying they “need to be in charge” and that the “parents won’t like it” (Lewis & Finders, 2002). In a culture of high stakes assessments, beginning teachers may be even less likely in a pressure-cooker situation to incorporate something that is not tested (Ravitch, 2011). If our newest teachers are not the ones most likely or most willing to incorporate digital literacies in the classroom, who is? A review of the literature gives some possible indications.

**Teachers’ Beliefs and Practices**

In his review of the literature concerning teachers’ beliefs and practices, Fang (1996) claimed that much of the literature examining the link between teacher beliefs and practices could be found in literacy research. Through an analysis of the existing scholarship, Fang concluded that there are convincing studies that show teachers do operate with at least an implicit model of what reading and writing look like, and that these beliefs affect how they approach instruction in their classrooms. While this link is established in several studies, others have shown some inconsistencies. In these studies, teachers may have beliefs about literacy that they espouse and may believe they are enacting in the classroom; however, observations may reveal that their beliefs and practices are not entirely matching up. Fang’s review of the literature attributes these
“consistencies and inconsistencies” (p. 52) to the messiness and complexities of life in the classroom, noting: “[C]ontextual factors can have powerful influences on teachers’ beliefs and, in effect, affect their classroom practice” (p. 53). For instance, Duffy and Anderson (1984) found that although teachers could articulately proclaim their philosophies of reading, their actual practices were much more affected by the nature of classroom and instructional day-to-day routines.

In examining how and why teachers change their beliefs and practices, Richardson (1990) found that teachers need ways to talk and think about their choices within a theoretical framework. For teachers to change beliefs and practices, they had to believe in the changes being made, and in order for this to be realized, they needed ways to think and talk about how their practices fit into purposeful, theoretical choices. Without these frameworks in place, Richardson found that teachers tended to attribute their practices to external factors outside of their control – attributing practices to reasons such as the district requiring basal readers, for example. Richardson claimed that engaging teachers in meaningful conversations might help to empower them. She wrote that, “opportunities should be created to allow teachers to interact and have conversations around standards, theory, and classroom activities” (p. 16). Richardson showed that investigating why teachers believed they changed or didn’t can provide important insights. Where work is still needed is in investigating how teachers’ beliefs and practices interact, affect, and are affected by institutional structures, resources, and contexts occurring outside of the classroom.

Lastly, considering the matter of digital literacies directly, Mallette, Henk, Waggoner, and DeLaney (2005) found that the majority of teachers in their study saw the
value of Basic Literacies trumping the value of New Literacies. The researchers found that there was little support for developing students’ out-of-school literacies within schools. McDougall’s (2010) study adds to this information with its examination of how primary teachers’ beliefs about literacy, specifically digital literacies, played into their attitudes about reform. McDougall suggested three ways of thinking about whether or not teachers may incorporate digital literacies into their instruction. 1) *Teachers with a traditionalist approach:* These teachers were unlikely to incorporate digital literacies into the classroom as they saw their main responsibility as teaching basic literacy and numeracy. Other forms of literacy, such as digital literacies, were seen as distractions to the goals of the curriculum; 2) *Teachers in survival mode:* These teachers, although more likely to attempt inclusion of digital literacies, admitted to a lack of confidence in embracing new forms of literacy. They may see the importance of literacies, but they are not confident in their own capacity to teach it. McDougall found that this was often compounded with being overwhelmed by other responsibilities of the job; 3) *Teachers with a futures-oriented approach:* Teachers with this perspective were the ones who tended to embrace digital media and were not hesitant in redefining and reimagining their roles as they incorporated digital literacies. These teachers were more likely to try out different types of literacies in their classrooms and did not perceive these new literacies as detracting from students’ learning of traditional literacies (pp. 683-685).

In considering the literature, I aimed to identify teachers who maintained a *futures-oriented* approach, recognizing at the same time that there are often as many consistencies as inconsistencies between teachers’ beliefs and practices (Fang, 1996). These teachers were the focus of the study due to their inclination toward change. They
were of interest because their proclivity toward incorporating digital literacies was most likely to bring them in direct contact (and conflict) with structural barriers, an almost nonexistent area of exploration in the potential for digital literacies to transform school-based literacy practices. Investigating how these digitally minded teachers perceived and navigated these barriers may have important implications for the future of digital literacies in schools. In seeking to understand teachers’ practices in connection to their theories of literacy (Richardson, 1990), I sought to reflect upon how teachers’ perceptions of new literacies do and do not get played out within the classroom. In the next chapter, I elaborate on this more fully.
CHAPTER THREE

METHODOLOGY

Research Questions

As digital literacies continue to gain significance within our personal and professional worlds (Kress, 2003), many schools may find it harder to ignore their influences and may feel obligations to attend to these literacies. Mindy, the vice-principal at Washington High, told me that she feels her school is behind the times when it comes to technology, and she expressed a keen desire to see Washington “catch up.” Moreover, there is at least lip service paid by policymakers and educational organizations urging schools and teachers to address digital technologies. For instance, listed under the Common Core standards for College and Career Readiness with regards to writing, there is an “anchor standard” that focuses on this. A desired outcome of this standard is that students should be able to, “Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others” (Common Core State Standards Initiative, n.d., CCSS.ELA-Literacy.CCRA.W.6). Other professional organizations, such as the National Council of Teachers of English (n.d), acknowledge and stress the importance of digital literacies within curriculum and instruction. As previously noted, the touting of the incorporation of digital literacies runs contrary to other messages set forth by policymakers and embedded in school structures, such as high-stakes testing (Leu et al., 2011; O’Brien & Scharber, 2008; Tierney et al., 2010). Nevertheless, the rise of technology and digital literacies is present in the public eye, and many in schools have felt pressure to address them.
Despite this, as noted before, there are a multitude of ways in which the worlds of schools and the worlds of digital literacies misalign, collide, and/or simply don’t lend themselves very well to the other. So, if this is true, what is a school (and its teachers, its administrators, its students) to do? How does a school, knowing, at least on some level, that these types of digital literacies have growing importance in the fabric of society, attempt to reconcile the structures of school with the freewheeling nature of digital literacies?

In thinking about these questions, I worked from the understanding that schools, like any other system, are messy and complex with many working, intermingling, inextricable parts (Davis & Sumara, 2005). I also worked with the assumption that, when looking at a case study and considering one’s timeframe and capabilities, it is better to pare down and be clear about what parts of a problem can reasonably be studied, and to do so with as much depth and reflection as possible (Stake, 2005). Bearing this in mind, one central factor to how digital literacies get employed and taken up in the classroom is most certainly the teachers. To this end, I asked:

• How do teachers in a large, public comprehensive secondary school navigate the challenges and benefits of digital literacies within the structure of Washington High, the curriculum, and their pedagogy?

In particular, I sought insights into:

• What affordances and opportunities do teachers perceive with regards to digital literacies? What blocks and tensions do teachers perceive? In other words, what are these teachers’ beliefs about digital literacies?
• How do they and don’t they take advantage of these affordances and opportunities? How do they contend with perceived blocks and tensions? In other words, when it comes to matters of digital literacies, what are these teachers’ practices?

Finally, projecting into the future of what teachers may wish to accomplish, I asked:

• What do teachers feel like they want and need in order to fully utilize the principles of digital literacies into their school, their curriculum, and their teaching in ways that transform their curriculum and pedagogy?

These questions get to the heart of how teachers immersed in the world of school may struggle when faced with the task of integrating new literacies into curriculum and instruction (Yeo, 2007). In considering the investigation of these questions, I first elaborate on the theories, the lens through which my questions and the subsequent data collected were filtered. Next in my methodology, I turn to the approaches used, the site and participants selected, data sources used, and finally the data analysis methods.

**Informing Theories**

As a foundation for any study, the theories through which data is collected and analyzed play a central and critical role (Denzin & Lincoln, 2005). For the purpose of this study, data was considered though the lens of the New Literacy Studies, particularly Lankshear and Knobel’s (2006) discussion of ‘new’ literacies, as well as the New London Group’s (1996) theories, including their ideas about both the “whats” and “hows” of literacy pedagogy.
The New Literacy Studies

Traditionally speaking, literacy has long been considered as located within the individual’s mind. Deemed a cognitive ability and located within capabilities of reading and writing, literacy has historically been seen as something residing in the individual as opposed to society (Gee, 2012). However, as Gee (2000a) and others have noted (Trier, 2006), following the “social turn” of research in the 1970s, ideas of what did and did not “count” as literacy, as well as how literacy processes occur, began to evolve.

Chief amongst critics of the old views was Street (1995), who maintained that two different models of literacy were being posited. Distinctions were to be made between what he termed the “autonomous” and “ideological” models of literacy. Schools, he argued, tended to embrace the autonomous model of literacy, viewing reading and writing as something neutral, separable, and teachable out of meaningful contexts. This view of literacy “isolates literacy as an independent variable and then claims to be able to study its consequences” (Street, 1984, p. 2). This view falls in line with the skills-based, phonics-driven, linear teaching of literacy within which many schools operate.

Street (1984) contrasts this with the “ideological” model of literacy, one that puts forth literacy as something that is socially and culturally situated. In this view, literacy is always situated in context with social and cultural practices – it is endowed with the values and intentions of those who use it, for specific and particular purposes. Using this model, literacy “only makes sense when studied in the context of social and cultural practices of which they are but a part” (Gee, 2000b, p. 180). To this nod toward social and cultural practices, Hagood et al. (2002) also add historical, political and economic contexts.
Those who viewed literacy as being located squarely within social, cultural, and political contexts, what became known as the New Literacy Studies, have argued that literacy in the singular sense is less useful than in considering it in its plural form—“literacies” (Gee, 2012). Research in this tradition has shown that what matters most is not people’s decontextualized and isolated capabilities to simply “read” and “write.” Instead, it is the way they are able to accomplish the types of reading and writing that helps them to fill a desired role—such as “student,” “letter writer,” or “religious group member”—that marks success and “what counts” as literacy (Gee, 2012; Scribner & Cole, 1981).

Scholars interested in education and undertaking research through the lens of New Literacy Studies theories have often sought to explore the ways in which youths’ lives encourage and support varying and complex literacy practices, including those not officially sanctioned by schools (Alvermann, 2001; Knobel, 2001; Moje, 2000). When considering questions and evidence through a New Literacy Studies viewpoint, the social and cultural practices of digital literacies (and how those are enacted in various settings and contexts) become salient.

“New” literacies.

As discussed in the previous chapter, many theorists are quick to point out there is not anything necessarily “new” about the literacies in the New Literacy Studies. What is “new” is not the literacies themselves (which have often been present in the communities they’ve served for generations), but instead, researchers’ and educators’ attention to them (Moje, 2009). Lankshear and Knobel (2006) contrast the New Literacy Studies with what they term as “new” literacies (and what I am terming “digital literacies”), calling upon
the ontological sense of the word. In these theorists’ estimation, digital literacies are, in some important ways, qualitatively different than the more print-based literacies that came before them. These new literacies are “multiple, multimodal, and multifaceted” (p. 14) and constantly morph with ever-increasing technologies. Because of this, methodologically speaking, researchers have suggested that they need multiple points of view in analyzing and attempting to understand them (Coiro et al., 2008).

To be sure, digital literacies are made up of different sorts of, what Lankshear and Knobel (2006) term “technical stuff” (p. 25). Digital literacies are mediated by digital devices – made possible by pixels and screens rather than bound books, pencil, and paper – however, this is not only where their “newness” resides. Lankshear and Knobel also note the difference in “new” literacies’ and traditional literacies’ “ethos stuff.” In this sense, digital literacies tend to be more collaborative, participatory, and collective. They are less individuated, published (at least in the traditional sense), and “author-centric” (p. 25). Digital literacies have opportunities for what is often termed “remix,” the artful repositioning of existing image, sound, and/or print to create a new product. Multimodalities are embraced (Brown, 2000; Mills, 2010; O’Brien & Scharber, 2008). In “new” literacies theorists’ best hopes, creative production and authorship along with more traditional consumption becomes an exciting possibility (Bruce, 2010; Gee, 2012).

In line with the larger umbrella of New Literacies Studies, digital literacies divorced from the sociocultural contexts that give them meaning lose what it is that makes them transformative and authentic (Kellinger, 2012). Lankshear and Knobel (2006) help us consider the difference between “new” literacies and more traditional school-based literacies through the comparison of what they term Web 1.0 vs. Web 2.0
practices (seen in Figure 3.1). As I considered the digital technologies employed and embraced by the teachers at Washington High, it is through this lens that I considered their practices. Working with this lens means I thought about more than if there were technological tools being employed in the classroom and digitally mediated texts being produced. I also considered how these did and did not align with theoretical ideas about new literacies. I consciously reflected on if digital literacies were used in ways that acknowledged and built upon sociocultural contexts. For instance, was technology being taught as discrete skills for its own sake, as some researchers argue is commonplace, or was it being used in a way that serves the needs and practices of the students and the curriculum? (Fishman & Pinkard, 2001). As an example: teaching the program Microsoft Excel in service of completing decontextualized math equations was viewed differently than teaching the operating systems of digital cameras in service of completing interviews about a community issue (Kinloch, 2010).

Secondly, I examined digitally mediated texts and practices with consideration for how they did and did not align with conceptions of Lankshear and Knobel’s (2006) “new” literacies. For instance, answering questions in a classic WebQuest format fits more under a Web 1.0 conception – students are not creating anything inherently new, they’re not necessarily employing multimodalities, they’re working individually, the teacher is still the central location of authority. In contrast, students who work collaboratively to create a video interpretation of a text may come closer to realizing a Web 2.0-esque vision of a text.
Figure 3.1: Traditional literacies vs. digital literacies: Based on Lankshear & Knobel (2006)

<table>
<thead>
<tr>
<th>Traditional Academic-Based Literacies</th>
<th>“Web 2.0” Varieties of Digital Literacies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value is a function of scarcity</td>
<td>Value is a function of dispersion</td>
</tr>
<tr>
<td>An “industrial” view of production:</td>
<td>An “post-industrial” view of production:</td>
</tr>
<tr>
<td>products as material artifacts</td>
<td>products as enabling services</td>
</tr>
<tr>
<td>An “industrial” view of production:</td>
<td>A “post-industrial” view of production:</td>
</tr>
<tr>
<td>tools for producing</td>
<td>tools for mediating and relating</td>
</tr>
<tr>
<td>Focus on individual intelligence</td>
<td>Focus on collective intelligence</td>
</tr>
<tr>
<td>Expertise and authority “located” in</td>
<td>Expertise and authority are distributed</td>
</tr>
<tr>
<td>individuals and institutions</td>
<td>and collective; hybrid experts</td>
</tr>
</tbody>
</table>

The New London Group

Another lens through which I considered my data concerns the theories set forth by the New London Group (1996). Consisting of ten researchers and theorists from various parts of the United States, Great Britain, and Australia, this group had as its aim the goal of thinking through how a pedagogy and curriculum of what they termed “multiliteracies” might be feasible in schools. At a summit meeting in New London, New Hampshire, the group theorized that by rethinking the way literacy is taken up in schools, youth might have better opportunities for their work, public, and private lives.

The New London Group (NLG) argued that in our “new times” the very nature of language learning has changed. In not keeping up with these changes, schools are not truly preparing students for life outside of the institution. The group put forth two major problems with assuming literacy to be only the traditional school-based form: 1) Technologies are changing rapidly, and with them, the expectations and implications of what literacy includes. Because of this, teaching one set of skills or standards is limiting
and short-sighted, no matter how they are approached; 2) Because society is becoming more and more globalized, people must be able to interact with people different than themselves, culturally and linguistically (New London Group, 1996, p. 64).

While much of the work up until this time focused on pointing out differences between school literacies and others’ “unsanctioned” literacies (for instance, Moje, 2000), the NLG strived to do more than point out the discrepancies between school literacies and the wider world. They theorized means of actualizing a more inclusive “multiliteracies” model within schools. To do this, they outlined what components those seeking to adopt multiliteracies into school curriculum and pedagogy might make use of. According to the group, to truly change literacy pedagogy, reformers would have to ask both the “what” and the “how” questions. What should students be learning in literacy pedagogy? And how do they learn this?

In addressing the “what” question, the NLG proposed a system of design. In this system of design, which theorists saw as relating to any semiotic activity, especially those concerning the consumption and production of text, they put forth a framework consisting of three elements: Available Designs, Designing, and the Redesigned. Curriculum and instruction are shaped and changed in these ways: Available Design consists of the models and resources already available. In taking up these designs and modifying and shaping them in response to changing needs, educators and students are Designing. The resulting product becomes the Redesigned, which can be taken up again or by someone else as an Available Design. Key to the NLG’s discussion of design elements is the assertion that these pieces must consider multimodalities. While Linguistic Meaning is an important design element, the NLG theorists advise also taking
up elements of Visual Meaning, Audio Meaning, Spatial Meaning, and Gestural Meaning. The ways in which these elements interact and inform one another come together as a whole, which the theorists termed Multimodal Meaning.

In illustration of this concept, in her 2009 dissertation, Dugan took up issues of design within a media classroom. The high school in which she conducted her research had a fairly traditional design in that it encouraged bodies in the classroom during designated periods with an expected setup of teacher-led lessons and curriculum. Dugan profiled how the media teacher, X, in essence Redesigned his classroom to be much more free-flowing in its sense of where students needed to be (they were often somewhere other than physically in the classroom) and relocated authority from being teacher-led to more shared decision-making. As students designed media projects, they were not only paying heed to Linguistic Meaning, but other modalities as well, particularly Visual Meaning and Audio Meaning. As X Redesigned his classroom to that which best served the goals of producing high-quality, meaningful broadcasts, this Redesign could now serve as Available Design to other interested parties.

In considering “how” to teach these designs of literacy pedagogy, the New London Group suggested a curricular and instructional design of Situated Practice, Overt Instruction, Critical Framing, and Transformed Practice. In this model, students are immersed in the community and practice of what it is they are to learn. They are given explicit, focused, “just-in-time” instruction demystifying the processes and tricks of the trade. They are taught to think critically and question the “taken for granteds” and underpinnings of the lesson, and they are taught to reshape it with the new knowledge, critical thinking, and practice they have gained (New London Group, 1996).
Again, it’s useful to consider the example of X’s media classroom. The purpose of X’s class was to produce a broadcast for the school called ATV, an award-winning student news program. When students entered the class, they were there to produce an actual, tangible student broadcast (Situated Practice). As they went about producing the broadcast, X and other students provided instruction about how to use equipment, how to frame shots, etc. (Overt Instruction). The broadcast medium and the degree of editorial freedom granted allowed students some actual power. For instance, two students used the broadcast to address racial tension occurring in the school (Critical Framing). Finally, what the students learned in the class and through the activity of producing the broadcast allowed for more sophisticated and independent decision-making as the school year wore on (Transformed Practice) (Dugan, 2009). The class’s design did embody the NLG’s “hows” of literacy pedagogy in some important ways.

In putting forth and theorizing a potential way to purposefully bring multiliteracies into a school setting, the NLG provided me with a means to critically consider and evaluate what I heard and saw in Washington High.

**Design**

In considering both my research questions concerning teachers’ navigations of digital literacies in the school world and the theoretical paradigms through which I filtered my interactions with Washington High, a case study design was selected (Denzin & Lincoln, 2005). Case studies are particularly useful in answering “how” and “why” questions, and Washington High School provided a bounded system from which to draw extended and in depth inquiries into questions of teacher and digital literacy interactions (Merriam, 1998). It was my intention for the study to be used as an instrumental case
study, providing insights not only for the specific setting of Washington High School, but also explorations into tensions faced in incorporating digital literacies into the classroom (Stake, 2005). As previously mentioned, Washington is a large, urban, public high school, an environment not as frequently studied as suburban schools. Using case study is appropriate in that it may help supplement a gap in research by allowing me to work with a population often overlooked in the literature (Merriam, 1998).

My investigation of the problem was both ethnographic and participatory in nature. In investigating teachers’ beliefs and practices, I took an emic and idiographic perspective (Denzin & Lincoln, 2005), focusing on the teachers’ and administrators’ viewpoints. My interpretations were filtered through a sociocultural viewpoint. I used data collecting techniques inline with ethnographic approaches, primarily interviewing and observations (Merriam, 1998). In presenting this case study, I aimed for the “thick description” (Geertz, 1973) inherent to ethnographic case studies, paying particular attention to setting, context, and participants’ actions and linguistic and nonverbal communications.

Although not fully adopting a Participatory Action Research (PAR) methodology, this study nevertheless embraced some of the tenets. In classic PAR methodology, the researcher designs and implements the project in complete tandem with research participants. In theory, everything is done collaboratively and consensually. Together, the researcher and participants decide the questions to be asked and the data to be gathered. Data is collected and analyzed as a group, with the emphasis placed on all reaching a common and agreed upon understanding of what the data means. The purpose of PAR is
activist in nature, with the end goal being to create actions based on the research that positively impacts the participants (Heron & Reason, 2001).

My project embraced some of the participatory goals of Participatory Action Research, although it did not aim to involve the participants in every aspect of the research study. Specifically, I involved participants in decisions about useful research questions, data collection instruments, and data collection. As the principal investigator, however, I analyzed the data and determined the findings. Critics of PAR point out that true equality in the research process is difficult to achieve. Power dynamics are impossible to escape, particularly since the researcher is most often “in control” of the project (Park, 2001). What’s more, achieving true consensus on all decisions is a time-consuming and lengthy process, beyond the scope of my time frame for this study.

Instead, my aim was for there to be some sense of shared ownership with this project and that my research interests dovetail with what the educators at Washington High wanted to know more about (Kemmis & McTaggart, 2005). For this research, I opened communication channels amongst myself, the vice-principal, and the teachers of Washington to better learn what they’d like to know and how best to investigate it. This included frequent contact with the vice-principal, Mindy, especially in the early stages of the project, where we brainstormed ways to negotiate both her interests (and that of the school’s, at least in her estimation) with mine. Mindy helped refine questions for the survey and voiced some additional issues and questions. Teachers were asked what additional supports or information they wanted with regard to digital literacies.

Before this research project began, I conducted a pilot study looking at the in-school and out-of-school digital literacy practices of some of the youth at Washington.
This served as a springboard for conversations between the vice-principal and myself, as she was curious to learn more about her students’ perceptions and practices. This pilot served as a starting point for recurring conversations with both the vice-principal and teachers that began well before the in-class collection of data. Along with frequent sit-downs with the vice-principal, I also attended educational technology meetings with her. I held brown bag lunches for teachers where I sought their opinions about what sorts of information they wanted concerning technology and Washington. Additionally, at the vice-principal’s request, I designed several newsletters for the teachers with ideas/topics related to digital literacies in the classroom.

Admittedly, the fact that I conducted most of the research while living in a different state ultimately made this project less collaborative than I had wished it to be. However, it was my intention to allow room for partnerships in this research study as opposed to me alone determining the focus. By using some PAR approaches, I sought to not just build larger theory (what Kemmis and McTaggart (2005) term “an armchair view of theorizing” (p. 568)), but also jointly develop substantive theory that was of immediate and practical use to the investors of the school (Stake, 2005).

The Site

Washington High School is one of two high schools in a large, urban district. Comprised of about 1500 students grades nine through twelve, Washington High has a fairly diverse student body in terms of race, ethnicity, and linguistic backgrounds. The school’s racial and ethnic makeup consists of a population that identifies as 9.5% African American, 27% Asian, 6% Latino/a, .7% Native American, 55.2% White, .1% Native Hawaiian/Pacific Islander, and 1.4% Multi-Race. The city where Washington High is
located has the largest per-capita Asian population in the state (Encarnacao, 2011), and this fact is reflected in the makeup of the student body. Additionally, within Washington, 29.5% of students speak a first language that is not English, and 11.6% have been labeled as Limited English Proficient. Of the students at Washington, 45% are on a free- or reduced-lunch plan (Massachusetts Department of Elementary and Secondary Education, 2011-12).

In contrast to the relative diversity of Washington High students, the teaching population is much more homogenous. According to the Massachusetts Department of Elementary and Secondary Education (2011-12), of the approximately 147 teachers working at Washington High, about 140 of them identify as being white. The remaining teachers identified as African American (1), Asian (4), Hispanic (1), or Multi-Race (1.7). This lack of racial and ethnic diversity in the teaching force in the face of growing student body diversity is in-step with national norms and trends (Cochran-Smith & Fries, 2005; Sleeter, 2001).

Since some have theorized that the use of digital literacies may, in some cases, correspond with the degree to which a teacher is a “digital native” (Prensky, 2001), it is useful to know the range of the ages of the teaching population. The age range of the teachers at Washington is approximated in the figure below (Figure 3.2).
Table 3.2: Age-range of staff: As according to Massachusetts Department of Elementary and Secondary Education, 2011-12

<table>
<thead>
<tr>
<th>Age Range of Staff</th>
<th>Number of Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 26</td>
<td>3.5</td>
</tr>
<tr>
<td>26 – 32</td>
<td>23.8</td>
</tr>
<tr>
<td>33 – 40</td>
<td>34.6</td>
</tr>
<tr>
<td>41 – 48</td>
<td>18.2</td>
</tr>
<tr>
<td>49 – 56</td>
<td>26.3</td>
</tr>
<tr>
<td>57 – 64</td>
<td>34.4</td>
</tr>
<tr>
<td>Over 64</td>
<td>5.6</td>
</tr>
<tr>
<td>Total Number of Staff</td>
<td>146.4</td>
</tr>
</tbody>
</table>

While basing assumptions about a person’s digital literacy practices based solely on their age is a gross oversimplification (Ng, 2012), it may be useful to consider this as a small (if incomplete) piece of the puzzle when examining teachers’ uses of digital literacies within their curriculum and teaching. Also of interest may be other potentially influential factors – teachers’ gender, racial background, proficiency and interest in digital literacies outside of school – these could perhaps impact teachers’ willingness and enthusiasm for using these literacies in the classroom.

Within the city where Washington resides, the two high schools in the district have a long and storied rivalry. While Washington had long been considered by many as the “less academic” of the two high schools, the school’s reputation was bolstered when it moved from its previously old, crumbling building to an impressive new structure just down the street. This new school building boasts of state-of-the-art technological infrastructures, including interactive whiteboards (what the teachers refer to as “Interact”
boards or “Interwrite” boards, seemingly interchangeably) in every classroom, more access to student computers, and specialized technologies that are meant for Washington’s vocational tracks. For instance, the students at Washington can take welding classes that are outfitted with plasma machines, a technology about which one student enthusiastically reported, “They will cut through anything. It’s amazing!” Despite many specialized forms of technology, Mindy expressed a wish for Washington to “catch up with the times.” She noted discrepancies between a set-up that encourages technology use and infrastructures that hold teachers and students back. For instance, the school is not currently set up for widespread wireless capabilities.

Washington High School and its staff have their own particularities within their social, cultural, and situational contexts, but they are also facing and dealing with the difficulties present in many schools the country over. By investigating the participants and the site in a naturalistic and ethnographic manner and being scrupulous in providing rich and descriptive details, the reader should be in a position to both learn about Washington and make good comparisons (Stake, 2005).

**Data Sources**

In investigating my research questions within the design of case study, I collected data through surveys, interviews, and observations, all methods consistent with my design (Denzin & Lincoln, 2005; Merriam, 1998). Through these varying methods of data collection, I sought patterns of data and the triangulation of key observations. Triangulation should serve not necessarily just as means of making sure all of the interpretations are in-sync, but also to “clarify meaning by identifying different ways the case is being seen” (Stake, 2005, p. 454). In utilizing these sources of data, I strived to
add “rigor, breadth, complexity, richness, and depth” (Denzin & Lincoln, 2005, p. 5) to my study.

**Survey**

The initial way I gained an understanding of Washington High teachers’ relationship to digital literacies was through a survey inquiring into their views, beliefs, and practices with these literacies in the classroom. I was interested primarily in the descriptive information I could take from the survey, using it as a way of gaining some systematic, overarching data about the larger body of teachers. In this sense, I saw my survey as serving an ethnographic purpose (Grant & Fine, 1992).

Surveys were distributed to all of the teachers at Washington High, about 130 participants in all (See Appendix A). Forty of these teachers chose to complete the survey. The survey itself was developed with the research questions in mind, specifically aiming to learn how teachers viewed digital literacies in the classroom (their beliefs about the importance and role of these literacies), the perceived affordances and opportunities of these literacies, as well as the blocks, tensions, and challenges they perceived. Additionally, because I was using this survey as a way to identify teachers to interview and observe, I sought to identify teachers actively engaging with digital literacies in their classrooms. Accordingly, I used McDougall’s (2010) framework of traditionally oriented, teacher-in-survivor mode, and futures-oriented teachers while designing the survey. This led to a branched survey based on how teachers viewed both their current classroom and their ideal classroom.

While I was unable to find any surveys directly applicable to my own study, I adapted some questions from Buchanan, Sainter, and Saunders’ (2013) study of higher
education faculty members’ willingness to use learning technologies. I also based the survey questions upon what the literature suggests may be possibilities for digital literacies in schools and what might serve as impediments for teachers’ uses. As previously discussed, the survey was submitted to the vice-principal at Washington, both for approval and for input.

**Interviews**

**Teachers.**

After the survey was completed and the data analyzed, ten teacher participants were selected for more in-depth interviews and observation. Six agreed to be part of the survey. The interviews were semi-structured in form. While the issues and questions to be discussed were determined ahead of time (See Appendix B), I aimed to respond to the situation at hand and to be flexible in my inquiry procedures (Merriam, 1998). I sought to employ an empathetic interviewing style (Fontana & Frey, 2005), where I cued in to the salient issues expressed by the teacher.

With five of the six participants, I conducted at least three interviews. (The sixth participant took a leave of absence from the school, resulting in only one interview.) The first interview sought more detail about what the teacher believed concerning digital literacies, how she or he believed that she or he incorporates these into the classroom, and what opportunities and challenges she or he perceived in doing so. As noted in the review of literature, there are insights to be gained in investigating how teacher beliefs play into perceptions of taking up change and how this affects practice (Richardson, 1990). Looking at this in connection with the structures of teacher classrooms – both the
opportunities and the tensions that exist there—has important implications in regards to
dynamics.

The second interview and the first part of the third were linked to observations of
lessons that the teacher selected as incorporating some sort of digital literacy practice. In
these interviews, I gained information about what the participant was planning to do and
why, as well as how she or he perceived the effectiveness of that lesson as it related to
digital literacies.

Finally, the exit portion of the third interview consisted of inquiring into what
other supports teachers felt they needed to effectively use digital literacies within their
lessons and instruction. All interviews were audiotaped and transcribed for data analysis
purposes (Merriam, 1998). I took detailed notes and filled out contact summary forms for
each participant after each visit. This allowed me to record initial impressions and distill
the visits down to salient happenings, as well as keep track of what questions I still had
left to pursue (Miles & Huberman, 1994). I also wrote research memos after each
interview to aid in recursive and ongoing data analysis. The memos were used both for
my own analysis of data and as discussion points between my committee chair and
myself.

**Vice-principal.**

Throughout the study, particularly in the early stages, I emailed and informally
met with Mindy, as both of our schedules allowed. Talking with Mindy was important
both as context for the culture and climate of the school and in maintaining the
collaborative-spirit of my project. It also helped to provide me a multi-perspectival
account of digital literacies in relationship to school structure. I shared the results of the
survey with Mindy, which resulted in more awareness of what her staff thought about
digital literacies, along with some questions about what kinds of support the staff wished.

Observations

Teachers.

To think about the ways teachers were using digital literacies within the
classroom, I observed each teacher (with the exception of the sixth participant who had to
drop out) for two class periods. Both of these observations were followed by interviews
so as to better compare both teacher perceptions and teacher actions. In these
observations, I directed my attention to the physical setting of the classroom, the
participants (both students and teachers), the activities, interactions, and conversations
taking place within the lesson, and my own behaviors and presence (Merriam, 1998). My
role was primarily observer as participant in that while my presence most likely affected
the classroom, I did not seek to take an active role in the activities (Merriam, 1998). Field
notes were taken on-site, along with diagrams to orient me to the layout and practices of
the room.

Vice-principal.

The vice-principal is a member of a district-wide educational-technology
committee. She invited me to attend one of these meetings, which was an excellent
opportunity to build more context about the district in general and the school in
particular.

Participant Selection

Participants in my study were drawn from teachers at Washington High School.
The survey aimed to collect data from as many of the teachers at Washington High as
were willing. Of the 130 teachers at Washington High invited to participate, 56 chose to take the survey, with 40 of these participants completing it. These 40 teachers are reported on in the next chapter.

Teachers for the next part of the study involving observations and interviews were selected based on both their beliefs about the importance of digital literacies and their willingness to attempt to integrate these into curriculum and instruction. These were teachers who expressed interest in integrating digital literacies into the classroom. In analyzing the survey data, I used McDougall’s (2010) distinctions of traditional teachers, teachers in survivor mode, and futures-oriented teachers to help think about who might be most likely to take up digital literacies practices in their classes.

In grouping the teachers into these typologies, I considered first the survey question that posed three different scenarios: Scenario A depicted a traditionally oriented classroom with limited uses of technology; Scenario B depicted digital technology being used in extensive, if perhaps less than innovative, ways; and Scenario C showed curriculum and instruction in place that was most fitting with Web 2.0 sorts of collaborative technologies. Because the three teachers who saw themselves as Scenario C teachers declined participation, all of the participants were pulled from the Scenario B group. I chose not to use participants who saw themselves as Scenario A-type teachers because I believed I would see less digital technology being employed, including those practices which might be classified as digital literacies. Because of the beliefs of these teachers surrounding technology and because of the purposes of this study, Scenario A teachers would not have been the most illustrative population with which to work.
After considering the way teachers saw themselves with regards to digital literacies in the classroom, I also analyzed what sorts of digital literacies teachers would ideally like to see in place in their classrooms. For instance, most of the teachers in my sample were Scenario B teachers who would like their classrooms to more closely resemble Scenario C. Along with coding the surveys in accordance with the three different typologies of traditionally oriented, survivors, and futures-oriented, other factors were considered. I hoped to determine teachers who were actively using technology in the classroom and/or were interested in incorporating more. Because of this, I paid particular attention to survey questions gauging teachers’ confidence levels with regards to digital literacies in the classroom, the importance they placed on technology in schools, and the desire and drive to do more in the classroom. Because surveys often are not conducive to capturing important nuances and because this survey was so tightly yoked to individuals’ perceptions of how he or she saw himself or herself with regards to technology in the classroom, interviews and observations were especially important in further examining and analyzing teachers’ digital literacy beliefs and practices. This is further discussed in Chapter 5.

Research suggests that in order for teachers to change their practices and use technology in the classroom, they need the knowledge to do so, a sense of self-efficacy about doing so, a belief that it is important, and a school culture that supports them in doing so (Ertmer & Ottenbreit-Leftwich, 2010). Using the survey data, teachers were selected based upon an adherence or an attempt to adhere to these principles.
Participants

The Teachers

Cheryl.

Cheryl is a white, second-career language arts teacher in her sixth year of teaching at Washington High. Prior to her tenure as an English teacher, she was a journalist for a small paper; she chose to go back to school and earn her teaching degree after the birth of her children. Cheryl teaches journalism, two standard tenth grade “inclusion” classrooms (one of which she co-taught with a special educator), and two eleventh grade honors classes.

Eduardo.

Also a second-career teacher, Eduardo, a Latino male, was in his fourth year of teaching Spanish at the time of this interview. Eduardo was simultaneously obtaining his masters degree and teaching ninth, tenth, eleventh, and twelfth grade Spanish at Washington High School. Shortly after his initial interview, Eduardo took a leave of absence from Washington for personal reasons. For that reason, I was never able to observe Eduardo teaching; however, his interview provided some important and relevant insights about the struggles even well informed teachers may face, and for that reason, I chose to include his voice in the study.

Penny.

Penny is a white, female mathematics teacher in her fifth year teaching at Washington at the time of this study. She teaches a mixture of ninth, tenth, and eleventh grade students in both standard and honors level geometry. According to her initial survey responses, Penny is a teacher who is very comfortable with her ability to use
technology in the classroom, uses it daily, and sees it as being very important to use with her students. Despite this, she reported worrying that she was not doing enough with digital literacies within the classroom.

**Kate.**

Kate, a white, female teacher at Washington, was serving her first year at the high school when I interviewed her, instructing both introductory and advanced art classes. Prior to this, Kate had been in-district, teaching for five years in both a middle school and elementary school setting. Kate was excited to be at the high school, but also upfront with her belief that she did not quite understand all the ins and outs of the building as of yet.

**Ian.**

Ian, a white, male biology teacher, was in his sixth year teaching at Washington High School at the time of this study. Ian was a proud member of the science department, the department that was widely considered by the vice-principal and Ian himself as the most technologically advanced at Washington. Within this designated “technological” department, Ian stood out as a technology leader within the school.

**Michelle.**

Also a second career teacher, Michelle, a white, female teacher, was in her tenth year teaching graphic arts after many years in a graphics arts-related field. Michelle remains active with the work world of graphic arts, often bringing speakers into her class who are employed in some facility of this industry. Michelle’s class, an elective, is focused primarily on teaching the programs Photoshop, Illustrator, InDesign, Dreamweaver, and Flash.
The Vice-principal.

Mindy.

At the time of this study, Mindy, the white, female vice-principal of Washington, was entering her sixth year as an administrator at the high school. Prior to this, Mindy had been a middle school Spanish teacher for seven years. Since the first time I met with Mindy, she expressed an interest in integrating more technology into Washington, professing that she didn’t believe they were doing enough within the context of the school. In her belief, Washington was “behind” in matters of technology. Even with this articulated desire, however, Mindy made clear that with changing standards and measures of accountability, she and the staff had many issues with which to contend.

Data Analysis

As I gathered data, I used analytic approaches in line with qualitative, ethnographic approaches to exploratory research (Tukey, 1980). As such, my data analysis was ongoing and recursive as I went through the data collection process. It was my plan to attend both to the world my study was immersed in and to continually hold up what I was seeing alongside the theories devised by the New Literacy Studies and the New London Group. By using these approaches, I hoped to theorize how teachers who were operating under a variety of obligations attempted to reconcile the school world with digital literacies and why they made the decisions that they did.

In order to do this, I took a constant comparison approach to the data to determine patterns, similarities, and points of departure (Strauss & Corbin, 1998). As I considered the survey, interviews, observation, contact summary forms, and research memos, I continuously made comparisons and created tentative categories. I began with descriptive
codes, first simply trying to label what teachers were saying and what I was seeing, again, keeping in mind the New London Group (1996) and New Literacy Studies literature. Along with this, as I became more familiar with the teachers and their contexts, I also began using codes interpretively, thinking through teachers’ reasoning and motives. Finally, as I became more immersed in the data, I began to notice and label pattern codes, which, as they were refined, gradually grew into the themes elaborated on in this dissertation (Miles & Huberman, 1994). The comparisons were continually refined between levels of conceptualization as I strove to understand the matters at hand and to also form data-based theory (Merriam, 1998). I consulted with my advisor to “member check” my coding and perceptions.

In accordance to Charmaz (2005), I assumed a “dynamic, reciprocal relationship between interpretation and action” (p. 521). This dynamic and recursive approach to data analysis meant that I was thinking about theories, data, and measures in conjunction with one another, allowing them to interact and inform each other. Assuming this relationship gave me means of thinking about and questioning both my assumptions and the theory I was applying.
CHAPTER FOUR
DIGITAL LITERACIES AND THE TEACHERS OF WASHINGTON

In examining the wide-scoped survey data in conjunction with the more pointedly focused interview and observation data, it became evident that technology and issues surrounding technology were very much on the minds of the teachers of Washington. In this chapter, I present overall findings regarding the questions I posed in this study, all of them geared toward the overarching question: How do teachers in a large, urban school district navigate the challenges and benefits of digital literacies within the structure of Washington High, the curriculum, and their pedagogy? In this chapter, I examine what beliefs teachers harbor about digital literacies and how they see these beliefs shaping and affecting the design of their curriculum and instruction. I consider how the teachers perceive that these factors affect their classroom practice. In the last three chapters of the dissertation, I will use these findings for illustrative and reflective purposes to allow me to work theoretically with concepts of control, context, and culture.

First, the results of the survey data are shared in providing a larger, broad-stroke picture of the way Washington High attempts to navigate the challenges and benefits of digital literacies. From here, I look more intensively at interview and observation data drawn from my six participants.

The purpose of this chapter is to present the recurring themes that came of analyzing the data found in the surveys, interviews, and observations. The final three chapters of this dissertation will consider these findings by analyzing them critically through theoretical, historical, cultural, and school contexts.
Results of the Survey

As previously noted, 56 teachers chose to take part in the survey examining their digital literacy beliefs and practices. Of those 56 teachers, 40 completed the survey; these are the 40 of whom I report. Teachers from many different disciplines took the survey: history (9), mathematics (9), world languages (4), language arts (4), science (4), and health (1) were all disciplines represented. Fourteen other teachers checked the box marked “other” for their discipline. These teachers indicated disciplines including the arts, special education, and specialized subject matter from the vocational track at Washington. The teachers’ years of experience ranged from a teacher in the start of her first year teaching to a teacher currently in his fortieth year of teaching.

Ninety-eight percent of the teachers at Washington reported believing that including digital technology in the classroom was somewhat important to very important (Figure 4.1), and 93% of them felt at least somewhat comfortable using it in their classroom practices (Figure 4.2).

**Figure 4.1:**
*In your opinion, how important is it to include digital technology within the classroom?*

<table>
<thead>
<tr>
<th>Answers</th>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very important</td>
<td>19</td>
<td>48%</td>
</tr>
<tr>
<td>Somewhat important</td>
<td>20</td>
<td>50%</td>
</tr>
<tr>
<td>Not that important</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>Not at all important</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>
**Figure 4.2:**
How comfortable are you with using digital technologies in the classroom?

<table>
<thead>
<tr>
<th>Answers</th>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very comfortable</td>
<td>12</td>
<td>30%</td>
</tr>
<tr>
<td>Somewhat comfortable</td>
<td>25</td>
<td>63%</td>
</tr>
<tr>
<td>Not that comfortable</td>
<td>3</td>
<td>8%</td>
</tr>
<tr>
<td>Not at all comfortable</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

The teachers did indicate a range of how much they used digital technologies in their classrooms, with 40% of them indicating daily use and 48% a range of one to three times a week (Figure 4.3).

**Figure 4.3:**
How often do you use digital technology or digital media in the classroom?

<table>
<thead>
<tr>
<th>Answers</th>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Rarely</td>
<td>1</td>
<td>3%</td>
</tr>
<tr>
<td>1-3 times a month</td>
<td>4</td>
<td>10%</td>
</tr>
<tr>
<td>1-3 times a day</td>
<td>19</td>
<td>48%</td>
</tr>
<tr>
<td>Daily</td>
<td>16</td>
<td>40%</td>
</tr>
</tbody>
</table>

Looking at this data, overall, teachers at Washington believe digital technology to be important, strive to include it (in some form) within their classroom practices, and report feeling fairly comfortable in doing so.

As far as the types of digital technologies included in the classroom and the way these technologies were being used, an idea of these practices can be gained both by how teachers identified themselves and by how they wished to identify themselves. In the way teachers identified both their current and ideal practices, I saw echoes of Fang’s (1996) claim that teachers operate with at least implicit beliefs about what literacies look like, and that these beliefs directly affect their practice. These key scenarios were presented to the teacher participants to consider:
Scenario A:

Mr. Kirst does not find himself using technologies in the classroom all that often. Today, however, he chooses to begin class by showing a brief video clip illustrating a key point of the lesson. From there, he breaks students into small groups to answer and discuss some questions drawn from the video. After the class meets in small groups, Mr. Kirst gathers the class back together to talk about the questions and answers.

Scenario B:

Ms. Cowan gives a lecture in class using a PowerPoint she projects using her Interact board. She pauses to allow for students to work with one another on sample questions. Throughout the lesson, Ms. Cowan typically controls the technology, sometimes asking students to come and manipulate something on the board. Ms. Cowan would like to use other types of technologies, like a class set of clickers that allows students to answer questions, but she often finds herself pressed for time.

Scenario C:

For today’s lesson, Ms. Black has chosen to take her class to the computer lab. After she briefly gives the students some directions, Ms. Black asks them to log on to the class site where they are given brief scenarios that they are to collaboratively solve using websites. Talking in person and online, students work together to address the scenarios. Students will present their findings together by choosing a digital means of presentation - possibly videos, blogs, or by using presentation tools such as Prezi. Ms. Black circulates, answering questions as they arise.

Participants in the survey were asked to first choose the scenario that they identified as being most similar to their own teaching styles and classrooms. Next, participants were asked to select the scenario they saw as being most desirable in terms of teaching and technology (Figures 4.4 & 4.5).

**Figure 4.4:**

*Which scenario best represents your teaching and your classroom?*

<table>
<thead>
<tr>
<th>Answers</th>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario A</td>
<td>7</td>
<td>18%</td>
</tr>
<tr>
<td>Scenario B</td>
<td>30</td>
<td>75%</td>
</tr>
<tr>
<td>Scenario C</td>
<td>3</td>
<td>8%</td>
</tr>
</tbody>
</table>
Figure 4.5:
*In an ideal world, which teacher’s approach would you most like to use in your classroom?*

<table>
<thead>
<tr>
<th>Answers</th>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario A</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td>Scenario B</td>
<td>21</td>
<td>53%</td>
</tr>
<tr>
<td>Scenario C</td>
<td>17</td>
<td>43%</td>
</tr>
</tbody>
</table>

As is evident, the majority of teachers identified themselves as being a teacher most similar to Ms. Cowan, a teacher using digital technology, but perhaps not in the innovative, transformative ways advocated by those touting new literacies practices. Additionally, while 43% of teachers would like to aim for a classroom more akin to these new literacies practices, over half of them see the more “traditional” means of using technology that Scenario B represents as most desirable. This falls in line with Mallette, et al.’s (2005) finding that the majority of teachers view the values of “basic literacies” placed above those of “new literacies.” These findings came into clearer focus as I discussed digital literacies with my interview participants and as I observed them employing these practices.

Teachers also reported a number of opportunities they saw in their practices concerning digital literacies, along with roadblocks that stood in their way of incorporating these. Looking at the Scenario B group of teachers (which represents 75% of the teachers overall) a number of possibilities was raised. Amongst the possible opportunities raised that teachers most commonly agreed with were: the ability to bring in other mediums besides text; the possibility for creative and innovative student projects; the motivation and engagement possibility of digital technologies for students; and the potential for individualized instruction for students (Figure 4.6). These were opportunities the teachers indicated they might capitalize on in the design of their lessons.
**Figure 4.6:**
*What possibilities do you see/reasons might you have to incorporate digital literacies into your classroom?*

<table>
<thead>
<tr>
<th>Questions</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Digital technologies can be motivating and engaging to students.</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>21 (70%)</td>
<td>9 (30%)</td>
</tr>
<tr>
<td>2. Digital technologies allow me to better get across a concept or idea of a lesson.</td>
<td>0 (0%)</td>
<td>2 (7%)</td>
<td>19 (63%)</td>
<td>9 (30%)</td>
</tr>
<tr>
<td>3. Using digital technologies is a great way to allow students to collaborate and work together on papers and projects.</td>
<td>0 (0%)</td>
<td>6 (21%)</td>
<td>20 (69%)</td>
<td>3 (10%)</td>
</tr>
<tr>
<td>4. In some cases, digital technologies allow students to be the expert.</td>
<td>0 (0%)</td>
<td>2 (7%)</td>
<td>24 (83%)</td>
<td>3 (10%)</td>
</tr>
<tr>
<td>5. Digital technologies may provide opportunities for remedial instruction.</td>
<td>0 (0%)</td>
<td>1 (3%)</td>
<td>27 (90%)</td>
<td>2 (7%)</td>
</tr>
<tr>
<td>6. Digital technologies may help individualize instruction for students.</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>25 (83%)</td>
<td>5 (17%)</td>
</tr>
<tr>
<td>7. Digital technologies make it possible to include other mediums besides print-based text in the classroom.</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>17 (59%)</td>
<td>12 (41%)</td>
</tr>
<tr>
<td>8. Digital technologies open up possibilities for students to be creative and come up with interesting and innovative projects.</td>
<td>0 (0%)</td>
<td>1 (3%)</td>
<td>19 (63%)</td>
<td>10 (33%)</td>
</tr>
<tr>
<td>9. Digital technologies open up possibilities for teacher and student interactions.</td>
<td>0 (0%)</td>
<td>2 (7%)</td>
<td>21 (70%)</td>
<td>7 (23%)</td>
</tr>
</tbody>
</table>

The most common roadblocks that the teachers mentioned included: not enough opportunities for professional development and mentorship; uncertainty about how to assess digital literacy practices such as blogs and wikis; the additional workload that using digital literacies entails; and limited technological support (Figure 4.7). All of these had potential for affecting their practice.

**Figure 4.7:**
*What might get in the way of you more fully incorporating digital literacies into your curriculum and instruction?*

<table>
<thead>
<tr>
<th>Questions</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There is a limited availability of school resources or infrastructure to incorporate the technologies I desire.</td>
<td>2 (7%)</td>
<td>13 (43%)</td>
<td>14 (47%)</td>
<td>1 (3%)</td>
</tr>
<tr>
<td>2. There is a lack of others with whom to collaborate.</td>
<td>6 (20%)</td>
<td>18 (60%)</td>
<td>5 (17%)</td>
<td>1 (3%)</td>
</tr>
<tr>
<td>3. There are not enough opportunities for professional development/mentorship.</td>
<td>1 (3%)</td>
<td>8 (27%)</td>
<td>16 (53%)</td>
<td>5 (17%)</td>
</tr>
</tbody>
</table>
Looking at a broad overview of Washington, it appears teachers are interested in incorporating digital technologies and believe in their importance, but perhaps are not using these in the most innovative of ways. This, along with the opportunities and the roadblocks they perceive in relationship to digital literacies, is examined in more depth through the interview and observation data.

**Perceived Affordances and Opportunities of Digital Literacies**

When talking with the teachers at Washington High, there were many things about which they waxed enthusiastic concerning digital literacies. The teachers whom I interviewed and observed talked about many of the opportunities they saw in their practice with being able to use digital technologies in the classroom – possibilities with “real world” connections, possibilities in engaging and motivating students, and the ways
in which technology might enable new opportunities amongst them. Prevalent themes are discussed in this section.

**Belief about Students’ Love and Appreciation of Digital Technologies**

One theme that arose frequently in teachers’ discussions about opportunities afforded by digital literacies was these technologies’ relevance/importance/appeal to students. The teachers at Washington believe that digital technologies are very important to students, and they seek to capitalize on what they see as the engagement and motivation-inspiring potential of digital literacies. The teachers at Washington see their students as being totally immersed in lives centered on the digital. Michelle explained, “Generally, they love it. That’s their world now.” Eduardo noted, “That’s the children’s way of doing things nowadays. You know, they don’t call anymore. They just text. They’re using all the time the iPhones. And they know exactly what to do.” The teachers’ belief that students were immersed in the world of digital literacies provided an impetus to include these in the designs of their teaching practices.

Many of the teachers viewed students’ interest in digital technologies outside of the classroom as a desire to bring these sorts of things into the classroom. Cheryl claimed, “They want to pick this up [indicated her smartphone] and use it. If we say we’re going to the lab, no one’s ever like, ‘Oh, I hate going to the lab.’” For these teachers, incorporating technology into their classroom was something they attempted because they perceived it as something their students desired. Penny told me that teachers incorporated things like Edmodo (a Facebook-like site designed for single class, educational purposes) because “people really try to incorporate the things that the kids
like,” and that she felt her students responded well to technology in the classroom because “they feel comfortable with it.”

Additionally, teachers felt like they could take advantage of students’ perceived engagement with digital technologies and use digital tools and practices to motivate students’ toward school purposes. Some of the teachers described an almost magical effect achieved just by using digital technology in their classroom practices. Kate reported, “It is amazing how as soon as I turn on a video that they’re [the students] paying attention. It’s kind of incredible. It’s like a deer in the headlights – ‘oh, what’s going on?’” Cheryl was a little more cynical about her approach, saying, “I also know, hey, the screen is on. I get eyeballs. You know. It’s marketing.” For these teachers at Washington, students’ perceived interest and engagement with digital literacies outside of the classroom was something that could and should translate to teacher design of technologies inside of the classroom.

**Digital Literacies Connecting Students to a Larger World**

For some of the teachers at Washington, digital literacies contained a way to help their students connect with the world outside of the language arts or mathematics or art classroom. Teachers described ways in which they were able to use digital technologies, specifically the Internet, to broaden students’ understandings of subject matter and/or make personal connections. Cheryl described having her journalism students use the Internet to look up and read local and world newspapers, as well as engage in their own investigative reporting. Eduardo used his Internet resources to find music and lyrics from Puerto Rican singers to broaden his Spanish students’ cultural understandings. Penny had her students look up famous buildings for a geometry project, and Kate reflected on how
big of a difference the Internet has made in being able to show students works of art. She said:

Technology has been huge in presenting actual images. I taught at a school before where I had nothing to show them. I had to make ways to find posters, or calendar pages, or go to Staples and photocopy, and with technology, being able to display something on a whiteboard is huge. I mean, it seems so little nowadays, but it’s HUGE.

These teachers appreciated the way these technological tools allow them to expand their disciplines beyond the confines of their classrooms.

Additionally, for some teachers like Michelle, digital literacies present them with a way to connect their students to the “real world” of the disciplines they teach. In her interviews, Michelle continually justified her curricular and teaching decisions by what is done in the “industry” of graphic arts. For instance, she revealed that within the graphics art classroom, she puts a lot of premium on the “online component” because the industry is moving further and further away from print. The digital literacy practices she perceives as taking place in the business world of graphics arts also allows her to make strategic decisions about the digital literacy practices she employs in her own classroom. For instance, she had this to say about her assessment of her students’ graphic arts projects:

Well, I want to see a nice looking piece. I want it to be aesthetically correct. Um, I want to see it done on time because deadlines are very important in this industry. Um, I want to see some collaboration or I want to see that they do some research. You know, that’s the thing I tell them to do first whenever you’re designing anything: research the competition; see what they’re doing. So go online. You know, look to see what other menus from other schools look like. Borrow it from a restaurant because we want it to look professional.

For Michelle, her ability to connect with the larger business world where the production of graphic arts involves valued, tangible practices allows her to make her curriculum and instruction relevant and aligned to the “real world.” Her theory of how digital literacies
are employed in graphics arts industries allows her to articulate her beliefs and make concrete decisions about her practice (Richardson, 1990).

**Technological Tools are “Better” than the “Old” Ones**

Another opportunity that these teachers saw were ways in which these technological tools they now had access to impacted instruction in the classroom. Because the school building was fairly new and technological tools such as the Interact board recent acquisitions, the teachers tended to make direct parallels between how things “used to be” and how they were now. Their remarks often stressed how these new tools were “better” than the old ones. Penny, for instance, spoke about her chalkboard in the old building and how it was so old that new chalk marks were indistinguishable on its surface; she expressed appreciation for being able to import graphs and grids onto her Interact board in a way that had previously been impossible. Ian spoke about moving into the new building and “immediately [getting] a Smartboard and a bag of classroom clickers.” For these teachers, technological tools represented sudden and drastic improvements in their ability to provide instruction and in how they were able to design this instruction.

In addition to equating these new tools as “better,” teachers also saw implications for the ability to include multimodal forms of instruction, which they saw as being advantageous to their students. Michelle touted the online instruction manual that students were able to peruse at their own leisure when working with specific graphic arts-related programs. She especially appreciated the video feature, which she noted helped students who “struggled with reading” since they could choose to watch informational videos instead. Eduardo appreciated the efforts of his Spanish students and the ways in
which they were able to use digital literacies for more dynamic presentations. He noted the ways in which their presentations had changed “so [that] instead of just putting photographs and pictures of Puerto Rican characters in the United States, [the students] introduced a video there and played some music.” Eduardo expressed enthusiasm for these more creative approaches to traditional projects. The multimodal advantages that the teachers perceived most often capitalized on visual aspects – graphing on a grid in different colors, displaying artwork or drawings so that students could follow along, being able to demonstrate on the Interact board a technique in Photoshop before asking students to try it for themselves – all of these were seen as something that technology encouraged and enabled.

**Technology as Enabling or as Providing Scaffolding**

Largely, the teachers saw technology as something that could enable students and/or provide useful scaffolding for them. Kate summed this view up. When asked how and when she decides to bring technology into the classroom, she answered:

> I feel like whenever I present a lesson, in art, it’s so visual that I’m probably going to have a PowerPoint. I would incorporate a video if I needed to have some kind of demonstration, or if I noticed that students weren’t getting it; they weren’t understanding, I needed some reinforcement from the way in which I was describing the concept. Usually how I’ll bring in some sort of technology is as scaffolding, kind of.

The teachers I talked to expressed many ways they saw as technology supporting and enabling students. Penny talked about a student who only has peripheral vision and the way that technology has been able to allow him to fully participate in class. He has a machine that automatically magnifies problems and text for him to the extent that he can see. Penny said, “And I sometimes wonder how I would have even taught him. I wouldn’t have. He’d have to learn math braille if it wasn’t for technology, and that’s, from what
I’ve heard, the hardest thing to learn.” Ian remarked on the way the clicker tests allow him to get back to students who are struggling very quickly, sometimes in the same class period as they take a test. Michelle notes the way she is able to visually demonstrate something to her class in a way that lets them take ownership and work at their own pace. Michelle is thankful for this ability, saying: “When I first started, I didn’t have anything like that. I would have to literally tell them and walk around. It was horrible. This is so much better. They can just look up and see.” The teachers at Washington appreciated the way technology allowed them to interact with students, supporting them, meeting them where they are, and, in some cases, giving them a measure more of freedom.

**Perceived Blocks and Tensions of Digital Literacies**

While teachers at Washington identified many aspects of technology that they found compelling, they were also quick to identify many potential roadblocks and problems they encountered when attempting to include digital literacy practices in the classroom. In fact, when discussing technology use with me, I found that much more time was spent elaborating on the difficulties that were faced rather than the opportunities. In the next section, I outline some of the most common themes that arose as tensions teachers faced in incorporating digital literacies.

**Problems with and/or Lack of Technological Tools**

For many of the teachers at Washington, this was an issue that was returned to again and again. While teachers expressed appreciation for the technological tools they did have in their classrooms, they also noted how they were short on some important technological tools that would make their visions reality, particularly in regard to students’ use or creating classrooms that were more student-centered technology-wise.
Several of the teachers noted that in order to have students use personal devices, such as a computer-per-student, they needed to bring their classes into the computer labs. This was easier for some teachers to accomplish than others. Both Penny and Cheryl noted that they had tried to take their respective classes to the computer lab, only to find that the lab was not yet set-up for student use. Cheryl noted, “Originally, my goal was to come in and to go completely paperless with eleventh grade homework. And then we came in and the lab wasn’t set up for three weeks.” Additionally, Kate noted, in her case, it wasn’t just a lack of technological tools, but even a shortage of basic classroom necessities that turned her attention away from thoughts of incorporating digital literacies in the classroom. She gave an example of her trying to think through how to incorporate a project that had at its basis an assumption of technology use:

“Well, how do I do this? Where are my resources?” I’m going to have to find the library or enough cameras and that kind of thing. I mean, this classroom has 24 desks in it, and I think at this point my biggest class has 27-30 students. So incorporating technology and having them take ownership sometimes is on the way, way back. It’s more on classroom management, it’s on are we getting what we need to out of this particular lesson?

It was frustrations such as these that teachers reported as keeping them from using digital literacy practices as fully as they might desire.

In addition to lack of technological tools, several of the teachers reported recurring problems with the technological tools of which they did have access. Teachers told about a multitude of problems occurring in the classroom – video morning announcements with no accompanying sound, computers freezing at inconvenient times, glitches with the Interact board, computers running so slowly that the class sits in silence, waiting for something to boot up. Teachers were full of these stories. Ian shared the countless frustrations he felt when he spent large quantities of time developing a lesson.
plan, only to have it mysteriously disappear from his files. Ian recalled with some exasperation: “It’s all linked to some computer somewhere in the school. So you could come in after the summer and have been saving all your files somewhere wirelessly, and they’re all gone or you can’t find them again.” He relayed that this had happened to him more than once. Because of these perceptions, fear of technological failure was a legitimate and widely held concern amongst the teachers I interviewed. How this fear plays out in the classroom will be more closely examined in the next chapter.

Along with these technological problems, there seemed to be a pervasive feeling that the technological tools that were available were slowly getting older, more-out-of-date, and more problem-ridden. Teachers did not seem to hold up much hope for new technological tools coming their way. As Ian put it, “Keeping technology running forever is difficult.”

**Lack of Technological Support**

Many of the teachers I talked to at Washington shared the perception that technology-use in the classroom was something that was expected, but something that had to be learned and orchestrated “on one’s own.” They felt the onus of incorporating digital literacies into their classrooms was put largely on their shoulders; it was up to them to Redesign the design (New London Group, 1996). This, amongst all the themes I saw, seemed to be one of the most pervasive. Michelle noted the strain she felt of having to stay abreast of all of the new developments as the only graphics arts teacher in the school. She said, “I have to do it all on my own. ‘Cause I’m the only one.” Eduardo spoke about his reluctance to ask for help from the tech department concerning his world language class, saying: “But the message that I kind of feel is, ‘Well, you do it on your
own. And see what happens.’’ Kate, with regards to her own struggles to incorporate technology said baldly: “I really don’t have any support to do it.” Even Penny felt that any digital literacies use on the part of the teacher fell to that specific teacher, although she was a little more forgiving about this aspect. When I asked her if learning new technologies on her own felt manageable to her, she replied: “Well, maybe not manageable, but it’s like my responsibility, you know? I’m the teacher. That’s what I signed up for.” It became clear that although the teachers I talked to had a drive and a desire to include technology in their classrooms, they did feel that the responsibility to do so was put squarely onto them.

This did lead to several teachers openly talking about their desire for more technological support, both from the administration and from the district Information and Technology department. Several teachers mentioned lack of effective professional development, missed opportunities to learn more about technology in the classroom. Michelle, for instance, said:

Some of our professional development is such a big waste of everyone’s time. Like, they’ve spent about six hours of professional development so far telling us how they’re going to evaluate us. It’s like, you could tell us that in an hour. Bring in some technology person to teach us something… Don’t just say, “Oh, use Skype. Learn how to use it yourself.” Show me how to use it. Show me someone using it.

Eduardo especially seemed to crave more support. He wanted to feel that if he tried a digital literacy practice in the classroom that was not successful, he had something to fall back upon. In talking about the sorts of support he would most appreciate, he suggested:

Like for example, I know how to use a wiki on the Internet, but I don’t feel comforted because I haven’t been trained in the school. I trained myself because of these two classes that I took. But I wonder how many teachers are able to do that, how many teachers probably could or would enjoy doing that if we were provided time and space within school.
Despite this push and desire for more technological support, the teachers of Washington seemed pessimistic that these sorts of trainings and support systems would ever be realities.

This perceived lack of professional and/or technological support affected the way teachers decided to employ digital literacy practices in their classrooms. As Michelle put it, “I have to learn A LOT of stuff on my own. I’m getting sick of it, too, to be honest with you. You just get so tired. And trying to keep up. Trying to keep up.” It seemed that at least some of the teachers had reached the breaking point.

**Technology on the Backburner**

As Kate alluded to earlier in this chapter (“So incorporating technology and having them take ownership sometimes is on the way, way back.”), many of the teachers mentioned the role that other matters of the classroom had in crowding out concerns about incorporating digital literacies. For instance, time as a mitigating factor was something that was brought up again and again. Cheryl indicated the huge pile of grading she was taking home with her over winter break. Eduardo spoke of spending hours trying to unsuccessfully find resources he thought were suitable for Spanish class. Many of the teachers talked about the home/work balance. Penny, for instance, reflected:

> We don’t have a lot of prep time, so sometimes you want to do something cool, and it’s just so much – you have to do the other stuff first…this year I’ve got two new classes because we got new textbooks, and I’m teaching Advanced Algebra II for the first time. So, it’s a lot of making stuff. So I find this year, if I want to make something cool, I’m having a really hard time finding the time to do it because I am working on the weekends and every night.

Teachers were insistent that including digital literacies in the classroom takes time, something that they often perceived as being in limited supply. It also took additional
planning and design on the part of the teacher. Part of this was anticipating things such as when one would need the computer lab. Part of this entailed thinking about obstacles, such as getting around the school’s firewall – one might have to request, for instance, that a certain site be unblocked. And part of this involved almost anticipating technology failure. Ian talked about the need of having to comb through any PowerPoint he was going to use to make sure everything was linked up. He said, “But the bottom line is, year to year, like I open the program again and the pictures aren’t linked anymore. I then spend time finding them, linking them to the appropriate pictures, seeing which questions I like.” Teachers were often making decisions regarding how much time they were willing to give to the additional planning and workload involved in using digital literacies.

Although the administration did advocate and look favorably upon technology use in the classroom, in the teachers’ perceptions, other issues were held up as much more important and highly regarded. At present, the teachers at Washington saw two issues as being the highest on the administrative agenda: 1) the new teacher evaluations; and 2) Common Core, including the new standardized tests. When talking to Mindy, the vice-principal, earlier this year, she confirmed these perceptions. In her mind, it was a big year, full of changes that needed to be communicated and addressed with the staff. In the teachers’ minds, this may have meant that technology use, while still held up as desirable, was being put further on the backburner.

Cheryl addressed her frustrations this way:

We have curriculum people, but right now, there’s only one thing they’re working on – the teacher evaluation system. And setting up the standardized tests that are self-made, district-determined measures for every grade level and every teacher. And so, their focus is not on how to teach better, but on how to assess teachers.
So, this [technology] is all hit-and-miss for us right now…We don’t have a technology guru who is thinking about how to use it in the classroom. How to manage, how to manage, how to manage. It’s all about student management and teacher management.

For at least some of the teachers at Washington, making digital literacies less of a priority was if not a necessity, certainly justifiable, especially in light of what issues were being highlighted by the administration.

“I’m Not that Great with Technology”

Despite their professed interest in using digital literacies in the classroom, with the exception of Kate, all the other teachers I talked to spoke of being limited in their personal technology uses. Michelle told me, “They [digital technologies] don’t impact me a lot out of school because, to be perfectly honest with you, I don’t want to look at it when I leave. I’m done.” Cheryl reported, “I’m not as comfortable as I would like to be. I think I try, but I’m not always aware about what’s going on.” Penny said she wouldn’t describe herself as, “the most technological of 29-year-olds.” Even Ian, who (as discussed in more detail later) is seen as a leader of technology, told me: “I’m not that great with technology.”

The teachers at Washington reported that their knowledge of their own technological limitations sometimes impacted the way they did or did not incorporate digital literacies in their classrooms. As Penny plainly stated, “One of the challenges for me is I feel like the kids know so much more than I do.” Teachers spoke about not wanting to go outside the comfort zone of technologies they already knew. Some of the teachers had set up sites like an Edmodo account, a Weebly site, or a wiki after learning about them, but had not gone on to develop them or use them in class. Other teachers spoke to the fact that they knew the technological tools they used could accomplish tasks
greater than what they were currently using them for. However, they didn’t know how to use these features and were not confident in their abilities to figure these out. Additionally, the majority of teachers were not familiar with any theories of digital literacies. This, combined with teachers’ lack of certainty, appears to have influenced what sorts of practices they felt comfortable in employing (Richardson, 1990).

**Technology and Issues of Equity**

For some teachers, requiring technology use in the classroom raises issues of equity and what is fair to ask of students. Cheryl, for instance, said that she would like to make more use of students’ smartphones. Still, she hesitated to do this because she knows that while most of the students have them, not everyone does. She feared drawing attention to that fact. She also reported struggling with requirements for things like computer use outside of the classroom.

I’m doing this profile piece. I’m saying to them, “It must be typed. It must be double-spaced.” And there will be kids that push back. “I don’t have access. I don’t have access.” But I’m not willing, in eleventh grade, you need to understand that you need to find time to have access. School library, library, go to a friend’s house…figure it out. And I feel bad saying that, and I’m also not going to take two class periods out to take them to the lab for them to type a paper that they should be doing at home. So, it’s troublesome.

Penny reported never assigning any work involving technology that would require a student to do all of it outside of school. Kate also hesitated on requiring something like this. She said, “Some students don’t even come to class with a pencil, so I can’t rely on what they have at home to work with.” Whatever the reality of the situation (and there are discrepancies about how many students do and do not have things like personal computers at home), teachers at least perceive that requiring students to have access to
their own technological devices is unfair and inequitable. This, too, limits what they are likely to ask or to do with digital literacies in their classrooms.

**Lack of Satisfaction with “Educational” Technology**

Lastly, amongst at least some of the teachers, there was a perception that the technology designed or used for purposes of education was falling short. Cheryl, especially, was insistent on pointing this out. She said, “Most of the technology that I have access to is teacher-directed, and it’s usually presentation-based. It was developed for businesses and adapted for education.” In Cheryl’s view, she was limited in how student-centered her classroom design could be largely because of the specific capabilities of the technology she was able to access.

Penny was also critical about the resources to which she was privy. She reported that, although she had resources like the PowerPoints designed by her online book company, she seldom used them because they were “kind of terrible.” Students couldn’t follow them and complained of their crowded, confusing nature. These were the resources she was given as models.

All of this led to Cheryl suggesting that the education system was failing students when it came to matters of technology. She said: “I understand that we want everyone to be career and college ready. Um, but I don’t know that we’re actually giving kids all the technology support they need to be successful. My kids at home, I don’t even think that that’s true. And they have access to a great deal more [than the students at Washington].”

(For a summary of teachers’ digital literacy perceptions, see Figure 4.8.)
**Figure 4.8: Summary of Teachers’ Digital Literacy Perceptions**

<table>
<thead>
<tr>
<th>Teacher Perceived Affordances and Opportunities of Digital Literacies</th>
<th>Teacher Perceived Challenges, Tensions and Roadblocks of Digital Literacies</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Motivational opportunities of digital literacies for students</td>
<td>✓ Problems with/lack of technological tools</td>
</tr>
<tr>
<td>✓ Digital literacies connecting students to a larger world</td>
<td>✓ Perceived lack of technological support</td>
</tr>
<tr>
<td>✓ Certain advantages of new technological tools over “old” tools</td>
<td>✓ Time, planning, more pressing concerns keep digital literacies on the</td>
</tr>
<tr>
<td>(such as multimodal capabilities)</td>
<td>backburner</td>
</tr>
<tr>
<td>✓ Technology as enabling students or else providing scaffolding</td>
<td>✓ Teacher perceived lack of technological expertise</td>
</tr>
<tr>
<td></td>
<td>✓ Issues surrounding technology and equity</td>
</tr>
<tr>
<td></td>
<td>✓ Dissatisfaction with “school” technologies</td>
</tr>
</tbody>
</table>

**What Teachers Say They Want**

When teachers were asked what they need or desired to make their vision of what an ideal, digital literacy-incorporating classroom looks like a reality, three themes were identified. 1) Teachers desired more specialized, individualized training; 2) Teachers wanted more access or possibilities for students; 3) Teachers wanted technological tools that were up-to-date and glitch free. These three themes are discussed briefly below.

**A Desire for Strategic Professional Development**

“More time would be good, really. There just isn’t time. More time to have workshops on, like, or where you, ‘Try this in the next month and then bring it back.’ You know, that kind of stuff.” Here, Penny sums up the most prevalent desire the teachers expressed in how they could be supported. Professional development that was
strategic, in-context, and “just in time” was something that the majority of teachers felt would be most beneficial.

There were some caveats on how not to conduct professional development. Cheryl pointed out that the teachers’ training for the Interact board had occurred, for most of them, a full year-and-a-half before they had access to their own boards. However, many of the teachers had ideas about how professional development and digital literacies could be effectively managed. Several of them expressed interest in discipline-specific trainings. Cheryl and Penny both noted that they would welcome opportunities to collaborate, talk with, and draw resources from their colleagues’ practices, an opportunity, that, in their minds, was much too infrequent. Kate noted that her discipline was so specific that something geared more directly toward the art department’s interests would be extremely helpful. She noted that a lot of the professional development time in the past has been too general to help her. “So many professional developments that we go to, we think, ‘We can’t apply this. This does not apply to what we do.’”

Additionally, other teachers had specific goals of things they wanted to accomplish for which they wanted specific training. Kate wanted help building a website to better establish communication amongst her, the students, and their parents. Michelle suggested that courses specific to graphic arts would be desirable for her purposes.

The gist of what was being asked here, it seems, was for less of the responsibility for designing and incorporating digital literacies in the classroom to be placed only on the teachers. They wanted help in knowing how to do so. Cheryl spoke of wanting a technology guru, “A person who has the time and space to filter through…stuff. This might be good.”
A Desire for More Student-Centered Technological Tools

Teachers talked about ways in which they could make the digital literacies used in their classroom more student-centered. For many of the teachers, this breaks down to the tools available. Some teachers, like Cheryl, expressed an interest in being able to use students’ smartphones in conjunction with teacher tools – such as the Interact board. She asked, “Why couldn’t this [cell phone] work with that [Interact board]?” Kate talked about how she already allowed students to use personal technological devices, such as tablets, for their assignments. “I have a couple of students who have asked to do their homework – I give out a sketchbook assignment as well – and they asked if they could do it on their tablets at home… I said, ‘Yeah, just submit an electronic copy to me, and that’s great.’” She noted the possibilities there, but then told me she couldn’t really incorporate this too much in the classroom because so few students had access to tablets.

Penny dreamed about “a perfect world” where “we had the wireless, and they [the students] all had iPads.” She could see how more easily her technology could be student-centered, “if they all had access on their iPads and could write from them onto the board.” Kate, on the other hand, said she would settle for “a whole computer lab [as opposed to the eight computers she currently has access to]… And to be able to have access to it whenever we want.” For these teachers, true digital literacy use is not going to be easily accomplished without more access to individual technological devices for students.

A Desire for Up-to-Date, Reliable Tools

Finally and to a lesser degree, teachers expressed a desire 1) for reliable wireless – something that was supposed to be a reality at the beginning of the school year, but still
had not been accomplished as of winter break; and 2) tools and software that were glitch-free and up-to-date. While teachers took on a more dreaming, “ideal world” sort of tone with the other things they desired, teachers were decidedly more pessimistic on this front, perhaps because of negative previous experiences.

For instance, Penny, in a darkly humorous way, told me about this exchange she had with the IT technician concerning the possibility of wireless internet in the school. She said, “I had the tech guy fix something for me the other day, and he’s like, ‘Still waiting on that wireless?’ I’m like, ‘Yeah.’ He’s like, ‘Me, too!’” Penny was not optimistic about access to wireless at anytime in the near future.

Similarly, Ian seemed pessimistic about the possibilities of having access to smoothly running technological devices. When I checked his perceptions that the major challenge seemed to be keeping the technology up-to-date, he replied: “Yeah. That is frustrating, right? Because I do a few things here and there, but sometimes you have to rely on something that is not working.” While the teachers expressed a desire for serviceable tools and wireless, this seemed to be the help they felt the least confident in receiving.

In sum, a few of the teachers had clear, thought-out desires about what would allow them to most successfully incorporate digital literacies in the classroom in the ways they desired. However, some of them seemed stumped on how to make their visions a reality. The final three chapters will take a look at these perceptions and, along with the observations I made, incorporate these results into some theoretical work I engage in centering on the themes of complexity, context, culture, and control.
CHAPTER FIVE

TEACHERS LIKELY TO TAKE UP DIGITAL LITERACIES: A TYPOLOGY?

There has been a lot of attention paid in popular media to the issue of technology and the roles teachers play in bringing this into the classroom. How should we be “training” teachers in regards to technology? (Stansbury, 2014). How do we get teachers to “embrace” the technology? (Mtshali, 2014). What does a teacher who embraces the all-important STEM fields look like? (Rajwani, 2014). Along these lines, a similar question informed my selection of study participants. In order to consider teachers’ beliefs and practices of technology in the classroom – what they see as being both the challenges and opportunities of incorporating digital literacies into their curriculum and instruction – I first wanted to know which teachers at Washington High were most likely to be incorporating these practices into their instruction; which teachers had a conscious desire to wrestle with the challenges and opportunities of digital literacies in the first place? For what reasons? To explore what teachers believe and practice in terms of digital literacies, is there a way to identify whom might be most likely to take up the mantle of these literacies in the classroom?

Because there is a research and theory that suggests there are both really good reasons for incorporating digital literacies in the classroom as well as reasons for why new literacies and schooling may make for an uneasy marriage, it makes sense to try to talk to teachers who are actively trying to wed the two. This is not so much in service in trying to pursue ideals of teacher models, but more to understand what facilitates and hinders the use of digital literacies. Examining this from teachers’ various orientations toward technology could help garner valuable insights.
As such, I used the framework of McDougall’s (2010) classifications of how teachers’ professional identities affect their engagement with new literacies. As previously noted, McDougall identifies teachers whose professional identities embody a traditionalist approach, teachers operating in survivor mode, and teachers whose professional identities take on a futures-oriented approach. In looking at these typologies of teachers, it was not my purpose to hold up the futures-oriented as model teachers or to present them as the gold standard. Instead, I aimed to find a framework that would help me think about digital literacies beyond simple binaries of present or not. I hoped these different frames would allow me to consider the hows and whys across teachers’ varying usages. As I used this lens to analyze my data, particularly with regards to the survey, I identified ten teachers who I felt embodied different aspects of the futures-oriented approach. Six of these ten teachers agreed to be a part of the study.

In this chapter, I first reiterate a brief overview of McDougall’s (2010) study addressing the characteristics of teachers’ identities that make them more likely to take up new literacies in their classrooms. Next, I more fully introduce the teachers who participated in the study, discussing why they were selected and how they do and do not embody the different typologies identified by McDougall. Finally, I consider how and why concentrating only on individuals’ specific characteristics create an incomplete and perhaps misleading picture. The context of the school setting, the climate, teachers’ lived experiences, the culture of the school, how terms such as “digital literacies” are interpreted and taken up – all of these play tremendous roles beyond what can be classified as a teacher’s individual technological tendency.
Characteristics of Different Literacy “Approaches” as Related to Identity

In her 2010 study of primary teachers in Australia, McDougall examined how changing perceptions of literacies affected teachers’ professional identities and how they responded to this changing world of literacies. McDougall found that the teachers most willing to embrace conceptions of new literacies had what she labeled a *futures-oriented* perspective. These teachers were most likely to believe that incorporating new media into the classroom was a necessity and beneficial to their students.

The *futures-oriented* approach teachers stood in contrast to what McDougall (2010) called the *traditionalist* approach teachers and the teachers who were operating in *survivor* mode. The *traditionalist* teachers tended to see their main role in the classroom as helping students to acquire the “basics” and the necessary literacy skills the teachers felt they needed to succeed down the road. These teachers often viewed the teaching of new media and digital literacies as “one more thing” and an unnecessary burden that took away from what they saw as more important matters. McDougall described “the deeply-entrenched traditionalism that defines these teachers’ identities” (p. 684).

Unlike the traditionalists, the *survivor* teachers tended to see the advantages and opportunities associated with new media and new literacies but felt too overwhelmed or pressed by other concerns to incorporate these into their curriculum and instruction. McDougall (2010) noted that these “sorts of teachers” were likely to recognize the importance of new literacies in the lives of youth, but often were not confident or comfortable with their ability to teach it. They were also often likely to account for their lack of use of new media by citing justifications, such as “lack of time, lack of suitable resources, needing to concentrate on the basics, or the age of the children” (p. 684).
Finally, McDougall (2010) described teachers who she saw as most likely to take up new literacies within their classrooms – what she termed *futures-oriented* teachers. According to McDougall, characteristics of these teachers included: 1) Teachers who were “enthusiastic proponents” (p. 684) of teaching about/with new literacies in the classroom; 2) Teachers who believed in the engagement/motivation possibilities of new media for students; 3) Teachers who did not limit themselves with perceived “excuses” for not including new literacies in the classroom; 4) Teachers who were themselves comfortable with new literacies and confident in their abilities to incorporate these types of literacies; 5) Teachers who took initiative on their own to learn about technologies; 6) Teachers who did not view new media as a threat to traditional curriculum; 7) Teachers who saw themselves or were viewed by others as progressive leaders with technology. (p. 684-685).

I originally utilized McDougall’s (2010) findings and frameworks as a way of identifying different teachers who embodied some aspects of a *futures-oriented* perspective. As I worked with this framework and as discussed later in this chapter, however, it became apparent that I needed to move beyond simply labeling and classifying teachers. Thinking in terms of this typology, I sought to understand the dynamics of teachers’ digital literacy usage. This gave me a means of considering both how and why the teachers had developed certain beliefs and practices. I operated under the assumption that these categories are fluid, dynamic, and subject to change.

**A Motley Crew**

In this section, I describe each of the six teachers who participated in the study. In talking to these six teachers, I quickly noticed that although they all expressed keen
interest in using digital literacies in their classrooms, differences proved vast. The
motivations they expressed, the expectations they held, even how they defined digital
literacies tended to vary widely. As such and with keeping in mind my desire to identify
teachers who actively sought to use digital literacies in the classroom, I discuss the ways
each teacher represents some aspect of a *futures-oriented* perspective. I also begin to note
the complex contexts of which these teachers are a part, for which individual typologies
cannot hope to account.

**Cheryl**

While Cheryl presented as a *futures-oriented* sort of teacher by the results of her
survey, Cheryl, a language arts teacher, has perhaps the most traditionalist leanings. In
her initial interview, she discussed the importance of imparting “basic skills” to students
for post-secondary education or the job market. Cheryl sometimes indicated that she saw
digital literacy practices as a threat to traditional curriculum and learning. She gave
examples of students whom she felt were leaning too heavily on tools such as spellcheck
and autocorrect, saying: “I worry that the typing does not allow for that fluidity. Um,
especially when they’re not good writers. I almost need them to put it on paper with a
pencil or a pen.”

Cheryl sometimes talked about digital literacies and/or technology as relating
primarily to writing and word processing, noting herself that she tended to do this. She
said, “Again, I talk about technology as if it’s all word processing, but for me, being able
to produce a document – for us [language arts teachers], it’s most of what we do.” It
became clear early on that Cheryl had a very print-centric, text-based ideology
concerning how her discipline and therefore her teaching should look.
However, despite these traditionalist leanings, Cheryl did indicate a desire and an active attempt to incorporate digital literacies in her classroom. In the journalism class, she described often using a museum website that provides the front pages of all of the major world newspapers. She reported her reasoning for looking at this, saying, “That’s really great if we want to do a quick, like ‘what happened last night?’ let’s look at something, or let’s look at news balance and see how this paper dealt with the same story differently.” She noted the ways that digital literacies allow for students’ connections with the outside world in meaningful exchanges. She provided one example, again from her journalism class, that illustrated this:

We were talking about the girl who jumped off the cement tower in Florida, the one who was bullied. And the great thing was the kids were able to find the Polk County sheriff department’s website, find and actually – because we were talking about why they don’t name the kids in the news story. They were like, “well, their names are right there. They could print their names.”

This gave the class the opportunity to talk about the ethics of newspaper writing with a real-time example that students found on their own. They were able and encouraged to engage in a discussion that they had initiated.

In her interviews, Cheryl indicated that she did believe digital literacies were essential and belonged in the classroom. She insisted, “Well, I think that we have a society that is technology-based. So we have to be able to provide it, we have to be able to use it, and our kids need to be able to use it, and they really can’t.” Cheryl believed that digital literacies belong in the classroom both because 1) they are an integral part of society; and 2) because students are unprepared to be able to use them. Cheryl was unique amongst the other teachers in expressing this second belief; in her opinion, the digital literacy practices students currently used were not helpful or meaningful for what
they would need in the future. In other words, in Cheryl’s view, students need to be skilled with digital literacies, but they need something other than their present digital literacies, the digital literacies they are already practicing. These practices she dismissed.

In short, Cheryl was an active blending of typologies: the traditional and the futures-oriented mixed together and writ large. Cheryl told me enthusiastically about the websites she used to come up with her own ideas of how to use technology in her classroom. Speaking about her favorite of the sites, Cyber English 9 (2009), Cheryl laughed and said, “There’s a woman named Dawn Hogue out of Cheboygan Falls, Wisconsin – I know her name… um, she’s amazing – her stuff is so good.” Cheryl noted in particular what she believed were this site’s phenomenal WebQuests (a practice, again, that is sort of a technological version of a “question and answer” worksheet). Cheryl encouraged her students to use their cell phones in class as dictionaries and thesauruses; she showed them where they could take animated vocabulary quizzes to prepare for their in-class tests. As Cheryl prepared to teach her classes on Macbeth, she listened to a Shakespearean podcast – Chop Bard from In Your Ear Shakespeare (2013) – each night as she prepared dinner for her family.

In other words, Cheryl seemed to largely endorse digital literacy practices and actively seek them out, with a caveat: they needed to fit into her traditional definition of what language arts curriculum and instruction should look like. In the framing of new literacies according to Lankshear and Knobel (2006) and even the dated definitions of the New London Group (1996), these practices do not truly constitute “new literacies” at all. This blending of the old with the new is not something with which McDougall’s (2010)
description of teachers’ identities and approaches contends. It is not something that a
survey’s more straightforward line of questioning can adequately capture.

**Eduardo**

Of the six teachers I interviewed, Eduardo, a Spanish teacher, appeared to be the
most informed about practices that New Literacies scholars would most comfortably
label as befitting the multiple, dynamic, collaborative, creative nature of these literacies. 
Through his graduate education, Eduardo had learned about things like wikis, enhanced 
PowerPoints, and remixing. He was the only teacher to react with recognition when I 
used the term “digital literacies,” telling me that he had learned all about this concept in 
one of his graduate classes.

Despite his at least superficial knowledge of these practices and his innate desire
to incorporate more and better technology into his classroom, Eduardo also expressed the
least amount of confidence in his personal technological abilities. He articulated adamantly
and deeply held beliefs that he did not have access to the sorts of support he would need
to make these practices a reality in his teaching. These contrasting forces – Eduardo’s
knowledge of what he considered valuable practices and his belief that he alone could not
pull these practices off – resulted in a powerful tug-of-war in Eduardo’s views of his
instruction in the classroom. This served as both a detriment to Eduardo’s job satisfaction
and as a deviance from what one would expect with these typologies.

As befitting a *futures-oriented* teacher’s perspective, Eduardo expressed some of
the most adamant beliefs about both the importance and the place of new literacies and
technology within the classroom. This belief was evident in both his survey results and in
his interview. Eduardo spoke of the tremendous, largely self-inflicted pressure he felt about including technology in the classroom:

> It’s an internal pressure, I would say, more than anything else. It’s the way I perceive – the way I believe, the concept I have about education – that tells me all the time, “Use what they need.” Use things that the students are more, uh, engaged to. So one of them obviously is technology. I see that as a must, and a plus, especially in world language classes.

Eduardo expressed that he really wanted to include more student-centered types of digital literacies in his classroom. In fact, he reported allowing students to take the lead in projects concerning technology, giving them options and choices that were rather unique amongst the teachers interviewed. In discussing the choices he gave to his advanced Spanish class, Eduardo reported: “This is the second project they’re doing. They – I told them, ‘Use whatever ways you want to do to present the project.’ So it was an open thing. You can do it in a Word document, in a PowerPoint, or you can use video or whatever…”

In addition to having students take the lead with some of these digital literacies, Eduardo was also the only teacher to draw a distinction between what he saw as “basic” and more “advanced” levels of technology. In discussing the language department’s use of technology, Eduardo said:

> I don’t think anyone in our department is really very knowledgeable in technology. Some are better than others. I consider myself probably somewhere in between, you know….They’re using the Interwrite board or Word documents, basic things, or videos. Things like that, not anything else. I don’t see anybody really using another level of technology in world languages.

For Eduardo, this “other level of technology” included more dynamic, student-centered practices such as wikis. Drawing this distinction between different “levels” of technology was unique to Eduardo’s position; no other teacher seemed to recognize – or at least articulate – this position.
Yet, despite this, Eduardo reported often hesitating to incorporate technology into his lesson plans and teaching. He attributed this reluctance to his own lack of confidence concerning technology, as well as his perception that he did not have adequate training or support from the school to attempt anything too daring in regards to digital literacies. The tension in Eduardo’s desire to include digital literacies in innovative ways versus his lack of confidence in his ability to accomplish this is well captured in his commentary concerning his technology use outside of school:

I use it [technology] outside of school. But not as sophisticated as I want to use it in school so students can learn that tool, like wikis, for example. I use the Internet, email, I use my flash drive to download, upload things…You know, email, all the time…And more basic – Word documents, PowerPoint, but other than that I think I’m just limited… I want to use, for example – there’s a program in Audacity – which is for listening. The students will record their voices and they will listen to – we learned that is for Spanish classrooms in technology last semester in college. But, um, the limitations is – it’s just because of a fear I have. If I do it, and something doesn’t go right, you know, I don’t really have a support, a back-up…

Eduardo was selected for participation in the study because of the enthusiasm he displayed for technology in the survey results, along with an expressed desire to incorporate more in the classroom. In Eduardo, it is possible to see how a teacher can be enthusiastic and on-board with digital literacies, believing expressly in their importance and place in the curriculum, and yet still be reluctant or unable to bring them into the classroom with any real consequence. In Eduardo’s case, we see a teacher who, through his graduate education, has learned about and to some degree embraced the possibility of new literacies. The fact that, despite this, Eduardo has not yet brought them into his classroom in any satisfactory way (in his perception) points to more complex issues at large.
Penny

In talking to and observing Penny, a geometry teacher, it became evident that she used some forms of technology intensively every day, something that she reported in her initial survey. Most of this came through her use of the Interact board, something about which she enthusiastically voiced her enthusiasm. For Penny, the visuals that the Interact board allowed her to project and share with her students was integral to her ability to teach them geometry:

Inverse functions are reflections when you graph them. And to see that on that [indicates the Interact board] is so much nicer than – being able to bring up a grid and being able to jump between…I can write something on the board and then I can graph it on the grid. In different colors, so you can separate everything out. That’s my favorite part.

In observing Penny’s lessons, a familiar pattern emerged. She would prepare slides about the day’s lesson prior to the start of that class. Calling these slides up on the Interact board, she used these as a shell for the day’s lesson, using her electronic pen to write all over the pre-prepared grids, charts, notes, and problems. While the students participated in the solving of the problems, Penny almost always controlled the technology itself. It was used in a very linear, pre-determined fashion.

In addition to this in-class use of technology, Penny also talked quite a bit about the way technology aided her in being able to accomplish school-based, administrative tasks. In her exit interview, Penny discussed how she uses an online grade book, EndGrade, to keep students up-to-date about their progress as determined by grades. She felt that the technology allowed her to provide a vital service to her students. She said, “I do it quickly. I grade homeworks either that day or the next day, so it’s easy for me to input and keep them up-to-date. But I also feel like it’s important because in math they’re
so likely to fall behind, and their grade gets low. So if they see their grade and they see
the impact, they turn things in more.” In talking to Penny, it became clear that while she
was using technology every day as she reported in her survey, her uses were fairly pre-
determined and predictable. She used these technologies in ways that were in service to a
traditional view of schooling, one in which it is the teacher’s responsibility to impart
knowledge to her students in a way they can comprehend. Freire (2000) termed this the
“banking model” of education. In this model, success is rated primarily by the grade the
student receives.

Penny adamantly espoused her belief that, outside of the classroom, digital
literacies provided communication amongst her and her students in ways that were not
previously possible. Using this same EndGrade program, students were able to message
Penny in ways similar to text messages; she would receive a notification that one of them
had contacted her. According to Penny, this type of communication prompted some
students to open up to her in a way that a face-to-face meeting did not. She even
described it, sometimes as being, “like therapy.” When I asked her if the messages were
always about grades, she replied:

I find that I get emails from kids with things like, “I feel like I’m not doing as
well as I should and I try really hard,” and they actually kind of give you the
honest, “This is what I’m thinking.” And I think they would have a much harder
time telling you that verbally. So, I’ve gotten several emails this year because
Geometry is harder than Algebra I. So they come in and they don’t do as well, and
they freak out in the beginning, and then we try to pull it back together.

For this reason in and of itself, Penny saw her use of EndGrade as invaluable.

Despite her emphasis on communication, Penny was somewhat surprisingly stern
concerning students’ uses of cell phones in the classroom. Amongst the handwritten list
of rules posted at the front of the room, number four states: “No cell phones, iPads, food,
or drink.” In a school where the cell phone policy is left up to the discretion of the teacher, Penny does not see a reason for her students to be permitted to use them. Penny explained it this way: “For me there’s nothing to do on it besides a calculator. I don’t let them use it because there’s no way a standardized exam would ever let them use their calculator on their phone. So they need to be familiar with a calculator they would actually use.” This was a familiar theme with Penny. When questioned about technology, she often referred to it in terms of how it aids in a traditional framing of school and schooling – how it would serve to help students on standardized tests, how it could maximize their ability to turn in assignments and stay abreast of their letter grade progress. While Penny espoused beliefs in both the place and importance of technology in the classroom, she was the one who wielded the agency and the power of both the technological tools and the practices. The use of digital literacies in her classroom was very much in service to curriculum and instruction that was “business as usual.”

Kate

Like all of the teachers interviewed and observed for the study, Kate, an art teacher, believed strongly in the pairing of curriculum and instruction with digital literacies. When I asked her if there were any areas in which she did not see technology and her curriculum aligning very well, she responded, “Where it doesn’t match up? I feel like kids use it so often every day that why not use it to help? I don’t know. I feel like you can use it for everything.” For Kate, the need to incorporate technology into her art classroom went unquestioned. According to Kate, her students are “going to be using technology in the future with whatever job they have, so it’s important to get them familiar with it and using it both for engaging and for skills they’ll need in the future.”
While Kate reported that this emphasis on technology was not, in her mind, at the forefront of the priorities for the rest of the art department, for her, its importance and her attention to it was unquestionable.

Of all the teachers interviewed and observed, Kate probably most closely embodied McDougall’s (2010) characteristic of a futures-oriented perspective teacher who takes initiative on her own to learn about technologies. This drive to learn was apparent in her survey answers and even more noticeable in my interviews with her. Perhaps because of her perception concerning the centrality of technology, Kate was unparalleled in the way she sought out knowledge about digital literacies, opportunities to learn about them, and ways she could procure funding to enhance her classroom. Kate actively used digital learning buzzwords as she talked about incorporating digital literacies with me. For instance, she talked about looking at models of flipped art classrooms, something about which she said, “And I’m interested, I’ve done some research into it, but you know, slowly (laughs), slowly working that way.”

In addition to looking at different models and exploring different possibilities online, Kate told me about actively seeking out conferences. Specifically, Kate mentioned a two-day conference she’d be attending over the weekend, a conference that was outside of school time and at her own expense. She was hoping to take part in some technology sessions expressly geared toward the art world.

With the attention she turned toward technology, Kate had at least one particular, technology-centered vision for her classroom. Tired of crouching at table after table demonstrating the same drawing, Kate wanted a document camera she could use to show her students drawings, create videos, and so on. To procure this, Kate had written a mini-
grant to try and receive funding for this technological tool. She told me, “That’s how interested I am in incorporating technology that I’m trying to seek out appropriate avenues to get it in the classroom.” The day that I conducted her initial interview, Kate had just found out that, to her frustration, she had not been awarded the grant. “…Grrrr. Technology. I’m trying! I’m trying! So there’s a roadblock for you.” Later in the year after Kate pursued this further, she was provided a somewhat similar document camera that had been lying around the drama department in its box, unused. Although it was not exactly what she wanted, Kate judged it to be better than nothing.

Along with her interest in technology inside the classroom, Kate was the teacher who did the most with digital literacies outside of the classroom. She described for me a web-based photo program she used for her personal photography, along with telling me that she had a blog that she updated regularly. Despite this, she felt her practices were “still basic, I think, compared to what some students are capable of.”

Along with her own practices and her perceptions of what students were able to do with digital literacies, Kate was amongst the most liberal of the teachers in how she allowed students to choose and engage with personal technological tools. She allowed students to turn in sketches that they had done on their iPads; she encouraged students to listen to music on their phones, if they felt it helped them to focus. She linked this with her own experiences as someone who used these practices in her interactions with art. She noted:

When I’m working, I have my headphones on. When I’m painting at home, I have my headphones on, so if that’s going to keep the students engaged. You know, I have a few students with ADHD. That’s the only way I’m going to get them focused, is if they have that. I actually have an extra pair of headphones, so that those students who seem to be disengaged can have headphones in…
The way Kate used personal digital literacies was reflected in what she considered to be appropriate and desirable in the art classroom.

Additionally, Kate saw a clear link with the way new literacies impacted the way she taught art class. For example, in one lesson I observed, she encouraged students to take selfies on their cell phones as a basis for the self-portraits they would be creating in class. She talked to me about the way these types of things have, “changed the way people do self-portraits.”

However, despite this open and welcoming attitude toward student practices, what I saw in Kate’s practice was a classroom where the technology present was still largely held and directed by the teacher. Like Eduardo, Kate attributed much of what she had learned about digital literacies to her graduate school education. Additionally, much like Eduardo, Kate sometimes expressed frustration at receiving limited support and her perception that she had to do much of this searching and implementing of technology on her own. In her exit interview, Kate addressed some of these frustrations, saying:

I really don’t have any support to do it. I don’t have training in any way other than my graduate studies. So it’s really me seeking the information out, me taking the time to find things online. Thankfully, this year I do have prep time that I can be doing that, but I have to limit myself on how much time I really want to spend on it.

As I talked to Kate, it became apparent that while she had the drive and the desire to incorporate digital literacies into her classroom, she was also reaching the conclusion that without this being a priority in the larger system, she was limited in what she could do. When I asked Kate whether she envisioned Washington High as a place where digital literacies could thrive, she had this to say:

It could happen, I just don’t know – you know money, and politics. And I think one of the big things I’ve learned is that it’s always political and philosophical.
That was the big takeaway from grad school, so it’s just playing the game and trying to make it work for the students.

Kate saw herself as doing this, as “playing the game and trying to make it work for the students” to varying degrees of success. For Kate, how digital literacies fit into the scheme of her classroom was just one small piece of how she read the larger context in which she was a part – a context that is always “political and philosophical.”

**Ian**

Ian, a biology teacher, proudly noted his membership in the science department. When I talked with Mindy about digital literacies in the school, it became evident that the science department was held up as “the technological” department at Washington. Accordingly, when the new building of Washington was built next door to the old building, the science department and the math department were moved into their new classrooms a full year before the other departments joined them. This meant that these departments had use of the Interact boards and some of the other technological tools for an extended time before the rest of the school. Due to this, many of the science and math teachers became sort of de facto leaders in helping their peers learn how to navigate the new technological tools. Additionally, all of the science teachers and most of the math teachers were given their own set of classroom clickers. Many of the teachers employed these clickers on a regular basis, using them with students to take quick formative assessments, engage in review games, and administer unit tests. The use of these clickers seems to be at least a little bit prestigious – all of the teachers mentioned them to me at one time, as did the vice-principal.

Ian, a member of this “technological” department, was positioned as a technology leader within the school. McDougall (2010) noted that of the teachers she viewed as
holding a *futures-oriented* perspective, many of them saw themselves and were seen by others as leaders with technology. This was true of Ian. Of all the teachers I interviewed, Ian appeared the most confident about his use of digital literacies in the classroom, a fact that was evident in an analysis of his survey answers and in our talks together. Along with his department head, Ian helped train the teachers on how to best use the new Interact boards. He described to me the process by which he learned about the Interact board and then prepared to teach others about it:

> Yeah. So, we watched the videos, we did trial and error, and then by the time we – me and my now boss…and two other teachers made a guide, called *InterWrite for Dummies*…and I think we were given a few training sessions during professional development time. And so we did like two or three trainings before the rest of the building came in…So we did that a year-and-a-half ago. I don’t know if people use it [the manual] anymore, but I think we accomplished our goal of making sure they’re not just huge paperweights so that most teachers can do the basics.

Along with this initial training, Ian has continued to be involved in leading professional developments (PD) at Washington High, often at the bequest of the administration. Ian told me that during the last PD centered on technology, teachers had the options to choose which session they wished to attend. Ian led a training on advanced uses of the Interact board. Besides these more formal leadership roles, Ian also reported being sought out by teachers for help with technology. For instance, at the time of this study, Washington High was in the process of converting to a new school administration software and online grade book, Aspen. This seemed to be a source of stress for teachers in the school, as many of them reported its implementation to me. Ian described taking time out of his team’s last meeting to help teachers who had specific questions, like how to use the attendance function or categorize assignments.
Ian seemed to be one of the go-to people teachers could turn to when they had questions concerning technological tools or software. In line with this, of the teachers I talked to, Ian was most likely to equate digital literacies with technological tools themselves, concerning himself with the tools’ basic functions. In our discussions about both opportunities and challenges of digital literacies, most of Ian’s talk focused on the tools he employed in the classroom. He spoke of clickers that periodically froze, the frustrations of finding that PowerPoints no longer linked with carefully selected pictures, and the ways the new grade book system made it easy to give grade printouts to students. Even in his discussion about his personal uses of digital literacies, Ian seemed to focus more on software and tools than any social practices. When I asked him about his uses outside of school, Ian replied: “I can do Word and PowerPoint and we just got a new grading system for attendance and to put in the grades. So I can – as opposed to a teacher who started using a computer at an older age – I started using one in third grade – and I feel like I can problem solve.” Ian noted being able to use specific programs and feeling at home on a computer; whether he engaged in more personal forms of new literacies remains unclear.

Ian greatly appreciated the ways in which digital literacies allowed him to refine his own teaching, putting much of the ownership of these technologies onto his own shoulders. Ian spoke about how he believed his use of these technological tools made him a better teacher, noting: “I use PowerPoint in every class and that works okay. Every year I have to do a better job of trimming the fat and making them exciting and making it so that they’re not just too wordy and kids will actually get something out of it. So that’s a strength in that it gives me a structure.” In observing his class, it was apparent that Ian
stuck to a pretty consistent framework, one in which PowerPoint and clickers were heavily featured.

Ian valued the way his own use of the Internet allowed him to improve his teaching, noting, for example, all the videos of cells available for his biology class. However, he did not express interest in more student-centered approaches to technology uses. If anything, he was opposed to putting devices that would allow digital literacies into students’ hands. When I asked him about his idea of what a classroom that was student-centered in terms of technology might look like, he seemed reluctant to entertain the idea. Ian said:

Even if they [the students] all had Internet access on their desk, it doesn’t mean they would find new discoveries other than other ways to just quickly get the information in a simpler form. So I try to stay away from it. If possible. So I would need to know how to direct them to information that is not too simple and not too complex… I’m fine with just the content and just teaching them without them having personal technology at their desk.

Despite his expertise with technological tools, Ian still saw digital literacies as something that would distract students away from the more important business of schooling, if left unchecked.

As I talked with Ian and observed him in the classroom, it became apparent that he was skilled with the functionality of the school’s technological tools. For this purpose, he was well skilled to lead. However, as far as utilizing technology in a way that established new literacy practices, Ian wasn’t simply not incorporating these into his classroom – he was actively resisting them. While both his survey and his interviews might paint a picture of a futures-oriented teacher, his practices painted a more complex story. What it means that Ian is held up as a technological leader within the sphere of the
school provides insights into how the notion of “digital literacies” is taken up within Washington’s school culture.

**Michelle**

There was much to set Michelle, the graphics art teacher, apart from the rest of the teachers I observed and interviewed. Firstly, her classes were considered a part of the vocational sector of the comprehensive high school. Michelle’s classes were electives; they were also career paths for many of her advanced students. With this in mind, the vocational track of the school, Michelle’s classes amongst them, had practical, career-related goals. Michelle discussed what the design of her classes helped students accomplish:

> My kids can get certified in any of the programs – any of the five programs that I teach. I try to get them to get Photoshop certified – that’s the first one we do – cause that’s the most important one…if you want to do animation you need Photoshop. If you want to be in photography, you need Photoshop. If you want to do graphic designing, you need Photoshop. So that’s kind of the one that ties everything together, that is used in every aspect of the industry…It’s an industry-recognized certification.

Because of the nature of her classes, Michelle was unique in that the technology she was incorporating had direct correlations with the technology that was used in graphics art fields outside of school. There were real world, job-related equivalents to the digital literacy practices she was teaching. The digital literacy practices that Michelle chose to incorporate had much more of a clear cut relationship to the outside world than the ones Cheryl was attempting to incorporate into her language arts class, for instance. For Michelle, digital literacies were integral to her discipline. Michelle herself recognized this discrepancy. She said, “Yeah, and you see for me it happens naturally, technology. For a lot of people it doesn’t.”
This allowed Michelle to take explicitly stated “real world” approaches to the practices she was adopting. She used these real world applications to center and justify her curricular and instructional decisions. Favoring Macs over PCs, incorporating ever more web content, favoring digital over print – all of these were attributed to the way things work “in the industry.” When I talked to Michelle about students collaborating on digital literacies, she had this to say:

Sometimes you’ll get those particular kids who will say, “Oh, I will help this person,” or I try to let them sit next to their friends so that they can talk to each other and help each other out. And I don’t have a problem with that. I think that’s a good thing… ‘Cause that’s what you’re going to do in the real world.

For Michelle, decisions about incorporating new literacies could easily be made when comparing what students were doing with how these practices operate in the job field.

Because digital literacies are inherent to graphic arts, Michelle also enjoyed a privilege to which none of the other teachers I talked to had access: individual computers for each student. In fact, because Michelle was a teacher when the new school was designed, she got to help determine the layout of the room in regards to the technology, an opportunity none of the other teachers was provided. In a class that I observed, Michelle demonstrated some Photoshop techniques on the Interact board in the front. The students followed along, then attempted to do the same on their own computers. These individualized technological devices make possible digital literacy practices that are more difficult to capitalize on without ready access to these tools.

As befits a teacher with a futures-oriented perspective, Michelle felt quite confident and comfortable with most of the digital literacies she incorporated into her classroom. Having worked in the field of graphic arts, Michelle felt she had a pretty good base from which to start. She did admit that at times it could be overwhelming to stay
abreast of the new developments in the field, especially since she was the only teacher working in her discipline. Much of the onus was put on her to keep current and incorporate new technologies and practices. When I asked her how she kept up with the new technologies, she replied: “Oh my god, that’s the hardest part. I have to do it all on my own.” Still, Michelle expressed reasonable confidence in her ability to do this, especially because she considered herself a “quick learner.”

What she felt less confident in tackling were digital literacy practices that fell outside of the graphics art field. As Michelle indicated in her survey, she often felt she wasn’t doing “enough” with technology, especially when it came to practices outside of her field. For instance, she felt pressure from her boss to incorporate Skype into her lessons. She acknowledged her lack of knowledge about practices such as these, saying, “Well, like I don’t really know a lot about Skype and Twitter and all that stuff. I would like to learn that because they’re saying, ‘Oh, you should Skype in your classroom.’ My boss says, ‘You should Skype.’ That’s fine. I’ll give it a shot.”

When I pressed her further on how she would use Skype, Michelle replied, “I don’t know! Like have a presenter Skype instead of come in the room.” When the digital literacy practices felt less organic and could be less justified by direct relationship to outside careers, Michelle seemed to flounder on how to incorporate practices as surely as her peers did. In this case, it was particularly clear that Michelle viewed the integration of Skype into her classroom as something imposed on her by higher ups and as a token gesture toward technology. However, because graphic arts itself so clearly call for digital literacies, Michelle had adopted a stance that was distinctly futures-oriented.
Beyond a Typology

As discussed, McDougall’s (2010) discussion of what factors went into making a futures-oriented approach to teaching, she listed several aspects of a teacher’s identity that might play into her or him being able and or willing to take on this approach. As noted, the teachers in my study took on at least some characteristics of this futures-oriented approach. In using this typology framework, I hoped to analyze how teachers who showed aspects of these futures-oriented characteristics understood and took up digital literacy practices in their classroom. Typologies can be useful as tools to investigate the dynamics of a situation – in this case how teachers’ orientations interact with digital literacies and schooling. However, in talking to teachers about their beliefs and watching the way digital literacy practices played out in their classrooms, it also became apparent to me the limitations of these sorts of classifications. In this case, what the typologies could not directly account for was how the teachers’ beliefs about digital literacies did and did not bear out in their practices.

All of the teachers spoke about the potential ways digital literacies can and do excite their students. Kate was typical of this viewpoint. In her reasoning for wanting to include digital literacies in her classroom, she noted: “I think it’s something that they [the students] use every single day, and it’s important to integrate that in how you’re teaching, so that students are engaged.” Several of the teachers noted the ways in which their instruction was enhanced or improved by technology: Michelle spoke about the advantages of multimodality, the fact that videos and guided PowerPoints allowed students to work at their own pace and have tools besides a print-based textbook to turn to; Penny relied heavily on her ability to import graphs and grids in her math class; Kate
noted the way that technology allowed her to provide students with examples of artwork they would otherwise never see, that it allowed her to share her own art processes in real time in a way that all the students could see and grasp.

Many of the teachers were confident in their abilities to take on and master new literacies, and many of the teachers took it upon themselves to learn new literacies, sometimes at cost to their own personal time or finances. Michelle sought out conferences she could attend and did extensive research online to “keep up with the new stuff.” Ian felt confident in his own abilities to navigate technological tools and willingly taught other teachers how to use these devices.

In many of the instances where I interacted and interviewed these teachers, I saw evidence that they possessed many of the mindsets, opinions, and perceptions of a *futures-oriented* approach sort of teacher. Despite this, when I observed lessons in their classes, I saw very little evidence of any transformative digital literacy practices occurring. Instead, I observed teachers using technological tools in pretty conventional, traditional, “schooling” sorts of ways: Penny solved geometry problems on the Interact board, something that allowed her to pull up visually-pleasing graphs and grids, but otherwise was not that much different than solving these problems on her whiteboard. Ian had his students answering test questions by “clickering” in their answers, a practice that gave him some additional data about their progress, but otherwise, was not that different from a traditional Scantron test. Cheryl showed clips from *Macbeth* using her overhead projector and had her students write character traits on the Interact board; meanwhile, the lesson she had planned using a program called *Shakespeare in Bits* went by the wayside when she couldn’t get her Mac to mirror the sound correctly. In reconsidering the
defining characteristics I use in determining digital literacies, the teachers seemed to especially embrace the multimodal aspects of these sorts of texts. However, the interactive components were often glossed over or ignored: opportunities for collaborative and collective buildings of intelligence, fluid notions of expertise, chances to experiment and play with conceptions of identity – these characteristics were missing from teachers’ planning and instruction.

Where were all the transformative, creative lessons incorporating the most promising aspects of digital literacies? Where was the collaborative authorship, the employment of students’ multimodalities, the remixing of the traditional with the avant-garde that scholars such as Lankshear and Knobel (2006) advocate? Why did the teachers, many of whom show at least some, if not all, of the characteristics of someone who might take a futures-oriented approach continue to use technological tools in a way that reaffirms the status quo, that continues schooling in a way that is “business as usual”?

One compelling explanation may be that McDougall’s (2010) characteristics of teachers are unable to account for some outside factors that constrain and limit even futures-oriented type teachers. As with all typologies, thinking about characteristics that may determine, in this case, teachers’ orientations toward digital literacies can serve some important functions. In thinking about how teachers view literacy and their roles and responsibilities in the classroom, this particular typology can help provide insights into some important reasons digital literacies are or are not incorporated. In thinking about teachers as individuals with characteristics that play out in why and if digital literacies are taken up, typologies such as this one help distill and allow us to understand
some key determiners. Thinking through notions such as a teacher’s agency, her risk-taking, her security, her philosophies (such as a traditional banking approach) – all of these provide illustrations into how factors such as digital literacy practices do or do not get taken up.

However, as with any set model, there are limits as well. The way that typologies such as this one necessitate decontextualized categories frozen in time creates the perception of boundaries more clear-cut than is truthful. Typologies have no ways of being fluid; they are categorical by definition. Models such as this one cannot quite account for the dynamic, contradictory, complex interactions of people, their tasks, and their settings. As of such, while useful, they are also not necessarily predictive. While all of my participants showed characteristics of this futures-oriented perspective, their practices in the classroom did not necessarily align with what I would expect of someone with these perspectives. In the last sections of this chapter, I posit why this is most likely so. Namely, it all comes down to context. Finally, I reflect on my own thoughts during the time I spent observing teachers in the classroom. How possible is it for even a teacher who is very “new literacies”-minded to transform her classroom?

**Technology is Different than Digital Literacies?**

McDougall’s (2010) framework provides one way to think about who may be likely to take up technology in the classroom. It also offers awareness as to why this may be the case. What it does not explicitly address is how digital literacy practices get enacted. As I watched teachers use technology in the “old wine, new bottles” (Lankshear & Knobel, 2006, p. 55) sorts of ways decried by new literacy scholars, I contemplated the different between “integrating” technology in the classroom and “transforming” the
classroom through digital literacy practices. There is little doubt in my mind that what I was witnessing was more of an “integrative” approach than a “transformative” one. Teachers made conscious, concerted efforts to include technology in their instruction. However, the ways in which they incorporated technology had little to do with the collaborative, creative, generative, and collective practices praised by champions of digital literacies. Amongst the vice-principal, and the teachers of Washington, and myself, all of us were enthusiastic proponents of digital literacies in the classroom. So why the discrepancy? Why was what I actually witnessed in the classrooms so different from what I was expecting to see? As is often the case in meaning making (Bahktin, 1981), it comes down to the contexts from which we were coming. What I meant by “digital literacies” was vastly separate from what the teachers (and also the vice-principal) meant by “digital literacies.” And there are good reasons for this.

As previously discussed, schools are notoriously traditionalist (Tyack & Tobin, 1994). For schools and teachers to fully embrace digital literacies as defined by scholars would require a rethinking of concepts like authorship, plagiarism, expertise, and even what constitutes knowledge (Lankshear & Knobel, 2006; Thomas & Sassi, 2011; Vasudevan et al., 2010). This has been discussed at length. However, what I have not addressed in any real detail here is that teachers may not even be aware that these concepts should or could be renegotiated. This points to a real and vast gap between the world of school and the academy (Freire, 2000; Gramsci, 1971).

As the researcher in this situation, what I meant by “digital literacies” and how I thought about technology in school was almost entirely shaped by the literature I read and the lectures I attended in graduate school. As a practicing teacher, I didn’t contemplate
what form my practices in technology use took at all until I participated in a masters class explicitly dedicated to “new literacies.” Once out of the classroom, my professional time has been largely dedicated to learning and understanding concepts such as “digital literacies.” I’ve had the time, the space, and the resources to dedicate my learning to issues surrounding this topic.

This is not true of most practicing teachers. Whereas academics have the time and the means to tease out concepts such as “new literacies” and “Web 2.0” and linear vs. nonlinear ways of teaching and learning, this is not the norm or necessarily the priority of most classroom teachers. In her study, McDougall (2010) noted the way that even the futures-oriented teachers rarely linked “technology” with “literacy.” It is still another leap to equate “technology” with practices as opposed to tools.

Therefore, with the exception of Eduardo and Kate who had learned about some concepts of new literacies in their graduate school, it is likely that the teachers and I were talking different languages. Again, to reiterate, this moves beyond just terminology, what I meant by “digital literacies” versus what they meant. This comes down to entirely different conceptual frameworks of education. In a sense, I’m thinking non-linearly in a system and a setting that almost always operates in a linear fashion. The teachers and I were coming from different contexts. They are immersed in the world of school and schooling (and one that is specific, in itself, to Washington High). While I was once part of a schooling world such as this one, I have also been shaped and changed by the context of the academy. As of such, it’s not surprising that what I was expecting to see concerning digital literacies, from my privileged position of time and resources, was very different than what the teachers conceived in relationship to digital literacies.
Lastly, I do not mean to oversimplify that having access to knowledge about
digital literacies in their creative, collaborative potentials and incarnations leads to these
practices’ fruition. In my opening vignette, I noted my struggles with using these
practices in authentic and transformative ways. Eduardo and Kate, despite their
familiarity with these concepts, also wrestled with how to incorporate digital literacies in
their classrooms. Next, I detail another way that context complicates and limits the
usefulness of typologies that boil situations down to individual teacher characteristics.

“You Have to Have a Plan B”

The New London Group (1996) and new literacies theory as envisioned by those
such as Lankshear and Knobel (2006) have certain assumptions implicit in their
discussion of digital literacies and how these practices can and should function, both in
the classroom and in the larger world. One of these assumptions is really very
fundamental in enabling these practices to occur at all – that of technological tools
available to students and the Internet connection that allows these sorts of practices to
thrive.

This fundamental, however, is something of which many schools, particularly
underfunded, urban ones, cannot be assured. As a newer school, Washington High School
is fortunate in that is does have technological tools that may not be available to other
older, less funded urban schools. However, as I observed in the teachers’ classrooms,
these technological tools were not always reliable. Interact boards failed; computers took
ten minutes to boot up and allow students to log-on. Perhaps even more problematic for
the teachers, however, was the fact that the Internet connection was temperamental and
could not be counted on with any predictability. As a low-SES school, Washington is not
alone in its concerns about technology failure. Even when high-SES schools and low-SES schools are equal in their access to technological tools, high-SES schools often have access to the management, maintenance, and support for these tools that low-SES schools don’t enjoy (Warschauer, Knobel, & Stone, 2004).

In my comparatively short time observing teachers using technology in the classroom, I saw several instances of technology failures. Teachers told me about countless more. Cheryl had to abandon a lesson plan entirely when the program she had planned to use would not sync up with the projector. The sound translated a bit, as she put it, like the teacher from Charlie Brown fame – wah wah wahhhh. Penny’s electronic pen froze in the midst of working out a geometry problem (although she quickly and expertly unfroze it by clicking a few of the buttons on the screen – something she told me she had learned only through practice). During a test over the scientific concept of fermentation in Ian’s biology class, a student’s clicker froze and he was unable to enter his test answers. Ian broke out a screwdriver, tinkered with the clicker for a moment, shrugged, and offered the student a new clicker. In the nine observations I conducted, I bore witness to countless technological glitches, both big and small.

Cheryl noted the irony of one of these encounters. As she tried to type a character description for the students to see onscreen, her keyboard froze. No matter what she tried, she couldn’t get the keyboard to function properly again. She had to move on with the lesson. She told me about an exchange she had with her special needs co-teacher after I had left the room:

And then it stopped typing. Which, of course, you left and [the co-teacher] said to me, “She’s doing the technology thing.” And I said, “Yeah, she’s doing the technology thing.” (laughs)...And she said, “Well, hey, things don’t work!”…But to us – this is the daily occurrence of our lives.
For the teachers, this was an expected, if annoying, part and parcel of using technology in the classroom. Cheryl told me, “It’s just part of our day. I mean, I don’t really get too worked up about it anymore.” When I asked her how she deals with these failures, she was matter-of-fact in her response: “I always have a Plan B. You have to have a Plan B. Every day is a Plan B. Some days the computer doesn’t come on, right?”

Another teacher, passing through at the time that this discussion occurred, commented: “I start with that plan.”

The more that I talked to the teachers, the more apparent it became that everything they planned that incorporated technology had to be double or triple planned. They had to have something waiting in the wings if (and when) the technology inevitably failed. For some teachers, this was enough to ensure that they limited the use of technology in the classroom, or, perhaps, did not use it much at all. This was certainly the case with Eduardo. In discussing his reluctance to try out wikis in his class, despite his enthusiasm for the concept, he said:

I don’t have the support to do it. I don’t want to find myself in the middle of something. I mean, because I’m not very savvy, very knowledgeable on that, but I’m learning. I want to use it, but because I have little time and little support, you know, I feel…It may be a psychological block I have, because, “Oh my gosh, what if it goes wrong? We’re going to waste the whole class. I will have to stop here, and that’s the end of it. ‘Cause what can I do next?” And I stopped.

For Eduardo, technology failure was a proposition too chancy to risk. Trying something that was outside of his comfort zone was not something he was willing to do because a “Plan B” for a wiki-type activity was not easily imagined. He would be left without a backup and would have, therefore, “waste[d] the whole class.”
Eduardo was not alone in proclaiming that his fear of technology failure limited his use of it in the classroom. When Cheryl was asked whether her knowledge that the technology often failed kept her from trying new technologically-based practices in her classroom, she sighed and said, “I mean, yeah, you get frustrated and it’s like, ‘Well, I can’t…’ I mean, especially with like the double periods and… I can’t worry, I have to keep plugging through…” While both Cheryl and Eduardo professed believing that digital literacies belonged in schools, that they were imperative to include in curriculum, their experience with the failure of both technological tools and the Internet caused them to rethink these literacies’ inclusions in their classrooms. This is especially distressing in the case of Eduardo, who expressed wanting to use digital literacies in what could, perhaps, be transformative ways. Wikis themselves hold promises for literacy practices that are fluid, collaborative, and prioritize collective intelligence models (Beach, Anson, Breuch, & Swiss, 2009).

Even when threat of technology failure did not discourage teachers from including it within their classrooms, this omnipresent threat clearly influenced the ways in which they chose digital literacy practices. For instance, I asked Penny if there was a time when she wasn’t able to fix her InterWrite board and, in that case, what she would do. She replied, “If that happens, then I just use the [white]board. So that’s why all of my lessons are set up so that I could use the board if I need to.” Penny accounted for the threat of technological failure by making sure that she could seamlessly switch over to something else, if the failure should occur. Ian had a similar philosophy concerning the possibility of technological glitches. He explained to me that when he’s using some sort of technology, he always has a backup plan: “I am calm, and I plan ahead of time, and I
Ian uses technological tools such as clickers in the classroom, but he has to be ready in case they fail (as they sometimes do). To address this, he needs to have some sort of non-technological backup plan to which to turn.

**The Problem with Needing a “Plan B”**

The problem with not being able to rely upon shaky technology is that makes this “Plan B” a necessity for teachers. Because teachers at Washington almost expected the technology to fail – as experience had taught them was a constant possibility – they expressed the need to be able to move quickly and smoothly to a new backup activity. As to be expected, the teachers want the backup activity to be able to take up or replace the lesson that was to be carried out using the technology.

This need to “plan for the worst” may be one reason that digital literacies are not being used in their more transformative incarnations. Many of the creative, collaborative new literacies out there are not easily recreated without the technological tools and/or Internet capabilities that enable them. As Eduardo pointed out, if students were expected to work on something like a wiki and the technology were to fail, a teacher could very well be left high and dry while he scrambled to fix the technology. Whereas, in the cases of Penny and Ian, should their technology fail, they could simply move the lesson to older forms of technology – the whiteboard, the pen and paper.

In this case, teachers are weighing their options and cutting their losses with regards to technology. If the technology cannot be counted on, the logic goes, better to have something to fall back upon than to fail spectacularly with a lesson that cannot be
recreated when the technology acts up. As noted, Lankshear and Knobel (2006) described the phenomenon of teachers using technology as “old wine in new bottles” (p. 55), or accomplishing the same tasks they’ve always done with newer and fancier tools. However, in the case of the teachers at Washington, there may be good reason for these actions. With this sort of lesson planning, if the “new bottles” fail, at least the “old bottles” are still there to fall back upon. If teachers were to use new literacies practices in ways that were truly transformative, they would be required to rely and depend on the technology in a way they simply did not feel was a safe bet.

In the “real world” of teaching, if a lesson fails, there can be real consequences—not just a failure of learning, but in teachers’ views, a potential loss of control, a concept I explore more fully in the next chapter. In the social context of schooling, lessons that fail can be disastrous. Returning to my previous point, when a typology is decontextualized and used as a standalone measure of teachers’ orientations, it is contexts such as these, the social setting, that are missed. When thinking about teachers through the language of typologies, all of these contexts become necessary pieces of the puzzle, essential for fully analyzing and understanding the larger picture. I will return to this matter of typologies again in the last chapter, noting how concepts such as “complex personhood” and “ghost stories” further complicate their usages (A. Gordon, 1997).

Some Empathy

As I have previously noted, I am someone who has been thinking about incorporating new literacies into the classroom for a long time now. I was experimenting with these practices in my own classroom, and, through my graduate students, I am now well versed with many different forms of practices and the theory behind them.
With this being said, I sat through many of the lessons I observed with these well-meaning and hard-working teachers at Washington scratching my head. I found myself trying to think about how I, personally, would approach incorporating digital literacies into these classes in any way that was transformative and meaningful. I left their classrooms with a new appreciation of how difficult this is. The unreliability of the technology would give pause to even the stoutest teacher. There is also the matter of the lack of student-centered technological tools available with which to contend. Going to the lab is an option, but the computers are slow and the connections unreliable. The technological support, if something does fail, is at least two to three days away, once the overworked IT department can get around to it. To really incorporate new literacies in ways that are transformative, I found myself realizing the leap teachers must make in order to rely on something deemed unreliable. One would almost need two separate lesson plans in order to make transformative practices a reality – one that capitalizes on the power of new literacies, and one to take its place when something inevitably goes wrong. Add to this the structure of school one must consciously divert – the high-stakes, the narrow definitions of success, the framework of the institution itself – and I walked away from Washington with nothing but empathy for these teachers’ situations.
CHAPTER SIX

“CONTROLLING” DIGITAL LITERACIES

As I spent time talking to teachers about their beliefs and practices surrounding digital literacies and watched them manipulate technological tools in their classrooms, one major theme came up repeatedly: control. Digital literacies change and complicate the roles of “teachers” and “students” in magnified, sometimes unfamiliar ways. Technology raises issues of power dynamics, notions of authorship, what counts as official knowledge, and where attention is directed. When it comes to digital literacies, all of these topics are up for negotiation (Mahiri, 2011; Lankshear & Knobel, 2006).

Accordingly, the teachers and administrators at Washington found themselves wrestling with issues of control as they sought to weave together curriculum, instruction, and digital literacies.

The issues of control came up in a multitude of ways, taking on different incarnations depending on the teacher and the context. For many of the teachers, digital literacies presented challenges in controlling the roles of these literacies and the ways in which both teachers and students could take them up. For some teachers, digital literacies presented opportunities, means to control students and hold them “accountable.” For others, it was a way to give control over to the students themselves, to somewhat reimagine the roles of teachers and students. And, interestingly, the majority of these teachers expressed their own frustrations for the ways in which their digital literacy usages were controlled and dictated by the administration and Information and Technology Department.
In this chapter, I first discuss the ways in which teachers sought to control students through digital literacy. Ways in which this was accomplished included both limiting and shaping what counts in the classroom as “proper” digital literacy use, as well as using digital literacies in ways that provides the teacher with more control and/or helps make the students “accountable.” Interwoven in this discussion about teacher control is an analysis of the historical and social contexts of a perceived need to control adolescents, in particular youth of color. How control is viewed and functions in schools is also discussed. As an urban high school with a fairly diverse racial, cultural, and linguistic population, Washington serves as a fitting illustration for the ways in which these many factors interact and inform one another.

From there, I turn to counterexamples of teachers purposely giving control of digital literacies to students. What mindsets contribute to this practice of the giving over of control? What are the challenges and opportunities that come along with this turning over of digital literacies? Next, I take a look at the teachers’ own frustrations about the control of digital literacies imposed upon them by the administration and the technology department. Finally, I examine how these issues of control play into the New London Group’s (1996) conceptions of Available Design, Designing, and Redesign. How do these notions of control play into this system of design? What do they make possible and impossible?

**Control of Students’ Digital Literacies by Teachers**

Perhaps somewhat unsurprising to me was that the majority of teachers interviewed expressed some desire or perceived need to control the use of digital literacies by students in their classrooms. They accomplished this control by monitoring
personal technological device use, controlling access to technology tools, making choices about what sorts of sites were appropriate or not appropriate for school, and oftentimes keeping technology within teacher (rather than student) hands.

Their reasoning for wishing to employ control ran the gamut of explanations, with several teachers expressing beliefs that digital literacies often serve as distractions for students. For instance, Cheryl had this to say about students and digital literacies: “Yeah, sometimes they get distracted by the technology. They think, ‘I don’t want to work on this essay. I’m gonna play Angry Birds,’ or some nonsense. Or they find an excuse to look up what the Kardashians are doing today.” Although the teachers, including Cheryl herself, believed that technology could be used effectively in the classroom and expressed this as an aim, they also appeared wary of the ways it could “lead students astray” from the point of what they were doing in class.

Interestingly, many of the reasons given for controlling technology in the classroom play into the prevailing societal narrative that positions adolescents in particular ways. The commonly accepted story of adolescence positions young people as oftentimes being in danger and/or dangerous and in need of the protection and supervision of the more mature adults around them (Vadeboncoeur, 2005). In the next section, I examine the ways in which this narrative interacts with both digital literacies and how the teachers of Washington attempt to reconcile these factors.

The Story of “Adolescence”

Unruly. Hormone-crazed. Awkward. Out of control. Risk seekers. This familiar vernacular, invoked from the hegemonic position of the adult or the researcher, carries the same panic, fear, and the need to control as do such institutionally
sanctioned versions labeling youth “at risk,” “challenging,” and “troublesome” (e.g., Moje, 2002) (Vadeboncoeur, 2005, p. 5).

In their edited book *Re/Constructing ‘the Adolescent,*’ Vadeboncoeur and Patel Stevens (2005) – as well as their contributors – make the case that the notion of a set developmental stage termed “adolescence” is a socially constructed concept that serves to position, define, and limit youth in particular ways. This label denotes and calls to mind very specific images: naivety, innocence, defiance, and “incompleteness” amongst them. There is an expectation that youth are unfinished, impressionable, and in need of guidance. And control. As Vadeboncoeur puts it, “Simply put, the ‘adolescent’ is cast as an objectified entity, in need of leadership, guidance, and control from the adult” (p. 5).

This term “adolescence” encapsulates these very particular impressions in ways that are accepted as universal truths. These impressions are often based purely on age, with little accounting for a person’s ethnicity, race, social class, sexual orientation, religious affiliation, or gender (Moje & van Helden, 2005). Positioning youth in such a way provides justification for limiting and monitoring their movements in time and space – accomplished through imposed schedules such as schooling and curfews (Vadeboncoeur, 2005). It can also be accomplished by surveillance and control of actual bodies. Hunter (2005) notes the ways in which students are encouraged to line up, raise their hands to speak, and even required to ask permission to use the bathroom. This view of adolescence positions teachers as adults needing to guide, watch, and protect youth.

**Adolescents and the Internet**

How this “story of adolescence” interacts, informs, and butts up against ideas about youth employing digital literacies plays out in both predictable and unpredictable
respects. In conducting a search with the terms “Adolescence” and “Internet” in the ERIC database, 500 and some odd studies were suggested. Looking at just the first 20 entries, 14 spoke to the potential “dangers” youth might face in using the Internet. Amongst the titles I scanned, phrases like “cyber dating abuse,” “recognizing Internet addiction,” “cyber aggression,” “cyber victimization,” “cyber bullying,” “electronic harassment,” and “risks on social network sites” all appeared. Again, these were all within the first 20 entries of the database.

There is much that society at large worries about in relationship to youth and digital literacies. Popular media wrings its hands about potential dangers of youth and the Internet – sexting, cyberbullying, youth damaging their future by posting damaging pictures of themselves, inappropriate relationships formed and carried out online – popular imagination runs wild with the potential harm being done to (and by) youth (boyd, 2014). “How Your Smartphone is Turning You into a Zombie” is not an unexpected or surprising headline (Fields, 2014); popular media is full of these. This is not to deny that there are not real issues relative to communication and cognition. However, as Moje and van Helden (2005) point out in a similar argument about youth and popular culture: “The assumption implicit in such discourse – that young people will move from ‘innocence’ to some sort of deviance as a result of their engagement with artifacts of popular culture – reveals what adults believe about both young people and popular culture” (p. 212-213). As Moje and van Helden indicate, these assumptions draw upon assumptions of all youth as overly naïve and irrational. Despite this, research has shown that youth who are victimized on the Internet are oftentimes the youth that are also victimized off of the Web. Their increased vulnerability in real life can lead to more risky
behaviors online, as well as make them more susceptible to predators. Yet, the narrative concerning the dangers of the Internet often portrays upper- to middleclass youth as being those most at risk (boyd, 2014).

Along with presenting youth as in need of protection, the narrative of adolescence also presents youth as latently dangerous (Moje & van Helden, 2005). Popular culture and the Internet serve as the catalysts that set off the ticking time bomb that is the adolescent. In the case of youth and digital literacies, the backlash reveals an overly alarmist viewpoint concerning youths’ susceptibility and danger. As discussed later in this chapter, seeing adolescents as “dangerous” is particularly prevalent and damaging for low-income and/or racially minoritized youth, populations that are already heavily marginalized (Haddix & Sealey-Ruiz, 2012).

In the midst of this conversation concerning adolescents and digital literacies are the teachers of Washington. One can see how tricky it is to navigate all these lines of thought while still using digital literacies in ways that capitalize and utilize their potential power. In many of the cases of the teachers at Washington, it is possible to see how the narrative of adolescence impacts their uses of digital literacies: especially in regards to their need to control and protect their students.

Several of the teachers expressed viewpoints that could be categorized as beliefs about young people needing to be supervised or protected from the “dangers” that come along with digital literacies. For instance, Cheryl talked extensively about her own three children – a tenth grader, an eighth grader, and a fifth grader. Making decisions as a parent rather than a teacher in this case, she has chosen to limit both what social media sites they were allowed to partake in (no Instagram or Facebook for the younger ones)
and the data/tools that were available to them. Cheryl expressed worry about cyberbullying and access to sites/information/visuals she does not want her children to have. She was especially wary when she relayed to me why she relented in letting her tenth grader have a Facebook account:

Cheryl: Yeah. I have a tenth grader, an eighth grader, and a fifth grader at home. My tenth grader was just given a Facebook account, and it was because he needed it to find out when his soccer practices were for the high school. Which really aggravated me. First of all, I have no access to that, so it’s really aggravating…Um, that…you read the stories about the kids that get bullied and harassed and I don’t want that. I don’t want pictures of my kid on the Internet that are disturbing. I have an eighth grader, this summer, he was talking to a friend of mine, and it came out that he had an Instagram account. And I was like, “What? What do you mean you have an Instagram account?” He’s like, “I like to take pictures of the food I eat in restaurants.”

S: A little foodie.

C: Yeah, he’s a little foodie. I was like, “But no. That’s not okay here.” Like that’s not…I feel as though, I want to make sure the technology is safe and acceptable, so sometimes I hesitate because I don’t know…like someone will be like, “Oh have you tried this website?” It will be a kid. And I’ll be like, “No. That sounds sketchy.” And I’m already skeptical about these things.

Cheryl’s views about needing and wanting to protect her children from the “dangers” of social media in particular have transferred into her own beliefs as a teacher. Cheryl often expressed her desire to do more with digital literacies in the classroom. She was interested in blogs, in an education site set up like Facebook called Edmodo, in having students take the lead in class wikis. She was the only one of the teachers who told me that it was her desire to go paperless in the classroom. However, because of her perceptions of the dangers of the Internet and her viewpoints as a parent, there was a lot on which she hesitated. For instance, in describing her reluctance to accept some aspects of students’ digital literacy practices, she said:
Um, so the expectation that I can say, “Okay, everybody go home and open a Twitter account…” which I don’t think I have the right – I don’t think that I as a teacher have the right to say to a kid. I think that has to be a parental choice or choices that – whoever is in charge of that kid – makes. I don’t think I should insist on something like that. I had a conversation this weekend at a soccer game where an eighth grade parent said to me, “Um, you’re a teacher, do you think that it’s right that the eighth grade history teacher told my kid to open a Twitter account?” And I was like, “Absolutely not.” For me, personally, no, that’s not okay.

Cheryl was not the only teacher to express wariness or concern for students’ safety when employing digital literacies in the classroom. For instance, Ian even expressed worry about physical safety. He explained his policy about taking away cell phones from absorbed students in the hallway with a somewhat facetious explanation of, “They are all going to be hit by cars someday.” For teachers like Ian, it is his place and his responsibility to relay to students when it is and is not appropriate to utilize their technological devices. For these particular teachers, it seems that “protecting” students from digital literacies involves restricting or denying access to these sorts of digital literacies.

Adolescents of Color and Digital Literacies

These exercises of control and concern about power dynamics are often exacerbated when used in connection with youth of color. Vadeboncoeur (2005) speaks to this when she maintains that by categorizing these adolescents as “particular kinds of youth based on their appearance and behavior” (p. 12), we limit both how they are perceived and directly affect what kind of students they can become.

Sealey-Ruiz and Haddix (2013) cite 2010 research from the Kaiser Foundation that showed that while youth of color are amongst “some of the most active users of video games, television, online and offline music channels, social networks, and cellular
phones” (p. 234), they are not usually the population that receives the most opportunities to use new literacies and digital media within schools.

In their research, Haddix and Sealey-Ruiz (2012) have noted how the same digital literacy practices that are encouraged in suburban schools are discouraged or even prohibited in urban schools. The same digital literacy practices that are taken for granted as helpful in suburban schools are accused of “dumbing down” literacy practices for urban youth. For instance, the use of word processing software may be an asset for suburban students, but a “crutch” for urban youth.

Within the classrooms of Washington, I did encounter some of this thinking. For instance, Cheryl, in particular, worried about the role word processing played in her classroom. She talked about her struggle in allowing students to use programs like this, saying, “How do I put this? There are kids who type things up thinking it’s going to help their spelling and grammar, but the basic skill level isn’t there.” Cheryl follows the common school structure of linearity, in this case articulating that “basic skills” must come before the “extras” of digital literacies. For reasons such as these, Haddix and Sealey-Ruiz maintain that much of the work that they have done with black and Latino youth and digital literacies has had to take place in alternative settings rather than in schools. The design of spaces in school often limits the potential ways these new literacies can be taken up, essentially making school spaces non-options.

Any system that depends largely on certain controls being in place is going to be wary of practices that disrupt power dynamics. In her jointly authored piece with Sealey-Ruiz (2012), Haddix speaks of her experiences in schools populated by students of color.

When young people have tools that enable them to author their lives and to speak
out, power in the classroom is redistributed…I’ve worked in urban school contexts in which students are mandated to “put away or give away” their digital tools before entering the school. In other words, showing school readiness becomes interpreted as “no technology allowed,” instead of acknowledging the potential for certain tools to transform literacy learning. I think one reason is because these tools decenter teacher authority, and that is dangerous in school contexts in which black and Latino males in particular are already under heavy surveillance. Why would we shift or decenter authority to allow students who are feared to have a position of power? (p. 190-191).

While the story of adolescence is one already concerned with power dynamics and the importance of maintaining control, in an urban school setting, such as Washington, these issues may have even more implications. Narratives depicting youth as deviant, as dangerous, and/or as needing protection may take on more salience.

Penny unconsciously framed her viewpoints in these lines of thought as she discussed why she would not necessarily want her students to be given personal iPads for school use, even if this were an option:

P: I just worry about, you know, “This kid’s iPad breaks. It gets stolen.” We don’t exactly live in like a super nice area, so… I know there was a middle school in [neighboring district] where they all ripped the kids [iPads] off. Like waited for them to get out of school.

S: Oh really? I hadn’t heard about that.

P: Yeah, they gave all the kids iPads, they were middle schoolers, and some older kids knew it was happening, so they waited for them. It was awful. I forget exactly what school it was, but I remember hearing that and thinking, “Oh. I don’t want that to happen to us."

Penny worries about the physical safety of her students and equates the bestowing of
technological devices as inviting or tempting theft. Unwittingly, Penny is playing into a complicated narrative that positions youth as deviant and unable to resist the temptations these iPads represent. Additionally, while these comments note the higher levels of crime common in some lower-income areas, they do not take into account the effects of devaluing populations and the ways this can equate to “societal atrophy” (Patel, personal communications, April 29, 2014). Here, Penny is simultaneously buying into the victim/perpetrator narrative of adolescents, while failing to recognize the overarching material conditions that feed into this cycle. Her solution to protect her students is to not provide these technological tools at all. These are the forms that “protection” takes as teachers struggle with what it means to control digital literacies.

**Adolescents and the School**

Using this “story of adolescence,” the structure of school comes to both justify and be justified by this need to control students. Vadeboncoeur (2005) speaks to our assumptions that adolescents are “unfinished” or “incompletely socialized” (p. 11). She notes:

> These assumptions are self-perpetuated by providing a rationale for adult-created and controlled interventions for the benefits of young people…Secondary schools reflect this controlled partitioning of both body and mind: a hyper-regulated control of time, from four minutes to move bodies from classroom to classroom, to forty-six or fifty minute blocks for Biology, U.S. History, or Algebra II. (p. 11).

The very structure of school is designed in a way that both fosters and maintains control. There are schedules to adhere to, rules, norms, and mission statements to abide by, and standards to measure up to. In many ways, it is this structure and this control that allows
the institution of school to exist in the first place. So, what happens when this institution based on specific types of control runs up against practices that have been well documented in their flexible readings of expertise and control? (Lankshear & Knobel, 2006). How do teachers make sense of these?

**Controlling Digital Literacies**

In order to maintain the amount of control they saw as necessary within their classrooms, some teachers sought to control what sites did or did not count as legitimate in the classroom – no Facebook, SnapChat, and the like in Cheryl’s room, and Ian, like many teachers, expressed disdain for Wikipedia. Others took strict control of students’ technology tools, namely cell phones. The policy at Washington is that student cell phone use is up to the discretion of the teacher. Some capitalized on student tools to some degree; for instance, Cheryl noted: “Um, if it’s [phone] a distraction, it’s not allowed. If it’s helping me, then I’m going to let them use it.” However, others, like Penny did not allow students to have them – as expressed by one of the rules posted at the front of her room. Some, like Ian, would even take these phones if they were out on the desk. He said, “My policy is that when I’m in class and teaching to you and if you’re on your phone, I’m going to take it until the end of the day.” Interestingly, Ian has seen examples where teachers have used students’ cell phones as ways of letting students do research in class. He describes a marine biology teacher colleague of his who does this, in his opinion, successfully. However, when pressed about whether he would ever let students use their personal devices like this, he replied, “I’m not very comfortable with it.” This despite his assertion that in his colleague’s classroom, “It was working.” Ian seems to need the sense of control that comes with limiting his students’ cell phone uses.
Besides limiting the tools and sites students had access to, teachers also took control by literally controlling the technology themselves. By far the most common type of technology utilized in the classroom was the Interact board. PowerPoints, movie clips, graphic organizers, digitized whiteboards for notes – these are what I saw teachers doing within the classroom. Although a student might occasionally write something on the Interact board itself, for the most part, these remained firmly under the control of the teachers and were driven by the same linear model upon which schools are traditionally built.

In fact, this ability to so completely control the use of technology in the classroom led to at least one teacher declaring that he did not want his classroom to be more student-centered, at least in terms of technology. Ian explained:

“It’s frustrating giving student projects because sometimes they don’t go far enough into the Internet past Wikipedia. So I usually try to keep as much control of the pace of things as much as possible. Because I find that if you give them a single and a double to do a PowerPoint project sometimes I’m very disappointed with the results. Like you really need a structure.”

In Ian’s view, it was his control of the technology that allowed the class to be where it needed to be; in a sense, he didn’t “trust” the students to use digital literacies in the ways he wished.

Ian often put the onus of creating, using, and employing digital literacies on himself rather than on his students. He talked about how every year with his PowerPoints, he wished to “trim the fat,” to find better videos, to make the text leaner and more succinct. Ian wasn’t alone in putting this responsibility on himself. Cheryl expressed her admiration of an English teacher she had found online who made whimsical and clever videos about common English terms, such as metaphors. Although she bemoaned her
lack of time, Cheryl claimed she wanted to do something like that. Kate had aspirations of making demo videos of herself sketching a drawing or explaining something like shading that students could turn to. In these examples, the teachers put emphasis on themselves working with digital literacies rather than the students. While the others might not actively work against having students author projects the way Ian does, the impetus to give students the reign or to take control is not there.

Why this insistence on control of digital literacies? In addressing this question, it is illustrative to look both at why they teachers felt they needed to take control, as well as what educational theorists and research has to say about the structure of schooling. First, the teachers of Washington identified at least two reasons why digital literacies needed to be strictly within the control of the teachers: 1) Students are not prepared for the digital literacy practices they will be asked to do, particularly with regards to high stakes testing; 2) Digital literacies may lead to plagiarism, and teachers need to be able to control this.

**High-stakes Testing and Digital Literacies**

When accountability is emphasized above all, it is likely that teachers return to educating students on test objectives, ignoring multimodal forms of text for print-centric ones (Tierney et al., 2010). However, when the tests themselves begin to focus on specific digital literacy skills, a different story may start to unfold. The teachers of Washington showed awareness that digital literacies will likely be something that students are tested upon, and several of them expressed worry about getting students prepared for these tests. Cheryl, in particular, expressed concern that her students would not be ready for the Partnership for Assessment of Readiness for College and Careers test (PAARCC), something that would be piloted at Washington High the following school
year. Cheryl noted:

Um, the Common Core assessment piece is probably the most daunting thing I’ve seen so far. For a number of reasons. One is if they [the students] can’t type and they don’t have the training. Like, the tenth grade assessment is a little nutty. Like, they give them that brochure – I don’t know if you’ve seen these at all – they give them a bunch of gas bills from somebody’s home, and they give them a primary resource about how gas can lower your energy costs. And then they want them to take those two documents and create a brochure for the gas company explaining why gas is better. So you’re talking about having graphic design, you’re talking about being able to access all those texts, understand, critically think through, and then think in a sort of promotional way.

Cheryl did not see her students as ready and able to pass an assessment such as this one. In her view, this makes her control of the digital literacies that are practiced and used in the classroom all the more important. Kellinger (2012) expressed concern that as education becomes ever more focused on standardization, new literacies will lose their sociological aspect, constricting them to be used in very specific, school-based ways. In examining Cheryl’s expressed beliefs about students needing more preparation to meet the needs of these tests, it is easy to see how this may come to be so. In any case, preparing students to pass these sorts of specific directives on the PAARCC does require a teacher maintaining certain controls over how digital literacies are used in the classroom.

Digital Literacies and Plagiarism

Kutz, Rhodes, Sutherland, and Zamel (2011) make a case for how digital literacy practices, specifically those involving the Internet, have changed the rules surrounding plagiarism. They argue that students live in a world where who owns what is murky:

[W]ebsite material typically doesn’t offer a clear sense of authorship – the material there seems to be free-floating with links to other sites that seem equally unauthored and all part of a public domain, and [where], some would argue,
borrowing, appropriating, and remixing (sampling) are part of a new set of cultural norms for creativity.” (p. 16)

Yet, they argue, the norms of school still encourage an environment in which “students experience mostly the anxiety of influence” (p. 20). While people in the music world, for instance, often borrow from one another and revel in the influences of other artists, students are admonished to “do their own work.” Under this model, the teacher is pushed to take up a “strong detection ethic” (p. 20) where it is his or her job to “catch” students who attempt to plagiarize others’ work.

For teachers like Ian, this encourages another incentive to control students’ digital literacy practices and to keep them under tight supervision. When Ian was explaining to me why more student-centered technologies would not necessarily be desirable to him in the classroom, he shared this story:

As I told you before, I had a plagiarism thing. A kid went online, Googled a lab report, found one, wrote his name on it, and passed it in…Don’t mention that because it ended up…He was able to instill doubt that someone else might have passed it in and framed him so he was able to get away with it.

It was apparent that this incident still bothered Ian, and this isn’t to say he shouldn’t be bothered by this indiscretion. Students do sometimes plagiarize because they consciously decide to take another’s work as their own and not do the work that an assignment requires (Kutz et al., 2011). Despite this, when schools set up a system where “plagiarism” is strictly defined, sometimes misunderstood, and often closely monitored, strict control of students’ digital literacies become more of a given. As an alternative, Kutz et al. suggest that: “Engaging students in a richer inquiry into issues of creativity, authorship, and ownership can offer new ground from which they can contemplate
responsible practices appropriate to the different discourse communities for which they’ll write” (p. 34).

**Digital Literacies in the Service of Control**

Several of the teachers noted the ways in which their use of digital literacies actually provided them more control over the students in their classrooms. Cheryl relayed that one of her desires to go paperless was in the ability to monitor and limit the amount of student plagiarism – again, a justification given for controlling digital literacies in the classroom. She explained, “I think it would be a lot easier for me to monitor plagiarism online. The words would be there. It would be a lot easier to see… And if they copy and paste someone else’s homework, it’s up there for everyone to see.” Although Cheryl employs what might be a setup conducive to collaborative, digital literacies practices, this way of conducting business in the classroom is used instead for the controlling of students’ work and for the reinforcement of authorship as an individual endeavor.

On a similar note, Penny saw her use of the program EndGrade as a way to foster and enable student responsibility and accountability. Because she could post assignments to this site, she felt students were more likely to take responsibility for their homework, or at the very least, have fewer excuses not to know the assignment. She claimed, “It makes them more responsible. Like, ‘I wrote down the wrong numbers. Can you tell me what the homework was again?’ or, ‘I can’t remember. Is this due tomorrow?’” For at least some of the teachers I interviewed, digital literacies were a way of ensuring more control rather than a way of letting the students take the lead.

**Architectured for Control**

In looking at the ways teachers controlled digital literacies in the classroom, it is
important to remark that this control was not always consciously sought or even desired by the teachers. In keeping with my directive to be ever aware of the context in which these digital literacies are taking place, it should be noted that the very architecture of the school building encouraged teacher-centered and teacher-directed uses of technology.

With the exception of Michelle, none of the teachers I worked with had enough computers in his or her classroom for every student. The number of student computers per classroom ranged anywhere from zero computers present to a maximum of eight. This was the case in classrooms where the average number of students was around 25.

Instead, the technological tools teachers had available tended to be the Interact boards, their own computers, and perhaps a class set of clickers. Cheryl, especially, seemed well aware of the limitations the infrastructure of her classroom imposed. She said:

C: (sighs) I think all of it is still teacher-driven. It’s all teacher-centered. It’s still me lecturing. It’s still me presenting. It’s still me doing a dog-and-pony show every day. Um, it’s not interactive in the way that we need it to be. Um, do I think that everything needs to look like a game or look like an app? I don’t. But I do think that…Most of the technology that I have access to is teacher-directed, and it’s usually presentation-based. It was developed for businesses and adapted for education.

S: So it can only do these certain things…

C: It can only do these certain things and that’s the infrastructure that we have.

Even if the desire to loosen control and allow students to have more freedom with digital literacies was present, the capabilities and the tools were not always there. When the tools teachers are presented suggest themselves to certain uses, it makes sense that they would work with what they had.
Students Given Control over Digital Literacies

This is not to say that teachers at Washington did not find ways to give students control over digital literacies at all; it was certainly happening in different degrees from classroom to classroom. As previously stated, some of the teachers employed students’ devices, like cell phones, for their own classroom purposes. Cheryl was one of these. She explained:

Sometimes in 11H…if they have the phone and they can access it or if we’re doing something that is etymology-based or word-based and they want to use their phone for a dictionary/thesaurus/whatever, that’s fine. I will let them use that. And we’ve been told that’s our purview to allow it or not allow it.

In this case, students are allowed to use their personal devices, but it is for predetermined, school-approved reasons. Other teachers, such as Kate, allow the students more discretion about how and in what ways they use their personal devices:

There’s this big emphasis on becoming a 21st century student, and technology is a part of it, so I think they’re [Washington administration] trying to get there. And it’s evident you know just being out in the hallways, students are connected. And change in policy. I allow my students to have their phones out and look at a photo reference, or to be listening to music while creating their artwork.

As mentioned, Kate explained that when she works on her own artwork, she always has her own earbuds in, listening to music. In her mind, the students’ personal uses of these devices serve as focusing agents, not distractions. As such, Kate keeps an extra pair of headphones for students to borrow, should they need them.

Michelle also models her classroom with the idea of students being in control of technology. She expects students to work at their own paces, collaborate with one another, and problem solve by using resources on the Internet. Of course, Michelle is in the unique position of having personal computers for all of her students, at Washington, a luxury.
Interestingly, Eduardo, the Spanish teacher, and the teacher who expressed the least confidence in himself and his ability to include digital literacies in the classroom, may be the teacher who gives students the most control of digital literacies within the classroom. When talking about a project he was conducting with his level 5H students, he explained, “I have them take the lead. Because I know if I limit it just to what I know it’s going to be very, um, probably limited. But I told them, ‘You don’t need to do PowerPoint only. You can do something else if you want to.’” In some ways, Eduardo’s lack of confidence in his own skills and knowledge may open the door to him being open to learning from the students. I am, of course, not advocating for lesser-prepared teachers as a solution for encouraging student-centered, digital classrooms. As previously explained, Eduardo’s perceived lack of technological skills plagued him with self-doubt and anxiety and often hindered his abilities to bring digital literacies into the classroom. However, it is interesting that, at least in this case, Eduardo’s failure to see himself as “expert” opened the door and allowed flexibility in terms of who got to fulfill leadership roles and demonstrate expertise.

Not only did some teachers concede control to their students, some actively expressed disdain for the fact that students were not given more control over digital literacies overall. Michelle was one of these teachers. Talking about the fact that YouTube had been blocked at the school until this year, she described talking to other teachers about this. She gave a laugh and said:

“Like, ‘Why don’t we have YouTube?’

‘Oh, the kids can watch all this stuff.’
And I’m like, ‘Well, you know what? They can go home and watch it. They can watch it on their cell phones. ‘Don’t teach them that they can’t use it, teach them how to use it.’”

She also expressed disbelief that other teachers would not allow students to have access to cell phones. She explained her reasoning in this way:

You know, it’s funny, last summer I went to a conference and they had this keynote speaker, Bill Daggett. First he says, “How many people allow their kids to have a cell phone with them when they’re testing?” and ooh, no one raised their hand. He says, “Well, why not?” “Well, they’ll cheat.” He goes, “What about Google Glass? Are you going to make them take their glasses off? What about the watch – you know? You going to make them take their watches off? Are you going to make them get naked before taking a test? (laughs). You know, stop fighting it. Embrace it.

It was the teachers like Michelle who tended to get most upset over the perceived control of teachers’ digital literacies and technology access by the administration. However, almost all of the teachers expressed some frustration with this perceived control.

**Control of Teachers’ Digital Literacies by Administration**

Almost universally, I heard complaints from teachers about the ways they were controlled, hobbled, or blocked by administrative or IT control of both technological tools and accessible sites within the classroom. Teachers found themselves not able to install simple programs, visit resources they had hoped to use with students, and/or problem solve for themselves when faced with technological glitches. This micromanaging on the part of the IT department led to a lot of grumbling and bad blood and, in some cases, it led to teachers turning away from using technology in the classroom.

Something that every teacher commented upon was the fact that YouTube was unblocked for the first time this year. All of the teachers reported using YouTube
extensively—clips of particularly well done speeches, demos of art techniques being conducted, infusions of relevant cultural events, videos of cells under microscopes—YouTube seemed to be an important resource from which teachers consistently drew. Despite this, before this school year, it was unavailable to teachers. Many teachers expressed frustration at this control by the administration. Michelle exclaimed, “Thank God they unblocked it,” and claimed she had been, “pushing for that for years.”

Prior to this year, it had been possible to gain access to the YouTube site and other blocked sites for the day, but you had to request permission for this access. For some teachers, this was enough to lead to them not using the Internet much at all. Eduardo expressed extreme frustration at this protocol, noting: “So on top of not being very knowledgeable and savvy about technology, when you want to use the little thing that you may be able to introduce in class, you have barriers there.” Because Eduardo was already not comfortable with technology, this “one more thing” sometimes served as the determinant in whether these practices would be used in his classroom at all. There were ways to get around this blockage of sites—teachers like Cheryl reported going home, saving videos to a key fob, downloading these on to her desktop, and displaying them for students that way. However, this required planning and extra work on the part of the teacher, rather than the simple typing of something into a search engine. Even then, with frequent technology failings, these endeavors on the part of the teacher were not guaranteed to work.

Evidently, the teachers’ complaints about the blockage of YouTube did not fall on deaf ears, as it is now unblocked and available for teacher use. However, this does not indicate a general loosening up of control. For instance, Michelle recently tried to use
Skype on her computer, at the request of her school principal. Michelle, who already expresses feeling overwhelmed at the amount of new technology she is expected to learn, laughed as she relayed this other episode:

M: Oh, it’s ridiculous. Skype is now blocked. They wanted me to learn how to Skype. It’s blocked. I tried to do it this morning.
S: Seriously?
M: I sent, I sent my boss a message, I said: You want me to do Skype, but it’s blocked.
S: Right. Right.
M: How am I supposed to learn this stuff?

For Michelle, the advocating of more technology by the administration already smacks to her of “technology for technology’s sake.” It’s lip service to “teachers teaching with technology.” To be asked to use a certain website only to find that website blocked does nothing to instill confidence that this is not so.

Teachers found that giving over control of technology exclusively to the IT department hampered them in using technology effectively, even when their needs were small. In the Washington district, the IT department is spread out over all of the schools in the district. For Washington High, this means that there is an IT tech available to them on Mondays, Wednesdays, and Fridays. On these days, this individual has to balance the needs of 130 some teachers. Teachers expressed dissatisfaction that this, coupled with the tight control the IT department and administration kept over the technological tools in the classroom, led to minimal problems going unaddressed and unfixed.

Penny explained that she could not even install a printer onto her computer without the overseeing of the IT department and the provision of an administrative
password. Again, with one IT tech for so many people, this can take longer than is desired. Ian explained why he is now more hesitant to do things like WebQuests in his classroom. These require a software program called Flashplayer, and this software has to be updated on the computers every year. Ian said:

And every year, for some reason even though it never really changes, they upgrade Flashplayer. So, I don’t have the permission to go on the computers and do the two second download. So every year I would need the tech guy to come down and upgrade it. So there are always little things like that.

He continued:

I: Um, right, so that when I go to do a WebQuest and only three computers work cause the others need to upgrade and the guys not coming in until Wednesday.

S: Right.

I: Um, so that’s frustrating. Not having, only having a few people with the ability to override the…

Because of this control on the part of the IT department, teachers found themselves unable to fully take charge of the technology in their own classrooms. They found themselves at the whims of the judgments and schedules of the IT department and administration as to what and what is not “allowed” in the classroom, what tools can and cannot be used.

This lack of autonomy frustrated and sometimes angered the teachers subjected to this control. Penny, for example, told me about a team project of which she had been excited to be a part. The team had created an interdisciplinary website that teachers at Washington could use in a variety of ways – to learn of upcoming events, to collaborate with other teachers, to create interdisciplinary lessons, etc. This website was undermined, in her opinion, however, when the IT department made the judgment call that teachers should no longer use Gmail accounts (the accounts registered to this particular website)
for official school business. She talked about the tech department as, “taking it away from us.” She later qualified this, but she made clear that she didn’t completely buy into the reasons the IT department gave for this change: “Yeah, [it] is fine. They said Gmail wasn’t secure enough. I don’t know if that’s true or not.” There seems to be some resentment on the part of the teachers for the amount and type of control the administration and tech department exercises over them.

This led to (sometimes subtle, sometimes blatant) subversive measures on the part of the teachers in avoiding administrative control. Penny spoke about finding ways around dysfunctional power cords as “stealing” the Internet. Michelle spoke almost gleefully about what she gleaned from her tech savvy students. When I asked what she had learned from students, she replied:

M: How to get on YouTube with it being blocked. (laughs) Cause they [the students] figure it out. It used to be if you did h-t-t-p-s – just add an s – and you could get on it.

S: Really?

M: Yeah. Then there were these other websites – they figured that out, and they blocked that. But the kids were always showing me how to get around it. (laughs)

Michelle’s description took on an almost “us vs. them” sort of tone. It was she and the students against the administration. The exertion of control on the part of the IT department appeared to have united Michelle and her students in her mind – they were collectively battling arbitrary applications of control as they attempted to gain freer, less hampered access to digital literacies.

Perhaps adding on to this perceived lack of control over technology on the part of the teachers was the fact that many of them felt in the dark about the plans and intentions of the IT department and the administration, especially concerning matters of technology.
When asked about decisions that were made or being made by the administration, a frequent mantra that I heard was, “I don’t know.” While some teachers such as Kate attributed the fact that she was out of the loop with the fact that she was fairly new to the building, others such as Penny were less forgiving. When I asked about the implementation of school-wide wireless access, a change I believed was supposed to happen this year, Penny was unaware of when this was going to occur. When I asked if the administration had addressed this, Penny replied:

Ummm, not that I’ve heard, maybe they have, but they don’t exactly keep us updated on that. It’s more like someone gets brave and asks, and then they give us some sort of random answer.

Not exactly a vote of confidence in either the competence or the transparency of the technology dealings of the administration.

Perhaps because of all of these factors, teachers often expressed pessimism that technology would improve within their school or that they could get the support they needed from the tech department. Michelle, for instance, was unconvinced that the school would ever acquire wireless. When I asked her about the deadline, she replied, “They’re saying maybe December. It’s like the healthcare website. (laughs) It doesn’t work. It’s no different. It’s all government.”

Eduardo expressed the belief that even if he were to reach out to the tech department for help with his technology needs, they would be unwilling or unable to help him:

If I called the IT department, and the IT department got in contact with the personnel, he will come not on the same day. Sometime he will come in one day, two days, and sometimes he will never come. So to call back again and say, “Listen, I need this for the next week.” You know, it’s unimaginable to think this would [happen].
Eduardo, who very much desired and felt he needed technological support to make his visions of a digital literacies classroom come true, did not feel like the tech department was a place to garner this support. Instead, these were the forces that, through their tight-fisted control, prevented him from using even, “the little thing that you may be able to introduce in class.”

**The Need to Control**

What I was seeing at Washington were people and systems insistent on remaining “in control” of digital literacies. Teachers exercised control over students by limiting their access to technological tools and maintaining control over what did and did not count as appropriate sites in the educational sphere. While some teachers did allow students some degree of control over technology and digital literacy practices, others saw the technology as ways of maintaining even more control over students. Teachers saw controlling students’ uses of these tools and practices as important means of protecting students from untold dangers, of limiting distractions, of maintaining “quality” in the classroom.

More surprising, at least to me, was the control over teachers’ uses of digital literacies by the administration in the form of the IT department. Teachers had very little autonomy on what they could show to students or have students use on the Internet; teachers were not able to problem solve even small technological issues without the overseeing or the approval of the tech department. Ironically, teachers did not seem to see any parallels with the control the administration had over their digital literacies with the control they exercised over their students. (Except for, perhaps, Michelle, who tended to exhibit a subversive streak that unified her with her students – when I mentioned that
many of the students could probably get around blocked sites, she snorted and said, “And if I see someone who is doing that, I say, ‘Show me how to do that!’”) Perhaps because of the pervasive “story of adolescence” discussed earlier, these circumstances appeared quite different to them. Although I did not think of it at the time, it would be interesting to lift this parallel up to the teachers and see how they responded to it.

However, in a similar spirit of examination, I found myself unequivocally equating control of digital literacies with something as undesirable, as limiting. Looking back at the transcripts of the interviews, I hear myself reacting in a tone of indignation to the controls placed on teachers by the administration; I found myself silently disagreeing with teachers who discussed the controls they placed on students. But in what circumstances is control a necessary exercise? When is control useful? When is it, yes, even freeing?

**The Need for Control**

Several circumstances presented themselves where teachers purposefully used control in ways that were not designed to limit their students, but instead designed to keep them focused before turning them loose. For instance, Michelle talked about how the design of her room (in which she had assisted) aided in her being able to monitor students’ computer uses. She explained: “And I set it up this way because I want to be able to see them. I want to see if they’re playing on YouTube or not doing their work. If they’re on the computer, then they get distracted and they’re not listening to me. So I always say, ‘Watch me first, then you try it.’”

It is not my belief that teachers are wrong for being concerned that digital literacies can be distracting; simply removing all controls from the uses of digital
literacies will not lead to them being used innovatively or even productively by students in the classroom. In the next chapter, I return to the idea of control in the classroom. Drawing from Davis and Sumara’s (2008) concept of enabling constraints, I examine the ways in which we may use constraint to allow some possibilities while discouraging others.

**How Control Affects Possibilities of Digital Literacies**

Regardless of some control concerning digital literacies being a necessity, it remains true that the way this typically plays out in the classroom is limiting. In their “natural” environment, digital literacies flourish and thrive because of a more permissive attitude toward control. It’s their collaborative, creative, rule-breaking, genre-shifting nature that allows them to be what they are. When they are too tightly controlled, they cease to have the essence of what makes them digital literacies in the first place. With too tight of control, we are left with a shell of these practices. We have the tools, we have the form, but we are missing the vital heartbeat of these practices that might lead to transforming the classroom.

**The New London Group’s System of Design vs. a Pedagogy Concerned with Control**

As previously discussed, I chose to analyze my data through the theoretical lens of the New London Group (1996) and their discussion of multiliteracies. In order to effectively bring multiliteracies into classrooms, the New London Group (NLG) proposed a system of design. They posited that educators are working with Available Designs, the models and resources currently available to them. As they shape the curriculum and instruction and modify it according to changing needs, they are
Designing. This Redesigned curricula becomes Available Design for future use and other educators.

Again, for the NLG (1996), this constituted the “what” of literacy pedagogy. The “how” of accomplishing this goal was for educators to strategically use curricular and instructional designs of Situated Practice, Overt Instruction, Critical Framing, and Transformed Practice. As such, the concept of Design in and of itself suggests a freedom of creativity where the Designer has some degree of agency and power. In thinking about the beliefs and practices of teachers at Washington High, I consider how the NLG’s (1996) proposed system of design interacts with pedagogies primarily concerned with controlling digital literacies.

As established in this chapter, the Available Designs taken up by teachers at Washington appear to be mostly based on traditional comprehensive school models. This model sees adolescents as in need of guidance, as being unable to be trusted (either through defiance or naivety), and as requiring imposed restrictions of adolescent bodies in time and space to be a natural and necessary course of action (Vanboncoeur, 2005). As teachers design their curriculum and instruction in conjunction with digital literacies, they do so influenced by a narrative that suggests digital literacies can be dangerous, that youth need protection from the distraction, the lure, and/or the underlying threat of unchecked digital literacies. At Washington, teachers design their curriculum and instruction in a context where power dynamics have added racial and socioeconomic undertones (Haddix & Sealey-Ruiz, 2012).

Add to this the fact that in pedagogy especially concerned with control, Overt Instruction tends to be the norm, with much less room made for design strategies such as
Critical Framing or even Situated Practice. Many of the lessons I observed featured the teacher explicitly explaining to students something about the subject matter being taught. Less frequently did I see students engaged in “real world” practices, and even more rare was the occasion where students were encouraged to question either the subject matter or classroom practices. (I hasten to add that I am well aware I observed only a small segment of these teachers’ classes). Regardless, Washington High is not alone in being a school featuring quite a bit of Overt Instruction; this strategy can be an effective way to insure the teacher is in control of the classroom and is foundational to the factory model first established in the beginning of compulsory high school education (Tyack & Tobin, 1994).

Indeed, these two models – the NLG’s (1996) framing of design versus the structure of schooling – are, in many ways, in direct opposition to one another. The NLG’s concept of design relies on a form of artistry, on the designers (in this case, the teachers) having the freedom to create, to change, and to shape their design in innovative and transformative ways. In many ways, schools are not set up as systems that allow for these liberties. Change may be possible, but the structure is as of such that any radical Redesigns are stopped in their tracks.

The historical roots are present in this resistance. When compulsory high school education was established in America, it was propelled by rhetoric that positioned children as both needing protection and as potentially deviant without the intervention of schools and adults (boyd, 2014). These factory model schools were modeled on the concept of production lines, where students could be developed and molded into “good citizens” and “good workers” before being delivered back into larger society (Kliebard,
Boyd addresses this, saying, “By imagining teens as balls of uncontrollable hormones, society has systematically taken agency away from youth over the past century” (pp. 94-95). All of this is situated as being for youths’ “own good.”

Again, it is all about control. However, by advocating such tight control over youth, a system has been created that is unyielding, prescribed, and, as such, pretty inflexible. The need to control youth has translated to the need to control education. We see this reflected in our standards, in high stakes tests, in the lack of autonomy we give our teachers. In short, the very structure of schooling is, in many ways, the very antithesis of the New London Group’s (1996) heuristic of design.

In short, the NLG (1996) proposed a design plan that they felt would help teachers bring multiliteracies into classrooms. The teachers at Washington High express a genuine and heartfelt desire to bring digital literacies into their curriculum and instruction. However, when the primary focus becomes controlling these digital literacies in the same way control is sought in almost all aspects of schooling, it is small wonder that the Redesigned curricula is not all that distinguishable from the previously Available Design.
Through the process of talking with, working with, and observing the teachers at Washington High School, it has become increasingly apparent to me that how and why the teachers interact with digital literacies in their classrooms goes far beyond their individual beliefs and preferences. Each teacher has her or his own viewpoints, worldviews, experiences, and philosophies of education that impact how he or she does or does not incorporate digital literacies into curriculum and instruction, to be sure. However, all of these exist within specific contexts – the culture of the school, the realities of what is possible from a technology standpoint, the perceived expectations/limitations of outside stakeholders, and popular portrayal of adolescents and technology, to name a few. It is the intention of this last chapter to discuss what trying to incorporate something like digital literacies into such complex circumstances means.

Although the contours and strategies may still be unknown, it is evident that truly making use of the potentials and possibilities of digital literacies involves a transformation of sorts. It involves something beyond the traditionally linearly structured conception of schools. As such, within complicated and complex systems such as schools, what are, as Davis and Sumara (2008) phrase it, the “pragmatics of transformation”? (p. 130).

I begin the chapter by asserting that although typologies such as McDougall’s (2010) are useful in thinking about and making sense of how certain characteristics in teachers may make them more or less likely to adopt certain attitudes or practices, it is also true that they fall short of capturing the complex contexts that shape and determine how these characteristics do and do not play out. It is this that also makes work such as
Richardson’s (1990) study on how teachers’ beliefs and practices are influenced by their knowledge and discussions of literacies a still incomplete picture. In examining some of the problematic aspects of typologies, I turn to theory that examines more nuanced depictions of people, contexts, and tasks. Using A. Gordon’s (1997) conceptions of “complex personhood” (p. 4) and “ghost stories” (p. 17), I examine how the teachers’ practices and beliefs were shaped by their roles at Washington, as well as the outside contexts that influence their school. In addition, I use Williams’ (1991) phrase of “her shape and his hand” (p. 19) to explore the ways in which the origins of schooling have consciously and unconsciously shaped what is deemed possible and desirable in schools today.

Next, in noting that much of what was happening with technology at Washington does not look much like the “new literacies” advocated by scholars and theorists, I turn to what is possible in a school setting. Using Dugan’s (2009) dissertation following the teaching practices of X, a teacher innovative with digital literacy practices in the classroom, I look at what X was able to accomplish in his classroom surrounding new literacy practices. I also consider the circumstances and costs associated with creating this sort of classroom.

In the following section and in imagining what truly collaborative, creative, and multimodal digital literacy practices might look like on a larger, school-wide scale, I turn to Davis and Sumara’s (2008) concept of “complexity thinking” (p. x) and their “pragmatics of transformation” (p. 130). While the New London Group (1996) and New Literacy Studies provides ways of thinking about transformative implementation of digital literacies, complexity thinking helps to consider what changes can be made for
people and contexts that may make transformation possible. If a school were to specifically aim for digital literacy practices that were transformative, how might they get there? In thinking through this, I note how focuses on short-term solutions may serve as a sort of Band-Aid. While improvements can be made, these solutions fall short of targeting the wider, culturally determined settings that ultimately make real transformation an impossibility, at least at this time. I end the dissertation with an eye toward the long-term. What sorts of cultural transformations would need to be made in schools for digital literacies to impact curriculum and instruction in ways that make the most of their possibilities?

**Unfreezing Typologies**

Using McDougall’s (2010) framework of *traditionally oriented, survivor, and futures-oriented* teachers gave me a way to begin to consider how teachers may think about, value, and consider adopting conceptions of digital literacies. However, after working with teachers falling, I believed, mostly under the *futures-oriented* typology, I have realized the limitations of a heuristic that freezes characteristics and focuses too squarely on the individual without appropriate consideration of her or his contexts. While all of the teachers I worked with displayed some characteristics of one likely to take up digital literacies, what the teachers’ practices did and did not look like occurred in ways that were not wholly predictable or bearing a resemblance to the practices I might have expected.

A. Gordon (1997) begins her book, *ghostly matters*, with this thought: “That life is complicated may seem a banal expression of the obvious, but it is nonetheless a profound theoretical statement” (p. 3). In A. Gordon’s estimation, researchers and
theorists rely on cataloging and labels in a way that limits our perceptions and causes us to miss that which does not fit into expected groupings. She suggests that we try not to rely exclusively on categories. Returning to her theoretical statement, A. Gordon maintains: “That life is complicated is a theoretical statement that guides efforts to treat race, class, and gender dynamics and consciousness as more dense and delicate than those categorical terms often imply” (p. 5). Reductive thinking, in A. Gordon’s estimation, causes us to overlook the ghosts, those hauntings that encapsulate not just what is seen, but what is unseen.

Notably, A. Gordon (1997) evokes Williams’ (1991) phrasing “her shape and his hand” (p. 3). She explains her captivated readings of Williams, the great-great granddaughter of a woman who was the property of a prominent judge and slave-owner. In searching for clues to her identity, Williams was able to locate information about her great-great grandmother’s equally prominent, white brothers; however, nothing was written or recorded about the forgotten sister. Williams writes:

I see her shape and his hand in the vast networking of our society, and in the evils and oversights that plague our lives and laws…In his attempt to own what no man can own, the habit of his power and the absence of her choice.

I look for her shape and his hand (p. 19).

As A. Gordon searches for hauntings and ghost stories, she evokes this phrase “her shape and his hand” as a way of examining power, as a means of considering what is possible and impossible. In this section, I, too, consider “her shape and his hand.” Here, I think of our current school system (her shape) while noting how its compulsory, factory-model origins (his hand) have restricted how we can even think or talk about education.
Complex Personhood

A. Gordon (1997) discusses her concept of “complex personhood,” the idea that people are messy and complex beings. In reality, people are impossible to pinpoint as “just one thing.” A. Gordon reminds us that people are never purely victims or superhuman agents. She claims:

[A]ll people remember and forget, are beset by contradiction, recognize and misrecognize themselves and others…that people suffer graciously and selfishly too, get stuck in the symptoms of their troubles, and also transform themselves….Complex personhood means that the stories people tell about themselves, about their troubles, about their social worlds, and about their society’s problems are entangled and weave between what is immediately available as a story and what their imaginations are reaching toward. (p. 4)

In other words, we are all collections of histories that are compatible, contradictive, and impermanent. The stories we tell ourselves and others are both shaped and limited by the cultural, social, political, and historical forces around us, as are our actions. We act both as individuals with our own quirky, human idiosyncrasies, and as beings in a complex system of which we have varying awarenesses. We can be many things, and often we’re being them all at once. A. Gordon maintains that this is not to deny the persistent and institutionalized patterns of privilege and oppression, but that when we don’t allow for complex personhood, we are in a sense, not allowing for agency. This is another way of marginalizing and disempowering people and limiting the possibilities of design.

The teachers at Washington are much more complicated than any typology can allow for. What a futures-oriented teacher looks, believes, and behaves like is bound up
both in the teachers’ own idiosyncrasies and her involvement/awareness of the contexts in which she is a part. Some examples:

Ian extols and celebrates the streamline quality of technology – its sleekness, its appeal to students, its possibilities for instant data and information. He also fears and disdains the lack of control it potentially represents in the classroom. He prefers to dole it out to his students under watchful eyes rather than release them to practices that might be creative and innovative, but are also, in his mind, distracting. Ian is held up as a technology leader in the school and accepts and identifies with this label. That “technology expert” is linked to specific technological tools more than digital literacy practices is something that goes unremarked upon by either Ian or the administrators of the school.

Although Eduardo espouses a strong belief in the importance and power of digital literacies, he also expresses a severe lack of faith in his own abilities, a fear of failure, and trepidation about using practices in which he himself is not expert. Paradoxically, perhaps because of his own discomfort and belief that he’s not up to par with technological matters, he allows his students a measure of digital freedom and trustfulness that is uncommon in other classrooms. In Eduardo’s classroom, students take the lead and engage in practices that are more collaborative, multimodal, and “Web 2.0” than the practices found down the hall.

Cheryl wants to see herself as a teacher who embraces technology. She has started and stopped many educational sites such as Edmodo and Weebly; she expresses a desire to “go paperless” in at least some of her classes. Yet, her ties to the traditional goals of schooling and English education in particular limit what she sees as appropriate uses of
authorship; it limits what she views as “text.” As a parent of teenage boys, her anxieties about social media directly influence what she considers acceptable and unacceptable in the classroom. And she is deeply aware of at least some of the contradictions between what she would like to do with digital literacies and what both the school and outside stakeholders provide and expect. (“It’s still me doing a dog-and-pony show every day. Um, it’s not interactive in the way that we need it to be… It can only do these certain things and that’s the infrastructure that we have.)

All of these teachers are both contributors and products of their contexts. They are filled with their own unique contradictions stemming from personal experiences, the culture of schooling and Washington in particular, and innumerable contexts that shape and inform not only what they believe, but what they do. Considering their characteristics alone will not suffice. No typology can properly encapsulate this complexity. Yet, it is within this landscape that the beliefs and practices of digital literacies get played out. In thinking about how transformative digital literacy practices may be taken up in curriculum and instruction, focus has to move beyond mere concepts of design (New London Group, 1996). Consideration has to be paid to the complex personhood of the agents attempting to implement them in specific places. As such, if concepts such as NLG’s systems of design are to be plausible, attention has to be paid to the historic and “ghostly” structures still haunting American education.

**Ghost Stories**

A. Gordon (1997) urges researchers to consider both what is there and what is not there. Things that have shaped the current situations may be both visible and invisible. They may have been crowded out – by repression, by those who have gotten to determine
“what counts” and what doesn’t, even by design, they might try to make themselves invisible. Researchers need to consider the context, consider the past, consider how all of these things are coming together. A. Gordon maintains that one way to pay heed to the complexity of these matters is to write “ghost stories.” To accomplish this, one must “write about permissions and prohibitions, presence and absence, about apparitions and hysterical blindness. To write stories concerning exclusions and invisibilities is to write ghost stories” (p. 17). Some useful questions to ask are: under what invisibilities are the teachers at Washington working? Beyond their individual beliefs and practices, what unacknowledged forces are shaping and determining what can and does count as digital literacies in their classrooms and beliefs about those literacies? What unrealized or unexamined factors mold the ways digital literacies are used?

One such ghost story previously considered in this dissertation is the story of adolescence and how it plays out against narratives of the Internet being a “dangerous” place for youth. In her study of networked teens, boyd (2014) notes the way that terming something such as social network use an “addiction” pathologizes this action. It blames the technology itself for what is seen as undesirable rather than considering other “social, cultural, and personal factors that may be at play” (p. 79). This is certainly one ghost story under which teachers form opinions and make decisions.

Another ghost story affecting digital literacy was briefly profiled in this dissertation. This is the story of what it means to be a student using technology in a suburban school versus what it means to be a student using technology in an urban school. As previously noted, schools with populations primarily from low-SES backgrounds are more likely to focus on software, hardware, and technology “skills”
rather than integrating technology effectively into serving core curriculum (Warschauer, Knobel, & Stone, 2004). In this sort of environment, teachers may be reluctant to ask “too much” of their students or may assume that sophisticated projects or manipulations are beyond them.

This ghost story played out at Washington in some subtle ways. Cheryl, for instance, discussed that she didn’t feel her students had the “basic skills that they do need to go to a four-year school, or a two-year school even, or to get a regular job.” She claimed that her students needed to be taught these basic skills like, “tak[ing] the information from this text and, you know, put[ting] it in this one.” She saw this as something she needed to address before even considering the more creative and innovative practices. Cheryl’s thinking ties back to “her shape and his hand.” In thinking about the New London Group’s (1996) theory of design, we see a framework that is fluid, dynamic, and recursive. However, Cheryl’s explanation of the need to develop “basic skills” posits a long held assumption in schools, the notions that information processing and the practices that accompany them must be linearly constructed. Students need “a” to be able to move on to “b.” When compulsory schooling was conceptualized in this country, the factory model they were based on called for preparing workers, not thinkers. This preoccupation with “basic skills” and the supposition that these must be achieved before anything else belies this mentality. Again, his hand directly affects her shape.

His hand dictating her shape played into the most prevalent ghost story of which I bore witness. This story had to do with perceptions concerning what was appropriate for “advanced” students versus what practices could be used with those who “struggle.” I was struck by how teachers made clear and articulated decisions about which practices
they would use for which classes. The belief that any creative uses of digital literacies were most appropriate for “advanced” or “honor classes” was widespread.

If technology was used in classes where students “struggled,” it was often used as a visual aid, as scaffolding, or as some sort of concrete and tangible reminder of “official” knowledge. Michelle spoke about how the videos available on the Photoshop tutorial were great for students who “really, really struggle in reading.” Cheryl talked about using a specific, pre-prepared overhead with her inclusion class. She said:

[W]e use the same forms over and over again, just to get them into the ritual of understanding story arc, characterization traits, stuff like that, so, you know, this makes it easy. They know the form is always the same, they understand the format, and I don’t have to have an overhead and a projector, which I never had in the old building, so I was trying to do it on the board all of the time. So it certainly makes things neater, easier to read, they’re not reading my writing; they’re reading this nice text.

When I asked Cheryl if her inclusion group ever was permitted more freedoms in terms of technology, she replied, “With these groups, it’s a little more directed just because that’s the level that they’re at.” For students who are still perceived as needing “the basics,” technology is used as little more than effective visuals or tools for reinforcing the “official” knowledge.

Meanwhile, many of the teachers referred to doing more creative incarnations of digital literacy projects with their “advanced” classes. It was Eduardo’s upper-level honors class that he allowed the freedom to design and determine their own projects, mediated by technology. Cheryl’s practices of Edmodo, “paperless” homework, and seeking to make online connections between class subjects and the outside world were all delegated to her honors-level kids. Ian made a distinction between what he felt
comfortable allowing his “standard-level” class to try versus what he would allow with
his honors class.

This is a sadly well-worn and all-too-known story – students who are “struggling”
get kill-and-drill teaching methods, basic skills presented over and over again, and
instruction that is generally much more rote and teacher-centered. Students who are seen
as “advanced” are given more autonomy, receive more creative, student-centered
instruction, and are more often given the freedom to be inventive and experiment with
their learning. In this way, schools have often been identified as frequent and efficient
agents of social reproduction, where, through the schooling of students, the inequities of
society are replicated again and again (Anyon, 1980; Oakes, 1985; Willis, 1977).

That this “ghost story” holds true in the case of how digital literacies are used in
the classroom is perhaps only obvious, but I still found it surprising. It lends credence to
Kellinger’s (2012) fear that how technology finally plays out in the classroom might
merely be in the guise of a student, sitting alone at a computer, answering questions in an
all-too-familiar, remedial, skill-and-drill format. This sort of ghost story ensures that the
population that is most often privileged in schools – those fitting the mold of “good
students” – is given experience with technology most closely resembling digital literacies
in their creative, collaborative incarnations. Meanwhile, those seen as “struggling” are
provided with technologies that merely echo the basic lecture-driven, skills-based
instruction they are typically delivered. That who is seen as “advanced” in schools versus
who is perceived as “struggling” often falls along racial, socioeconomic, and linguistic
lines is certainly worth noting (Rose, 1989). In cases such as these, it ceases to matter if
the technology of instruction delivered is via pencil and paper or a computer screen. The practices and underlying theory of what “these kids” need remains untouched.

In review, what determines how digital literacies play out in individual teachers’ classrooms is a vastly more complicated matter than how teachers feel about these literacies or the sorts of characteristics the teachers may display. The teachers’ contexts, the way these contexts breed contradictions, the “ghost stories” that silently unwind and haunt the background – all of these help determine what instruction with digital literacies actually looks like. In the case of the teachers at Washington, as I’ve noted, the use of technology often bears little resemblance to the “digital literacies” that I theorized in earlier chapters. However, even in these complex, complicated settings, it is possible for digital literacies that are transformative to exist. As one example, I turn to Dugan’s (2009) description of X, a media teacher at Adams High.

**How Digital Literacies Can Exist within School: One Teacher’s Classroom**

In her dissertation, Dugan (2009) profiled X, a teacher who was willing and able to use new literacies in ways that transformed his classroom and the instruction for his students. X was a media teacher at Adams High, and one of his class’s objectives was to write, perform, and broadcast the school news. Dugan described a number of ways X was able to use digital literacies in respects that were different than the traditional notions of school and schooling. One aspect that should be noted is that as media teacher, X was working with mediums that were of necessity multimodal and beyond the typical print-based notions of school. Despite this, examining X’s classroom instruction may give us a means of thinking about how at least one teacher achieved digital literacies within the context of school in transformative respects.
Dugan (2009) noted how X was able to manipulate and play with school-based notions of time and space. She called his class a “subset of the school” (p. 84). She pointed out that although his class fits into institutional norms of scheduling and length as well as a specific spatial boundary (“room #312”), how he conducted his class within this time pushed against norms. Students were permitted extraordinary freedoms in where they were allowed to go during this time, for how long, and under limited supervision. Dugan said, “Students use[d] the entire school as their workspace” (p. 106). At any time, one group of students might be out filming, another group might be editing film on the computer from a previous day’s shooting, another group might be on the Internet searching for images for the broadcast, others might be downloading music and recording voiceovers. All of this was in service of creating the school broadcast.

Students were also given agency over what was broadcast and who the intended audience was perceived to be. For instance, Dugan (2009) provided an example where the student anchors of the TV program paused their report to say, “We have to chill. What’s going down has to stop” (p. 88). This message, not aimed at the administrators or teachers, was aimed directly at the heart of some gang-related tension with which the students were struggling. This “covert” message was made clear to X, but he did not relay it to other adult parties. Students were given both the power to decide what was important and appropriate and the agency to perform what they saw as fitting action.

Additionally, X employed a truly collective and collaborative mindset. Although cell phones were not supposed to be used during school hours, X encouraged his students to keep tabs on one another, calling each other and checking in with one another if someone was absent. In this way, he explained, rather than teacher-to-student interactions
or administrator-to-student interactions, his students became responsible to and for one another. This was one way in which X decentered his own power and centrality to the classroom and its operations.

Lastly, the structure of the class befitted a “digital literacies” sensibility. There was considerable flexibility in expert/novice roles, with different students taking turns teaching others what they knew (about the technical equipment, about shooting, about editing, etc.). What knowledge and information were needed were largely determined by the students, and these perceptions were informed and driven by the needs of whatever project it was on which they were working.

And, according to Dugan (2009), X’s class overall was largely a success. The students reported being stimulated and engaged. Students who, in other classes, killed time and claimed to just be trying to get through, reported appreciating X’s class, working hard, and producing products of which they were proud. The program they produced was well received both at school and regionally, winning recognition and awards as an exemplary student broadcast. Despite this, however, there are some compelling reasons why what works for X (as one teacher) may not translate to working for every educator or in the larger context of an entire school.

**The X Factor**

Dugan (2009) was firm in her assertion that X was a large personality with a specific, single-minded way of enacting his vision in the school. It should be noted that X’s media class was an elective. Additionally, he was the only teacher to teach this particular class in his school. Because of these factors, X was well outside of certain expectations of conformity and accountability. His discipline was not one that is
evaluated by high-stakes testing. He was not trying to negotiate with other teachers about what the goals of the class should be, what the shape should look like. His curriculum was flexible and not overly prescribed. Accordingly, he was granted a number of freedoms that many teachers do not enjoy.

Additionally, Dugan (2009) noted the ways in which X almost reveled in rule breaking. He had both the disposition and the willingness to break or at least flout conventional school rules – such as the no cell phone policy. This sometimes brought him into direct opposition with his fellow teachers and/or the administration. The fact that the student news broadcast received awards and recognition outside of the school itself helped him to justify his unconventional approaches.

Finally, Dugan (2009) made the emphatic point that there were still problematic aspects of how he employed digital literacies. She noted in particular his thoughts on masculinity and how “be tough, no excuses” (p. 141) was the mantra he established and lived by in class. Dugan remarked that X often did not examine his views, taking stances on issues of race, class, and gender from the “safe space of privilege as a white male” (p. 141). How this affected his relationship with the females and the African American men in his class directly impacted, at times, who was and was not allowed to “break the rules.”

In thinking through how X was able to use digital literacies in transformative ways in his classroom, it becomes evident that adopting his approaches uniformly would be problematic. For starters, not every teacher is in the position to openly oppose or break the rules the way X was willing to do. In this way, X was advantaged by the subject
matter he taught, his own defiant personality, and buttressed and shaped by white male privilege and the recognition his efforts received.

X’s is a story that illustrates how context influences what practices are possible and what practices exist. In this case, X both positioned himself and was positioned as being in opposition to traditional secondary schooling, as well as the vast majority of educators immersed in this model. It is probable that this directly affected the way his class was constructed, the way he related with his students, and the tone of the overall course. In working against the system, X and his students created a classroom environment with an edge. It was “them” vs. the school; it gave the class, and in turn, the broadcast, a subversive, more radical feel that positioned the students and X as the righteous outsiders in the system. Had X been a teacher in a different school setting, perhaps one where time and space were more open to all teachers, his class would have been different. Most likely, X would have been different.

Aside from the relationship of X to the larger school culture, X was able to establish digital literacies in his classroom in ways that transformed his practice and enriched his students’ learning. In considering X’s example, one story is suggested about how it is possible to use digital literacy practices in traditional settings in ways that transform curriculum and instruction. X’s students benefited from these practices. Yet, it is implausible and naïve to suggest that the way to accomplish transformational digital literacies in schools is by simply hiring a fleet of Xs. As already posited, complex personhood, ghost stories, and education’s shape molded by compulsory schooling’s hand make the situation much more complex that what might seem possible from the practices of a few digitally-minded teachers.
In thinking about how to bring about real change and in considering how to account for complicated dynamics of people, contexts, and actions, theory is a necessity. In deliberating on the findings of my dissertation, I note that theory should make room for people as compatible, contradictory, changing actors, and it should consider them in conjunction with the places they inhabit and the tasks they conduct. With these in mind, theory needs to position how a system like schools work; from here it becomes possible to begin to posit what change can and should look like. While the New London Group (1996) provides a robust and compelling framework for reconceptualizing literacies, people, and actions, it has not yet addressed how design might be limited by factory model schooling. Because of this, employing a theory of context and transformation becomes a necessity.

Accordingly, in this final section, I turn my attention to Davis and Sumara’s (2008) theory of “complexity thinking” and what they term “the pragmatics of transformation” (p. 130). The theory of complexity thinking provides me with ways of thinking about complicated, living systems populated by complex, changing people (what A. Gordon (1997) calls “complex personhood.”) Where this theory may in itself fall short is in its failure to fully account for the omnipresent forces of agency, power and historical influence represented in A. Gordon’s “ghost stories.” This will also be addressed in the last section.

**Thinking about Complex Systems**

While it is beyond the scope of this paper to fully expound upon what Davis and Sumara (2008) term “complexity thinking,” certain principles of this theory are useful in considering how cultural transformation might be accomplished within complex systems.
such as schools. In thinking through what a cultural transformation might look like for Washington High, I mean not to imply a specific strategy that is generalizable across schools. Washington certainly shares many characteristics with schools across the United States. However, as developed here, the way teachers are shaped and influenced by complicated and unique contexts would make blanket recommendations unwise. Instead, I aim for a theoretical generalizability that might be useful in considering how cultural transformation and learning might work against and within the sometime inflexible structures of schools.

Davis and Sumara (2008) echo many of A. Gordon’s (1997) sentiments when they advise, “[I]n a complex network, no part of the system has any meaning in isolation from the rest of the system…and so one must take into account the structure of the whole system” (p. 34). As an example of how this holds true, Davis and Sumara cite a study conducted by D. Gordon (1999) concerning the lives of anthills. The study found that the functions of anthills could not be accounted for by considering either the lives or actions of individual ants. Instead, “something qualitatively different arose in the interactions of many ants – coherences that were maintained for periods that lasted many times longer than any single ant” (p. 20). Again, as is the case with A. Gordon, these results point to the limitations of reducing teachers to their individual perspectives. It is in their interactions with each other, with their students, with their settings, with community members, with the wider world that we get a sense both why and how practices get enacted at Washington High School. Complexity thinking gives us means of considering living systems.
The necessity to consider all interactions amongst people and contexts is something advocated by complexity thinking. In order for any real transformation to take place, the whole rather than individual pieces must be considered. Davis and Sumara (2008) term this the “pragmatics of transformation,” noting that what they posit is “a framework that offers explicit advice on how to work with, occasion, and affect complexity unities” (p. 130). In Davis and Sumara’s summation, this involves forming what they term a “successful collectivity” (p. 136) purposefully seeking to combine and enrich participants in ways not reducible to the sums of their parts.

It struck me how closely aligned with principles of “new literacies” Davis and Sumara’s (2008) pragmatics of transformation was in aim. Fittingly, these theories speak one another’s language; their goals are the same. Davis and Sumara’s “successful collectivity” rides on the ideas of decentering authority, using collective intelligence to leave each individual member more informed, and allowing for individual self-interests and satisfactions while serving the good of the group. It is collaborative, freewheeling, and open in its pursuits. These two theories jibe well together.

In the next section of this paper, I consider how Davis and Sumara’s (2008) pragmatics of transformation might be taken up at Washington. In particular, I consider the principles of specialization, trans-level learning, and enabling constraints (See Figure 7.1). In each section, I explain the reasoning behind the principle and then theorize how these principles might be taken up at Washington High to help design and bring about at least some degree of transformative practice. I also note the limitations of such approaches in that, in searching for reachable, short-term solutions, we must not lose sight of what these solutions miss. Approaches such as these, while perhaps opening up
some possibilities, do not address the larger structural barriers, the barricades in place that reproduce societal inequities while they impede truer, more impactful transformation.

Figure 7.1: Principles behind Davis and Sumara’s (2008) Pragmatics of Transformation

<table>
<thead>
<tr>
<th>Specialization</th>
<th>Trans-level Learning</th>
<th>Enabling Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principles</td>
<td>As Applicable to Washington</td>
<td>Principles</td>
</tr>
<tr>
<td>- internal diversity (members are allowed a range of possible responses)</td>
<td>- Teachers have different motivations for wanting digital literacies in the classroom.</td>
<td>- Open up peoples’ repertoire of possibilities through neighbor interactions. (These neighbor interactions stress fully developed ideas, not just face time.)</td>
</tr>
<tr>
<td>- internal redundancy (members share similar social statuses, common language, and shared goals)</td>
<td>- Teachers want to include digital literacies in classrooms in ways that enrich and engage students. This needs to be more fully and collectively defined, which is further explored in Trans-level learning.</td>
<td>- Presenting ideas and making decisions about the ideas is not a top-down endeavor.</td>
</tr>
<tr>
<td></td>
<td>- These need to be fleshed out, complicated, and explored.</td>
<td>- Space and time for conversations about digital literacies that are applicable to the school.</td>
</tr>
<tr>
<td></td>
<td>- Open up peoples’ repertoire of possibilities through neighbor interactions. (These neighbor interactions stress fully developed ideas, not just face time.)</td>
<td>- Conversations about authorship, plagiarism, and what constitute a text are possible areas to be explored, along with group-proposed topics.</td>
</tr>
</tbody>
</table>

Pragmatics of Transformation

As mentioned, all of the principles found in Davis and Sumara’s (2008) pragmatics of transformation framework have as their aim a “successful collective” (p. 136). This presupposes that a group exists that is empowered and motivated to develop certain collective goals and knowledge. Here, I’m supposing that these collective goals and knowledge center on digital literacies. This assumption is actually something in-sync with the teachers’ own expressed desires for support (at least the ones with which I
worked directly). As reported in Chapter 4, teachers most commonly reported wanting opportunities to collaborate to enhance and develop digital literacies in their classrooms. For issues involving digital literacies, teachers expressed interest in collaborating with peers from their disciplines, peers on their “teams,” and learning what others were already doing. Essentially, teachers told me they needed time and space to develop their common interests and collective knowledges surrounding digital literacies. This weaves well with Davis and Sumara’s aim of a “successful collective.”

**Specialization**

In discussing the principle of specialization, Davis and Sumara (2008) speak to the necessity of the group “living the tension of diversity and redundancy” (p. 137). A successful collective works best when it has both internal diversity and internal redundancy. In other words, it needs to be possible for members to be allowed a range of potential responses – *internal diversity* (p. 138). The authors make it clear that in any social grouping there are important and usually wide diversities; however, sometimes these diversities may be actively minimized or repressed. This response should be made visible and eliminated. Along with diversity, Davis and Sumara argue that there must also be *internal redundancy* (p. 138). Members of a collective must have a common language, similar social statuses, a constancy of setting, and mutual responsibilities. Davis and Sumara argue, “This deep sameness is vital” (p. 139). It is this that allows a group to function as one, to talk and engage with one another. In short, it is its redundancy that provides a collective’s stability and its diversity that allows for the collective’s creativity, its sense of what is available and possible.
Davis and Sumara (2008) also make the point that the aim is not to force an agenda onto the members of the group. The individual agents and the collective system must be considered simultaneously. Room must be made for members’ self-interests, but the larger project or aim should not be reducible to these self-interests.

In thinking about how a collective aimed around digital literacies might be successful at Washington, I believe many of the pieces are already present. In thinking about teachers coming together, the common language and similar social statuses are there. The context of Washington itself provides them with these redundancies. Additionally, in talking to each of these digital literacy-minded teachers, there is real diversity here as well. Everyone I talked to at Washington (and most of the teachers I surveyed) articulated a belief in the importance and relevance of digital literacies to students.

However, all of the teachers I interviewed had varying reasons and beliefs for wanting to include these in the classroom. Eduardo sensed means for students to gain autonomy and create multimodal projects that more fully encapsulated their learning. Kate saw ways of expanding both her and her students’ understandings of art. Michelle viewed digital literacies as her discipline’s bread and butter. And Ian enthused about the way digital literacies gave him instant feedback about students’ learning. The teachers had different interests in digital literacies, and a successful collective would make room for these self-interests.

An environment would need to be created to both articulate these underlying attractors and to examine them. For instance, what sort of feedback is Ian currently receiving about his students, and what is he doing with this feedback? What would he be
interested in knowing, and how can digital literacy practices help with this? In what ways might he expand his understanding of feedback? Finding ways to serve teachers’ interests, challenge their assumptions, and expand on the goals of the collective would be an aim that has the potential to enrich all parties. At its heart, a collective purpose might broadly be labeled as a desire to pursue digital literacies in the classroom in ways that enriched and engaged students. What is meant by “enrich and engage,” in themselves ambiguous terms, is something that would need to be fleshed out and articulated as a means of achieving redundancy for teachers. This is something that might be taken up in the next para-concept: trans-level learning.

Trans-level learning

Davis and Sumara (2008) argue that in a successful collective, individual participants need to learn and adapt in order for the group to expand its “repertoire of possibilities” (p. 142). For this to occur, there needs to be both a decentralized sort of control and what Davis and Sumara term “neighbor interactions” (p. 142). Interestingly, the authors are not necessarily describing people when they evoke the word neighbors.

In thinking about enriching and expanding what is possible, Davis and Sumara (2008) point out that merely giving people face time or putting them in a room together is not a guarantee of success. As a former teacher, I remember sitting through countless meetings and professional developments where not much was said or accomplished. Instead, Davis and Sumara argue, it is important for ideas to be given the opportunities to inform, shape, contradict, and rub up against one another. These ideas might take many forms—in presentations, through text or literature, through conversation, or through digital literacy practices themselves. The important thing is that these ideas have to be
fully formed and developed understandings. They cannot be sound bytes of ideas, which, in my own experience, is often the way that professional development gets enacted. Teachers come away with some small or incomplete piece of an idea, often depleted of its nuances.

Additionally, presenting ideas and deciding what the collective does with them cannot be only top-down, a pervasive shape of school and school district transmittal of information/policies. Davis and Sumara (2008) advise that organizing these opportunities can condition or occasion the possibilities, but they cannot and should not aim to impose or control. Again, working in a similar philosophical vein as new literacies theory, Davis and Sumara surmise that ideas generated by the collective become the product of joint authorship – who comes up with what becomes indistinguishable from the collective ideas produced.

Of course, this is not easily done. As one example, when I started this research study, it was with the intention of creating a collaborative project where my goals, the requirements of this dissertation, and the needs and desires of Washington came together to serve a collective purpose. However, in practice, there are tensions. As previously discussed, my immersion in the academic world shaped and influenced how I think about digital literacies in ways that weren’t always in line with or reconcilable with how the teachers and administrators think of digital literacies. Outside influences – like teacher evaluations and testing – drew teachers and administrators toward some priorities and away from others. Establishing joint and agreed upon ideas is never as simple as some would have us believe.
Still, in turning to Washington, I can see how having the opportunity to rub against and interact with different ideas concerning digital literacies could be valuable. With the exception of Kate and Eduardo who had learned some of the theory behind digital literacies in their graduate classes, ideas about using these practices in ways that are less linear, less teacher-directed, and more collaborative, creative, and multimodal is not something with which the teachers have had much experience. Having access to fully formed ideas about different conceptions of digital literacies (and seeing these in practice) might be useful for teachers. Likewise, having opportunities to debate and engage in conversations around concepts such as plagiarism, authorship, and what constitutes a “text” might be an intellectually satisfying and growth-encouraging endeavor.

What would have to be accomplished would be to give each teacher the opportunity to have a chance to interact with these ideas as an authority and as an equally knowledgeable and important voice. The problem with setting up someone as “the” technology leader, as Ian has been positioned, is that it limits and freezes notions of who is the expert and who is the novice. It’s hierarchical. A successful collective might open up these roles where someone like Eduardo would be encouraged to both share his experiences and gain confidence in what he does know and do in his classroom. It would simultaneously expand teachers’ “repertoires of possibilities” (Davis & Sumara, 2008, p. 142) when considering how and why to include digital literacies in the classroom.

Finally, invested stakeholders at Washington would have to evaluate differences between paying lip service to technology and considering how to authentically build space for transformative digital literacies. This sort of endeavor requires time and space,
both of which are admittedly limited in busy schools pulled in dozens of different directions.

**Enabling Constraints**

The last principle Davis and Sumara (2008) discuss in terms of establishing transformation in a collective is including what they term as “enabling constraints.”

According to the scholars, this term:

…refers to the structural conditions that help to determine the balance between sources of coherence that allow a collective to maintain a focus of purpose/identity and sources of disruption and randomness that compel the collective to constantly adjust and adapt. (p. 147)

In other words, Davis and Sumara see the successful collective as having certain constraints in place that simultaneously allow it to not spin out of control while still having sufficient room to allow for conditions to change and be reworked. In their estimation, this becomes less about “prescribing” what one must do and more about “proscribing” what one shouldn’t do (p. 148). Accordingly, this approach imposes less preconceived rules of how to accomplish tasks and therefore opens up the realms of what is possible. Davis and Sumara suggest that to be effective, the collective must be presented with a task that seems both relevant and doable but that is also able to be opened up to greater discussion and directions.

As an example, some of the teachers at Washington are already practicing this principle of enabling constraints with their students in matters concerning digital literacies. For instance, in Michelle’s class, all of the students are seated at computers. Michelle makes clear to her pupils that when they are discussing something as a class or
when she is demonstrating something that they will be doing (in Photoshop, for example) on the Interact board, they are not to be on their computers. Instead, they should be tuned in and paying attention to wider class actions. In establishing this constraint for her students, Michelle is actually enabling greater freedoms as she can release them to their own endeavors with reasonable confidence that they have some direction and purpose.

This example cuts through the assumption that there is one way to enact transformative digital literacies. In this case, working at times as a whole group paves the way for Michelle’s students to engage in the creative work to come.

Teachers at Washington might be encouraged to think about the types of constraints they place on their students. Which ones are necessary in achieving greater freedoms and possibilities for students as they work with digital literacies? Which ones are restricting to the point where digital literacies’ potentials are curtailed or limited? Having a wide conversation about enabling constraints may give teachers time and space to talk about youth’s interactions with digital literacies. It might make visible some of the lingering ghost stories under which they operate, such as the dangers of youth and the Internet, possibilities for “advanced” versus “struggling” students, and ironies present in teachers’ resentment of their own administrative-imposed digital literacy restrictions versus the restrictions they place on their own students.

Admittedly, it is naïve to think that merely “opening up a conversation” about enabling constraints will result in real change. It is easy to talk about such matters (and even easier to be “talked at” about such matters), but enacting true change is difficult. Merely talking about digital literacy practices with “advanced” and “struggling” students is unlikely to transform teachers’ underlying views, views undoubtedly shaped by
entrenched and historical notions of what it means to be a “good student.” (“Her shape and his hand,” once again.) Opening up a conversation about enabling constraints without calling to attention the larger issues of a system that is essentially frozen, that promotes linear thinking, that is dependent on individual measures of success, is, at its core, limited in what it can accomplish. Larger conversations have to take place, conversations that take into consideration complex settings and complex peoples. How likely is it to think that these conversations can happen in these institutions and in the educational climate in which we currently reside? I admit I am not overly optimistic. This is why we must also turn our attention to the longer term.

**Where the Pragmatics of Transformation Fall Short**

What Davis and Sumara’s (2008) “pragmatics of transformation” provides is an opportunity for teachers, administrators, and invested stakeholders to affect beliefs and practice from the inside. What it fails to account for are outside, imposed factors that determine the direction and shape of education and limit autonomy for educators. There are still going to be wide discrepancies in technological tools and access for students, including issues of high speed Internet access (Warschauer & Matuchniak, 2010). Those both inside and outside of the school (including parents and the community) may be reluctant to embrace change (Fullan, 2001). Most tellingly, the current educational climate is operating under a high-stakes system where testing and accountability are the driving forces of the day (Ravitch, 2011), where the ongoing purpose of schooling seems to be to acquire and demonstrate basic skills (Oakes, 1985).

Spending the last two years with the teachers and administrators of Washington, I’ve witnessed how the presence of high-stakes standardized tests and the language of
accountability have overshadowed and minimized other education-based topics. Teachers talked of professional development this year focusing primarily on Common Core standards and the upcoming changes in teacher evaluations, a source of stress for many of them. Mindy, the vice-principal at Washington, told me that although she is interested and personally invested in technology and believes in its importance for students, she feels a responsibility to her students and her staff to prepare them for the upcoming changes in standards, testing, and accountability. She hopes that they can make technology more of a focus “some other year.”

In short, while the “pragmatics of transformation” give interested parties a way of potentially enacting change from the inside, it still does not influence the goals, driving forces, and conversation taking place on the outside, which intimately shape the school culture. Because of this, it is certainly understandable and even expected that focusing on matters like including digital literacies, even if not in transformative ways, takes a backseat to other more immediate, high-stakes matters – matters that affect people’s livelihoods and even fates of schools. In this regard, thinking about the potentials of transformative digital literacies becomes a matter of a far wider cultural transformation in terms of schools and schooling.

Still, as Sumara and Davis (2008) suggest:

“Education – and by implication, educational research – conceived in terms of expanding the space of the possible rather than perpetuating habits of interpretation, then, must be principally concerned with ensuring the conditions for the emergence of the as-yet unimagined” (p. 135).
It is with this in mind that I conclude with an eye toward the long term. In this I acknowledge that much of this vision is probably impossible within the current time with the current contexts. In the examples I sketch, I indicate which points may be useful to bring to the attention of Washington. While some of these may be valuable to teachers and administrators at this point in time, I also wish to acknowledge that without transformation of the larger, compulsory school culture, these digital literacy practices are limited in their scope. In thinking about these complex systems in ways that are not as submissive in their shape to his hand, I envision digital literacies practices in ways that are far more transformative than their current more assimilative uses. In my final pages, I describe a dream of what I hope schools could be.

**Transforming Schools and Incorporating Digital Literacies**

On a residential street in Harlem, two youth approach the apartment of the next woman on their list to interview. They lug with them video recording equipment, mics, and a semi-structured catalogue of questions they hope to explore. This woman is one in a varied and growing list of different perspectives concerning the recent and ongoing changes in Harlem. The two youth, Khaleeq and Phillip, will conduct the interview, review and analyze what she says, and, collectively and with the help of their mentor, devise new questions, formulate shifting theories, and come to evolving conclusions. Along the way, they will employ myriad literacy practices – rhyme books, writing assignments, video literacies, and dialoguing amongst them. Ultimately, these two boys will walk away with an understanding of gentrification in Harlem that is nuanced, sophisticated, and intimately linked to their lived experiences in the neighborhood (Kinloch, 2010).
In public libraries across Chicago, youth are invited to YOUMedia sites where they are encouraged to “hang out, mess around, and geek out” (Ito et al., 2010). Youth are encouraged to work with mentors and their peers on topics related to their specific interests. These sites boast “inspiration zones, production zones, and exhibition labs” (YOUMedia Network section, para 3) where youth, particularly those who are underserved, can bring their visions to fruition. YOUMedia’s mission reports working with certain tenets in mind. Projects are youth-driven and interest-based, with youth taught and encouraged to reflect and be critical of their works. YOUMedia is focused on production, with participants explicitly taught the mechanics of how to build their projects; the aim is for producers, not consumers. Projects are collaborative, with youth working with others from different backgrounds and entertaining different expertise and interests. All of this is positioned as taking place in an interdisciplinary framework (Digital Youth Network, n.d.).

As is evident in these examples, true learning with and about digital literacies is taking place in sites outside of formal schooling. It’s taking place with practices that are genuinely transformative, that result in authentic and deep learning for its participants. So what would it take for this sort of learning to happen inside of schools? What cultural transformations would need to take place to make these digital literacy visions realities?

Some Possibilities

In the spirit of Davis and Sumara’s (2008) trans-level learning approach, the below should be seen as sketches of possibilities. These are, in rough form, ideas to be taken up and molded, shaped, and crafted collaboratively and within specific contexts.
They represent a starting place for thinking about a wider cultural transformation that would allow for digital literacies to be taken up in authentic and creative fashions.

At the present time, I have not taken these ideas back to Washington High School. The timeframe of finishing this dissertation coincided with the end of the school year, and my writing and analysis was completed in a different state than Washington’s location. However, in considering about how I would carry through the intention of my project and arrive at collaborative findings and meaning making, I can think through the immediate use of these sketches for Washington’s school community.

Consequently, the sketches are arranged in order of accessibility and immediate probability. As such, the first two, perhaps three, sketches are something that I think would be useful for schools like Washington to take up, examine, and discuss. Creating space for students’ own interests to be developed, reexamining and unsettling notions of “expert” and “novice,” even, to some degree, considering skills in service to authentic goals – all of these are tangible enough that teachers might seize upon them. Of course, without conscious dismantling of how his hand has largely determined her shape, how these ideas are taken up will be limited in their scope and hence in their possibility. However, there is still something to which teachers like the ones at Washington might respond.

The last two sketches profiled here, however, are abstract and far-reaching enough that they would be of limited immediate use to teachers and administrators at Washington. Educators’ lack of control and/or ability to change these structures in the direct present would likely be more discouraging and disheartening than evocative.
Regardless, I present them here anyway as illustrations and a hope for what future schooling might be.

1. **Room for the students’ interests and passions, with particular attention paid to local contexts.** This entails going beyond prescribed curriculum and standards and allowing for a flexibility and willingness to let students lead their own learning that is not currently encouraged. It moves beyond the superficial surface of students’ likes and dislikes and asks what really matters and what are determiners of success, community interest, and happiness for these particular students. The way Kinloch (2010) structured Khaleeq and Phillip’s learning on the gentrification of their own neighborhood is one compelling example of how this might be accomplished.

2. **Shifting space for students and teachers to be positioned as both novices and experts.** In digital spaces outside of school, people take turns being both teacher and learner. Dugan (2009) shows what this might look like in X’s classroom. One student has spent a lot of time editing film; he takes on the responsibility to teach this to the newbie. Another student knows how to work the camera. Meanwhile, X gives insights into new software he’s acquired. In this model, the teacher serves more as a facilitator than the ringleader. She does not view herself as the cue ball on a pool table. All action does not need to spring from her (Mahiri, 2011).

3. **The rigid boundaries of school are relaxed.** Disciplines are not as clearly divided. Skills are taught as needed and in-service of overarching projects. Everything that is done is performed with specific purposes and authentic
goals in mind. Currently, this is most commonly seen in out-of-school spaces. YOUmedia is an illustration of this, with necessary skills and disciplines being specifically targeted in service of larger projects. A project is first imagined, and then it is determined what knowledge and skill sets are needed to bring it into existence. This is in direct contrast to the traditional school model, where what is started with is a discipline or a determined skill. In this case, projects are often assigned to reinforce that discipline or skill sets, an arguably less authentic way of structuring learning.

4. **Less rigidly structured and less linear conceptions of time and space.**

Instead of making use of inflexible timetables, schools might employ more relaxed ideas about time/space structures. This might allow for more elasticity for projects whose time and space needs aren’t immediately apparent at the onset. In the case of Khaleeq and Phillip, for real learning to occur, they needed to be able to walk the streets of their neighborhood (Kinloch, 2010). YOUmedia projects are ongoing, collaborative, and not subject to strict and unyielding deadlines. Sites of learning such as these rarely rely upon words such as management or control.

5. **Different measurements of learning.** The only way digital literacies could be employed with transformative practices would be for standard measures of student and school achievement to be changed. Measures of individual success would have to be lessened. Collaborative work would need to be valued more highly. The standardized ways in which we currently assess students would need to be relieved of their hold. In short, what counts as
success and what success looks like in education would have to be drastically renegotiated.

None of these proposed changes would be easy to implement. When thinking about genuine cultural transformation, however, these are the sorts of changes that might make a long-term difference. To achieve these long-term goals, a number of grounding questions could be taken up by schools seeking to transform, rooted in Davis and Sumara’s (2008) pragmatics. To make these sorts of changes, what enabling constraints would need to be in place? What might the school staffing body aim toward in searching for their redundancies? What sorts of “neighbors” might be given the opportunity to inform, interact, and “rub up against” one another? These are the kind of changes that may “expand the space of the possible rather than perpetuate habits of interpretation” (Davis & Sumara, 2008, p. 135).
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Knobel, M. & Lankshear, C. (2002). Do we have your attention? New literacies, digital


This survey is part of a study being conducted by Storey Mecoli at Boston College exploring teachers’ beliefs and practices about digital technologies. Participation in this survey is entirely voluntary. You may cease taking the survey at any time. As a thank you for participation in the survey, you will be entered in a raffle for a $50 Amex gift card.

For the purposes of this survey, the phrases “digital technology” and “digital literacy” will be used to mean the inclusion of technology in the classroom. Some of the interfaces that might be included with this would be computers, tablets, cell phones, discipline specific tools, etc.

1. What is your name?

2. What subject matter do you teach? Check all that apply.
   a. Foreign language
   b. Health
   c. History
   d. Language arts
   e. Mathematics
   f. Science
   g. Other (Please specify)____________________

3. What grades do you teach? Check all that apply.
   a. 9th Grade
   b. 10th Grade
   c. 11th Grade
   d. 12th Grade

4. How many years have you been teaching?

5. How comfortable are you with using digital technologies in the classroom?
   a. Very comfortable
   b. Somewhat comfortable
   c. Not that comfortable
   d. Not at all comfortable

6. How often do you use digital technology or digital media in the classroom?
   a. Never
   b. Rarely
   c. One – three times a month
   d. One – three times a week
   e. Daily
7. In your opinion, how important is it to include digital technology within the classroom?

   a. Very important
   b. Somewhat important
   c. Not that important
   d. Not important

Below are descriptions of three different classroom lessons using digital technologies. All of the lessons aim to foster student collaboration. Select the one that you believe most closely resembles your own use of technology.

   e. Ms. Cowan gives a lecture in class using a PowerPoint she projects using her Interact board. She pauses to allow for students to work with one another on sample questions. Throughout the lesson, Ms. Cowan typically controls the technology, sometimes asking students to come and manipulate something on the board. Ms. Cowan would like to use other types of technologies, like a class set of clickers that allows students to answer questions, but she often finds herself pressed for time.

   f. Mr. Kirst does not find himself using technologies in the classroom all that often. Today, however, he chooses to begin class by showing a brief video clip illustrating a key point of the lesson. From there, he breaks students into small groups to answer and discuss some questions drawn from the video. After meeting with small groups, Mr. Kirst gathers the class back together to talk about the questions and answers.

   g. For today’s lesson, Ms. Black has chosen to take her class to the computer lab. After she briefly gives the students some directions, Ms. Black asks them to log on to the class site where they are given brief scenarios that they are to collaboratively solve using websites. Talking in person and online, students work together to address the scenarios. Students will present their findings together by choosing a digital means of presentation – possibly videos, blogs, or by using presentational tools such as Prezi. Ms. Black circulates, answering questions as they arise.
8. Which scenario most resembles your classroom?
   a. Scenario A
   b. Scenario B
   c. Scenario C

9. In an ideal world, which teacher’s approach would you most like to use in your classroom?
   a. Scenario A
   b. Scenario B
   c. Scenario C

10. Is it different than the scenario you chose as being most like your classroom?
    a. Yes
    b. No

**Questioning Branch 1:**

What are some of the reasons you might choose not to include digital technologies within your curriculum and teaching?

1. There is too much material to cover/too little wiggle room in the curriculum.
   Strongly Disagree    Disagree    Agree    Strongly Agree

2. The lack of coverage or acknowledgement of importance of digital technologies on high-stakes testing is a factor for me.
   Strongly Disagree    Disagree    Agree    Strongly Agree

3. I have fear or discomfort that the technology will fail during the lesson.
   Strongly Disagree    Disagree    Agree    Strongly Agree

4. I worry that students will look at or access inappropriate content online.
   Strongly Disagree    Disagree    Agree    Strongly Agree

5. As a result of digital technology, plagiarism is becoming more and more common.
   Strongly Disagree    Disagree    Agree    Strongly Agree
6. Because of digital technologies, the lines between what is plagiarism and what is not have become blurrier.

Strongly Disagree  Disagree  Agree  Strongly Agree

7. Digital technologies are often more of a distraction than a helpful part of the classroom.

Strongly Disagree  Disagree  Agree  Strongly Agree

8. I find it difficult to keep up with how quickly technologies change.

Strongly Disagree  Disagree  Agree  Strongly Agree

9. Aspects of digital technology interfere with traditional school literacy (like the prevalence of IM spelling, for instance. “U” instead of “You” would be an example)

Strongly Disagree  Disagree  Agree  Strongly Agree

10. I’m not sure how to use these in ways that truly benefit students.

Strongly Disagree  Disagree  Agree  Strongly Agree

11. I feel like I spend more time policing my students than really being able to embrace the digital technologies.

Strongly Disagree  Disagree  Agree  Strongly Agree

Open Response Questions:

12. How can digital technologies be used in your particular subject area?

13. What other technology skills would you want to in order to enhance student learning in your classroom?

14. What measures would need to be in place in order for you to be more likely to incorporate digital technologies into the classroom?

Questioning Branch 2:

What might get in the way of you more fully incorporating digital literacies into your curriculum and instruction?
1. There is a limited availability of school resources or infrastructure to incorporate the technologies I desire.

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<th>Strongly Disagree</th>
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2. There is a lack of others with whom to collaborate.

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3. There are not enough opportunities for professional development/mentorship.

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<th>Strongly Disagree</th>
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4. There is too much material to cover/too little wiggle room in the curriculum.

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<th>Strongly Disagree</th>
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5. The lack of coverage or acknowledgement of importance of digital technologies on high-stakes testing is a factor for me.

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<th>Strongly Disagree</th>
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6. I have fear or discomfort that the technology will fail during the lesson.

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7. I worry that students will look at or access inappropriate content online.

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<th>Strongly Disagree</th>
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8. I feel uncertainty about how to assess these new digital literacies – like blogs, wikis, online conversations, etc.

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<th>Strongly Disagree</th>
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9. I feel discomfort with the technologies/ worry that students are better versed in these than I am.

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<th>Strongly Disagree</th>
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10. There is limited technological support available from people suited to help me.

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<th>Strongly Disagree</th>
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11. Incorporating digital technologies cause an additional workload to my responsibilities.

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<th>Strongly Disagree</th>
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12. I worry that I’m not incorporating digital technologies into my classroom enough.

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<th>Strongly Disagree</th>
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<th>Strongly Agree</th>
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What possibilities do you see/reasons might you have to incorporate digital literacies into your classroom?

13. Digital technologies can be motivating and engaging to students.

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<th>Strongly Disagree</th>
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14. Digital literacies allow me to better get across a concept or idea of a lesson.

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<th>Strongly Disagree</th>
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15. Using digital technologies is a great way to allow students to collaborate and work together on papers and projects.

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<th>Strongly Disagree</th>
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16. In some cases, digital technologies allow students to be the expert.

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<th>Strongly Disagree</th>
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17. Digital technologies may provide opportunities for remedial instruction.

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<th>Strongly Disagree</th>
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18. Digital technologies may help individualize instruction for students.

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<th>Strongly Disagree</th>
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19. Digital technologies make it possible to include other mediums besides print-based text in the classroom.

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<th>Strongly Disagree</th>
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20. Digital technologies open up possibilities for students to be creative and come up with interesting and innovative projects.

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<th>Strongly Disagree</th>
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<th>Agree</th>
<th>Strongly Agree</th>
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</table>
21. Digital technologies open up possibilities for teacher and student interactions.

Strongly Disagree  Disagree  Agree  Strongly Agree

Open Response Question:

22. What other technology skills would you want in order to enhance student learning in your classroom?

Questioning Branch 3:

What possibilities do you see/reasons might you have to incorporate digital literacies into your classroom? What are some challenges?

1. Digital technologies can be motivating and engaging to students.

Strongly Disagree  Disagree  Agree  Strongly Agree

2. Digital technologies allow me to better get across a concept or idea of a lesson.

Strongly Disagree  Disagree  Agree  Strongly Agree

3. Using digital technologies is a great way to allow students to collaborate and work together on papers and projects.

Strongly Disagree  Disagree  Agree  Strongly Agree

4. In some cases, digital technologies allow students to be the expert.

Strongly Disagree  Disagree  Agree  Strongly Agree

5. Digital technologies may provide opportunities for remedial instruction.

Strongly Disagree  Disagree  Agree  Strongly Agree

6. Digital technologies may help individualize instruction for students.

Strongly Disagree  Disagree  Agree  Strongly Agree

7. Digital technologies open up possibilities for students to be creative and come up with interesting and innovative projects.

Strongly Disagree  Disagree  Agree  Strongly Agree
8. Using digital technologies in the classroom challenge teachers in a way that they didn’t learn in their teacher prep programs.

   Strongly Disagree   Disagree   Agree   Strongly Agree

9. Using digital technologies in meaningful ways takes a lot of work on the part of the teacher.

   Strongly Disagree   Disagree   Agree   Strongly Agree

Open Response Question:

10. What other technology skills would you want to enhance student learning in your classroom?

Check all that apply:

11. For what purposes do you use digital technologies and digital media within the classroom?

   _______ To present a lecture
   _______ To illustrate a concept in a lesson
   _______ To grab students’ attention/engage them
   _______ To allow students to collaborate with one another
   _______ To aid in students creating a product
   _______ To build community
   _______ Other (Please specify)

12. How would you describe the person leading the interactions with digital technology within the classroom?

   _______ I establish the rules, expectations, and norms for interacting in this medium.
   _______ The students and I establish these rules, expectations, and norms together.
   _______ The students primarily take the lead on this one.
13. What sorts of activities do you have your students do using digital technologies? Check all that apply:

_______ Writing essays, reports, stories with a program such as Word
_______ Creating websites
_______ Using online discussion features
_______ Creating projects with other modalities besides text (such as visual and audio components)
_______ Creating videos
_______ Creating podcasts
_______ Creating PowerPoint
_______ Using some sort of social networking site (like Edmodo)
_______ Encouraging email communications between you and the students
_______ Encouraging email communications amongst students
_______ Encouraging use of a class website
_______ Taking students on virtual field trips
_______ Skyping
_______ Other: Please specify

Open Response Questions:

14. What does someone who is digitally literate look like to you?

15. Describe a way that you’ve used digital literacies in the classroom that was well received by students and you felt was effective.

16. What other supports would you like in order to fully incorporate digital literacies into your classroom?
APPENDIX B

INTERVIEW QUESTIONS (FOR AFTER SURVEY)

1. What role does technology play in your classroom? Please describe (and give examples) of ways you use it in the classroom.

2. How important do you think it is to include technology into the classroom? Why do you think this?

3. What sorts of things do technologies let you do in your classroom that you would not be able to do without them?

4. How do you see technology fitting into your classroom? Where is it a good fit? Where does it not align?

5. How do you learn about what sorts of technologies are available? How do you decide what to include or not include in your curriculum and instruction?

6. How comfortable do you feel with incorporating technology into your teaching and lessons?

7. How do you feel students respond to your use of technology?

8. Do you feel like you incorporate enough technology into your classroom? Why or why not?

9. What sorts of opportunities does using technology give to you and your students?

10. What challenges and tensions do you face as you seek to include technology within your classroom?

11. What roles do students play in using the technology in the classroom? Do they ever take the lead with any part of it?

12. What sorts of projects have you had your students complete using technology? Why did you assign the projects you did? What were the goals and expectations?
INTERVIEW QUESTIONS TO BE PAIRED WITH OBSERVATIONS

1. How did you plan on using technology within the lesson today?

2. What was your purpose for incorporating the technologies in this lesson?

3. What are you hoping the students got out of this lesson? What role will technology play in these goals?

4. How did you judge whether the lesson was successful? Overall? In regards to the technology?

5. How did it go? What were you happy with? What would you have done differently?

6. How do you think the students did with the technology? How do you think they felt about its use(s)?

7. Would you use something like this again? Why or why not?
EXIT INTERVIEW

1. How do you feel about the preparation and support you’ve received about incorporating digital technologies into the classroom?

2. What other technologies would you like to be able to use within your classroom? Why?

3. What else do you feel you need in order to incorporate technology as fully and as effectively as you’d like to?

4. When thinking about including technology in your classroom, what aspects of being able to utilize it effectively are within your control? What are these things?

5. When thinking about including technology in your classroom, what aspects are beyond your control? What are these things?