A DESCRIPTIVE STUDY OF FIRST-YEAR COLLEGE STUDENTS' NON-ACADEMIC DIGITAL LITERACY PRACTICES WITH IMPLICATIONS FOR COLLEGE WRITING EDUCATION

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Ann N. Amicucci

Indiana University of Pennsylvania

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Indiana University of Pennsylvania
School of Graduate Studies and Research
Department of English

We hereby approve the dissertation of

Ann N. Amicucci

Candidate for the degree of Doctor of Philosophy

_____ _____
Michael M. Williamson, Ph.D.
Professor of English, Advisor

_____ _____
Gloria Park, Ph.D.
Assistant Professor of English

_____ _____
Ben Rafoth, Ed.D.
Professor of English, University Professor

ACCEPTED

_____ _____
Timothy P. Mack, Ph.D.
Dean
School of Graduate Studies and Research

Title: A Descriptive Study of First-year College Students' Non-academic Digital Literacy Practices with Implications for College Writing Education

Author: Ann N. Amicucci

Dissertation Chair: Dr. Michael M. Williamson

Dissertation Committee Members: Dr. Gloria Park
Dr. Ben Rafoth

In this qualitative research study, the author investigated first-year college students' non-academic digital literacy practices, the audiences for these practices, and students' preferences for enacting these practices in the first-year college writing classroom. Methods of data collection included surveying 177 students, conducting individual interviews with eight of these students, and conducting follow-up individual interviews with two of these eight interviewees. Study results regarding students' use of digital tools indicate that students engage in more content reception than content creation in a range of digital literacy practices and vary in the level of attention they pay to audience in writing in online spaces. Results regarding students' preferences for utilizing their non-academic digital literacy practices in writing courses indicate that students do perceive the potential for such practices to enhance their college writing education and identify the communicative potential afforded by digital technologies as the area in which the greatest potential lies.

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CHAPTER ONE

INTRODUCTION TO THE STUDY

Purpose of the Study

The purpose of this study was to identify ways that college students' non-academic digital literacy practices can be utilized effectively in first-year writing (FYW) courses. The goals of the study were to describe the existing digital literacy practices of study participants and to describe ways that students envision bringing their digital literacy practices into the FYW classroom. To achieve these goals, I conducted a survey of 177 FYW students and conducted individual interviews with eight students from this participant pool. This survey and interview data characterizes students' opinions on how their non-academic digital literacies could be utilized in a FYW setting.

Theoretical Orientation

While the term *literacy* is often used broadly in reference to one's ability to read and write, my discussion here draws on the more recent conceptualization of literacy termed *new literacy*, or the utilization of reading and writing skills within an ideological framework. In this concept of new literacy, the social, cultural, political, and other contexts in which an individual exercises a particular literacy affect how that literacy is exercised. For example, a new literacy study of a young child's process of learning to read might take into account the child's parents' socioeconomic status, the child's race, the culture of reading in the child's social and family environment, and other contextual factors in considering the child's development of reading skills. This understanding of literacy emerges from the field of New Literacy Studies, a field that utilizes Gee's (1990) identification of literacy as not just a cognitive process but as a socially, culturally, and politically situated practice. Along with Gee, Street (2003) has contributed to new

literacies research by discussing the ways that literacy practices and the effects of such practices on individuals' communication and thought processes are ideologically situated.

My discussion within this study rests on the premise of literacy as a broad concept that accounts for literacy in practices beyond only reading and writing. For example, a person could possess a music literacy that entails the abilities to play an instrument and to read, understand, and perhaps even compose the music involved in that play. This premise represents the direction in which literacy studies have been moving since the concept of literacies as plural, or *multiple literacies*, emerged in discussions of literacy in the fields of reading and composition (for early instances of the term, see Hartwell, 1985; Scribner, 1984). As Hagood (2003) has noted, scholars in the field of reading studies, in which more traditional understandings of literacy are rooted, have largely accepted the notion of multiple literacies and the new literacy idea of the importance of context in conceptualizing the development of individuals' literacy practices.

The theoretical shift toward plural literacies has emphasized the fact that all literacy practices are socially situated. Any given literacy practice, whether it is a form of reading, writing, or another manner of participating in a discourse, is shaped by its social and historical context (Barton & Hamilton, 1998, 2000; Gee, 1990; Street, 2003). In particular, discourse community delineations determine the differences among literacy practices happening inside and outside of a community (Barton & Hamilton, 2000; Gee, 1990; Wenger, 1998). As a result, students' literacy practices differ inside and outside of school, and their practices in both settings are often shaped by the social and academic communities in which they participate. Likewise, students' academic and non-academic contexts can bleed into one another, causing students' reading and writing practices outside of school to affect their academic work and vice versa.

Furthermore, power structures embedded within the social and historical contexts that shape literacies determine the value that is placed on different literacy practices by different groups and in different settings (Barton & Hamilton, 1998; Street, 2003). Barton and Hamilton (2000) explained, "Socially powerful institutions, such as education, tend to support dominant literacy practice" while, in contrast, "[o]ther vernacular literacies which exist in people's everyday lives are less visible and less supported" (p. 12). As this discussion indicates, the context in which literacies are exercised often dictates the value placed on different literacy practices. Within education, students' existing literacy practices are often undervalued when they conflict with standard academic literacies of reading and writing (Gee, 1990; Street, 2003). Given the persistent influence of social and historical context on the valuing of differing literacy practices within any discourse community, the new literacies theoretical stance stipulates that social context cannot be ignored in studying literacies.

This understanding of the differing values placed on literacy practices in different contexts informs the examination of non-academic digital literacy practices in this study. College students' non-academic digital literacy practices—their ways of reading and writing for non-academic purposes that involve digital technologies—often differ from traditional academic literacy practices, rendering the former, at times, less valued within the academy. Yet these non-academic literacies can offer insight into how students learn and how we can most effectively teach them. In new literacies work, researchers (Gee, 2003; Hull & Schultz, 2001) have found that studying individuals' literacy practices outside of school can provide valuable insight into these individuals' performance and potential for learning within school settings. Given the potential for studies of non-academic literacies to inform literacy education, this study follows the precedent of research (Finders, 1997; Heath, 1983; Nathan, 2005; Sitler, 1997; Williams,

2005) that has examined individuals' literacy practices outside of school in order to obtain a more nuanced understanding of these individuals' literacy practices as a whole, including those that occur in academic settings.

Theoretical Framework and Literature Background

As noted previously, students' non-academic digital literacy practices are often not valued in the college writing classroom. The ways that students use digital tools to write outside of the classroom are not always valued within it because students' academic and non-academic digital literacy practices tend to differ widely. Researchers (Alvermann, 2008; Brass, 2008; Chandler-Olcott & Mahar, 2003; Gee & Levine, 2009; Howard, 2011, April; Hull, 2003; Hull & Stornaiuolo, 2010; Levin & Arafeh, 2002; O'Brien & Scharber, 2008; Prensky, 2001a; Sanders & Albers, 2010; Selwyn, 2006; Ware & Warschauer, 2005; Williams, 2005; Yancey, 2004) have identified a significant divide between the ways that students use digital technologies outside of school and the ways that they are asked or expected to use these technologies in school. For example, students may read and write on their own time through text messaging or participation in online social networking websites, but these types of reading and writing are usually not enacted within academic settings.

O'Brien and Scharber (2008) found that this divide between academic and non-academic literacy practices exists in part due to the values placed on different literacy types in academic settings. The authors argued that students are frequently expected to develop "print-based literacies" in school but choose to develop multimodal digital literacies outside of school (p. 67). Likewise, Gee (2003) noted that our examinations of literacy need to move beyond considering print forms of reading and writing and recognize the value of students' non-academic learning practices, such as video game playing.

When digital literacies are enacted in school settings, students' exercise of these literacies still differs drastically from similar exercising on their own time. For example, students' in-school use of the Internet is often restricted by school constraints on the content they are permitted to access (Levin & Arafeh, 2002). Because students experience a disconnect between the ways they read and write in academic and non-academic settings, they may not see the relevance of academic literacy practices to their overall lives. Additionally, these students may be unable to recognize the academic value of the digital literacy practices in which they engage outside of school because these practices are not recognized or validated within the classroom.

Researchers (Considine, Horton, & Moorman, 2009; Mills, 2010; O'Brien & Scharber, 2008) have argued that education is made more effective when it bridges this divide and when students' non-academic digital literacy practices are utilized in school. Many teachers have worked to bridge the divide between students' academic and non-academic digital literacies (Brass, 2008; Considine, Horton, & Moorman, 2009; Paul, 2000; Vasudevan, 2006). For example, Considine, Horton, and Moorman argued that current college-age students are richly literate in ways that are not necessarily capitalized upon in school and that educators need to make connections with these literacies, such as by helping students to critically receive and produce texts in a variety of media rather than in just text- and print-based forms.

While researchers have observed that bridging the divide between students' academic and non-academic literacy practices facilitates learning, these researchers largely have not asked students whether they want this divide to be bridged. Prior to the present study, we did not know whether and how students wanted to exercise their non-academic digital literacy practices in the classroom because students' voices have been largely missing from research into their digital literacies (Alvermann, 2008; Kirtley, 2005; Williams, 2005). Additionally, as I demonstrate

shortly in a review of the literature relevant to this subject, in the rare case that students have been asked whether they would like to see their non-academic practices used in an academic environment, they have not been asked how (Kennedy, Judd, Churchward, & Gray, 2008). Thus, more research was needed to determine whether students perceive that they or their education will benefit upon the introduction of their non-academic literacy practices into their school environments.

Research Questions and Methodology

Given the need for more research into students' opinions on the potential roles of their non-academic digital literacies in FYW, I designed a study that foregrounds students' views on this topic. As indicated previously, the goals of this study were to describe the existing digital literacy practices of study participants and to describe ways that these students envision bringing their digital literacy practices into the FYW classroom. The following research questions directed work on the study:

1. What non-academic digital literacy practices are first-year college students engaging in?
    1a. Who are the audiences for these students' digital writing practices?
    1b. Do these students want to enact these practices in the first-year writing classroom? Why or why not?
2. In what ways do first-year college students think their non-academic digital literacy practices could be effectively enacted in the first-year writing classroom?

Given the need for students' perspectives on these matters, the research questions presented here most clearly aligned with qualitative data collection methods that privileged students' opinions on the topic of their non-academic digital literacies. I used data collection methods of surveys and interviews to answer the research questions and a grounded theory

approach to analyze the collected data. By utilizing grounded theory, in which the lens through which participants' experiences are understood emerges from the data itself, I was able to best validate the experiences of students who participated in this study. I discuss the data collection methods and my methodological approach in Chapter 3.

Operational Framework of Literacy Concepts

Within this dissertation, I build on literacy studies to examine students' digital literacies. As mentioned previously, Gee's (1990) and Street's (2003) work in New Literacy Studies has led to an understanding of literacy as ideologically situated. Here, I extend this current understanding of literacies as both plural and socially and culturally situated in order to define academic literacy and, as an extension of academic literacy, digital literacy. To clarify my use of a number of specific concepts and terms, I offer the following discussion of those understandings of literacy that are central to my work in the dissertation.

Academic Literacy

By extending the concept of new literacy to education, we can consider *academic literacy*, first, to signify one's ideologically situated reading and writing abilities within the academy, and, second, to signify one's ability to critically read and understand academic situations. Pope (2001) discussed academic literacy in this way in her study of five high school students' navigations of their academic lives. She found that in honing their academic literacy skills, students developed methods for manipulating an academic system and often engaged in behaviors, such as cheating, in which they compromised their own values in order to succeed. Relatedly, Casanave (2002) compared the navigation of academic systems to game playing, arguing that students learn rules and strategies for doing well in academia, and for writing for academic purposes, much in the way one learns to play a game. Casanave's discussion focused

on the ways that students as well as teachers must negotiate the value systems they encounter in academic settings and adapt their own ideological stances in order to succeed. In the context of my study, I am investigating the roles of technology in FYW courses, in which students often learn a great deal about navigating academia in tandem with learning about writing. Instruction in such FYW courses often facilitates students' development of academic literacies while also perpetuating the ideology of these literacies by aiming to indoctrinate students in the processes of writing for academic purposes (Downs & Wardle, 2007). The term *academic literacy*, then, like other literacies taught within a university, represents both a skill set and a value system in that it points to the particular types of writing and writing abilities promoted within a university education.

Academic and Non-academic Writing

In connection with academic literacies, the present study looks closely at students' literacy practices that are related and unrelated to their academic literacies. For the purposes of this study, I use the term *academic writing* to refer to students' writing in any form that is done for or toward an academic assignment or project. In contrast, *non-academic writing* refers to students' writing in any form that is not directly related to their current academic courses or projects. In exploring my own understanding of these two terms, I determined that the purpose of a student's writing is the most important factor in determining whether this writing is academic or non-academic. I consider academic writing to be writing that is produced for an academic project, not merely writing that concerns or is about an academic project.

Take, for example, a student who is working on a draft of a history paper while exchanging text messages with a friend. The work on the history paper, because it is for a course project, is academic writing. The text messaging, which is presumably not for a course project, is

non-academic writing. Even if the student discusses the history paper within the text messaging, the text messaging is still considered non-academic. Thus, meta-writing about course projects, but not for them, is non-academic.

I also determined in my exploration of this delineation that the impetus for writing has little relevance to whether the writing can be categorized as academic or non-academic. For example, say the student writing the history paper chooses to write an outline in order to organize her thoughts for the paper, even though such a pre-writing task is not a required part of the project. Regardless of whether the writing is required for a course project, its purpose—the writing is produced for the larger purpose of completely the course project—dictates its classification as academic. While the categories of academic and non-academic are not necessarily dichotomous, I have established a distinction between them here for the purposes of considering each in terms of the other. In Chapter 2, I contextualize this distinction within literature that opposes such dichotomous characterizations of academic and non-academic literacy practices (Bulfin & North, 2007; Hull & Schultz, 2001).

Technological Literacy, Digital Literacy, New Media, and Electracy

Similar to academic literacy, *technological literacy* refers not only to an individual's ability to use technology and the recognition that that use is ideologically situated but to that individual's ability to critically read and understand the technologies he or she uses. In defining technological literacy, Selfe (1999) contended that being literate in technology involves understanding the cultural power inherent in technological tools in addition to possessing the skills to use those tools. Furthermore, Pagnucci (1998) argued that technological literacy also involves understanding "the discourses of technology" (p. 48). In other words, to claim literacy in a particular technological tool, students must know how to use the tool and how to

communicate in the discourse specific to that tool, and they must understand the ideological framework in which the tool exists.

The term *digital literacy* is used in much scholarship on technology use in education, and while it is often used interchangeably with *technological literacy*, I have found *digital literacy* to be the term most appropriate to my discussion of students' uses of technological tools. O'Brien and Scharber (2008) have defined digital literacies as "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" (pp. 66-67). Thus *digital literacy* and its sister term *technological literacy* both indicate types of *new literacies*, ways of receiving and digesting information that we consider with attention to the ideological frameworks surrounding that information.

The term *new media* is used often to signify the texts relevant to digital literacy studies. In its literal sense, *new media* refers to digital texts and their components, including electronic, audio, or visual texts that depart from traditional print-based format. The term *new media* also refers to a field of study concerning these texts. This field of study has branches in various fields including composition, which concerns the production of new media writing, and literary study, which concerns the critical reading of new media texts. Additionally, new media studies necessitate that researchers recognize the ways that the modes used in communication fluctuate as modes beyond print-based text become more accessible to writers through new technologies (Kress, 2003).

While the terms *digital literacy* and *technological literacy* define skills and competencies in new media as a subset of literacy in general—in the same way *academic literacy* does—some scholars have argued that these new literacies need a term of their own. In this vein, Ulmer

(2003) has coined the term *electracy* as a set of skills for negotiating new media texts of all formats. Ulmer's work is echoed by some new media scholars who have utilized the term to distinguish this negotiation of new media texts from previous eras' negotiations of oral and written texts (Rice, 2008; Rice & O'Gorman, 2008). I acknowledge the term here because it holds weight in new media scholarship and also has a presence in some graduate work emerging from the University of Florida (see Morey, 2010), where Ulmer's work and that of his new media scholarly progeny have been labeled the *Florida School* (Rice & O'Gorman, 2008). However, my reading in this area coupled with my own experience exercising various textual literacies has led me to determine that the term *electracy* is unnecessary in discussions of digital literacies. For these reasons, the term will be absent from my discussion.

Multimodal, Multigenre, Code Switching, Code Mixing, Code Meshing, and Code Mashing Practices

The term *multimodal* also arises frequently in discussions of digital literacies. The label *multimodal* refers to a combination of two or more ways of communicating ideas, including audio, visual, verbal, spatial, and gestural (New London Group, 1996). In essence, all literacy practices can be deemed multimodal because of the interaction of multiple methods in their production (Harste, 2010; New London Group, 1996). Digital composition is frequently multimodal because authors may employ, for example, video and audio in addition to written text when using digital technologies to convey a message.

It is additionally interesting to note that multimodal composition is one of many practices currently en vogue in composition pedagogy that rest on a metaphor of mixing. In addition to encouraging multimodal work, authors of much recent composition scholarship discuss and advocate practices of *multigenre* composition, in which students might combine, for example,

poetry and academic writing or argumentation and visual art in making meaning (Romano, 2000); *code switching* or *code mixing*, in which students utilize different languages or language variations at different times to achieve different purposes (Meyerhoff, 2006); *code meshing*, in which students utilize multiple languages or language variations simultaneously (Canagarajah, 2006a; Young, 2004); and *code mashing*, in which students combine many of these elements into the same mix, by creating a text that utilizes, for example, both multiple modes of communication and multiple language varieties (Fraiberg, 2010). Technology-enhanced composition praxis overlaps at different times with each of these mixing metaphors as teachers seek ways to help students draw on multiple literacies in composing while using digital tools.

Information Literacy

Finally, the term *information literacy* is relevant to discussions of technology within education. This term arises from the library and information science field and refers to students' ability to locate, gather, and critically evaluate information. Although information literacy education does not necessarily involve technology, students are often receiving and evaluating information they gathered on the Internet, so technological tools are often used in information literacy education.

As this discussion of literacy concepts and terms indicates, the present study is positioned in the intersection of literacy studies and technology studies. My study draws on a rich existing tradition of exploring students' literacy practices and an emerging tradition of exploring the ways that technology affects these literacy practices. As I discuss in the next chapter, my methodological approach to the study involved particular attention to student participants' voices in research; given this position, the explanations of literacy concepts I have established here allow for a number of avenues of inquiry within the intersection between digital tools and

literacy, including literacies involving new media, multigenre, and multimodal texts. By drawing on literacy studies while also showcasing students' voices, I have addressed in this study the need for more research into students' digital literacy practices while also highlighting students' perceptions of those practices.

Researcher's Impetus for Lines of Inquiry

My interest in the present study subjects emerged from a variety of sources, including my practice as a college writing instructor and my scholarship as a doctoral student in composition and TESOL (Teaching English to Speakers of Other Languages). In addition to my teaching and scholarship, my personal experience as a user of digital tools for literacy purposes also drove my interest in pursuing the lines of inquiry described in the previous section, including describing students' digital literacy practices and questioning whether students wish to see these practices become a part of their FYW education. In this section, I contextualize the lines of inquiry that drive the study by offering a glimpse into my experience as a user of digital tools.

The Little Facebook Voice in my Head

As I have progressed from a young person who used a computer infrequently to an adult who uses one almost constantly, I have noticed that my digital technology use has changed my thought processes in some ways. Take Facebook, for example. I have a Facebook account, and my use of it typically involves reading what other people have written. My own posts are infrequent, and they usually involve me responding to other people's status updates rather than creating my own.

Earlier this year, though, I found that even this relatively light use of Facebook had started to affect my thinking: I would be out doing something, such as taking a walk at the park or watching a new movie in the theater, and while I was having an experience, I was silently

composing the Facebook status that could represent it. *Escaped from the library and watching frogs jump in Blue Spruce Lake,* I would think. Or, *Just saw the new Mila Kunis movie: funny, but gratuitous swearing, of course.* Did I actually post these imagined statuses? No. But I noticed myself meta-narrating my experiences in Facebook-status language quite often. Having read hundreds of other people's status updates, I had a strong sense of the rhythm and linguistic conventions of a typical status update, and I had begun to understand my own experiences in the language of this genre. Yes, there was actually a voice in my head speaking Facebook. What was more, that voice wasn't speaking to me—it was imagining how I would comment on my experiences to others. Although I wasn't even posting status updates, I had clearly come to value them. My experiences seemed to have little value in and of themselves; their value, the little Facebook voice was telling me, lay in the potential they held for being broadcast to others.

I was far from being amused or even excited by this little Facebook voice—I was actually terrified by it. I saw it as an indicator that my enjoyment of, say, trying a new food at a restaurant was contingent on a need to tell others about it. It was as if I had a need to share my thoughts on an experience with an audience in order to validate my having experienced it.

To quiet the voice, I put the brakes on my Facebook use. Sure enough, within a few weeks of not visiting the site, the little voice was gone.

Technology's Impact on Literacy

Along with the little Facebook voice I experienced, I often encounter other examples of how digital tool use affects our thought processes. A graduate colleague was recently shocked that I was unaware of her attendance at a Kid Rock concert and asked, "Haven't you been on Facebook?" Her assumption was that since she *said* something on Facebook, all her Facebook friends *heard* it. Another graduate colleague told me that after a few months of playing online

Scrabble, he was starting to automatically calculate the point value of individual words while reading assignments for his graduate courses. Even the hardware we use affects our thinking: When I recently switched from a cell phone with a numerical keypad to one with a qwerty keyboard, the way that I perceive texting changed. The new phone does not display a character count when I compose a text message, so I have become less aware of the fact that I can only send texts in 160-character increments and, as a result, often send longer messages by accident.

The potential that digital technologies hold for changing the ways we think can be seen as threatening traditional literacy values. In other words, certain forms of reading and writing are perceived as more traditional, more formal, or more appropriate for academic settings, and technological tools can threaten these traditions. Of course, these traditions are also linked to the privilege ascribed to certain literacy forms and to the power structures embedded in the valuing and devaluing of literacy practices, but that is another discussion. The threat to tradition alone causes many people to resist digital literacy practices.

I saw evidence of the threat that many people perceive technology poses to young people's literacy development when I was asked about my dissertation topic. Like many doctoral students, I was sometimes asked what my dissertation topic was by colleagues outside of writing studies or friends and family outside of the academy. I would answer by saying that I was studying the ways that students use technology to write on their own time, which I would characterize loosely as, "You know, Facebook, text messaging, all those things that students are doing." Each time, I received a similar response. The response was usually accompanied by raised eyebrows or a disgusted sneer, and the person on the other end of the conversation always said something along the lines of, "Oh good. I'm glad you're studying that, because it really is a problem." The person then typically went on to comment on how students' writing today just is

not what it used to be and to talk about how students are adopting so many acronyms and so much shorthand for digital communication that they have entirely forgotten how to write in formal ways.

In these conversations, I was usually talking with another adult who had finished school and was working in some sort of occupation. Yet, what was particularly funny about these adults' fears that things have changed is that the students about whom they were talking usually feel the same way. In my experience reading essays for a university writing placement program, I have encountered many incoming college students who write about the degradation of writing skills due to text messaging. Students themselves lament the fact that things just are not the way they used to be.

In part, these conversations are iterations of the same laments in which each successive generation participates, often in regards to a younger generation's disregard of a previous generation's practices. These conversations also represent the fear that accompanies most technological innovations. From trains to televisions to text messages, people in general lament the degradation of tradition at the advent of technological tools (Bilton, 2010). Within education, fears that technological tools will change the way students read and write are certainly justified. Yet researchers (Brass, 2008; Pigg et al., 2011, April; Vasudevan, 2006) have called for teachers to validate these new reading and writing practices, with some even arguing that such changing practices are linguistically complex and represent a "healthiness of written language" among young people (Haas, Takayoshi, Carr, Hudson, & Pollock, 2011, p. 399). Rather than resist or bemoan such changes, it seems that educational researchers will be best served by acknowledging the ways our students are exercising literacies through digital tools and by attempting to understand these tools' potential for facilitating student learning.

My inquiry in this study rested on the premise that digital technologies are changing the ways that students exercise multiple literacies and that the resultant literacy practices are valid and have a place in the academy. My intention was to better understand how students use digital tools to compose and to understand these students' perceptions of the roles such digital tools might play in FYW classrooms.

Significance of the Study

This study is significant in contributing to four areas of educational research: theoretical knowledge, methodological practice, writing pedagogy, and writing education policy. First, the study contributes to the theoretical body of knowledge in the field of digital literacy studies. The study challenges current theoretical understandings of college-aged students' digital literacy practices by revealing that a notable portion of study participants are not using digital technologies in the ways they are characterized as doing so in much of the professional literature and in the mainstream media. As I discuss further in the literature review in Chapter 2, these students are often portrayed uniformly as comfortable with and frequently using digital technologies. My presentation and discussion of the study results in Chapters 4 and 5 show how some participants resist this characterization. The study highlights the need for digital literacies research to better theorize students' actual uses of digital technologies and to attend to the ways that some students resist frequent communicative connections via digital tools.

Additionally, the study contributes to the theoretical body of knowledge in literacy as a social practice research by providing insight into the ways that college students read and write in social spaces online. As I discuss in the presentation of findings in Chapter 4, participants reported engaging in frequent online reading practices. Participants also demonstrated that they understand the roles of an audience in their online writing and sometimes adapt their language

use according to that audience's presence. These findings point to ways that students' non-academic digital reading and writing are valuable literacy practices.

Second, the study contributes to knowledge of methodological practices in digital literacies research by enacting student-centered research practices on the topic of technology use in composition courses. This study is the first of its kind to collect students' opinions on the potential roles of their non-academic digital literacy practices in FYW. Furthermore, the study breaks new ground in digital literacies research in its description of writing pedagogy activities that emerge from conversations with students about their college writing education.

Third, the study contributes to writing pedagogy studies by exploring ways to include technology in writing education. For every one of the many composition teachers who are eager and willing to integrate technology into their classroom practice, there is another teacher, perhaps many teachers, who is less eager to do so. There are teachers who may want to use technology in the classroom but do not have the institutional support, the time to explore ideas, or the practical advice available to them to do so. Studies that have demonstrated the positive impact that the exercise of digital literacy skills can have on student learning (Brass, 2008; Dubisar & Palmeri, 2010; Girardi, 2011, May; Mills, 2010; Paul, 2000; Reid, 2011, April; Vasudevan, 2006) are highly valuable in supporting these teachers' needs in bringing technology into their classroom practice. The present study contributes to this body of knowledge by offering an additional depiction of the potential for digital literacy skills to enhance education. This study also goes a step further than previous studies of students' digital literacies by offering students' own take on the subject. The study makes a significant contribution to the field by characterizing not only ways that digital literacies can be exercised in FYW, but by offering students' perceptions of how such writing pedagogies can be enacted effectively.

Finally, the study contributes to educational research in writing education policy by providing evidence of the value of students' non-academic digital activity as literate practice. My exploration of the values placed on students' literacy practices occurs at a time when the literacy landscape of universities within the United States is in flux: The literacy skills that students possess and choose to exercise on their own time do not necessarily match those that they are asked to or expected to exercise in school.

In the field of composition studies, for example, teachers were encouraged more than three decades ago to recognize all varieties of English language use as valid for classroom purposes and to think of the "rejection of students who do not adopt the dialect most familiar to us," that of standard English, as equal to "rejecting the students themselves" (Conference, 1974, p. 2). In the intervening years, however, despite many language educators' calls for validating language varieties (Canagarajah, 2006a; Canagarajah, 2006b; Horner & Trimbur, 2002; Matsuda, 2006; Michael-Luna & Canagarajah, 2008; Young, 2004), students who speak non-standard forms of English have continued to be less successful in school than their classmates whose language use is standard (Scott, Straker, & Katz, 2009). This disparity in student success indicates that students' primary dialects—namely, their home or non-academic ways of using language—are not seen as valid in the classroom.

The same disparity exists regarding digital literacy skills: A college student might, for example, be richly literate in the linguistic nuances of text messaging yet may find that these writing skills are not valued in the classroom. As any teacher who has read a student paper containing the abbreviation *u* in place of the word *you* can attest, students' digital literacy skills do sometimes enter their academic writing, and teachers do not often value their presence. I do not argue in this study that all literacy practices have a place in academic settings, but the study

makes visible the richness of its participants' digital practices, indicating the need to value these practices as literacy activities. As educators who purport to value multiple literacies, we need to investigate the ways that students are using digital tools to make meaning outside of the classroom and to question whether and how we might enhance students' writing education by making a place in the classroom for these literacy skills, a need further underscored by the findings of this research project.

Overview of the Dissertation Chapters

In this chapter, I have established the purpose and theoretical framework for the study, characterized my interest in the topics relevant to the study, and commented on the significance of the study. In Chapter 2, I review recent literature relevant to the general topic of college students' digital literacies. Within the chapter, I explore work that has already been done to describe the digital literacies these students possess and work that exposes the vast differences between the ways that students use digital tools in academic and non-academic settings. I review research on the ways that technology is being used in college classrooms in general, in college writing classrooms in particular, and in the educational experiences of students who are learning English. I conclude Chapter 2 by questioning whether students' non-academic digital literacies should be utilized in academic spaces and by investigating the ramifications of such utilization on student agency in our classrooms.

In Chapter 3, I describe the methodological position I took in researching first-year college students' digital literacy practices. In this chapter, I describe the contexts in which the study occurred, including the study site, its participants, and my position as a researcher. I then explain the survey and interview methods I used to collect data. I also discuss in Chapter 3 my

process of data analysis, which included a limited amount of quantitative analysis of a portion of the data and more extensive qualitative analysis of the study data as a whole.

In Chapter 4, I present the results of the study and the answers I have found to my research questions. The overall findings in this study were as follows: first, that participants use multiple digital technologies and, in doing so, receive content more often than they create it; second, that participants vary in the level of attention they pay to audience in writing with digital tools; and third, that participants identify potential for their non-academic digital literacy practices to enhance their education in FYW courses. In addition to these findings, I present in Chapter 4 results that describe participants' ideas for utilizing their digital literacy practices in a FYW course.

In Chapter 5, I discuss notable themes that have emerged from the data. I place these themes in the context of current literature on digital literacies research and also utilize interdisciplinary research in this chapter to show how some aspects of the study findings support and others refute existing research on the topic. I then discuss the implications that the study holds for writing pedagogy and for the education of writing teachers. I conclude the dissertation by presenting areas for future research evident in the continued analysis of the study data and the expansion of this research project into new lines of inquiry.

CHAPTER TWO

A REVIEW OF CURRENT RESEARCH ON COLLEGE STUDENTS' DIGITAL LITERACIES

As I have demonstrated in the previous chapter, my overall goal in this study was to explore college students' perceptions of the potential for their non-academic digital literacy practices to enhance their learning in FYW courses. In order to better understand the scholarly context in which this study exists and to elucidate the need for the study within the field of educational research, I use this chapter to review recent scholarship relevant to the topics at hand. I begin the chapter by discussing how my line of inquiry emerges from the controversy surrounding the concept of students as digital natives, which is a sweeping generalization that is pervasive in educational scholarship on students' use of technology. Next, I describe the methods I used to identify and collect literature relevant to this review. I then review current literature on students' digital literacies as it relates to the study. Specifically, my exploration of college students' digital literacies necessitates a discussion of research that has addressed students' relationships with technology, including the digital literacies these students possess and the abilities they have to access and use technology; the divide between students' academic and non-academic digital literacy practices; the roles of technology in college education and, more specifically, in college writing classrooms; and the effects of utilizing students' existing digital literacy practices in the classroom on students' positions as agents within their learning experiences. I conclude the chapter by discussing how this existing scholarship illuminates the need for the present study.

Sweeping Generalizations about College Students' Digital Literacies

Within educational research literature on students' use of technology, researchers often rely on terms or labels for students that characterize students as a homogenous group, one whose members are all active and knowledgeable users of technology. As I discuss in this section, characterizing students as "digital natives" (Prensky, 2001a, p. 1) does more harm than good. This phrase has been used in the literature to make sweeping generalizations about students and their abilities with digital tools, causing some scholars to push back against such labels that erase the complexities existent in students' relationships with technology.

As with many generations of young people, today's college students have been assigned their fair share of generational labels. These students have been labeled the Millennial generation to represent their coming of age at the turn of the century (Howe & Strauss, 2000). Members of this generation have been demonized by some adults as belonging to "a selfish, alienated rabble of disaffected Ultra-Gen-X hyperslackers" (p. 5), they have been supervised and protected by parents more than members of other generations of young adults, and they have even been recognized for possessing better collaborative working skills than members of generations that preceded them. In considering this generation's relationship with technology, Prensky (2001a) termed Millennial students "digital natives" (p. 1), arguing that these students know far more about technology than the teachers educating them and, as a result, that current educational methods have been rendered ineffective in reaching them. Generational labels and the stereotypes that accompany them are common in every decade: While educators may use the term Millennials and its attendant definition of a generation to gain some insight into students' behavior and learning styles, we certainly do not see such a term and its parameters as a definitive descriptor of every member of the student populations with whom we work. Yet

because Prensky's generalization is on a smaller scale—because he asserts that all those students coming into our classrooms are digitally literate—we run the risk of assuming our students' digital literacies are both uniform and highly developed.

Prensky (2001a) argued that students born between the late 1980s and the mid-1990s belong to the first generation of individuals to have grown up surrounded by and using digital technologies. He posited that as a result of lifelong interactions with technology, these students think differently than those in prior generations. In coining the term "digital natives," Prensky explained that "[o]ur students today are all 'native speakers' of the digital language of computers, video games and the Internet" and argued that, in contrast, members of those generations who did not grow up with technology and therefore have to become acquainted with it, such as today's teachers, are "digital immigrants" (pp. 1, 2). Prensky argued that digital natives and immigrants think differently, due to the former's cognitive processes having been mapped to receive content most effectively in high-speed, technologically enhanced formats as a result of being lifelong users of digital technologies (Prensky, 2001b). Within the realm of education, this means that digital natives, having been exposed to high-speed media, will respond better to, say, classroom content delivered through a video game interface than through a lecture.

While Prensky's (2001a) labeling of Millennials as digital natives does serve to highlight this generation's difference from previous generations regarding the use of digital tools—yes, Millennials have grown up in a world in which computers have always existed—his discussion ignores students from differing socio-economic backgrounds who may not have had access to such technologies along with those students who may have had the option to use technologies but, due to personal preference, may not have chosen to do so.

In the decade since Prensky (2001a) ascribed the term "digital natives" to Millennials, scholars (Kennedy, Judd, Churchward, & Gray, 2008; Martinez, 2011; Mills, 2010) have pushed against his definition, identifying ways that this sweeping generalization fails to characterize students' knowledge of and comfort using digital technologies. Considine, Horton, and Moorman (2009) pointed out that because Millennial students have access to an endless amount of information, educators often falsely assume that they are literate in navigating this information effectively. Additionally, Mills argued, "Labels such as [Prensky's] 'digital immigrants' and 'digital natives' increasingly oversimplify and exaggerate generational and socioeconomic differences, and perpetuate the assumption that all youth have innate digital skills" (p. 36). Mills pointed out that despite such sweeping definitions of current students' technological skills, not all current students are digital natives, and those who do possess digital literacies do not necessarily possess literacies as broad as generalizations such as Prensky's might suggest.

Kennedy et al. (2008) revisited and challenged Prensky's (2001a) assumption that current college students are members of a homogenous group who have had the same exposure to and experiences with technology as one another. In studying and describing how students at an Australian university "access and use" a variety of technologies (p. 110), the authors found that while high percentages of students do use technological tools, students do not all use all tools, nor do all students even use some tools frequently, contradicting Prensky's argument that all current students are frequent users of technology. The authors concluded that a student's membership in the Millennial generation is not an indicator that the student will be able to use digital technologies effectively, or at all, within his or her education.

Prensky (2011) has responded to the backlash against these terms by arguing that he did not intend for *digital native* to imply any generalizations about young people's "capabilities or

knowledge about all things digital." Instead, he has explained, the difference between digital natives and their immigrant counterparts is "about culture," or "about younger people's … belief that [technology] is easy, useful, and benign" (p. 6). While Prensky's response clarified his intention for the terms *digital native* and *digital immigrant* to be descriptive of different generations' relationships with technology, rather than indicative of individuals' abilities or technological literacies, my review of the literature indicates that the terms have been widely accepted to mean more than the metaphorical construct as which Prensky intended them to serve. Scholars have appropriated these terms in the most general sense to delineate among older generations of teachers and the younger students we teach, rendering the terms problematic and the backlash against them warranted.

In the following review of recent literature on college students' digital literacies, I use the resistance to Prensky's notion of digital nativism as a starting point for exploring the ways that scholars in the fields of composition, TESOL, and academic literacy have examined students' digital literacy levels, studied these students' relationships with technology both in and outside of academic settings, and reflected on teachers' own use of technology in both writing and second language classrooms. While some researchers rely on sweeping generalizations such as digital nativism to characterize students' use of technology, many others (Brand et al., 2011b, May; Grabill et al., 2010a; Haas et al., 2011; Kennedy et al., 2008; McLean, 2010; Turkle, 2011; Yi & Hirvela, 2010) are examining students' actual uses of and interactions with technology rather than simply relying on assumptions that students can be characterized as a homogenous group.

Literature Review Methods

In preparing this review, I first searched for literature relevant to the topic of students' digital literacies. I began by conducting keyword searches in the EBSCOHost research database

group and scanning the results to determine which journals appeared most frequently as containing scholarship relevant to the topic of students' digital literacies. From these searches, I identified the *Journal of Literacy and Technology* and the *Journal of Adolescent and Adult Literacy* as containing the most relevant scholarship to this review, and I reviewed both journals starting with issues in the year 2000 to identify articles related to the review topic. Next, I reviewed *Computers and Composition,* a journal that contains a great deal of scholarship relevant to the section of this review concerning the use of technology in college writing classrooms; I also began in the year 2000 in reviewing articles in this journal. Additionally, I surveyed IUP's Pilot catalog using keyword searches to locate books relevant to students' digital literacies and conducted keyword searches in the ProQuest Digital Dissertations database to review recent graduate work relevant to my study.

Following this collection of scholarship on students' digital literacies, I identified two other journals relevant to components of this literature review. I reviewed articles starting in the year 2000 in *Reading Research Quarterly* to identify sources discussing students' digital literacies from a reading studies perspective and in *Learning, Media & Technology* to identify sources discussing the same from a broader perspective on the intersections of technology and education.

In addition to reviewing these journals, I selected several dozen articles that turned up in other publications through the initial keyword searches. My process of reading and annotating sources was recursive: As I read individual articles that had been identified through the keyword searches and through the specific journal reviews, I identified and then read a number of additional pieces of scholarship that were cited in the articles I was reading. As I read pieces of scholarship, I constantly added to an ongoing list of sources to read, and my additions to this list

slowed as I began to gain a fuller picture of the scope of my topic and, thus, to achieve source saturation in encountering many of the same sources cited in many of the pieces of scholarship I read. As is the case in any literature review, I read several dozen print and electronic sources that had only tangential relevance to the subjects at hand, and I did not include them in my discussion here as a result.

Throughout the process of reading material for this review, I restricted my source selection to literature published since 2000 in reflection of the rapidly changing landscape of academic studies of technology. While many researchers were studying the role of technology in students' lives prior to this window of time, much of their work has now become irrelevant to current students' lives. For example, extensive research was conducted in the late 1990s on the use of MUDs (Multi-User Domains) and MOOs (MUDs, Object-Oriented) for classroom interaction among students and teachers (see Haynes & Holmevik, 1998; Pedagogies, 1996). While research on MOOs and MUDs did continue into the 21st century, such technologies are no longer commonly used in educational settings. I have chosen not to explore research in the direction of MOOs and MUDs and other similar outdated avenues of study related to technology and education. With the exception of acknowledging seminal texts, the majority of research reviewed here has been published in the last twelve years.

I focused primarily on the general topic of students' digital literacies in my initial literature searches. The range of topics and subtopics represented here emerged from my review, as I followed paths of other researchers' work to determine the relationships among the fields of study in literacy, digital literacies, technology access, and technology and education and the particular ways the direction of my own research fit within these many paths. In addition to identifying relevant literature by following the paths of other researchers, I have identified a

number of relevant sources for consideration through informal means, including my own reading of both print and electronic sources related to these topics and conversations with colleagues and family members.

In addition to this range of topics, I chose to identify and read literature on the role of digital literacies in English language learning, a topic not directly relevant to my broader intent to question the role of technology in FYW classrooms. I chose to review this subtopic, however, for two particular reasons. First, though I am primarily a composition scholar, my position as a Ph.D. candidate in a Composition and TESOL program has afforded me the opportunity to learn much about language learning and has piqued my interest in the intersections between the fields of composition and language studies. I reviewed literature in this area, then, to explore language researchers' work regarding students' digital literacies to determine what, if any, parallels exist between it and researchers' work in composition. Second, I addressed this subtopic in anticipation of my possibly encountering student participants for my study who are visiting the United States from a country where English is not their primary language or students who occupy subject positions that otherwise complicate their relationship with language such as, for example, Generation 1.5 students who may use different languages in their academic and non-academic lives. Given my interest in language studies and the possibility of language-related themes emerging in my data collection, I chose to investigate the subtopic of English language learners' (ELLs) digital literacy practices.

College Students' Digital Literacies

In reviewing the range of literature described in the previous section, I found that some researchers are examining how students use digital technologies both inside and outside of school. While no one study can capture the complexities of how students use digital technologies

in general and how these uses inform students' development of digital literacy skills, the research I describe in this section sheds light on different aspects of these topics. First, a small number of survey studies have depicted the frequency with which and purposes for which large samples of students are using digital tools in their daily lives. Second, qualitative research into the literacy practices of individuals, including video game play, writing with computers, and identity formation in online spaces, have characterized how digital tool use informs the literacy development of individual young people. And finally, research into students' varied technology access levels has questioned how access to technology affects familiarity and literacy in digital tools. I present literature falling into these three categories in this section in order to demonstrate attention within the professional scholarship on digital literacies to students' digital literacy practices inside and outside of school.

Studies of Students' Digital Literacy Practices

Educators face multiple challenges in using technology within their teaching, especially, as I have shown, the challenge of recognizing and dismantling the assumptions we make about students' digital literacies. Much of the scholarship on digital literacy contains the same refrain: that educators often mistakenly assume that a student's ability to use a technological tool is equivalent to his or her being literate in the use of that tool. Such a mistake can arise due to differing understandings of literacy. In, for example, Hasan's (2003) three-part model of language literacy, readers must move beyond "recognition literacy," an ability to read the words in a text, and "action literacy," an ability to create meaning with those words, to achieve "reflection literacy," or the ability to think critically about the text itself and what it means (p. 446). Likewise, Pattison (1982) argued that literacy is not comprised only of the abilities to read and write but that to be literate, one must fully understand how language works. Pattison called

this ability "[c]onsciousness of the uses of language" (p. 9) and argued that this consciousness involves understanding the role of language in the communicator's own life and in the social context of which he or she is a part.

These same models can be applied to digital literacy. Using Hasan's (2003) terminology, if a student knows how to visit websites, we could say that the student possesses recognition literacy in some online resources. If the student knows how to create content on websites—such as by posting videos to YouTube or comments to a blog—we could say that the student possesses action literacy in the same technology. Yet possession of literacies at these two levels does not presuppose that the student has reflection literacy (Hasan, 2003) in online resources or any deeper understanding of how those online resources function as texts within a social context (Pattison, 1982). For the student to acquire this complete, or more advanced, literacy, he or she would have to possess the ability to think critically about websites and their meanings. It is in this deeper area of critical literacy that technology literacy educators often focus attention, by facilitating students' critical awareness of how technological tools function, an awareness that Kemp (Walker et al., 2011) argued teachers need to foster in the classroom now that students have access to so much information online. Before we can help students develop further digital literacies, we need to understand where they are now. In this section, I investigate the need for more student voices in digital literacy research and question how students' access to technology affects their literacy in the use of technological tools.

In questioning what digital literacies students actually possess, I was curious to know how often and in what ways scholars are acquiring descriptions of students' digital literacies. In particular, are we talking to students about this subject? Because if we want to determine what students know about technology, shouldn't we simply ask them? In discussing ways to capitalize

on students' home literacies, Williams (2005) argued that teachers need to talk to students about what those literacies are. He posited that once teachers learn from students about the ways that they use technology at home, we can then identify the reading and writing skills being exercised within those uses of technology and recognize and, in turn, help students to recognize the ways that these skills are evidence of literacy development. In other words, students are literate in many ways involving technology. We simply need to determine what those ways are, and talking with students may be the best method for doing so.

A recent study (Grabill et al., 2010a) conducted through Michigan State University's Writing in Digital Environments (WIDE) Research Center has made inroads in helping researchers understand the ways that students use digital tools to write. Through a survey used in the study (Grabill et al., 2010b), researchers asked students to characterize the types of writing they practice, the types they practice most often, and the types they consider to be most valuable. The survey also asked students to specify other factors related to these writing practices, including the location of writing and the audience to whom their writing is directed. Concerning students' digital literacy practices, Grabill et al.'s (2010a) results revealed text messaging and emails to be two of students' three most frequent forms of writing (with lecture notes being the third) and text messaging to be one of the two most valued forms of writing (with academic writing being the other). As I will discuss in this review, the Grabill et al. study has provided great insight into students' writing practices while also raising many questions about these practices that will lead to further research.

While Williams (2005) has advocated talking with students about their digital literacies, and Grabill et al. (2010a) canvassed students for feedback about their digital writing practices, Kirtley (2005) has determined that students' voices are largely missing from scholarship about

their use of computers in writing. In gathering digital literacy narratives from her students to determine their attitudes toward technology and toward taking writing classes in computer labs, Kirtley found that students often did not have extensive exposure to computers prior to beginning college and were highly aware of the connections between their socio-economic status and their levels of technological access. Some of Kirtley's students had negative feelings about computers but revealed in their narratives that these feelings changed in college, a development Kirtley argued may be due in part to their taking a writing course in a computer lab. In advocating listening to students, Kirtley stressed the importance of recognizing students' varied backgrounds with and attitudes toward computers and pointed out that teachers who require students to complete assignments on computers need to provide support for students who may not possess the level of digital literacy necessary to do so effectively.

Alvermann (2008) has also stressed that we need to talk to students to learn more about their digital literacies. Alvermann investigated students' participation in the creation and re-creation of online texts and the ways that collective online authoring may affect their literacy learning. She argued that students' "remixing" of online texts is a valuable literacy practice but is not often utilized in the classroom (p. 10). In discussing ways that students remix online texts in their own time, Alvermann noted that the practice of re-creating online texts is centered on an awareness of audience and the desire to discuss these online texts with one's audience. Additionally, this type of authoring indicates students' engagement with, first, the parameters of narrative, and, second, with their own identity constructs, as identities are often masked or re-created online. Alvermann argued that teachers need to engage in conversations about technology use with their students in order to determine whether and how their non-academic digital literacies should be integrated into their educational experiences.

In exploring students' digital literacies in general, Williams (2005), Kirtley (2005), and Alvermann (2008) all noted that students' voices are a necessary and often-ignored component of research in this area. While some work has been done to begin to describe students' digital literacies, this work is often limited to surveys or brief sketches of what students are capable of in using technology tools. For example, in the Kennedy et al. (2008) study mentioned previously, researchers surveyed more than 2,000 students to collect data on students' use of multiple technological tools. These researchers chose to ask students what technologies they were using, how often they were using them, and which of these technologies they would like to have as a part of their educational experiences. One limitation of the study, as Kennedy et al. wrote, was that researchers "did not ask students about *how* they thought technologies could be used in educational settings" (p. 119). While studies such as this one can begin to describe students' digital literacies, more research is needed to adequately determine how students will most effectively engage with technological tools in school settings and how teachers can facilitate students' continued development of digital literacy skills.

In my dissertation study, I have addressed this need for more research into the role of technology in students' academic experiences. As I discuss in Chapter 3, I have extended the work done by Kennedy et al. (2008) and Grabill et al. (2010a) by exploring students' perceptions of how teachers can effectively draw on students' non-academic digital literacy practices in the classroom. In this study, I have built on the precedent set by Kennedy et al. and Grabill et al. to explore students' non-academic digital literacy practices, and I extended these lines of inquiry by gathering students' opinions on the ways, if any, that their non-academic digital literacy practices should be utilized in the composition classroom.

Students' Digital Literacy Practices Outside of the Academy

Prior to the arrival of digital technologies in writing classrooms, compositionists were interested in the ways that students read and wrote on their own time. Researchers such as Heath (1983) have compiled extensive descriptions of young people's development of literacy skills in the home and other non-academic settings. One of the primary goals of much research into non-academic literacy development is to question whether and how such literacy practices are connected to individuals' development of academic literacy skills (Hull & Schultz, 2001). As digital technologies have become a greater presence in education, researchers have continued this effort to examine students' non-academic digital literacy practices and to question how these practices might be relevant within an academic context. These lines of inquiry are particularly relevant to my study because my overall goal is to question how college students' non-academic digital literacy practices might inform their education in FYW classes.

Video game studies. Studies of young people's digital literacy practices at home, after school, and in other non-academic spaces have been conducted on a range of topics, among which James Paul Gee's work with video game literacies is perhaps the most prevalent. In examining young people's use of video games, Gee has made a case for valuing multiple literacies, particularly those used in multimedia entertainment (Gee, 2003). The discussion in research examining video game play has demonstrated a correlation between gaming and the development of literacy skills—both in terms of critical information reception and literacy in using technological tools—but has also exposed a disconnect between the ways young people choose to develop these literacy skills on their own time and the ways they are encouraged to do so in school settings, as I will discuss shortly (Gee, 2007; Takayoshi, 2007). Gee and Levine

(2009) have argued for an inclusion of multimedia composition in education as a move toward better integrating students' digital literacy practices into school settings.

Student writing in digital settings. Current conventional wisdom suggests that text messaging and other short-form writing practices enabled by digital tools are degrading students' skills as writers. While no empirical research has been conducted to demonstrate such a causal link, inquiry into the effect of new writing tools on writing skills has long been an area of research in composition. Perhaps inspired by the impulse to examine how writing has changed with the introduction of digital technologies, many studies of digital literacies concern the effect of computers on writing practices. In studying the move from handwritten to computer-generated text, researchers have found that writers often bring their previous processes into a new technology, then adapt these processes according to the constraints or opportunities that technology makes available (Baron, 2009; Williamson & Pence, 1989). Williamson and Pence (1989) found that students working on computers produced more text and spent more time manipulating that text than they did with handwritten compositions. Likewise, Baron (2009) argued that computer technology allows writers to have "greater and more direct control" over their texts (p. 229). Both Williamson and Pence's and Baron's research identified ways that the ease of composing on a computer gives writers new freedoms or abilities in their composition processes.

While the introduction of computers to the composing process has enhanced writers' own processes in these ways, computers have also afforded teachers more opportunities for working with student writers in school settings. Teachers have attested to computer use giving them more insight into students' writing processes by making these processes more visible in the classroom (Takayoshi & Huot, 2009; Williamson & Pence, 1989). Yet not all teacher response has been

positive. In a survey of teachers using computer technologies in the classroom, Takayoshi and Huot found some teachers who considered computers to be a problematic addition to classroom spaces, because students often engage in non-course tasks on their computers during class time.

In contrast to studies of students' digital writing practices in the classroom, little research exists to characterize the ways that students use digital media to write for non-academic purposes. While research is largely still lacking in this area, two extensive studies were conducted that have highlighted students' non-academic digital writing as an area of richly literate practice.

Haas et al. (2011) examined a corpus of college students' instant message conversations and found that writers frequently wrote "paralinguistic information," including visual and linguistic cues, into their messages (p. 380). The researchers found that, contrary to conventional wisdom that instant messaging is a shorthand form of communication, two-thirds of the communicative features studied represented an expansion, rather than a contraction, of the standard amount of writing necessary to convey a given point.

In another study of students' non-academic digital writing, researchers at Kent State University (Brand et al., 2011a, May) collected and have begun analyzing an extensive body of data concerning students' writing on Facebook. Preliminary findings of this study have indicated that individuals writing on Facebook for non-academic purposes "engage in composing processes that are reflective and recursive." In a discussion of their findings at the 2011 Computers and Writing conference (Brand et al., 2011b, May), these researchers characterized student participants in the Facebook study as putting extensive time into crafting their own identities rhetorically through text and images online.

Identity in digital literacy practices. While Brand et al. (2011b, May) are studying individuals' writing in a particular digital medium to determine how such digital writing contributes to identity construction, a number of researchers have looked more broadly at individuals' construction of identity in technologically mediated environments. Turkle's (2011) has described the tendency for digitally linked individuals to be "alone together," which she characterized as the tendency for members of the public to share physical spaces without interacting with each other, yet while interacting digitally with others on phones and computers (p. 14). Turkle interviewed a number of teens, many of whom mediate their experiences and emotions, in addition to their interpersonal relationships, through technological tools. The teens with whom she spoke were highly aware of their own and their peers' tendencies to construct identities in purposeful ways in online spaces, and many noted the tendency for people to construct themselves in the best light possible online. Turkle wrote that for one of her teen subjects, "avatars and profiles have a lot in common with the everyday experiences of texting and instant messaging" in that they are all, in the subject's words, "'a performance of you'" (p. 191). This same teen shared with Turkle that she had frequently witnessed a "'spillover effect'" when a peer's online identity conflicted with his or her in-person identity, a conflict the teen characterized as uncomfortable and unsettling (p. 195). What is interesting to note from Turkle's study in terms of my interest here in students' digital writing practices is that young writers are highly aware of the role that audience plays in their non-academic writing practices. Much of the digital writing students do on their own time is dialogic, including that done on Facebook or through text messages, and Turkle's discussion showed that young individuals recognize their own attempts at identity construction in these exchanges.

In contrast to Turkle's work, in which the researcher primarily spoke with young individuals to learn about their use of technology, additional studies have examined students' digital writing practices specifically to determine how students construct identities through technological means. Hull (2003), McLean (2010), and Yi and Hirvela (2010) all witnessed examples of students who were developing their identities in positive ways through digital literacy practices. Hull aided in facilitating students' production of multimedia compositions in an out-of-school literacy program called Digital Underground Storytelling for Youth (DUSTY) and noted that this work enhanced students' identity development. Hull wrote that students' compositions allowed them "to construct stories that position them as agents, as young people and adults able to articulate and act upon their own desires and as local and global community members able to alter their world" (p. 232). This agentive positioning, argued Hull, gave students the opportunity to strengthen their views of themselves as both individuals within the stories they tell and individuals producing multimedia accounts of these stories.

As with the students in Hull's study, students in McLean's (2010) and Yi and Hirvela's (2010) studies experienced positive identity development related to digital tools. Both of these latter studies focused on the ways that ELLs' participation in online communities allowed them to negotiate their multicultural identities. McLean discussed the online literacy practices of Zeek, a student who emphasized and celebrated her multicultural identity through language use online. McLean argued that virtual spaces can help displaced students such as Zeek, who immigrated to the United States from Trinidad and Tobago, "to create transnational linkages and reinvent and position their national identities" (p. 15). Zeek fostered these multicultural connections by communicating online with friends from her new and native countries in both standard English and a Trinidad and Tobago variety of English. While Zeek engaged in rich multilingual literacy

practices online, she confessed to often changing her accent to sound more American in school to avoid having to repeat herself to be understood. Although this language-changing practice did not change Zeek's pride in her native language and its varieties, it represented for McLean an example of how multilingual students' literacy practices are often "othered" within education. McLean argued that teachers have to do more than simply bringing students' non-academic digital literacy practices into the classroom but have to truly understand how students construct meaning in those practices. She called for a "normalized view of diversity" (p. 20) in which students' practice of literacy within multiple cultural identities is expected rather than viewed as different from a standard determined by monolingual students' practices.

Like McLean (2010), Yi and Hirvela (2010) observed a student's participation in non-academic literacy practices online. Yi and Hirvela called for more attention to students' rhetorical choices within these non-academic writing practices. The authors discussed the writing of Elizabeth, a Generation 1.5 student who immigrated to the United States from Korea. In interviewing Elizabeth and studying samples of her writing in all forms—from to-do lists to entries in a photo diary and participation on online social sites—the authors found that Elizabeth maintained connections to her Korean heritage through participation in online sites and drew on both her Korean and English literacies in her non-academic writing. Yi and Hirvela argued that because Generation 1.5 students maintain cross-cultural and multilingual identities, they may welcome the opportunity to participate in multilingual literacy practices online. The authors stressed the important roles that both audience and social setting play in students' online literacy practices, arguing that their public nature can help students such as Elizabeth connect with other multicultural students. The authors argued that school-based literacy practices can draw on students' non-academic writing practices, which will help students see the value in these non-

academic literacies. The authors also pointed out that teachers need to recognize and take advantage of Generation 1.5 students' rich literacy skills and help them use their multicultural and often multilingual literacies in the classroom.

Hull (2003), McLean (2010), and Yi and Hirvela (2010) all identified examples of digital literacy practices that gave students agency within their own identity construction. In these three studies, students were able to use digital tools to, in theory, set themselves apart by showcasing their talents, their experiences, or their backgrounds. Yet much of the identity construction that happens through digital tools occurs in structured ways. The authors of one exploration of students' identity construction on popular online social networking sites such as Facebook noted that in many ways, the digital tools that students use to develop and showcase their identities are deterministic, forming identities for users according to pre-packaged options (Maranto & Barton, 2010). Maranto and Barton argued that social networking sites pre-suppose their users' identity construction by asking users to identify with and place themselves within a multitude of categories to describe their backgrounds, occupations, and likes and dislikes. The authors wrote:

> What makes MySpace and Facebook special is their emphasis on categories and aspects of popular culture that teenagers find appealing. 'Fixing up' one's profile page is similar to the way students once decorated their book covers or Trapper Keeper binders, which had space for photographs of themselves and encouraged students to write their own 'story.' (p. 43)

By elucidating the ways that students' online identity construction is pre-determined by categories, Maranto and Barton have shown that the storytelling that occurs in the construction of one's identity online is not unique, but, rather, is a form of choosing which of a number of pre-packaged stories to buy into.

Turkle (2011) found similar evidence of students' portraying themselves online according to pre-labeled identities; Turkle recounted that some of her interview subjects agonized over how to define themselves and their new dating lives within the relationship labels on Facebook. At the time of Turkle's study, a Facebook user who opted to choose a relationship label could select from the following identifiers: *Single, In a relationship, Engaged, Married, It's complicated, In an open relationship, Widowed, Separated,* and *Divorced* (Noveck, 2011, February 19). Facebook recently added the options *In a civil union* and *In a domestic partnership* to its list, additions that many members lauded for their increased inclusivity (Noveck, 2011, February 19), but a move that Maranto and Barton (2010) might argue simply expands the users for whom the social networking site can pre-package an online identity. Turkle's subjects, most of whom were young teens, were concerned primarily with whether to list themselves as *Single* or *In a relationship*. Turkle found that her participants were less concerned at times with using the labels and categories offered by online social networking sites to represent their actual preferences or statuses and more concerned with using these labels and categories to craft a particular version of themselves online that may or may not resemble the version of themselves they present to others in person.

As Maranto and Barton (2010) noted, this construction of stories about oneself through visual images or labels is not new. In fact, in her investigation of college students' residence hall lives, Nathan (2005) identified a similar trend in the ways that students constructed their identities through collages of photographs and quotations on their residence hall room doors. Nathan observed that students' door collages were "calculated" to send a message in one of a handful of specific categories, such as "'Here I am doing crazy/spontaneous/'fun' things'" (p. 27). The ways that online social networking sites categorize identities for users is an extension of

individuals' tendency to categorize their own identities similarly. Nathan saw students choosing to portray themselves as a certain type of individual, and the labeling and categorizing Maranto and Barton witnessed on sites such as Facebook help users make those choices in portraying themselves online.

Nathan's (2005), Maranto and Barton's (2010), and Turkle's (2011) studies all illustrated the fact that users take certain steps to craft online identities, and all three studies indicated that users put a great deal of thought into how they will perform such identity construction. Only Turkle, though, began to explore users' awareness of these identity construction steps, by talking with participants about the reasons behind their decisions and thought processes when engaging in digital literacy practices. If a user were to possess a thorough awareness of his or her own identity construction processes online, complete with a critical understanding of what particular choices in online self-portrayal signify and how the results of these choices are read by others online, this user could be said to possess a critical digital literacy equal to the reflection literacy (Hasan, 2002) or language consciousness (Pattison, 1982) that represent full language literacy. Students' use of digital tools is a site rich for study of these students' critical literacy skills. In the same manner in which Hasan and Pattison have examined individuals' critical literacy of language and texts in all forms, researchers can examine individuals' critical understanding of the language and texts used in their digital literacy practices.

Students' Varied Technology Access

Just as Millennial college students do not all possess the same literacies in their use of digital tools, these students experience a range of access to the technologies through which they might exercise these digital literacies. Student access to technology is varied, resulting in a range of digital literacy levels within any student population. As I discuss in this section, student access

to technology is a two-part issue: In order to have full access to a particular technological tool, students must, first, have the tool available to them and, second, possess the ability to use the tool.

The degrees to which students have technology made available to them vary widely across any student population. Students coming to college, for example, come from a variety of socio-economic backgrounds that have likely determined their access to digital technologies both at home and in school. Recognition of students' varied technological access is important within education, because, as Kennedy et al. (2008) have pointed out, when a technological tool is implemented in an educational setting, teachers need to determine whether students have access to the technology necessary to implement that tool. Furthermore, teachers need to recognize that students' access to technology outside of the classroom will determine their level of comfort with using those digital technologies employed within it. Students' access to technology also affects the degrees to which they know how to use technological tools within school settings.

In 1999, Moran argued that educators were not devoting enough attention to the disparities in technology access experienced by students. Moran posited that an already wide economic gap separating technology "haves" and "have nots" (p. 205) would continue to widen drastically in years to come. To work against access inequality, Moran suggested that educators conduct research on the effects that not having access to technology is having on certain student populations and certain teachers. Additionally, he urged educators to identify examples of teachers who have worked against the problems of disparate technological access and to study whether and how these teachers have been successful.

In addition to the problem of simply giving students access to technological tools—giving them, for example, access to computers in school or helping them acquire computer

access outside of school—educators must consider the question of how students are trained to use these technologies. As O'Brien and Scharber (2008) have pointed out, simply providing technology to students who haven't previously had access does not even the playing field among students with varying levels of technological access. The authors argued that access disparities are often perpetuated in school due to technology funding programs that provide computers for classrooms but do not provide the training for students and teachers to use them effectively.

Likewise, Powell (2007) argued that in bringing computers into schools, educational administrators can often ignore the ideological framework of the use of those technologies. Namely, if students from less privileged backgrounds have not had access to technology before, providing them with computers does not mean they now have access to technology that equals their more privileged classmates; without providing students education in the use of these technologies, equal access has still not been achieved. Powell has defined access as more than just possessing technological tools by conceptualizing "access as practice": a recognition that students' access to and use of technological tools will always be framed within their individual contexts, including their socio-economic backgrounds (p. 18). As will be seen in other studies of digital literacies discussed here, Powell included in her concept of access the need for educators to help students become critical users of the technological tools they employ.

Moving Beyond an Academic/Non-academic Digital Literacy Divide

In questioning how students can effectively use digital literacy skills in the FYW classroom, I have examined literature that characterizes students' use of digital technologies outside of the classroom. As my discussion in the previous sections has shown, college students are using technology in a variety of ways, and many of these students' uses of technology outside of school are important in students' literacy development. In this section, I examine

research that has compared students' experiences with digital technology inside and outside of school in order to acknowledge the divide that exists for many students between their technology uses in these locations. The literature on students' use of technology has highlighted a significant difference between the ways students choose or are able to use technology outside of school and the opportunities they are given to use technology within school. Yet a dichotomous conceptualization of students' literacy practices in and outside of school does not accurately portray students' digital literacy practices. In the following paragraphs, I explore research that has addressed the ways students' literacy practices in each space informs those in the other along with literature that questions how such bridging between spaces can be facilitated in students' educational experiences.

Recognizing the Divide

Though Prensky's (2001a) claim that all of today's students are digital natives was too general to adequately describe these students' digital literacies, his premise that teaching methods do not effectively utilize students' non-academic digital literacies does hold weight. Students who do have access to technological tools at home or in after-school environments may gain practice using those tools out of school but may not have the chance to utilize their skills with such tools in school. Furthermore, when academic projects do require technology use, this use often does not take advantage of the technological skills students are developing outside of school nor allow students to further develop those skills.

In a Pew study of the differences between students' home and school Internet use (Levin & Arafeh, 2002), researchers identified a disconnect between the ways students use the Internet inside and outside of school. Students' Internet use in home and school environments was disconnected even regarding school-related projects. When students are expected to use the

Internet for a school project, for example, they are often expected to do so on their own time, at home. Additionally, when students do use the Internet in school, their navigation of web content is directed and often limited by school constraints and teacher guidance. In a recreation of the Pew study in the United Kingdom (Selwyn, 2006), students also reported experiencing a disconnect between home and school Internet use, but only about half of students felt their school use of the Internet was restricted.

While this Pew study identified a disconnect between students' home and school use of the Internet, other researchers (Brass, 2008; Chandler-Olcott & Mahar, 2003; Gee & Levine, 2009; Howard, 2011, April; Hull, 2003; Hull & Stornaiuolo, 2010; O'Brien & Scharber, 2008; Sanders & Albers, 2010; Ware & Warschauer, 2005; Williams, 2005; Yancey, 2004) have followed Prensky's (2001a) suggestion that students' home technology use differs radically from the ways they encounter technology in education. O'Brien and Scharber (2008) identified a problematic gap between students' digital literacy practices on their own time and the ways such practices are framed within educational settings. In particular, the authors argued that students are expected to develop "print-based literacies" in school but choose to develop multimodal digital literacies outside of school (p. 67). Though O'Brien and Scharber did not attempt to describe students' range of literacies—their piece is the first in an ongoing departmental column on digital literacies in the *Journal of Adolescent & Adult Literacy*—they concluded that students' home and school literacies do differ and that educators are faced with two choices in addressing this difference: either ignoring or capitalizing on the potential of students' non-academic digital literacies within their education.

Williams (2005) also questioned the differences between students' home and school use of technology. He argued that while students may be comfortable using reading and writing

skills to communicate online in their own time, this comfort with reading and writing may not translate to students' school work. Because there is such a divide between students' home and school use of digital literacies, Williams wrote, students "come to school and are expected to master genres and discourses that are disconnected from their vernacular literacy practices." Williams continued:

> Such a disconnect is often more than a mere shift in what skills are being emphasized; it requires some students to move from thinking of themselves as competent and confident writers and readers to thinking of themselves as struggling students confronting literacies that don't seem relevant to their lives. (p. 704)

Williams attributed the disconnect between students' home and school literacies in part to teachers' reluctance to value digital literacies. Like Prensky (2001a), Williams posited that a gap exists between students' and teachers' digital literacies, and he argued that this gap may cause teachers to resist accepting digital literacies as meaningful in the same way that they regard print-based literacies to be. Alvermann's (2008) stance fits with Williams's in that the former also cited educators' preference for students to exercise print-based literacies over online-based literacies as one reason that the online literacies that students exercise in their own time tend to be ignored in students' educational experiences. These findings indicate that students may, in part, experience a disconnect between their academic and non-academic digital literacy practices due to teachers' preferences. In classrooms where teachers do not possess digital literacy skills that match their students', or where teachers prefer not to exercise their own digital literacy practices in school, these teachers may choose to focus on print-based literacy skills and, as a result, deny students the opportunity to exercise the digital literacy skills they possess in an academic setting.

While a number of researchers have identified the divide between the digital literacy skills students exercise on their own time and those they are asked to or given the opportunity to exercise in school, it is important to note that students' literacy practices in these two different settings are not mutually exclusive. Though academic and non-academic digital literacy practices differ drastically in many students' experiences, these categories are not accurately portrayed as dichotomous (Alvermann & Moore, 2011; Bulfin & North, 2007; Hull & Schultz, 2001; Kirkland, 2009; Smith & Moore, 2012). Bulfin and North have argued against making a binary distinction between home and school digital literacy practices, positing that the two are inherently blended.

The claim that students' literacy practices inside and outside of school are interwoven is supported by Sitler's (1997) study of the influence of home as well as school contexts on writers' academic work. In demonstrating how students' literacy practices benefited from a fluid relationship among their academic and non-academic life contexts, Sitler used the biological term *edge effect*, which explains the unique plant and animal species that evolve in border areas between ecological habitats, to characterize the rich possibilities for students' literacies to develop in the indistinct spaces that emerge between students in their contact with each other and between individual students' home and school spaces. In studying students' journal writing in an undergraduate theology course, Sitler found that when students were prompted to think about the course content within the context of their own lives, they had new learning experiences that could not have occurred in either their lives outside of school or their work in the classroom, had the two spaces not been able to intertwine. She wrote, "Much educational practice works to separate everyday experience from classroom learning; thus connections between life and school are often overlooked as legitimate sources of learning" (p. 238). In identifying the development

of literacy practices within the blending of students' academic and non-academic experiences, Sitler illustrated the importance of acknowledging the ways that students' literacy practices inside and outside of school each inform one another. Furthermore, in her use of a biological concept to characterize students' learning processes, Sitler demonstrated that within a field whose research is growing exponentially, as is the case in literacy research, there is room for interdisciplinary work that examines students' literacy learning from new perspectives or from perspectives borrowed from other fields.

Given these scholars' perspectives, I agree that a dichotomous understanding of academic and non-academic digital literacy contexts unfairly essentializes the literacy practices occurring in each. As Bulfin and North (2007) have noted, "Home and school … worlds connect in and through the everyday practices of young people in complex and rich ways," rendering a dichotomous characterization of these spaces as inaccurate (p. 260). However, resisting such a dichotomy does not preclude an understanding of students' literacy experiences as divided. While fluidity does exist between and among students' contexts, students' digital literacy practices inside and outside of school do still demonstrate that a stark contrast exists between these environments.

Bridging the Divide

In addition to recognizing that a divide exists between students' academic and non-academic digital literacies, a number of researchers have discussed how such a divide can be bridged and have documented attempts to do so. Here, I discuss efforts to bridge the divide; in a later section of this chapter, I address the question of whether students themselves wish for the divide to be bridged.

In discussing this difference between students' home and school literacies in technology, O'Brien and Scharber (2008) identified a problematic practice of viewing technology tools and their uses as auxiliary components to education. The authors cautioned readers to recognize that the implementation of technological tools and their use within education should, instead, be framed as a "fundamental shift in literacy pedagogy and assessment" (p. 67). Indeed, in order to bridge the divide between students' digital literacy practices that occur outside of the classroom and their literacy development within the classroom, educators need to, first, make connections between students' home and school literacy practices and, second, help students build on their home literacies to achieve educational goals.

In exploring ways to facilitate students' critical awareness of the functions of digital media—including, for example, digital advertisements—Considine, Horton, and Moorman (2009) argued that the prevalence of digital media in our students' lives has changed literacy expectations. Whereas literacy educators' roles used to involve helping students to read and write, the authors argued that such educators' roles now involve helping students to critically receive and produce texts in a variety of media. Considine, Horton, and Moorman argued that Millennial students are richly literate in ways that are not necessarily capitalized upon in school and that educators need to make connections with these literacies. Similar to the Pew study findings mentioned earlier (Levin & Arafeh, 2002), Considine, Horton, and Moorman cited the tendency for digital technology use within schools to be highly mandated. For example, the social networking sites students engage with outside of school may be blocked on school computers, leaving students unable to continue their home digital literacy practices within their educational environments. The authors stipulated that although such mandates exist for student safety, "The result is a failure to build a bridge between the technological world Millennials live

in and the classrooms we expect them to learn in" (p. 473). In the context of these authors' work, building this bridge is specifically related to facilitating students' increased media literacy, or their awareness of the ideological frameworks of digital media and their ability to critique and produce digital texts from a critical standpoint.

Taken more broadly within my discussion here, creating a bridge between students' home and school digital literacy practices involves recognizing what technologies students are using outside of the classroom and seeking ways to integrate those technologies into students' education. Students may attempt to bridge this divide themselves: Mills (2010) discussed students' tendency to bring knowledge from their non-academic literacies, such as discussion of popular culture, to academic tasks. She argued that in order to bridge the divide, educators must first capitalize on these connections rather than identifying them as irrelevant or off task. Then, educators need to go beyond the connections themselves to facilitate students' continued development of multimodal literacies. Drawing on Vygotsky's (1978) concept of learners' zones of proximal development, in which effective education targets the space between learners' actual and potential development levels and provides mentoring to guide learners in acquiring new skills, Mills argued that teachers need to act as expert guides who provide students with the scaffolding necessary to educate them in multimodal literacies in ways that target their current literacy levels. For example, Mills described classroom activities in which students rewrote stories they already knew and created videos of these stories. Students first drew on their non-academic literacies to recreate the stories and discuss movie-making techniques based on their observations as movie viewers. Then, educators scaffolded the continued development of students' digital literacies by educating these students in clay animation movie-making and engaging them in discussions of specific filming techniques. By describing these classroom

practices, Mills showed how educators can both draw on students' existing knowledge of digital technologies to engage them in classroom activities while also building on this knowledge by facilitating students' development of new technological skills.

Digital Literacies and College Education

In the previous sections, I demonstrated how researchers have studied college students' digital literacy practices and have explored, in classroom practice, how students' academic and non-academic literacy practices might be united in a classroom space. Given this potential for digital literacy practices to be recognized and utilized in the classroom, I turn now to a discussion of how technology is being used in higher education. In the following sections, I discuss the ways that researchers have inquired into the use of technology in college classrooms in general, and I then look specifically at researchers' exploration of technology in college writing classrooms, the specific context with which I am concerned in this study.

Technology in the College Classroom

A review of scholarship containing discussion of classroom practices reveals that teachers are incorporating technological tools into educational settings in a variety of ways. As I will discuss in this section, in some classrooms, teachers are educating students specifically in digital literacy skills (Gruber, 2010; Weber, 2005), while in others, teachers are using technological tools such as online discussion boards and wikis or educational software to enhance learning (Bacabac, 2010; Beach & Doerr-Stevens, 2009; Brown, 2000; Burkart, 2010; Luce-Kapler, 2007; Ohler, 2008; Ranker, 2008; West, 2008). Some teachers are even using technology in the classroom in ways that specifically address the divide discussed previously between students' home and school digital literacies (Brass, 2008; Childs, 2008; Paul, 2000; Ruefman, 2010; Vasudevan, 2006).

In classrooms in which digital literacies are a focus, teachers emphasize the need for students to be critical users of technological tools, beyond simply knowing how to use such tools. Gruber (2010) reported on a revision of first-year composition that included attention to digital literacies. In particular, a first-year composition curriculum was rewritten to include seven modules, or learning units, on digital literacies developed in response to department-written objectives for students' technological learning literacies. The modules that came to guide the digital literacy education within first-year composition at Gruber's institution helped students to develop their abilities to critically read online resources, to create online content, and to integrate their digital literacy skills into coursework outside of first-year composition.

Like Gruber (2010), Weber (2005) found that digital literacy education includes more than simply learning how to use technological tools. Weber called on readers to help dismantle the myth that the ability to use technological tools is equivalent to digital literacy. Instead, she argued, teachers need to educate their colleagues and community members in acquiring a more "holistic awareness" of digital literacies that encompasses an understanding that digital literacies involve not only using technological tools but thinking in new ways related to these tools (p. 28). Weber's advocacy of such awareness about digital literacies translates into classroom practice in her use of assignments that involve students in discussions about digital literacies. Weber suggested holding classroom conversations with students about what digital literacy is and then having students create print and online materials to educate their parents, school administrators, and community members about digital literacies as a result of these classroom conversations.

While teachers in the two examples just discussed are addressing digital literacies outright in the classroom, many other teachers are bringing technological tools into educational settings even when digital literacy education is not their primary objective. Some teachers

(Beach & Doerr-Stevens, 2009; Burkart, 2010) reported supplementing their courses with online discussions housed inside course management systems such as Moodle or WebCT. Among the varied purposes for which online discussion can be utilized, Bacabac (2010) reported successful use of online discussion forums for students' generation of ideas, and Beach and Doerr-Stevens found that online discussion forums worked well for students to develop skills in argumentation. Other teachers have introduced digital tools to their courses by adding technological components to existing course assignments, such as by having students create digital videos or slideshows (Ohler, 2008; Ranker, 2008) or by having students respond to course readings on a blog (West, 2008). In addition to describing the enhancement of assignments with digital components, some researchers reported on teachers' practice of enhancing support components of a course with digital tools: Childs (2008) reported using Facebook as the means by which students contact her with questions about their course, and Ruefman (2010) reported on a teacher holding office hours over Facebook.

Other teachers are utilizing technological tools in practices more complex than those occurring in online discussion forums. Brown (2000) described a study skills program for high school students through which students can develop their computer literacy skills by using computer programs to compose traditional print and multimedia compositions while working with outside sources. Brown argued that such a study skills program should include the chance for students to practice typing, reading, vocabulary development, and grammar and word usage skills with the overall goal of helping students to develop academic literacy skills that will benefit them in all areas of their education.

Similar to Brown's (2000) study, in which high school students used computer technologies to begin communicating their ideas in ways other than print composition, sixth-

grade students in a study described by Luce-Kapler (2007) posted text and graphics to wikis and in doing so demonstrated development of their visual literacy skills. Luce-Kaplar facilitated students' reading of Radical Change texts: texts characterized by their multimodal genres, multiple perspectives, and challenges to the traditional parameters of composition. One example of a Radical Change text that Luce-Kaplar cited is a rewriting of the "three little pigs" tale in which the author incorporates materials from other common tales and the main characters are aware of the book's readers (p. 217). In this study, after reading and discussing examples of Radical Change texts, students began incorporating pictures into their wiki posts, revealing that their engagement with texts heavy in visuals resulted in their own increased engagement with visuals in composition, which the author cited as evidence of the students' developing visual literacies.

While Brown's (2000) and Luce-Kapler's (2007) studies both reveal ways that technological tools can be effectively integrated into educational settings, these authors do not acknowledge the divide between students' home and school literacies. Other teachers, however, have incorporated technological tools into their classrooms in ways that specifically address this divide. Paul (2000), Vasudevan (2006), and Brass (2008) have all advocated ways of validating students' home digital literacy practices and capitalizing on these literacies within the classroom.

In addressing the divide between students' home and school literacies, Paul (2000) discussed the challenges that teachers in urban schools face and argued that these teachers need to recognize the cultural capital that students already possess and help students to develop this capital further. Echoing Prensky's (2001a) identification of the technology gap between teachers and students, Paul identified culture gaps that frequently exist between these two groups, particularly between teachers from affluent backgrounds teaching in urban schools who do not

share cultural backgrounds with their students. Paul argued that teachers need to bridge culture gaps between themselves and their students that may arise due to class, race, or age by finding ways to make their students' cultural reference points relevant in the classroom. She presented the use of rap in the classroom as a method for doing so and discussed her experience, as a teacher educator, having faced some resistance from teachers who thought rap was too offensive to use in the classroom. In response to this, Paul had her teachers do an exercise in which they critically evaluated the messages in several rap songs and learned about different rap genres. Using rap in the classroom is one way of validating students' home literacies. In Paul's case, teachers were asked to recognize one form of literacy upon which students placed value—rap music and its surrounding culture—and to utilize that literacy within the classroom.

In Paul's (2000) study, teachers were largely unfamiliar with the rap music and culture that their students valued, yet they had to become familiar with it in order to capitalize on their students' home literacies within the classroom. Vasudevan (2006) questioned a similar cultural divide between students and teachers and presented a model of teachers and students as "colearners" as a solution to this problematic divide (p. 254). Vasudevan described her own experience working to validate a student's home literacy practices in the classroom and discussed the way she and the student, Angel, became colearners as she taught the student how to use online resources to gather information about motorcycles while the student taught her about motorcycles in the process. In this way, both Vasudevan's and Angel's knowledge areas were utilized, and each learned from each other's area of expertise. Vasudevan's colearner experience occurred with a minority student in a court-ordered education program; she spoke of how her validation of this student's non-academic literacies caused the student to develop from a reluctant learner into an engaged participant in his education.

Brass (2008) described a similar experience, also with a minority student, in which a student's home literacies were validated. The student whom Brass described, Horatio, participated in an after-school digital composition program. Horatio's non-academic literacies were heavily connected to hip-hop culture, music, and magazines, and the after-school program allowed him to draw on these literacies in creating a video. Brass identified Horatio's use of informal talk with his classmates during brainstorming sessions and use of home videos within his digital composition as ways that Horatio incorporated his non-academic literacy practices into an academic task. From her experience observing Horatio and other students within an after-school program, Brass concluded that students have to be able to bring their home literacies into school in order for them to be engaged in school literacy practices.

The studies discussed here are just a sampling of the published evidence of teachers' practice involving technological tools. As shown here, teachers can use technology in the classroom to educate students about the technology itself, to supplement content instruction, or to bridge the divide between students' home and school literacies. As I will discuss in the next section, technological tools also offer a wealth of resources for enhancing composition education, often in ways that draw on students' existing digital literacy practices.

Technology in the Writing Classroom

The scholarship discussed previously in this chapter shows that technology can be used to enhance education in various settings, which indicates that the area of technology-enhanced writing classrooms can offer rich possibilities for student learning. As I discuss in Chapter 3, my focus for this study is FYW classrooms. In this section, I explore research on the presence of technology in all writing classrooms, because research into all areas of college writing education informs my investigation of FYW.

Writing teachers are using technology in their classrooms in a variety of ways, including having students write on blogs (Burkdall, Casey, & Chamberlain, 2011, April; Girardi, 2011, May; Reid, 2011, April), on Twitter (Rodrigo & Jolayemi, 2011, April), or in a text message style in the classroom (Grant, 2011, May); having students create digital compositions in place of traditional print texts (Anderson, 2008; Katz & Odell, 2008; Selfe, 2009; Shipka, 2005; Wagar & Weaver, 2011, April); using videos to supplement instruction in the classroom (Silva, 2011, April; Simpson, 2011, May); and having students reflect on and write about their own relationships with technology (Kitalong, Bridgeford, Moore, & Selfe, 2003; Pigg, 2010). This wealth of recent scholarship on the use of technology in college writing classrooms, which represents both journal articles and conference presentations, indicates that teachers are encouraging students to exercise a range of digital literacy practices in their classrooms.

In addition to the studies cited in the previous paragraph, I encountered, in my review of current literature, four reports (Dubisar & Palmeri, 2010; Purdy, 2010; Sweeny, 2010; Vie, 2008) of particularly innovative practices for bringing digital literacies into composition classrooms. I look closely here at these four pieces of scholarship in order to more closely characterize the current state of technology-enhanced writing pedagogy.

The four articles discussed here represent vast possibilities for utilizing technological tools in the writing classroom. These articles' authors, though, have recognized some challenges that educators face in bringing technology into composition pedagogy: Dubisar and Palmeri (2010) recognized that significant class time has to be devoted to helping students learn the technologies that will be incorporated into their education, and Sweeny (2010), Vie (2008), and Purdy (2010) all spoke to pervasive negative beliefs about technology that may cause teachers to resist embracing online resources. While challenges such as these do exist, the overall outlook

forwarded by this scholarship is optimistic, with researchers finding that students respond positively to pedagogies that recognize and develop their existing digital literacy skills.

Vie (2008) discussed the gap between students' and teachers' digital literacies, terming this gap the "Digital Divide 2.0" (p. 10). To better characterize and understand this gap, Vie conducted a survey of 127 composition instructors and 354 undergraduate students to gauge individuals' opinions about MySpace and Facebook (p. 17). The results of the survey validated the author's identification of a digital divide between students and teachers. In particular, the majority of students identified themselves as users of social networking websites, while the majority of teachers did not identify themselves as users, even though they were aware of the sites' existence. In discussing this gap, Vie argued that compositionists need to learn how to use the same technological tools that students use so these tools can be brought into the classroom.

Vie (2008) suggested that all students are familiar with popular websites such as MySpace, YouTube, and Facebook, even if they don't use these sites. Vie advocated holding classroom discussions surrounding issues related to these sites—such as music rights or online advertising—because such discussions will be relevant to students. By focusing classroom discussion on issues related to the digital literacies that students are already exercising, such as use of social networking websites, teachers can help students to think critically about the technological tools they encounter.

Just as Vie (2008) suggested focusing classroom discussion on issues related to social networking websites in order to promote students' critical use of this type of technology, Purdy (2010) suggested focusing classroom discussions on similar topics of the online literacies with which students may already be engaging. Purdy acknowledged the tendency of many writing instructors to forbid their students to conduct research on websites such as Wikipedia, whose

credibility is questionable due to ever-changing, user-generated content. He argued that by forbidding students from conducting research in certain venues or by limiting their research practices in other ways—for example, by only allowing students to use print sources in their research—teachers are doing students a disservice by denying them the chance to learn how to evaluate the credibility of sources for themselves. Rather than forbidding students from using Wikipedia in their research, Purdy suggested making the construction of Wikipedia a topic for class discussion in order to encourage students to become more critical readers of all the resources they encounter.

Purdy's (2010) attention to the value of Wikipedia as a topic of classroom discussion is couched in his exploration of a larger issue: a problematic split between research and writing in composition instruction. In his article, Purdy deconstructed the myth that research and writing can be seen as separate tasks, a myth he argued is perpetuated in many writing classes in which teachers lead a research unit but don't fully integrate research processes into the writing processes they facilitate among students. In an attempt to resist this practice, Purdy advocated using Web 2.0 technologies such as Wikipedia in the classroom because these resources bridge the gap between research and writing. Web 2.0 spaces, in which students can both receive and create content, unite research and writing by allowing students to engage in public, collaborative meaning-making. Purdy suggested that locating students' research and writing practices in online public spheres helps students to recognize the importance of such practices rather than seeing these practices as exercises only relevant to classroom work.

In general, Purdy (2010) argued, when we separate research and writing, we give students the idea that outside sources are static texts that should merely be located and sampled from in the creation of additional static texts. Instead, by uniting research and writing and helping

students to see research-based writing as an inquiry process, we can get students to see all texts—outside sources as well as their own—as conversation starters and as smaller pieces in larger, ongoing inquiry processes. Using an approach such as the one Purdy advocated, by helping students to see research-based writing as a rhetorically situated activity, teachers can draw on students' existing literacy practices, such as their participation in online communication forums, while showing students the value of their academic work.

Sweeny (2010) called for attention to the collaborative potential of online literacy practices in a manner similar to Purdy's (2010). She argued that we can bring students' online literacy practices into the classroom by capitalizing on students' use of the Internet for social chatting and for information gathering. Among other ideas for drawing on students' non-academic literacies practices in the classroom, Sweeny suggested talking with students about listening to music while they write and having students workshop their ideas on writing-related websites to lessen the isolation writers face during the composition process. Sweeny also suggested giving students the freedom to compose in modes other than print by encouraging them to compose texts that have aural or visual components.

Sweeny (2010) argued that by encouraging students to situate their writing in online, social environments, teachers can better help students maintain a sense of audience and overall rhetorical situatedness for their messages. Sweeny suggested using tools such as text messaging, Twitter, blogs, wikis, and cloud computing applications (centrally located online workspaces such as GoogleDocs) during classroom assignments so that students can come to see their writing as public while also gaining practice in collaborative writing skills that will be useful in their future workplaces.

Like Sweeny (2010), Dubisar and Palmeri (2010) acknowledged the potential for composition of online documents to help students to think about the audiences for their texts. Dubisar and Palmeri discussed case studies of students' composition of digital, remixed political texts. In the assignment the authors discussed, students chose an example of political discourse, such as a political speech, and remixed it into an audio or video text that revised the discourse's message or audience in some way. Following the production of this text, students wrote a reflective paper analyzing the rhetorical strategies they employed during the process of composing their remixes. By interviewing students and observing their composition processes, the authors discovered that students spent considerable time in the process work of creating their remixes; one student, Susan, even engaged in an inquiry process through which the argument in her final product ended up being quite different than what she initially intended to create (p. 84). The authors argued that the digital remix assignment facilitated students' critical reading of political messages and understanding of the cultural capital inherent in popular culture artifacts. Like Vie (2008) and Purdy (2010), Dubisar and Palmeri also advocated holding classroom discussions on issues related to the technologies being employed in class assignments, such as copyright and fair use laws as they related to the students' creation of political remixes.

While the practices discussed here vary both in their content and their levels of technological sophistication—encouraging students to conduct research inquiry on Wikipedia requires far less technological savvy on an instructor's part than does teaching students to use digital video composing software—all of these approaches to technology-enhanced composition pedagogy rest on two similar pedagogical tenets. First, the teachers cited here all advocated drawing on students' existing digital literacies in designing course activities. As discussed previously, doing so can help bridge the divide that exists between students' home and school

literacy practices. And, second, these teachers all called for critical classroom discussion of the technology being used in composition. This practice of facilitating students' inquiry into the ideological situatedness of the technologies they use follows the general sentiment among education professionals that digital literacy education must necessarily include educating students to be more critical users of technology.

Assessing digital composition. One particular challenge that writing teachers face when bringing technology into the classroom is how to effectively assess students' technology-enhanced work. Roughly two decades ago, the focus of scholars' work in the field of writing assessment shifted from inventing assessment practice to evaluating the effectiveness of that practice (Huot, 2002). Now, though, another shift is occurring: As teachers have begun assigning multimodal and digitally enhanced composition in their courses, this conversation is shifting back to assessment practice, as teachers determine and discuss ways to effectively assess these new kinds of work.

Assessing digital texts presents a challenge, in part, because such texts and the media that compose them are indefinable (Ball & Kalmbach, 2010). In other words, teachers might be able to determine what an effectively composed print text looks like within the context of a particular course—though that definition, too, is not finite—but it is far more challenging to define or delineate what a digital composition could or should look like within a particular course because digital composing offers so many more options in multiple modes of communication. Also, the very fact that new media is new makes it difficult to assess; teachers who assign digitally enhanced work may run the risk of being impressed by all students' attempts at digital composition and may find it difficult to assess these attempts critically. As Slevin (Raney, 2010) explained, knowing that students are experimenting and attempting to communicate through new

modes for the first time in an academic setting makes it difficult for teachers to be critical of students' efforts in the same way they might be of students' efforts at communicating through linguistic, printed text, a mode in which students have had far more practice.

Neal (2011) discussed the tendency for teachers to assess digital texts by applying the same criteria to these new texts as to texts in print format, but argued that doing so is ineffective, as is utilizing assessment criteria from disciplines other than composition. Instead, effectively assessing students' new media texts necessitates developing evaluation criteria that take both a writing course's specific objectives and a particular assignment's specific parameters into consideration. My preference (Amicucci, 2012) has been to facilitate critical discussion among students of example digital texts of the type assigned, then determine collaboratively with these students the strengths and weaknesses of the particular type of digital text and, by extension, the criteria by which their digital texts will be assessed.

In assessing digital work, scholars (Amicucci, 2012; Neal, 2011; Shipka, 2005) have frequently advocated assigning reflective components along with students' digital compositions. As Neal has specified, assessment becomes easier when students are asked to provide a "rhetorical rationale for the decisions they made" in composing a text (p. 86). Yet Slevin (Raney, 2010) has raised the concern that asking students to reflect in a text-based mode about their digital compositions sends the message that "working with media is all fine and good as long as we validate it with an alphabetic text" (p. 354). Slevin argued that digital texts should, at best, be stand-alone texts and assessed as such. I am an advocate of reflective components to digital compositions, but I do see how requiring students to produce text-based reflections may conflict with the value placed on digital composition in a particular class. Slevin's concern, then, could

be remedied by giving students the option to reflect on their work in any mode, including the mode in which the work is produced.

Technology and English Language Learning

Similar to general studies of college students' digital literacy practices, studies of ELLs' digital literacies have recognized the divide between these students' academic and non-academic uses of technology. Three studies presented here have involved studying ELLs' non-academic literacy practices: Black (2009), McLean (2010), and Yi and Hirvela (2010) have all observed students' home digital literacy practices in attempts to better understand how ELLs make meaning with the use of technological tools.

Black (2009) addressed a need for more research in ELLs' development of digital literacy skills in non-academic online practices. She discussed an ethnographic study of three adolescent ELLs' participation in online fan fiction communities, in which participants write and comment on each other's writing, and found that despite the fact that subjects' online writing was not always grammatically correct, their participation in fan fiction groups did result in their developing stronger written skills in English. The subjects in Black's study all developed stronger digital literacy skills, which the author attributed to their engaging in multimodal composition. Black called participation in online writing groups, in which meaning is often socially constructed, "empowering" because it builds on students' existing literacies (p. 694). As with many researchers who stress the need for teachers to draw on students' non-academic digital literacy practices in the classroom, Black encouraged teachers to draw on ELLs' existing activities online to make language education socially situated and relevant outside of students' classroom experiences.

McLean (2010) and Yi and Hirvela (2010) found that ELLs can use online environments to exercise multicultural literacy skills. As McLean pointed out, it is necessary for teachers of second language learners to normalize these learners' experiences. One challenge that ELLs often face is being segregated, within their education, from students who already know English. This separation can often highlight the differences in, rather than normalize, their educational experience. DeBruin-Parecki and Klein (2003) addressed this challenge with a group of Bosnian immigrant students and discussed a project that helped these Bosnian students to become better connected to the American students in their area. In the Making Friends project, members of both student groups composed multimodal stories and translated their stories into the other group's language; the American students helped the Bosnian students translate their stories into English. The authors found that in writing their stories, the Bosnian students opened up about difficult war experiences that they had been reluctant to discuss within previous academic assignments. Because both student groups brought personal stories to the assignment, and because members of both groups faced a language barrier in communicating with each other, the Bosnian students' experiences as language learners were normalized within the Making Friends project. DeBruin-Parecki and Klein pointed out that students such as these Bosnian students, who possessed little to no knowledge of English, are often segregated from English-speaking students in their education. By normalizing these students' educational experiences, initiatives such as the Making Friends project can help ELLs to feel more comfortable in the American cultural settings they encounter in education.

Like authors of many of the studies discussed within this review, authors of studies of ELLs' use of digital technologies have stressed the need for teachers to bridge students' home and school literacies. Rose (2004) offered one teaching method for bringing conversation about

the non-academic digital literacy practice of e-mail into the classroom. Rose first engaged the ELLs in her class in a critical discussion of their own and others' use of e-mail, then had these students read an e-mail epistolary novel, a type of print novel written as back-and-forth communications between characters via e-mail in which characters utilize netspeak abbreviations and slang common to online communication. Rose argued that when students read and critically discuss a novel that uses a non-standard variety of English, they can gain awareness of language forms and their connections with certain purposes in writing. In addition, she wrote that for students, and for ELLs in particular, the use of technology is closely connected with identity issues and students' attempts to craft online identities that will be judged positively by their peers. In Rose's experience, discussing e-mail novels gave students the chance to think critically about their own literacy practices while also validating their non-standard uses of English within e-mail communication.

The common thread running through these explorations of ELLs' use of technological tools is the idea that in order to facilitate students' learning of English—and their comfort in being educated in a new culture and negotiating multicultural identities in the process—teachers need to validate the literacy practices in which these students choose to participate, especially when these literacy practices are multilingual or multicultural. This type of pedagogy, in which multicultural identities are discussed and celebrated, can be effective in resisting the problematic "colorblindness" that often arises in American classrooms when teachers attempt to see their students as homogenous (Bangou & Wong, 2009, p. 165). Rather than ignoring students' differences, teachers can, as Yi and Hirvela (2010) suggested, recognize and capitalize on these students' linguistic and cultural differences and the varied literacy skills they possess as a result of those differences. In considering how to best foster students' development of digital literacy

skills, researchers in general agree that teachers need to capitalize on students' non-academic literacy practices. The researchers discussed in this section extend this call for recognition of students' home literacy practices to include a need for better understanding of how students negotiate their linguistic identities outside of school and how this negotiation can influence their performance within school and be drawn upon to enhance that performance.

Support for Student and Instructor Use of Technology

In reviewing literature on the role of technology in college classrooms, I encountered many authors who mentioned the need for institutional support for technology use, which I discuss in this section. In incorporating technological tools into any educational setting, support for students' use of these technological tools is necessary, and a number of presenters at the 2011 Conference on College Composition and Communication (CCCC) stressed the importance of providing such support for students using technological tools in the classroom. Rodrigo and Jolayemi (2011, April) noted that teachers need to build support systems into their course designs and that students' will feel more comfortable using technological tools in a course when the course has a support system built in. Likewise, Howard (2011, April) suggested that teachers can effectively support students' use of technology in education by fostering a community environment in courses that allows students to feel comfortable asking each other for help with technological tools. In addition, Pigg et al. (2011, April) suggested that teachers can ask students to reflect on the process of learning new technology skills in order to facilitate students' own identification of the support they need for technology-enhanced course projects.

Along with stressing the importance of building student support for technology into individual courses, many researchers have noted the importance of teacher support for technology within university settings. Selwyn (2007) noted the necessity of institutional support

for teachers using technology, arguing that many educators do not use the technological tools available to them because their institutions do not offer enough training and support to meet their needs. One example of such a lack of support is documented in Ruefman's (2010) study of teachers' classroom use of technology, in which one teacher was required to increase his use of technology in the classroom but was not given any support in doing so. In contrast, Ninacs (2009) reported on the implementation of a multimodal curriculum into a university writing program and attributed the success of this implementation, in part, to the strength of the university's support in terms of training, resources, and the university's alignment with the implementation's ideological stance.

While individual teachers may only be able to do so much to affect the culture of support for technology use at their institutions, DeVoss, Cushman, and Grabill (2005) argued that an important step in doing so is becoming more aware of the infrastructure that supports technology use. Namely, the authors noted that individual teachers should become aware not only of, for example, the software and hardware available in their classrooms, but the support available for and the restrictions placed on its use. The authors posited that maintaining a critical, comprehensive knowledge of a university's technology infrastructure is necessary for teachers to fully understand and work to improve their technology-enhanced classroom practices. Coupling with the work individual teachers can do to enhance their own use of technology, writing program administrators (WPAs) and other educational administrators can take steps to ensure that faculty have the support they need for using technology. Takayoshi and Huot (2009) recommended that WPAs create training opportunities for faculty within their own departments rather than expecting faculty to seek out or utilize university-wide opportunities for training in technological tools. As shown by these researchers' discussions, support for teachers using

technology is most effective when it originates from all levels—from institutions, from program administrators, and from teachers themselves.

These discussions of the student and teacher support necessary for technology use in college classrooms are relevant to my exploration of students' non-academic digital literacies and their perceptions of the roles these literacies can play in FYW. In particular, the student participants I encountered, who I characterize in the next chapter, reported having had both positive and negative experiences related to classroom and teacher support for technology use that affected their abilities to exercise digital literacies within their college education.

Academic Presences in Non-Academic Spaces

As I have shown in this chapter's discussion, researchers (Alvermann, 2008; Brass, 2008; Chandler-Olcott & Mahar, 2003; Gee & Levine, 2009; Howard, 2011, April; Hull, 2003; Hull & Stornaiuolo, 2010; Levin & Arafeh, 2002; O'Brien & Scharber, 2008; Prensky, 2001a; Sanders & Albers, 2010; Selwyn, 2006; Ware & Warschauer, 2005; Williams, 2005; Yancey, 2004) have found that students' academic and non-academic digital literacy practices differ widely. In reviewing the literature on this divide, I have encountered teachers and researchers (Considine, Horton, & Moorman, 2009; Mills, 2010; O'Brien & Scharber, 2008) advocating for the divide to be remedied by bridging the two spaces. As teachers come to better understand and begin to validate the ways that students use digital tools on their own time, it is becoming commonplace to suggest that we bring these literacy practices into education. The argument for utilizing these literacy practices suggests that by capitalizing on students' existing practices, we can show students the value of these practices as legitimate forms of reading and writing and keep students engaged in educational pursuits.

Yet this argument begs the question of whether students want us to capitalize on their non-academic literacy practices. In many cases, students might write on Facebook, in text messages, or on blogs to escape their school environments, and if teachers start incorporating these tools into classroom projects, perhaps we are unfairly co-opting students' non-academic spaces. Some researchers (Blackburn, 2010; Hull & Schultz, 2001) have cautioned readers against doing just that for two reasons: First, students may not want to blend their academic and non-academic literacy practices. Second, bringing students' non-academic practices into the classroom may simply turn them into academic practices, rendering them less engaging for students.

Perhaps the most compelling argument against co-opting students' non-academic practices is the conversation surrounding the *creepy treehouse effect*, a term denoting the resistance that educators may face from students when asking them to engage in their non-academic digital practices in academic spaces (Stein, 2008, April 9). In the classroom, a creepy treehouse might take the form of a school-sponsored online space such as Desire2Learn (D2L) or a public online space such as Facebook (McBride, 2008, April 26). Educators' use of either type of space can backfire if the space used for the sole purpose of co-opting students' affinity for digital practices without having a clear educational goal in mind. In particular, educators may face resistance if they require students to use online tools or spaces without making clear why their use is required in a course (Jones, 2010, March 9). As Blackburn (2010) explained:

> There is always the danger that our inclusion of technology might be seen by our students as ways to lure or bait them into our hip and trendy classrooms and writing assignments, only to perpetuate the traditional hierarchical approach to teaching and academic discourse—thereby not validating the extracurricular writing already taking place or

> allowing the students to use their multimodal writing in the very digital space through which we trap them. (pp. 103-104)

As Blackburn has shown, teachers are destined to fail if they choose to utilize students' existing digital literacy practices for no reason other than to simply use them.

Alternately, McBride (2008, April 26) noted that use of digital tools lifted from students' existing digital literacy practices can serve the educational purpose of helping students learn how to use these tools effectively and in more diverse ways, given that the skill of being critical in crafting an identity online will benefit students in their job searches and professional lives down the road. Though little research exists in which students have been asked their opinions on what their digital literacy practices in school should look like, that which does exist supports this notion: When students were asked to discuss how Internet use in schools should be changed, they called for teachers to show them how to use the Internet effectively (Selwyn, 2006).

The problem underlying situations in which a creepy treehouse effect occurs is one that has arisen in much of the scholarship discussed here: We cannot effectively draw on students' existing digital literacy practices without talking with students first. The creepy treehouse effect is a problem easily remedied by giving students a voice in our classroom decisions and our research and by allowing students to help us determine whether their non-academic spaces should be used in their education. The dearth of research investigating students' take on the subject highlights the need for the present study, in which one of my overall goals was to acquire student voices on the subject of bringing their digital literacy practices into the classroom.

Chapter Summary

The following conclusions can be drawn from the review of literature on college students' digital literacies presented in this chapter:

- Facilitating students' development of digital literacy skills requires recognizing that not all of today's students are technologically literate.
- More awareness of students' actual digital literacy levels is necessary among educators, as is more training for both students and teachers in the critical use of technological tools.
- Many effective methods for using digital literacies in the classroom draw on students' non-academic literacy practices.
- However, teachers cannot assume that students will be eager to exercise their non-academic digital literacy practices in an academic space.

As these points indicate, further study is needed to understand college students' digital literacy practices and to explore the ways that such practices may enhance writing education. In the next chapter, I discuss the methods I used to conduct the present study, which fills this need by examining college students' non-academic digital literacy practices and their opinions on utilizing these practices in the FYW classroom.

CHAPTER THREE

METHODOLOGY

The purpose of this study was to describe students' ideas for their non-academic digital literacy practices to be utilized in FYW courses. Achieving this study purpose entailed obtaining an understanding of participants' non-academic digital literacy practices and determining whether participants prefer to enact these practices in FYW. Many researchers (Black, 2009; Brass, 2008; Hull, 2003; Maranto & Barton, 2010; McLean, 2010; Mills, 2010; O'Brien & Scharber, 2008; Paul, 2000; Turkle, 2011; Vasudevan, 2006; Williams, 2005; Yi & Hirvela, 2010) have described students' non-academic digital literacy practices and some (Considine, Horton, & Moorman, 2009; Mills, 2010) have argued that students' educational experiences benefit from acknowledgment and inclusion of these non-academic practices in academic work. Yet few researchers have asked students for their opinions on whether they want to bring their non-academic practices into the classroom. Furthermore, the field is need of studies in which students are asked how a bridging of their academic and non-academic digital literacy practices could occur. This study responded to the absence of student voices in digital literacy research (Alvermann, 2008; Kirtley, 2005; Williams, 2005) by gathering and representing participants' descriptions of these literacy practices and the ways these practices could be utilized within the FYW curriculum.

Study Goals

In working toward the purpose of understanding students' ideas for utilizing their non-academic digital literacy practices in FYW, I had two overall goals for this study. The first goal was to describe the existing digital literacy practices of study participants. In acquiring this description, I aimed to identify the audiences present in participants' digital writing practices and

to determine whether participants want to exercise these literacy practices in FYW. The second goal was to describe ways that participants envision bringing their non-academic digital literacy practices into the FYW classroom.

The following research questions directed work on the study:

1. What non-academic digital literacy practices are first-year college students engaging in?

    1a. Who are the audiences for these students' digital writing practices?

    1b. Do these students want to enact these practices in the first-year writing classroom? Why or why not?

2. In what ways do first-year college students think their non-academic digital literacy practices could be effectively enacted in the first-year writing classroom?

In order to answers these questions, I collected data in three phases; Table 1 illustrates the alignment between research questions and data collection methods.

Table 1

Research Questions (RQ) and Accompanying Methods

RQ	**Knowledge gained**	**Data sources**
1.	List of digital tools used; Frequency of tool use	Survey, Interview
1a.	List of audience(s) for whom content is created; Description of consideration of audience(s) in creating content	Survey, Interview
1b.	Identification of whether participants want to bring non-academic digital literacy practices into FYW and reasons why or why not	Interview, Follow-up interview
2.	Description of the possibilities and roadblocks students envision for bringing these practices into FYW	Interview, Follow-up interview

Methodological Position

My inquiry in this study was primarily qualitative in that I intended to study participants' perceptions within the framework of their experiences. This study is in no way value-neutral, nor are its results, which characterize the experiences of a small number of students, able to be generalized to represent the experiences or perceptions of other FYW students. Rather, this study characterizes a few students' opinions about the potential role of their non-academic digital literacy practices in FYW in order to indicate for teachers the educational possibilities that lie in this area. In this way, I aimed to achieve a goal that Denzin and Giardina (2011) identified for qualitative research: that of focusing on the local in order to imagine global possibilities. As students' use of digital tools increases and changes over time, teachers and administrators will have a growing need for effective procedures of validating students' new literacy practices within the FYW classroom. This study "*intervene[s]* in rather than simply comment[s] on the historical present" in order to address that growing need (p. 24, emphasis in original). As a result, the study offers a better understanding of participants' digital literacies and of their preferences for enacting these literacies in FYW than was previously available in literature on this topic.

A qualitative methodological approach to the study allowed me to address the need for more student experiences to be represented in digital literacies research because qualitative research values participants' lived experiences and these participants' abilities to represent their experiences to a researcher (Denzin & Lincoln, 2008). As Denzin and Lincoln have argued, qualitative researchers recognize that while "[o]bjective reality can never be captured" by a researcher, the researcher's combination of multiple methods of data collection can enable "an in-depth understanding of the phenomenon in question" (p. 7). Given this precedent in much qualitative research of using multiple methods of data collection, I utilized survey and interview

data collection methods to achieve an understanding of participants' views on their non-academic digital literacy practices and the potential roles of these practices in the FYW classroom. As I will discuss shortly, I intended to also use a focus group method of data collection but did not secure enough participant response to do so. As a result, I conducted follow-up interviews instead.

Within this qualitative framework, I used an inductive model to identify and analyze emergent themes in the data. Such a model is related to a grounded theory approach to analysis data, in which researchers allow a theory to emerge from gathered data (Glaser & Strauss, 1967; Strauss & Corbin, 1998). I have chosen not to use a traditional grounded theory approach, however, because while I did analyze gathered data recursively, I did not collect data in cycles related to themes or potential theories emerging from the data. Thus, my approach is more generic than a grounded theory approach and rests on inductive development of important themes from the data gathered (Hood, 2007). As I will discuss shortly, I analyzed data based on themes that emerged with student participants' descriptions of their experiences as users of digital tools and as students in first-year writing courses.

Study Contexts

The site for this study was a rurally located, Midwestern state university with approximately 13,000 undergraduate students[1]. The majority of the first-year student population at this university is residential, excepting those students who commute from local areas. Students come to the university primarily from the surrounding rural areas and the state's two large metropolitan areas; additionally, many students come from bordering states and a small number of students come from states across the country and from other countries. Nearly 4,000 new

[1] I gathered information presented in this paragraph from this university's website. I have not provided a reference for this information in order to maintain the anonymity of the study site.

students come to the university each year, and nearly 90% of these students enroll at the university's main campus.

This study looked in particular at a FYW course that the majority of students at the university are required to take. At the time of data collection, sections of this course were capped at 27 students, and approximately 100 sections of the course were offered each academic year. Students are placed into the course as a result of the university's writing placement procedure, which gives students the option to submit a portfolio of their writing or take a timed essay test. The writing sample that results from either option is used to determine whether students are placed into the FYW course in question or required to take a developmental writing course prior to taking the first-year course. Approximately 90% of students begin in the FYW course from which participants for this study were identified. Students who are placed into this writing course take the course in either their first or second semester at the university.

Class Site and Participant Selection

In order to select classes to visit for data collection, I first identified those teachers assigned to sections of the FYW course for the Fall 2011 semester. From among these teachers, I then identified those I knew and with whom I already had a working relationship. My existing relationships with teachers made it more comfortable for these teachers to invite me into their classrooms and to share with their students my reason for being present to collect data. In Fall 2011, I contacted five teachers individually and inquired about the possibility of their participating in this study. Four of the teachers consented to have me visit their classrooms; these four teachers were teaching a total of eight sections of the FYW course.

Participants in this study were students in eight sections of the required FYW course in Fall 2011. In the first phase of data collection, 177 students across these eight course sections

completed an anonymous survey. Given the demographics of the university, these students were likely recent high school graduates who had come to the university from nearby in-state or out-of-state locations. Assuming participants fall into the university's traditional demographics, they were likely approximately 18 years of age. These participants are members of a generation that has grown up in a world infused with digital technologies. This generation of students may have had, but has not necessarily had, access to digital technologies such as computers and the Internet in many of their years of schooling. Likewise, they may have had access to digital technologies such as cell phones, computers, and the Internet in their home lives for some time. Relatedly, given the likely range of participants' socioeconomic backgrounds, it is reasonable to assume that participants had experienced a range of levels of access to digital technologies in both their home and school lives. It is also possible that some survey participants were older than the traditional first-year college student's age and, as a result, had experienced differing levels of access to and use of digital technologies in their home and school lives.

When I obtained consent from instructors of individual FYW courses, all the students enrolled in the selected course sections became potential participants. I visited each course and administered a survey to all students in the selected course sections. Students who did not wish to participate in the survey were given the option to leave the survey blank. Students who did participate in the survey were asked to consider participating in later portions of the study. Those students who were willing to consider participating further in the study were asked to identify themselves on the survey document by providing their names and e-mail addresses.

The majority of students in each class section participated in the survey. While I had anticipated that only a small number of students would choose to self-identify, among 177 students who completed the survey, 43 provided their names and contact information. I contacted

those students who self-identified to explain the study further and ask them to consider participating in individual interviews. Eleven students agreed to be interviewed, and eight ended up participating in interviews; of the remaining three, one did not respond to my inquiry about scheduling an interview meeting and two cancelled our meeting and did not respond to my inquiry about rescheduling the meeting. My hope was to have most of or all of the eight interviewees participate in a focus group discussion, but only two students were able to participate in this third stage of data collection. These two individuals were not available at coordinating times, and as a result, I conducted individual follow-up interviews with these two participants.

Researcher's Positionality

As mentioned previously, I was interested in taking a close look at my own position as a researcher, both to acknowledge the relevance of this position to my inquiry process and to examine how its facets affected my procedures of data collection and analysis (Hesse-Biber, 2007). Lee and Simon-Maeda (2006) called for researchers to investigate and expose the relationship between their own positions, and their race in particular, and those positions of their research participants. As Harding (Hirsh & Olson, 1995) has argued, when a researcher fails to discuss how his or her context and background affects aspects of his or her work such as the particular approach taken or the analysis used within a study, the job of doing so is unfairly left up to the reader. Following this qualitative research practice of exploring one's own contexts as a researcher, I discuss, in this section, my positions as a teacher and a user of digital technologies as they relate to the study.

My position as a teacher. I began teaching first-year college writing students when I myself was a first-year master's student. I have taught at the college level for eight years and,

while taking doctoral coursework, worked as a classroom teacher's assistant in college classrooms for two years. In these ten years, most of my teaching work has been in FYW classrooms, and I have taught FYW at four different universities. In addition, I have been working in a university writing placement program for the past three years, during which I have read hundreds of incoming students' writing samples. Within this placement program, I have also had the opportunity to interact with a number of incoming students during the summer prior to their first college semester. This experience in teaching and placement work has given me a strong sense of the positions of incoming college students in first-year writing classrooms.

My experience teaching first-year college students at various locations gave me an advantage in working with this population as study participants. In particular, as I spoke with students while administering surveys and conducting interviews, my experience as a teacher of first-year students and my working in writing placement allowed me to connect with them as someone who understands, in general, their experiences and concerns in the first-year classroom.

As I collected data, I did not perceive that my position as a teacher had any adverse effect on my conversations with participants. In both survey and interview responses, participants seemed willing to openly discuss their opinions about writing education with me. I had been concerned that my role as a teacher may have caused interview participants to be wary of being critical about their educational experiences, but this did not seem to be the case. Interview participants seemed willing to speak openly about educational topics. It is important to note, however, that as in any similar study, those students who elect to participate in an interview are likely already either interested in the study topic or willing to help the researcher, making it more likely that students who choose to participate in a study such as this one may be the types of students who are willing to speak candidly with their teachers in general. This assumption

seemed to be the case for my study; the students whom I interviewed did not seem resistant to the process in any way, suggesting that their volunteering to participate indicated their willingness to discuss the study topics openly with me.

In addition to recognizing these ways that my teaching experience could affect my research work, I acknowledged prior to collecting data that my age, race, and gender may affect this work as well. I am a teacher in her early thirties, an age that may make some traditional-aged students see me as more relatable to them than an older teacher, but an age that separates me from these participants considerably. Having been out of my own undergraduate education for nearly a decade, I can no longer presume to understand an undergraduate's educational experience from a first-hand perspective. Also, I am a white female. This racial and gendered position makes me rather similar to many of the writing teachers who students see within the study site's context, yet this position also means I am different from any potential male participants or participants of races other than my own. All these factors may affect which students volunteer to participate in the study and the way those who do participate choose to relate to and share information with me during the study.

As I collected data, I did not perceive any roadblocks in my conversations with participants due to race or gender, although, as mentioned previously, these factors may have affected who chose to participate in the study. I did, however, perceive some effect of my age on my conversation with interview participants. While I had anticipated that my relatively younger age as a teacher would make me more accessible to student participants, I found that this was not the case. In general, participants spoke to me as if they assumed I did not fully understand the digital literacy practices they were discussing. I got this sense in survey responses, in which some participants responded to a question scenario by reassuring me, the researcher, that the

student in question was normal, and in interviews, in which some participants explained features of Facebook and Twitter to me with the assumption that I would not be familiar with them. It was interesting to me that some participants would perceive me as not understanding digital literacies, since they are the topic of the study. However, it is possible that it was not my age or any other factor but my position as a researcher—as someone curious to learn more about a topic—that may have caused participants to have this perception.

My position as a user of digital technologies. Like many of student participants in this study, I have gone through years of education infused by digital technologies—yet the digital technologies I have encountered have been quite different from what these students likely know. My experience using technology in school began in the first grade, when, during school periods in the Learning Center, I was assigned to listen to French language tapes or practice reading on an electronic viewing machine with a dial that allowed me to control the speed of words passing by from right to left. A few years later, I learned to type on a computer and learned BASIC programming.

For my students, *Internet* has been a common term since they were in elementary school. For me, the Internet was something that I used for the first time when I went away to college. When I began work toward a bachelor's degree in 1998, learning to use e-mail was part of my college orientation. I had a computer in my dorm room with Internet access, and I used an instant messenger to chat with friends. My telephone at the time was a landline that my roommate and I shared in our dorm room. I had had a pager at age 17, a cell phone at 21, and at 29, I got rid of my landline and began to rely solely on a cell. Now, I use a laptop daily for work and communication with others.

Although I use digital technologies almost constantly, I was not able to relate from first-hand experience to my participants' positions as college undergraduates and users of digital tools because so many of the available and commonly used digital technologies have changed in the decade since I was an undergraduate. In particular, participants were frequent users of digital tools for social purposes, such as through text messaging or social networking websites. Although I use digital tools for these purposes on occasion, my participants' use was far more frequent than my own. Similar to my position as a teacher of a particular age, race, and gender, my position as a user of digital tools in ways that differ from my participants' may have affected how participants related to me within the study. Because my own use of digital tools did not come up in conversation much, I do not have a sense of whether this aspect of my position affected my rapport with participants.

Data Collection Methods

I employed surveys and interviews as methods by which to collect data for this study. Existing research on students' non-academic digital literacy practices has included use of these methods, with researchers having conducted surveys (Grabill et al., 2010a; Kennedy et al., 2008) and interviews (Turkle, 2011) in which participants shared information about their use of digital tools. In the following paragraphs, I discuss the procedures I used to gather data in each of these forms (see Appendix D for IRB Protocol).

Survey

To begin collecting data to describe participants' non-academic digital literacy practices, I administered a survey to participants (see Appendix A). As mentioned previously, I administered this survey to students in eight sections of FYW. In each classroom, I spent about

five minutes introducing myself and explaining the study to the class. I then circulated the survey in hard copy, placed a box at the front of the room, and asked students to put their surveys in the box after completing them. I then waited in the hall while students completed the survey and retrieved the box after all the students had finished. Students who did not want to participate could simply place their blank surveys in the box. In most cases, teachers allowed me to visit their classes during the last 15-20 minutes of a class period, so students were able to leave class after completing the survey.

My use of a survey builds on existing studies (Blackburn, 2010; Grabill et al., 2010a; Kennedy et al., 2008) in this topic area that have utilized surveys to collect similar data. My aim in this survey was to collect descriptive data similar to that obtained through Kennedy et al.'s (2008) survey of Australian university students. As mentioned previously, Kennedy et al. surveyed students to determine what digital tools they used, how often they used these tools, and whether they would prefer to use these tools in their academic work. My survey also builds on Grabill et al.'s (2010a) study of students' modes of writing. In this survey (Grabill et al., 2010b), researchers collected data about the types of writing students engage in and the value they place on these types of writing. While both Kennedy et al.'s and Grabill et al.'s surveys produced descriptions of students' use of digital literacy practices, including e-mail, blogging, and social networking, neither survey distinguished between students' academic and non-academic practices in these form.

Additionally, Kennedy et al. (2008) did not explore the audiences relevant to student writing. Grabill et al. (2010a) did question students about audience, but researchers (Pigg et al., 2011, April) who analyzed the results of the study found that these explorations of audience produced more questions than answers. For example, the Grabill et al. (2010b) survey asked

students to identify "with whom" they write in various modes. As Pigg et al. explained, when students reported that they write with friends on Facebook, researchers could not be sure whether students meant that they were using Facebook simultaneously with friends or using Facebook to communicate with those friends. The survey (Grabill et al., 2010b) also asked students to note "for whom" they write in particular modes, but researchers (Grabill et al., 2010a; Pigg et al., 2011, April) did not address this line of inquiry in their discussion of the survey results.

The survey used in this study extends the inquiry lines of the Kennedy et al. (2008) and Grabill et al. (2010a) surveys by exploring students' perceptions of their non-academic digital literacy practices. Similar to the Grabill et al. survey, the survey used for this study asked students to identify any audiences that exist in relation to their digital literacy practices.

A third survey conducted recently involved data collection more closely related to the topics that my study explored: Blackburn (2010) used a survey instrument in a dissertation study to ask students questions about their uses of technology inside and outside of school and about the audiences that students have in mind when engaging in digital literacy practices. The topics addressed in this survey are highly relevant to my work here. However, the survey instrument presented in Blackburn's dissertation utilizes open-ended questions that do not allow for the same type of quantifiable results garnered from the Kennedy et al. (2008) and Grabill et al. (2010a) surveys. The survey used in this study builds on Blackburn's work by exploring similar topics about frequency of students' use of digital tools but doing so in ways that will produce quantifiable results.

Interviews

On the survey, I asked participants to consider providing their names and e-mail addresses if they were willing to be contacted about participating further in the study. Following

the survey administration, I e-mailed participants who had provided their contact information and met with eight of these participants for individual interviews. Interviews averaged fifteen minutes in length.

The individual interviews allowed me to further understand participants' digital literacy practices and begin to investigate their perceptions of the potential roles of these practices in FYW. I conducted interviews in an unstructured format guided by an interview schedule (see Appendix B). I recorded interviews on a digital voice recorder and later transcribed them.

My goal in conducting individual interviews was to contextualize the surface characterizations of participants' digital literacies acquired by my collected survey data. To do so, I used interview conversations with participants to discuss how these individuals use digital tools and to gain a better understanding of the ways that audience plays a factor in participants' digital composition. Additionally, I talked with interview participants about whether they preferred to bring their non-academic digital literacy practices into FYW and what ideas they had for how such inclusions might occur.

In working with student participants during individual interviews, I facilitated dialogic interaction centering on participants' experiences. My primary concern in doing so was to work against the potential for my curiosities or questions, rather than participants' own interests or the information they prefer to share, to direct these participants' responses. As Fontana and Frey (2008) have pointed out, interviews are always political. My role as researcher meant that I did have an agenda for interviews. My desire to learn about participants' digital composing practices and the audiences for these practices rested on the assumption that participants are using digital tools to create content and that they do have or recognize audiences in these practices. By allowing participants' experiences to direct our conversations, though, I facilitated interview

conversations that focused on aspects of the topic that participants considered to be meaningful or important.

Follow-up Interviews[2]

My initial plan was to follow individual interviews with focus group discussions among interview participants. However, I did not receive enough response from participants to do so. In the individual interview stage, each of the eight interviewees indicated that they would be willing to consider participating in a focus group conversation at a later date. When I contacted participants for this purpose, four responded, but only two had the time in their schedules to be able to participate. These two participants were not available at the same times as one another, so I conducted an individual follow-up interview with each as a result. I conducted follow-up interviews while these two participants were on an academic break and in their hometowns. As a result, we met online in a chat room for the follow-up interview conversation (see Appendix F for IRB Request for Change in Protocol) . Each follow-up interview lasted about forty minutes, and I saved transcripts from each chat room conversation.

Following the survey and initial interview portions of the data collection, I had gained the sense that many participants were open to the idea of bringing their non-academic digital literacies into FYW. Furthermore, the interview data helped me to identify some specific ideas that participants had for doing so. Between the interview and follow-up interview stages of data collection, I used these ideas of participants to develop FYW course assignment and activity ideas that utilize participants' non-academic digital literacies, which I present in Chapter 5. In the follow-up interviews, I presented participants with these ideas, and we discussed the reactions they would have to such activities or assignments as students in a course in which such work

[2] Because of the small number of follow-up interviews conducted, I do not include findings from this portion of data collection in the presentation and discussion of the study results in chapters 4 and 5.

would take place. I used a more structured format for follow-up interviews than for the initial interviews (see Appendix C). In the interview schedule, I used more explicit explanations of my questions than I had in individual interviews because the follow-up interviews were conducted via online chat, which removed the ability for my conversation with interviewees to be aided by any non-verbal communication. Within follow-up interviews, I adapted my questions in reaction to participants' own responses and questions. The schedule for follow-up interviews contained three ideas for course components or assignments. In each of the two follow-up interviews I conducted, I was only able to discuss two of these three ideas. In the case of one interview, I chose not to discuss the third idea because it had been the idea of the participant herself. In the other follow-up interview, I was only able to discuss two ideas within the time the participant had available for our conversation.

Data Analysis

Researchers (Anfara, Brown, & Mangione, 2002; Smagorinsky, 2008) have called for more transparency in the procedures enacted in qualitative studies. To that end, it is my intention here to make the data collection methods, presentation of results, and presentation and discussion of data analysis clear and thorough for readers of this study. In this section, I discuss the steps I took to analysis data resulting from the survey, interview, and follow-up interview portions of data collection (as outlined in Table 2).

Quantitative Analysis of Survey Data

Although this study is a qualitative inquiry into the potential role of students' non-academic digital literacy practices in FYW, the survey instrument I used allowed for some quantifiable information to be collected about participants' writing practices. As can be seen in the survey instrument (see Appendix A), I collected information about the digital tools

Table 2

Data Sources and Accompanying Analyses Procedures

Data Source	**Information Collected**	**Type of Analysis**	**Analysis Procedures**
Survey Q 1	Frequency of digital tool use	Quantitative	Tallied percentages of participants selecting each answer
Survey Q 3	Audience for digital tool use	Quantitative	Tallied percentages of participants selecting each answer
Survey Q 2, 6	Added information on survey topics	Qualitative	Categorized results based on common themes
Survey Q 4, 5	Response to exhibit questions	Qualitative	Read to identify themes; Analyzed using coding scheme based on themes emerging from answers
Interviews; Follow-up interviews	Description of digital tool use; Experiences with technology in FYW; Opinions on digital literacies in FYW	Qualitative	Read to identify themes; Analyzed using coding scheme based on themes emerging from answers; Identified participants' ideas for utilizing digital tools in FYW

participants use for non-academic purposes, the frequency with which they use those tools, and the audiences for whom they create content while using these tools.

I administered surveys in hard copy, and participants completed these surveys by hand. Following this process, I entered all the survey results into an electronic version of the survey

instrument into the web-based survey program Qualtrics (Qualtrics, n.d.). From Qualtrics, I acquired tallies of the data resulting from survey questions 1 and 3 (see Appendix A), which in turn showed the percentage of participants who practice each form of digital tool use listed, the percentage who practice each at various frequencies, and the percentage of participants who engage in each form with a given audience in mind.

To analyzing the results of survey question 1, I studied the percentage of participants who used each digital tool and noted any particularly high or particularly low percentages. Likewise, for survey question 3, I studied the percentage of participants who identified each audience category for each use of technology. Again, I looked for particularly high or particularly low percentages in each category. As I discuss later in the dissertation, I used the responses to survey questions 1 and 3 to answer research questions 1 and 1a, concerning the digital technologies that participants use and the audiences for this technology use. Additionally, I used the percentages indicated in survey questions 1 and 3 in combination with participants' short answers on related topics to acquire a fuller picture of participants' frequency of use of certain digital tools and their perceptions of audience when using these tools.

My intention in collecting this quantifiable data was twofold. First, obtaining this data about 177 participants allowed me to have a general sense about the participant body from which interviewees emerged. The survey results are not able to be generalized to represent the experiences of these individual participants nor the experiences of other FYW students at the study site. Yet, gaining this general information gave me a starting point from which to converse with interview participants about their non-academic digital literacy practices. Second, collecting this general data about my participant pool allowed me to see whether the student population with whom I was working was similar to that represented in existing literature. In Chapter 5, I

address the commonalities between the survey findings in this study and findings other related research.

One concern that I had in collecting quantifiable survey data was that narrowly defined survey questions might limit participants' abilities to fully characterize their experiences with digital tools. Miner-Rubino and Jayaratne (2007) have noted that surveys often deny participants the opportunity to qualify or contextualize their answers, resulting in inaccurate depictions of participants' experiences. I attempted to counteract this concern by including a range of possible answers for survey questions whose results were quantifiable and by including open-ended survey questions to complement those with quantifiable results. First, each time I asked a survey question with pre-determined answers, I included options for student participants to indicate that they *don't know* the answer or that they *prefer not to answer* a question (see survey questions 1 and 3 in Appendix A). Providing these options gave participants the ability to specify that they did not have answers for given questions rather than provoking the feeling in these participants that they had to give an answer that fit within pre-determined categories. Second, I utilized open-ended *exhibit questions* (Stake, 2010) that addressed similar topics to those addressed by the survey questions with pre-determined answers (see questions 4 and 5 in Appendix A). While I did analyze the data resulting from survey questions 1 and 3 separately from that resulting from the open-ended questions, my reading of the open-ended question data qualified my reading of the quantifiable survey results. Also, by giving participants the opportunity to explore the topics at hand in a less rigidly defined manner than questions with pre-determined answers, I allowed participants to qualify their own presentation of information in quantifiable portions of the survey. For example, as I discuss in Chapter 4, the quantifiable answers to survey question 1 indicated that nearly all participants are frequent cell phone users, but the answers to survey

question 4 qualified this frequent cell phone use by revealing that some participants use a cell phone frequently only for logistic purposes, such as for an alarm clock, and that many participants prefer not to use a cell phone frequently.

Qualitative Analysis of Survey, Interview, and Follow-up Interview Data

Aside from the quantitative analysis that I did with some of the survey data, the majority of analysis of data gathered for this study was qualitative. I conducted qualitative analysis of participants' answers to open-ended survey questions and of transcripts of individual interviews and follow-up interviews. As I discuss in this section, I drew on grounded theory by using an inductive approach to coding in which a coding scheme emerged from themes evident in the data and in which the development of the coding scheme was recursive.

Coding data based on emergent themes allowed me to best recognize participants' emphases in presenting their own experiences, rather than inscribing my own expectations on these experiences (Haas et al., 2011). As I noted emergent themes, I brainstormed ways that these themes were categorically or hierarchically related. Using an inductive process of analysis, I allowed meaning to emerge from the themes evident in the data that I collected, rather than reading this data with preconceived expectations (Hood, 2007). This process of developing emergent coding schemes was necessarily recursive (Weston et al., 2011). As I will explain shortly, I used different coding schemes for different portions of the data set. In developing each scheme, I read and coded data and then continued to revise the scheme to best represent the data I had collected. While the study itself was directed by my research questions and my lines of inquiry in the survey, interviews, and follow-up interviews, the results that emerged from discussion within these topics was dependent on the directions in which participants took the topics in responding to them. Therefore, I allowed the coding scheme to emerge from the data I

collected from participants rather than analyzing the data by looking for any particular themes within participants' experiences. Thus, the picture of participants' non-academic digital literacy practices and their potential role in FYW that has emerged from this study is a product of participants' own perceptions read through a lens that emerges from those very perceptions.

I used NVivo qualitative data analysis software to code the data I collected (NVivo, 2011). I did not use a set t-unit for coding data; rather, I coded segments of text that varied in length, such as a few words, a sentence, or a group of sentences. I also did not code all the text available in each data sample. If, for example, a participant discussed information that diverged from the general theme of the study, I did not code this information nor note it for emergent themes that contributed to the ongoing revision of the coding schemes. Additionally, when interview participants discussed personal information or information that could potentially make them identifiable as study participants, I did not code this material.

Coding survey data. To develop a coding scheme with which I coded data, I began by reading the open-ended survey question answers. While I read these answers, I noted themes that emerged from participants' responses. Among the responses to survey question 4, in which participants responded to a scenario depicting frequent cell phone use, I noticed four prevalent themes: participants describing keeping a phone nearby and turned on at all times; participants discussing phone use as practical; participants reporting feeling disconnected without a cell phone; and participants making some type of value judgment, whether positive or negative, about certain aspects of cell phone use. The initial coding scheme I used to code answers to question 4 contained four categories, representing each of these four themes and called "Keeping phone near," "Practical phone use," "Disconnected," and "Value Judgments." As I continued to read the Question 4 data, I came across ways that participants were discussing these themes in

more specific terms. By the final version of the coding scheme for question 4 data, I had divided "Keeping phone near" into two categories and had distinguished four categories of value judgments (see Table 3). In addition, as I studied the ways that participants described using a phone with other people, I identified a number of participants who discussed this topic without

Table 3

Coding Categories for Survey Question 4

Coding Category	**Category Definition**
Keeping phone near	
Phone near	Indicates keeping phone near at all times
Phone during sleep	Indicates keeping phone near while sleeping
Only for alarm	Indicates keeping phone near while sleeping only as alarm
Practical phone use	Indicates using phone for practical purposes, such as calendar
Disconnected	Indicates feeling disconnected or left out without phone
Value judgments	
Actions with others, value judgment	Comments on appropriate/inappropriate forms of phone use
Addiction	Comments on being addicted to cell phone technology
Normal	Comments on whether certain uses of phones are normal
Value judgments, other	Makes value judgments other than the three categories specified
Actions with others, behavior	Comments on cell phone use when around other people.

making a value judgment about phone use, so I created an additional category called "Actions with others, behavior" to note instances in which participants talked about phone use in the presence of other people. Once I had arrived at the final version of this coding scheme, I coded all the question 4 data according to this theme to note the prevalence of the themes across all answers to this question.

Following the coding of question 4 data according to the coding scheme depicted in Table 3, I noticed an additional commonality among the ways participants discussed their own cell phone use in comparison to that depicted in the question scenario. In answering whether they could relate to Steve's use of technology, most participants characterized their own phone use in terms of the degree to which they could relate to Steve's frequency of cell phone use. In studying these responses, I determined that the majority fell into one of three categories: participants' affirming that they completely relate, indicating that they somewhat relate, or denying that they relate to Steve's technology use. These three types of answers were able to be understood as a continuum on which participants identified their own frequency of use of cell phone technology, with those who relate to Steve's near-constant use being frequent cell phone users, those who somewhat relate being somewhat frequent users, and those who did not relate as being infrequent users. Of the 166 responses given to survey question 4, I was able to categorize 87% (144 responses) on this three-point continuum. The results of this analysis using a three-point continuum are presented in Table 7 in Chapter 4.

Among the answers to survey question 4, I was unable to categorize 13.25% (22 responses) on the continuum of frequency of cell phone use. In many cases, these uncategorizable responses contained statements in which participants shared information about their cell phone use but did not indicate whether they related, or the degree to which they related,

to Steve's use of technology, which was the overall point of inquiry in question 4. This type of response included answers such as "I charge my phone next to my bed and sometimes randomly wake up so I check my texts" and "I'm usually texting through the course of a day."[3] While statements such as these do provide information about participants' use of cell phone technology, they were missing the component that would make them categorizable on the three-point continuum, that of participants' self-identification of frequency of cell phone use by affirming, somewhat affirming, or denying that they could relate to Steve's use of the same.

Other responses that I did not categorize on the continuum contained participants' statement of value judgments that also related to the topic of cell phone use but did not indicate participants' degree of relating to Steve's use of the same. One uncategorized response read, "I can relate but I think it is important to live life w/o texting constantly. being in your phone that much, you miss out on the real, good things in life." In this response, the participant did affirm that he or she relates to Steve's use of technology but did not explain why in a manner that indicates frequency of cell phone use. Instead, the participant qualified the statement with a value judgment about frequent cell phone use, which left me unclear on whether the participant does use a cell phone frequently in the way he or she described as problematic. Another uncategorized response containing a value judgment read, "He fine most people do that nowadays If you have someone to talk to you got to text them back." Similar to the previous response discussed, this response contained the participant's indication that frequent cell phone use is common to "most people," but the response did not specify whether the respondent him or herself uses cell phone technology frequently in this manner.

[3] Excerpts from the data are utilized in chapters 3 and 5 only as examples to support my discussion within these chapters and are not presented with parenthetical citations as a result. In the presentation of the study findings in Chapter 4, data excerpts are presented as study results and appear with parenthetical citations to indicate their location within the data set.

The percentage of responses falling into each category on the three-point continuum represents participants' own identification of where they fall on the continuum of frequency of cell phone use. This self-identification is based on participants' identification of the degree to which they could relate to Steve. It is important to note that this continuum does not reflect any measurement of participants' actual frequency of cell phone use but, rather, their perception of this frequency. Some participants, for instance, indicated that they do not relate to Steve's frequent technology use but described their own uses of technology in ways that other people may consider to be frequent. For example, one participant wrote, "I can relate to Steve, although I do not use my phone quite as much as him. I do use it alot of the time though. I text alot when I'm walking around campus." I categorized this response within the middle category of the continuum—somewhat frequent use of cell phone technology—because the participant indicated that he or she could relate to Steve's technology use but not the degree to which he uses a cell phone. This participant perceived his or her own cell phone use as less frequent than that of Steve's as it was portrayed in the question scenario. However, the participant's use of a cell phone "alot of the time" and while "walking around campus" may be considered a frequent amount of cell phone use by others.

In a manner related to that in which I analyzed data resulting from survey question 4, I began analyzing data resulting from survey question 5 by reading the data to identify emergent themes. In reading responses to question 5, in which participants were asked to discuss whether they could relate to an individual's attention to audience when writing on Facebook, I noticed that participants were split: Many said they could relate and indicated that they think about their audience when writing on Facebook, while many others said they could not relate at all. The first two themes I worked with in developing a coding scheme for this question were "Attention to

audience" and "Disregard of audience." As I continued to read question 5 answers and categorize them into one of these two categories, I identified several ways in which participants discussed attending to audience, including having a specific "Audience in mind" or revising what they write online for particular reasons (see Table 4). Likewise, I found that two themes emerged from those answers in which participants said they did not pay attention to audience; namely, participants indicated that they do not care what others think of what they write on Facebook, or they commented on simply choosing to post what they wish to without thinking about who will

Table 4

Coding Categories for Survey Question 5

Coding Category	**Category Definition**
Attention to audience	
Audience in mind	Indicates a specific audience in mind when writing on Facebook
Effective	Indicates revising Facebook posts for rhetorical effect
Grammar, Spelling	Indicates revising Facebook posts grammar, spelling, mechanics
Public	Refers to Facebook postings as public or permanent
Reaction	Indicates how audience may react to Facebook post
Disregard of audience	
Don't care	Indicates not caring others' perceptions on Facebook
Say what I want	Indicates posting without concern for others' reactions on Facebook
No Facebook	Indicates not having/using Facebook

see it or how an audience might react. In writing the final coding scheme for answers to survey question 5, I also included a code for "No Facebook" to note those participants who responded to the question by indicating that they do not have a Facebook page or do not use one regularly.

Following the coding of question 5 data according to the scheme shown in Table 4, I determined that, as with answers to question 4, the answers to question 5 could also be understood on a continuum indicating the degree to which participants related to the question scenario. I was able to categorize 89.70% of participants' responses (148 responses) as participants' indicating they could relate, relate somewhat, or could not relate to the scenario in which an individual thinks about what she posts on Facebook before posting it. Table 9 in Chapter 4 presents the results of this categorization.

Among the responses to survey question 5, I was unable to categorize 10.30% (17 responses) on the three-point continuum. In these responses, participants spoke to the general topic of the question but did not clearly indicate whether they relate to the question scenario. As a result, I was unable to determine whether these individual participants revise written material before posting it online. For example, one participant wrote, "[U]sually when people post stuff on facebook they always try to sound cool in order to be popular and get alot of 'likes.'" This participant's response spoke to the scenario described in question 5, in which Maggie revises her own posts because she wants to "sound cool." Another participant wrote, "All the time social networks could be exposed to anyone so you have to watch the words you choose." While these responses connected with certain aspects of the question scenario, they did not make clear whether their authors engage in the type of revision or attention to audience described in the question scenario. As a result, these responses and others like them were not able to be categorized.

Coding interview and follow-up interview data. Following the coding of data from survey questions 4 and 5, I analyzed interview data. To do so, I began with the coding schemes used for these two survey questions and read the interview data while noting similar themes. Because the interview portion of data collection built on the survey portion, interviewees' conversations with me touched on some of the same ideas present in the survey responses but went beyond these ideas to answer research questions 1b and 2, on whether participants want to incorporate their non-academic digital literacies into FYW and, if they do, how they envision doing so. In reading interview data for themes similar to those in the survey data, I identified ways that interviewees talked about their use of digital technologies and created three codes for "Cell phone use," "Facebook use," and "Other tech use" to represent these. In the interview data, participants also discussed their attention to audience in ways that resembled those in the survey question 5 data, so I imported those codes related to audience from the question 5 coding scheme that I identified in the interview data into this new coding scheme. I added the code "Audiences for tech use" because some interviewees talked about specific audiences they have in mind when using digital technologies. Finally, because the interview conversations dealt largely with the role of technology use in education and the role of participants' non-academic digital literacies in FYW in particular, I created the codes "Tech in education" and "Tech in FYW" (see Table 5). While some of the categories used in this coding scheme were drawn from the coding schemes used for survey questions 4 and 5, I revised descriptions of each category to better reflect how the category functioned within the interview data.

In the follow-up interview portion of data collection, as explained previously, I used a structured interview format in which I asked participants to respond to two specific ideas for

bringing their non-academic digital literacies into FYW. I also asked participants in follow-up interviews to share any advice they would give to teachers who are thinking about using more

Table 5

Coding Categories for Interview Data Set

Coding Category	**Category Definition**
Attention to audience	
Audience in mind	Indicates having audience in mind when creating content digitally
Public	Refers to technology use as public
Reaction	Discusses audience's reaction to digital writing
Audiences for tech use	Discusses audiences in mind when using digital tools
Cell phone use	Indicates cell phone use or purposes for its use
Facebook use	Indicates Facebook use or purposes for its use
Other tech use	Indicates use of technologies other than cell phones and Facebook
Tech in education	Discusses technology use in college education in general
Tech in FYW	Discusses technology use in FYW

technology in their writing classes. As a result of these focuses, I coded the follow-up interviews transcripts for three categories: "Reaction, Facebook page," "Reaction, Online analysis," and "Advice for teachers." Because such a limited amount of data was collected in follow-up interviews, my analysis of this data did not lead to recursive readings nor any further development of this three-category coding scheme. I have not presented a table here to represent

the follow-up interview coding scheme because of its simplicity in comparison to those schemes represented in Tables 3, 4, and 5.

Limitations of Methods

In recounting her experience of leaving her position as an anthropology professor to live for a year as a first-year student at her own institution, Nathan (2005) noted that no researcher can ever "expect that [his or her] own experience is indicative of the experience of others born in the culture" being studied (p. 15). As an extension of this reality in anthropological research, I recognize that for all the data collection I have done in this study, I will not ever truly know what it is to be an undergraduate today and to be using technology today at age 18 or 19 as a first-year college student. The primary limitation to my attempt to bring student opinions into the literature on students' non-academic digital literacies was that because I am not one of the students in question myself, I cannot actually be these students' voices; I can only represent these voices as a researcher. Additionally, my interpretation of participants' experiences is, understandably, only one of many possible ways of interpreting the information that these participants have shared with me.

An additional limitation to these data collection methods was the participants the study attracted for the interview and follow-up interview portions of data collection. This study offered no compensation to participants; the benefits available to participants were the opportunity to think closely about the education they are receiving in FYW and the chance to realize possibilities for bettering that education for themselves and for future students. As a result, as I had anticipated, those participants who agreed to participate in interviews seemed to already have an interest in my inquiry. The limitation that this participant pool presented was that I did not speak to any participants who were unwilling to consider the role of non-academic digital

literacies in FYW. Although my participants had differing opinions on this role, they all did have an opinion on it. From conversations with these participants, I gained ideas of how teachers can bring non-academic literacies into the classroom. I maintain in my presentation of these ideas, though, that students who are less enthusiastic about their writing education in general may be resistant to these ideas in comparison to those who are simply open to trying new things in a FYW classroom. This limitation could be lessened in a follow-up study that puts the ideas gathered from this study into practice in an actual course and then gathers opinions from a more diverse sample of students on the effectiveness of these ideas' implementation.

Chapter Summary

As discussed in this chapter, the present study targeted participants enrolled in FYW courses. In this chapter, I presented the procedures through which I used surveys and interviews to collect data and then analyze that data through a recursive coding process. In the next chapter, I present the study findings in response to my research questions, beginning by addressing findings about participants' use of digital tools, then presenting results that indicate whether participants wish to use these tools in FYW courses and the ideas they have for doing so.

CHAPTER FOUR

STUDY FINDINGS ON STUDENTS' DIGITAL LITERACY PRACTICES AND THEIR UTILIZATION IN FYW

Study findings revealed that while many first-year college students are frequent users of technology, these students have varied opinions on whether the technologies they use for non-academic purposes should be utilized in the writing classroom. As I present in this chapter, most study participants used digital technologies frequently to read and write for non-academic purposes, while the attention these participants paid to their audiences for technology use varied. Regarding the role of technology in education, some participants identified the potential for their non-academic digital literacy practices to enhance their writing education, and these individuals offered ideas for how such practices could be utilized effectively in FYW courses.

As indicated in Chapter 3, the results presented here represent data collected in 177 surveys and eight individual interviews. I present the study results in the order of the research questions with which the results correspond. Following the guide of the study research questions, which I present in the following sections, I first characterize the ways that participants use digital technologies for non-academic purposes, including their identification of audiences for this technology use. I then address whether participants wish to utilize these non-academic digital literacies in the FYW classroom and characterize the ideas they have identified for doing so.

Participants' Non-Academic Digital Literacies and Audiences for These Literacies

The first phase of data collection, the survey, garnered findings in response to research questions 1 and 1a, "What non-academic digital literacy practices are first-year college students engaging in?" and "Who are the audiences for these students' digital writing practices?" Survey questions 1 and 2 were used to gather quantifiable data to characterize participants' frequency of

digital technology use and the audiences for whom these participants create content through digital tools.

Frequency of Technology Use for Non-academic Reasons

Question 1 of the survey measured participants' frequency of technology use for non-academic reasons in multiple categories, each of which gives users the options of creating content, receiving content, or both. In Table 6, I present the findings acquired in those categories with noteworthy results. As shown in Table 6, participants indicated most frequent use of text messaging on a cell phone, with 98.86% of participants indicating they use technology in this way every day. High frequency of use was also indicated for reading posts or comments on Facebook, with 81.82% of participants indicating they use technology in this way daily.

Participants who answered the follow-up question about additional technologies used for non-academic reasons other than those in the categories listed in survey question 1 named a variety of additional technologies. Among the 87 responses to this question, the most commonly listed additional technologies were e-mail, listed 11 times (surveys 1, 3, 7, 39, 41, 49, 75, 77, 81, 111, 121)[4]; video games, listed 7 times (surveys 55, 74, 85, 92, 123, 148, 176); and video chatting, listed 5 times (surveys 21, 49, 77, 105, 141). More than one participant also cited ereaders (surveys 29, 76, 86), music listening devices (surveys 8, 31, 68, 95, 177), and Microsoft Word (surveys 8, 12, 120) as ways they use technology outside of school.

[4] The numbers used to cite survey data refer to the individual survey (of 177 total) on which particular answers appeared. Students who later participated in individual interviews completed surveys 1, 4, 12, 20, 30, 31, 35, and 39.

Table 6

Participant Use of Digital Tools for Non-Academic Purposes

Digital Practice	Frequency			
	Daily	**Weekly**	**Monthly**	**Never**
Creating Content				
Text messaging	98.86%	0.57%	0.00%	0.00%
Instant messaging	26.29%	37.71%	17.71%	16.00%
Facebook writing	48.30%	34.66%	14.77%	1.70%
Twitter writing	21.59%	12.50%	6.82%	57.95%
Blog writing	5.14%	4.00%	8.00%	81.14%
Facebook photo posting	9.09%	20.45%	60.23%	5.68%
YouTube video posting	1.71%	1.14%	14.86%	80.00%
Receiving Content				
Facebook reading	81.82%	13.07%	2.84%	1.70%
Twitter reading	30.68%	7.95%	6.25%	53.41%
Blog reading	8.00%	7.43%	21.71%	60.57%
Facebook photo viewing	57.71%	33.14%	6.29%	2.29%
YouTube video viewing	39.77%	35.80%	20.45%	3.41%

Note. Row values do not total 100% due to participants who did not choose a frequency for certain digital practices.

A closer look at cell phone use. After indicating the frequency with which they use certain digital tools, participants completing the survey responded to an *exhibit question* (Stake, 2010) that asked them to consider their own use of technology in relation to that of a person

described in the question. Survey question 4 introduced participants to Steve in the following scenario:

> Steve jokes that he is addicted to technology. He sleeps with his phone by his side, and he sometimes wakes up at night to answer texts. He's always texting when he's walking around campus and usually texts or plays on his phone even when he's hanging out with his friends." Participants were then asked, "Can you relate to Steve and his use of his technology? Please explain.

In discussing whether and how they relate to Steve and the scenario described in this question, many participants noted that they keep a cell phone nearby and turned on at all times, even when they are sleeping. A total of 166 participants responded to this question. Among these, 19 indicated having a cell phone with them at all times. Responses in this area included the following[5]:

- "my phone is always with me." (survey 3)
- "I constantly have my phone attached to me at all times." (survey 15)
- "my phone is always with me, charged and ready to go. Never will you find me without my phone." (survey 38)
- "I always keep my cell phone with me everywhere I go." (survey 174)
- "I always have my phone by my side or on me." (survey 121)

Relatedly, 22 participants indicated having a phone nearby while they are sleeping, with 5 of these participants explaining that they do so because the phone is used as an alarm clock.

A number of participants identified other practical purposes for their cell phone use, including as a calendar, to keep in touch with other people, to acquire information, and to kill

[5] All examples from participants' survey responses that appear in the dissertation are presented as written on the survey; no changes have been made to spelling, language usage, or sentence mechanics. The term *sic* is not used to indicate misspellings or non-standard sentence constructions.

time. One participant wrote, "In today's world it is so much simplier to have a cellphone. It causes things to get out faster, and since family/friends can be at a distance while you are in college its the best way to contact loved ones" (survey 68). A handful of similar responses addressed the convenience of using a cell phone to keep in touch with others. While text messaging was the most commonly mentioned function for which participants said they use a cell phone, cell phone use for purposes other than text messaging was mentioned in 33 out of the 166 responses to this question. Two participants mentioned using a cell phone to read and write on a blog and another participant wrote, "I use my phone for everything. I write papers on it. I do research on it. I even check the time + use all the features on my phone to keep me 'in the know'" (survey 146). Many participants also mentioned using a smartphone to access Facebook, Twitter, and other online tools.

Eleven participants who responded to question 4 on the survey touched on negative feelings they experience when they do not have access to a cell phone. Participants used words such as "lost" (surveys 41, 121, 134), "disconnected" (surveys 108, 135, 147), and "left out" (survey 128) to describe how they have felt or would feel without constant cell phone access. One participant wrote, "[M]y phone is always with me. If I forget it it's like my day is ruined. I don't know how to act without technology in my daily life" (survey 3). Another wrote, "[M]y phone is like my right hand. I feel lost if I don't have it on me" (survey 41). Similar to those participants who mentioned keeping a cell phone nearby for practical purposes, the individuals who wrote these two answers indicated feeling the need to keep a phone on them at all times because of the phone's role in their daily lives.

Frequency of cell phone use. In addition to participants' commenting on question 4 about their purposes for cell phone use, a number also commented on how often they use a cell

phone. In answering whether they could relate to Steve's use of technology, most participants characterized their own phone use in terms of the degree to which they could relate to Steve's frequency of use of cell phone technology[6]. The majority of respondents identified themselves as frequent users of cell phone technology (see Table 7).

Table 7

Categorization of Survey Question 4 Responses on Cell Phone Use Frequency

Category	**Percentage (Number) of Responses[7]**	**Sample Responses in Category**
Frequent users	50.60% (84)	"Yes, this describes me." (survey 9) "I am the same way, technology has become a necessity in my life, I sleep with my phone, iPod and laptop near me and with my phone being under my pillow" (survey 16) "I do the same thing as Steve" (survey 32) "Yes, my phone is like my right hand. I feel lost if I don't have it on me. I either text people all day, check up on facebook, or tweet on my phone. I constantly have it with me." (survey 41)

[6] As explained in Chapter 3, I identified a three-point continuum emerging from participants' responses to survey question 4 during data analysis. I determined that the majority of responses to this survey question fell into one of three categories on a continuum on which students identify their own frequency of use of cell phone technology, with those who relate to Steve's near-constant use being frequent cell phone users, those who somewhat relate being somewhat frequent users, and those who do not relate as being infrequent users. In Chapter 3, I explain my rationale for leaving some responses to survey question 4 uncategorized on this continuum.

[7] Of the 166 responses to survey question 4, 13.25% were not able to be categorized in one of the three categories presented in Table 7.

Somewhat frequent users	19.28% (32)	"I can relate to some extent. I text but not as much as Steve does." (survey 103) "Somewhat I don't think I'm as attached to my phone as Steve. I can leave my room without my phone and usually don't bother with my phone when with friends." (survey 45) "Somewhat. I text pretty often, but I use my phone more to read blogs or look up information." (survey 4) "Yes, I'm not that extreme, whenever I really don't have a lot to do I text friends. I'm with friends I don't see a need to text." (survey 17)
Infrequent users	16.87% (28)	"no, I can leave my phone in my room all day and not fell attached and I've gone weeks without using technology" (survey 22) "No. I only text when its important" (survey 63) "No. I don't use technology as much as Steve." (survey 104) "No my phone is on silent all of the time. I only check it when I'm extremely bored." (survey 120)

Audience for Technology Use

For each of the uses of technologies listed in survey question 1 that involve two-way communication or creation of content, participants were asked in survey question 3 to indicate the audiences they have in mind when using technology for non-academic reasons. For text messaging, the technology for which participants indicated the highest frequency of use, 97.18% of participants identified friends as an audience and 87.57% identified family members as an

audience (see Table 8). Among the three audience options available on this question, friends was indicated most often as an audience for technology use, with an average of 49.87% of participants indicating friends as an audience across all technology categories. An average of 34.77% of participants indicated family members as an audience for technology use across all categories, and an average of 16.90% indicated the general public as an audience across all categories.

Table 8

Audiences Identified for Non-Academic Technology Use

	Audience		
Digital Practice	**Friends**	**Family**	**Public**
Text messaging	97.18%	87.57%	4.52%
Instant messaging	79.66%	41.81%	5.65%
Facebook writing	87.57%	62.15%	32.77%
Twitter writing	35.03%	14.12%	20.90%
Blog writing	10.73%	5.08%	14.69%
Facebook photo posting	83.62%	61.02%	31.07%
YouTube video posting	11.30%	6.21%	22.03%

Note. Participants could select multiple audiences or no audiences for each category; row totals do not equal 100% as a result.

The answers to survey question 2 alone do not paint a full picture of participants' understanding of the role of audience in their technology use. A fuller picture of participants' thought about audience emerges from responses to survey question 5, as will be discussed shortly. However, the data from this survey question does reveal that more than 60% of the

participants surveyed are using texting, writing on Facebook, and posting pictures on Facebook with an audience of family members in mind, and more than 75% of these participants are using technology in these three ways in addition to chatting on an instant messenger with an audience of friends in mind.

It is also interesting to note that while friends was indicated most frequently overall as participants' audience for technology use, friends did not receive the highest percentage of participant response across the three audience options in every category. When questioned about the audience that participants have in mind when posting videos to YouTube, 22.03% selected the general public, while 11.30% selected friends as an audience[8]. Similarly, regarding writing on blogs, 14.69% chose the general public as an audience for blog use, while 10.73% chose friends. These numbers certainly reflect the public nature of these two technology categories, but they also indicate that a greater percentage of participants perceives the general public as an audience for their public uses of technology than friends, even though friends are understandably part of the general public. While this question does not distinguish whether participants are specifically creating content for a general public audience or simply perceiving a general public audience as receiving that content, these responses indicate that the general public takes precedence over people whom participants know as the audience they have in mind when creating content online in public locations.

A closer look at participants' attention to audience online. Similar to survey question 4, survey question 5 asked participants to respond to a scenario. This question addressed participants' attention to audience when exercising non-academic digital literacies by focusing on one digital tool in particular, Facebook. The question scenario read:

[8] The percentages discussed here may overlap, as participants could choose multiple audiences in answer to survey question 3.

> Every time Maggie posts a status update to Facebook, she revises what she's going to post several times before posting it. She's always thinking about the words she's using, who is going to read them, and whether she's going to sound too smart or not smart enough. She wants to sound cool, but she doesn't want to sound like she's trying too hard.

Following their reading of this scenario, participants were asked, "Can you relate to Maggie and the way she thinks about who will read her posts when she's writing them? Please explain."

Among the 165 participants responding to this question, 44.85% indicated that they could not relate to Maggie's behavior (see Table 9)[9]. As shown in Table 9, the number of participants who say they do always or sometimes revise what they post on Facebook (74 participants) is

Table 9

Categorization of Survey Question 5 Responses on Revision of Facebook Posts

Category	**Percentage (Number) of Responses**[10]	**Sample Responses in Category**
Often revise	33.94% (56)	"Yes, because it's a public website it smart & responsible to revise what you post on a public site." (survey 5) "Yes, I watch what I say because I have family members on my facebook." (survey 70) "Yes, I anylize what I post online so that I do not offend anyone"

[9] As explained in Chapter 3, I analyzed responses to survey question 5 in a manner similar to that used in the analysis of survey question 4 responses by categorizing responses on a three-point continuum according to whether participants indicated they could relate, relate somewhat, or could not relate to Maggie's thinking about what she posts on Facebook before posting it.

[10] Of the 165 responses to survey question 5, 10.30% were not able to be categorized in one of the three categories presented in Table 9.

		(survey 106) "Yes, before posting a status I make sure I have spelled everything correctly and used proper grammar." (survey 152)
Sometimes revise	10.91% (18)	"yes & no, I think about who may be offended, but I'm not that concerned w/how ppl think of me" (survey 130) "Kind of, the reason I revise my posts is just to make sure they're grammatically correct." (survey 144) "I sometimes do this but not very often." (survey 102) "Sometimes I can relate. Sometimes I watch what I say and sometimes I don't. My dad is my friend on facebook; that is part of the reason why." (survey 35)
Never revise	44.85% (74)	"No, I can't. I write as I speak, and I don't really care how my 'audience' interprets it." (survey 4) "No, when I decide to post something I just post it the way it comes into my head." (survey 17) "No, I just post what I want." (survey 71) "I dont care that much to revise my statuses for people reading them" (survey 110)

equal to the number who say they never do so. As I will address shortly, participants' reasons for choosing to revise or not revise their online postings vary. These overall results show that, on average, participants responding to this survey question do not lean in one direction or the other: Half take the time to reread and sometimes revise what they write on Facebook, and half do not.

Attention to audience when writing on Facebook. As shown on Table 9, 33.94% of participants who responded to Question 5 indicated that they always reread or revise what they write prior to posting it on Facebook, and 10.91% of participants responding to this question indicated that they sometimes do so. As I discuss in this section, many participants reported paying attention to what they write online because of who will read it. This attention to audience, in some cases, led participants to make sure their posts are appropriate for non-peer audiences, such as family members, to read. In other cases, this attention to audience led participants to make sure what they write is grammatically correct, spelled correctly, and, in a few cases, rhetorically effective.

Some participants indicated that they think of audiences other than their friends or peers who will read what they write when they post something on Facebook. One participant cited "adults" (survey 16), another cited "teachers" (survey 105), and 17 participants cited family members as a reason they consider and sometimes revise what they write before posting it on Facebook (surveys 18, 26, 31, 34, 35, 44, 48, 70, 79, 101, 105, 120, 132, 145, 147, 149, 151). One participant wrote, "I just make sure I say what I want to say, and mostly just think about what my family will think if they see it, & make sure I censor myself" (survey 132). Another participant wrote, "I do try to 'think before I post' because I have family members and family friends on facebook, so I don't want to post anything too bad" (survey 44). Other participants who mentioned family members as an audience they consider when writing on Facebook referred to keeping posts "appropriate" (surveys 34, 69, 119, 147, 175), wanting "to sound professional" (survey 18), and avoiding "extreme curse words" (survey 31) when writing things that family members would see.

Other participants mentioned having friends in mind as an audience. In particular, these participants commented on the tendency to revise or think about what they post in terms of the reaction it might generate from their friends or the reaction that other people's posts have generated from participants themselves in the past. Participants mentioned being concerned with how the people reading their posts would "perceive" (surveys 82, 115) or "judge" them (survey 124), and one participant wrote, "I make sure I say it properly so my friends don't make fun of me for saying it wrong" (survey 48). Additionally, five participants mentioned either not wanting to sound "dumb" (surveys 30, 170), "stupid" (surveys 28, 39, 75), or like an "idiot" (survey 81, 113), terms that may have been written in reaction to the language of the question, in which Maggie wants to sound "smart" and "cool" but not "like she's trying too hard." Relatedly, two participants mentioned reactions they have had to others' Facebook posts. One wrote that when others write things that aren't written "right," he or she "think[s] it makes them look dumb" (survey 75). The other wrote that he or she does revise posts in the manner described in the question "because when I read some of the things people put on Fb I feel like they sound stupid and I don't want to be that person!" (survey 39). These participants' responses indicate that they related to the scenario described in the question, in which the way Maggie is perceived among those viewing her Facebook posts is a factor in her revising what she writes online.

A number of participants shared that they reread or revise their Facebook posts with attention to sentence-level aspects of their language usage. Participants mentioned rereading their posts for correct spelling or correct grammar, and some also cited "typos" (survey 27) and "proper" use of the English language (survey 12, 50, 96) as concerns when rereading their posts. One participant wrote, "I always recheck my grammar + the word choices before posting on

facebook. … Overall I just attempt to use proper english so others can easily understand me" (survey 50).

While most participants thought about the perception or reaction of audience members within the Facebook community—those who have direct access to the written material participants post on Facebook—a few other participants commented on the potential for material posted online to have a wider audience beyond that of individuals who have direct access to participants' Facebook pages. Eight participants commented on the potential for Facebook posts to be seen by a wider audience (surveys 7, 25, 27, 65, 68, 82, 114, 176); four of these participants referred to material posted on Facebook as "public" (surveys 7, 17, 68, 82). Other participants whose answers fit within this category responded with the following statements:

- "[S]ocial networks could be exposed to anyone so you have to watch the words you choose." (survey 114)
- "I definitely think about what I write before I hit the Enter key, but this is moreso because I am aware of the dangers of things that are said on the Internet." (survey 25)
- "I don't want ... to post anything publically that could hurt my future." (survey 27)
- "[S]omeone's always watching. Don't put something up that you wouldn't want the whole world to see." (survey 65)

Since survey question 5 did not necessarily introduce the concept of a wider or more public audience for Facebook posts—in the question scenario, Maggie thinks about "who is going to read" what she writes on Facebook but doesn't specify whether the audiences she considers are confined to her Facebook friends list—the eight participants who touched on the potential for what they write on Facebook to be publicly available have offered perhaps the most sophisticated responses to question 5 in terms of my inquiry into participants' consideration of audience when

writing online. While other responses to this question do not preclude attention to or awareness of a public audience simply because participants did not mention one, these eight responses indicate a high level of awareness among their authors of the fact that what we write online is permanent and can be public in many ways.

Disregard of audience when writing on Facebook. As indicated on Table 9, 44.85% of participants who responded to survey question 5 indicated that they do not reread or revise written material prior to posting it on Facebook. As mentioned previously, many participants in this category expressed awareness of an audience for their Facebook posts but indicated that they do not adjust what they write due to that audience's reading it. Many participants indicated that they do not reread or revise their Facebook posts specifically because they are not concerned with the way these posts will be received by an audience, with several participants using the phrase "I don't care what people think" or a slightly differently worded version of this phrase in their response to question 5 (surveys 2, 3, 4, 15, 38, 43, 47, 52, 53, 56, 77, 88, 95, 98, 122, 127, 136, 148, 165).

In a similar manner, some participants explained that they do not reread or revise their posts but, instead, just express themselves as they choose to on Facebook. One participant within this category wrote, "I say exactly what I want. If someone doesn't like it they don't have to follow me or be my friends"[11] (survey 43). Other participants indicated that they do not consider an audience's reaction when writing on the social networking site. For example, one participant wrote, "I post what I want and I don't really think about how people are going to react" (survey 22). Another wrote, "[W]hen I post things I post them with little thought at all. I don't think about sounding a certain way or being portrayed a certain way. I just post what I want to say" (survey 60). These responses demonstrate that some participants within this category said they

[11] The term *friends* likely refers to the friend designation within Facebook.

choose to write whatever they want even though they are aware of an audience reading what they post on Facebook.

Other participants within this category demonstrated paying less attention to the presence of an audience in the first place when posting material on Facebook. In some responses that fit this description, participants offered short assertions of this practice of posting whatever they want to on Facebook, as in the following examples:

- "I do + say what I want" (survey 155)
- "No, I can say whatever whenever" (survey 134)
- "I write what I feel" (survey 165)

In other responses that fit this description of asserting that participants write what they want to on Facebook without mentioning an audience, participants provided some further explanation to qualify their assertions of writing what they want on Facebook:

- "I can not relate because I say whatever I'm feeling on social networks" (survey 146)
- "I just speak my mind. It's just a status." (survey 150)

In these two examples, participants qualified their practice of saying whatever they want to on Facebook with further explanation: the first by identifying this practice as common to his or her writing on any social network website, and the second by implying that writing on Facebook, because this form of writing is "just a status," is not important enough to revise as is demonstrated in the question scenario.

In a third type of response within this category, participants' answers conveyed a sense of spontaneity as the reason for not revising anything prior to posting it on Facebook. When asked whether they could relate to Maggie's behavior, these participants wrote:

- "I cannot. If I have something to say I say it. I Dont revise it I just say it." (survey 133)

- "No, when I decide to post something I just post it the way it comes into my head." (survey 17)
- "my posts are what I am thinking at that exact moment and I very rarely revise or edit them." (survey 156)

In these three examples, participants did not mention any audience members who might read what they write, nor did they indicate thinking about how what they post on Facebook will be received by an audience. Rather, these three examples spoke to a sense of immediacy in posting on Facebook, in which posting a status update is something to "just say" and to write "the way it comes into my head" or as "I am thinking [it] at that exact moment." As with the response discussed previously in which a participant qualified his or her lack of revision with the assertion that "It's just a status," these responses indicate that posting on Facebook is a low-stakes literacy activity that does not warrant the time or attention it would take to reread and revise text before posting it online. These portrayals of Facebook postings as not having any significant consequences stand in contrast to those examples discussed previously in which a small number of participants perceived potentially lasting, public consequences for what they write online.

Survey Respondents' Opinions on Technology in Education

As I will discuss in the next section, the primary source of data in response to research question 1b, "Do these students want to enact these practices in the first-year writing classroom? Why or why not?," was individual interviews. However, as indicated previously, participants were given the option on survey question 6 to offer additional comments about the survey or the topics addressed within it. Although the survey itself did not raise the question of whether the digital technologies that participants use for non-academic reading and writing should be used in a classroom setting, my verbal introduction to the survey and explanation of my purpose in

conducting it did touch on this subject. As a result, eight participants commented on the question of whether and how the writing classroom should utilize or connect with their non-academic digital literacies.

Among the participants who commented on this topic, half indicated that digital literacies should not become part of education. One participant commented in general about the potential introduction of specific technology uses mentioned in the survey—cell phones and social networking—into academic spaces, writing, "Mixing phones and Facebook with school would suck. Keep it old school and simple" (survey 168). Two other participants commented that "technology" should not "take over" the work that writers do (surveys 65, 66); one of these wrote that technology "takes away from creativity" (survey 66). Given the context of the survey, I understand *technology* in these comments to mean *digital technologies.* The fourth participant who indicated that digital literacies should not be employed in school wrote the following: "I don't think these methods should be used in classrooms because I prefer solid writing when it comes to school. (too informal)" (survey 100). Although the participant does not elaborate on this answer, I read the parenthetical phrase of "too informal" included at the end of the answer to indicate that the participant viewed the ways that people use technology to write as not formal enough for academic purposes.

In contrast, four participants commented on digital literacies in ways that speak to the potential for technology to enhance education. One participant wrote, "I think if teachers did more things through technology such as twitter fb ect ... students would excell because we are constantly using it" (survey 109). In this response, the participant connected use of technological tools such as Twitter and Facebook in academic settings to student success by suggesting that because students use these technologies already, these students will "exce[l]" if they are able to

use such technologies in school. In a similar manner, one participant wrote, "I find that in the classes were we use technology like youtube I am usually more interested in whats going on in class" (survey 6). This portion of the participant's response indicates that he or she sees the use of videos during class meetings as a way to keep students engaged. The same participant also wrote that he or she "can see twitter [being used for academic purposes] because alot of people use it for News purposes" but also qualified the statement by adding, "I don't see why we would use facebook for a classroom." As demonstrated in these quoted passages, this participant was thinking about which technologies he or she could see being used effectively in an academic setting in responding to survey question 6.

One other participant who spoke to the potential for technology to enhance education commented on the way her literacy practices within a specific technological tool, Twitter, have come to influence her writing. This participant wrote, "Grammar from twitter has come into my everyday life. ill hashtage things in papers and use hashtags when texting. overall i wish twitter/facebook lingo would become mainstream with writing essays. something we can relate too"[12] (survey 18). This participant spoke with me after completing the survey, and we discussed her answer. She gave an example of walking across campus and having an awkward encounter with an acquaintance, then thinking to herself, "#thatwasawkward." She said she often uses the practice of hashtagging to label things she writes in papers for classes and even to mentally label interpersonal experiences such as this one. This participant's survey responses indicate that she

[12] On Twitter, the practice of *hashtagging* a passage of text refers to the method of adding categorical labels to one's tweets. For example, Cheryl Ball tweeted the following in 2011 in reference to traffic in the area of the Computers and Writing conference in Ann Arbor, MI: "Ann arbor traffic is BS. Trying to go meet @selfe3 and am at standstill on only open route there for over 5 minutes. #ride2cw #roadworkfail" (Ball, 2011, May 18). The first hashtag, #ride2cw, links the tweet to all others related to people sharing rides to the conference; it serves a functional purpose by categorizing the tweet. Twitter users have expanded the use of hashtags beyond such categorical labels, however, to include metacommentary on the tweets themselves. The second hashtag in this example tweet functions as metacommentary on the subject; in addition to linking this tweet to any others tagged with *roadworkfail*, the hashtag exhibits Ball's opinion on the traffic situation.

would like to be able to use literacy practices such as hashtagging in academic writing because, as she wrote, such practices are "something [students] can relate [to]."

Participant Opinions on the Roles of Technology in Education

In response to research question 1b, "Do these students want to enact these practices in the first-year writing classroom? Why or why not?" With individual interview participants, I discussed participants' own non-academic digital literacy practices and their preferences for utilizing technology in writing courses. In this section, I present findings regarding interviewees' experiences with technology in both writing courses and their first semesters of college in general, then present participants' opinions on the ways digital technologies should be incorporated into their college courses.

Interview Participants' Experiences with Technology in First-year Writing Courses

The eight interviewees reported a range of use of technology in their FYW courses, including e-mail for communication between the teacher and students in the class and among students working together on group projects; computer-based technologies, such as GoogleDocs or Microsoft Word, to write papers for the class; YouTube for watching course-related videos; and the Internet for course-related research. Regarding this last use of technology, John,[13] who has not yet decided on a major, said he sought help from a librarian in using EBSCOHost for a course project (interview, December 14, 2011). Similarly, Rachel, an English education major, described learning how to use databases at the library. Rachel explained:

> [F]or our literature review we did go to the library … and have one of the librarians show us how to use the 'Articles and More' and find, I know the ERIC database is the education base, so when I … did my literature review on homeschooling, I used that as

[13] All names used for interview participants are pseudonyms.

> my [database]. That was nice in a way that we learned kind of how to find resources online [and] the articles to use for our research. (interview, December 9, 2011)

As Rachel explained, learning to use research databases online was one way that technology was integrated into her first-year writing course that benefitted her work on a literature review project.

Rachel also described a course project directly tied to Internet use, in which students were assigned to evaluate the credibility of websites. She explained that students in the class used a rubric provided by the teacher to figure out "what's the sponsor of this site, who wrote it, what's the copyright, is this credible … making us start to question what we're looking at online, more than just trusting the average person" (interview, December 9, 2011). Rachel said that while she knew "that you should always question what you read online, just because it's online," this assignment marked the first time she had learned how to systematically evaluate websites. In this example shared by Rachel, students were introduced to ways to bring critical evaluation methods to online sources, some of which may already be a part of these students' non-academic reading practices.

Bethany, an international business major, also described using the Internet in her first-year writing course, but her experience with the Internet drew more on students' non-academic literacies than that described in John's and Rachel's use of research databases. Bethany explained that students in her course were often encouraged to use their smartphones to look up answers to questions that arose in class discussion. She explained:

> [Our teacher] let us for sometimes if we needed to look stuff up, he [would say], you know, I don't care, you can get out your phone, search, you know, look it up, and it's

> faster than, you know, okay, I'm going to write this down, remember to go home and look it up. (interview, December 14, 2011)

As Bethany described, her teacher encouraged students in the class to find the answers to the questions they brought up in discussion quickly rather than having the teacher or someone else in the class write down the information, look it up after class, and return with the answer in a subsequent class. Bethany's discussion of this practice highlighted one way that students in her class were able to draw on their non-academic digital literacy practice of using the Internet on a smartphone to serve a purpose within the classroom.

Interview Participants' Experiences with Technology in Education

In addition to discussing their experiences with technology in FYW courses, interviewees shared some opinions on the roles technology had played in other courses in their first semester of college. Interviewees had varied opinions on the extent to which technology enhanced their learning in college courses, but, with one exception, each had had experience with technologies being used in connection to their college classes beyond word processing programs, the use of which is assumed in college courses that involve written assignments.

A few interviewees had used course management programs such as Moodle and D2L in conjunction with college courses and responded positively to their use. John said he had taken classes for which assignments, including assigned readings and PowerPoint slideshows, were posted to Moodle, and he said he found it helpful to be able to access these course materials online. Zachary, an English education major who had used Moodle in high school and had used both platforms in college, said he preferred D2L. He said it was not difficult for him to switch between two systems for college classes, but that finding time to access course resources online was sometimes problematic. He explained, "[I]t was just another website that I had to remember

to go to" but said that when teachers "depens[d] on [Moodle] to pass stuff out" it can become difficult to remember to go online for a class (interview, December 15, 2011).

A few interviewees had experience bringing their laptops to FYW classes for in-class work, and two interviewees, Bethany and Zachary, saw potential in using computers more often in other classes as well. Bethany called for computers to become more a part of daily class activities, explaining that she would like to see:

> more things on computer, because … now college students are on the computer all the time. It'd make things [easier], do your notes on the computer … you can just take it, you don't have to worry about having ten different notebooks, you know. Everything's right there. (interview, December 14, 2011)

For Bethany, digital technologies are about making connections. She used text messaging to connect with classmates during her business class and, as discussed earlier, to find answers online during her writing class. Bethany sees the potential for cell phone and computer technology to make her learning processes easier by connecting her to other people or to her own notes and records that relate to class work.

While Bethany's experiences led her to believe that more digital technologies would help her education in all classes, Zachary found that digital technologies were only helpful in some of his classes. In particular, in those classes that afforded computer use, Zachary opted not to use a computer. Zachary discussed two classes in which technology use was encouraged, explaining:

> In some of the classes I've been [in], like with an English class, I've enjoyed seeing the technology because it really has helped me better my writing. But some of the other classes I take, like my ethics class that I took this semester … [the teacher] used PowerPoint to help convey the notes and … he would allow us to have our laptops in

> class where [students] could type the notes into the PowerPoint on Moodle. But in that case I chose not to not to use the technology because, you know, if I'm writing it down as I'm reading it, I'll remember the information better. And the same type of thing with Sociology, we could … print the notes off of Moodle and write down the important bits. And that I would do instead of having, bringing a laptop and typing in the notes. Again, for remembering. (interview, December 15, 2011)

As Zachary explained, he found it more useful to write notes by hand in class than to type notes into a laptop, even when laptop use was encouraged by the teacher. In contrast, he took a class in which computer use was not allowed, but in which he would have preferred to use one. Zachary continued our discussion by explaining:

> And then my Nutrition and Wellness class, I would have liked to see like more technology because the notes we were required … to print them off of Desire2Learn, and all our quizzes, all our tests and all that were online through D2L and with it being required, it would have been nice to see like us being allowed to use our laptops and technology in the classroom.

In the case of this Nutrition and Wellness course, Zachary argued that because D2L was an integral component of the course, computer use—and D2L access—should have been allowed during class.

Zachary explained that his Nutrition and Wellness instructor did not allow computer use in class because "she had the normal teacher fear [that] instead of us paying attention to the lecture, we'd be on Facebook" (interview, December 14, 2011). In considering whether digital technologies enhance their college classes, both Zachary and Rachel discussed the tendency for some of their peers to access online content unrelated to class activities when using computers in

class. When I asked Zachary if his Nutrition and Wellness teacher's fear was warranted, he said, "It definitely is. … I've even seen it with a couple of kids who have brought their laptops to [ethics class]. As much as they're taking notes, they're also switching over to Facebook, talking to one of their friends." Rachel described similar experiences, saying that when her first-year writing course met in a computer lab, some students would access Facebook. She explained:

> I think it's just … a force of habit, you know you get on the computer and you just immediately log on Facebook for no real reason at all. It's not like anything really important happened from the time you left your room to the time you got there but, just for some reason, we do that. (interview, December 9, 2011)

Rachel and Zachary had each had experiences with students doing things other than class-related work on their computers during class time, and each spoke about this occurrence as a common one and as a fact of in-class computer use of which students and teachers are both aware.

Both Rachel and Zachary acknowledged that students who have access to technology in class are faced with the choice of how to use it. Rachel noted that more technology in college classes "could be beneficial if kids used it wisely" (interview, December 9, 2011). Zachary shared a similar opinion, noting that whether students' non-academic activity during class is a problem "depend[s] on the students" (interview, December 15, 2011). He said, "For some students, they can multitask, focus on the different things and still get what they want done, but some students, they'll get focused in to what they're doing and lose focus on the class." My interview conversations with these two participants did not include a discussion of whose responsibility it is to ensure that students use technology effectively in the classroom. However, it is interesting to note that both Rachel's and Zachary's takes on students' use of computers in the classroom position the student as the person making the choice of whether to access non-

academic content on their computers during class; while Zachary touched on one teacher's "fear" that students would do so, neither interviewee mentioned a teacher in the role of policing such technology use.

Interview Participants' Preferences for Technology in Education

The eight participants interviewed for this study were divided in their opinions on technology and, in particular, on the potential roles of their non-academic digital literacies in the first-year writing classroom. Three interview participants felt that their first-year college writing courses utilized an acceptable amount of technology and did not perceive that the introduction of their non-academic digital literacy practices into this course would be a positive addition, while three participants argued that students in FYW courses could benefit from the introduction of their non-academic digital literacies into course work. As I discuss in the following sections, two interviewees fell in the middle of this range of opinions on whether such literacy practices should be incorporated into FYW education.

"If you have too much technology … you lose track of people": Participants' opposition to utilizing their non-academic digital literacies practices in FYW. Allison, an interview participant, was at the far end of this spectrum of preference toward technology and did not welcome the idea of using more technology in her writing courses or in any other area of her college education. Allison, who plans on majoring in nursing, explained that she doesn't particularly like computers, has no desire to own a smartphone, and resists using technologies such as PowerPoint for her academic work. "I hate typing on a computer," she said, noting that if she were able, she would choose to do all of her writing for school by hand (interview, December 15, 2011).

Like Allison, John also reported preferring to write by hand rather than use computer technology for all of his academic work. He noted, "[For] my first drafts, I would do them by hand, because you don't get distracted by YouTube and Twitter and Facebook and everything else" (interview, December 14, 2011). John said he prefers to revise his writing by hand rather than on the computer, noting, "[I]f you type something on a computer and you go back and change something, once it's gone, if you forget about it, it's gone, but if you scratch it out and write something else, you know what it was before." John explained that when he converted handwritten drafts to typed documents for his first-year writing course, he used Google Docs, which enabled him to access his writing projects from any computer, including from his smartphone.

A third interviewee, Elise, a music education major, also did not perceive the need for more technology to be used in writing education. Elise felt that digital communication sometimes causes a writer to lose track of his or her audience. She explained:

> I think if you have too much technology you kind of just, you lose track of people. I mean, even with using Facebook you're not actually talking to that person. I mean, you're messaging them, but you're not physically talking to them. … [T]hat's another thing that people forget is [that] there are other people on the side of Facebook. You think you're just posting to one person, but so many other people can see it. (interview, December 16, 2011)

As Elise's explanation shows, she argued that some individuals who create content online do not maintain an awareness of who is receiving that content and how it is perceived. As with Allison and John, Elise uses technology outside of school but does not necessarily perceive the need for

more technology—or for students' non-academic digital literacies—to be utilized in FYW courses.

While Elise did not express the desire to bring digital literacy practices into the classroom, she did identify a conceptual similarity between the online communication she participates in on Facebook and the freewriting activities she participated in in her first-year writing course. Elise explained that while academic writing is often "just [a] straight track from me to the teacher," the freewriting activities she experienced, in which students produced writing in class and read it out loud to one another, were a form of "very open communication" that involved "the whole class as a group" (interview, December 16, 2011). Elise connected this literacy practice of freewriting to the communication she engages in on Facebook, noting, "[W]hen you're posting something on Facebook, it's a group that can see it. A very large group can see what you're posting." In discussing her experiences in the FYW course, Elise explained that regular in-class freewriting activities provided the chance for students to write to an audience of each other, which she found to be different from much academic writing and from the communication taking place in the more formal writing assignments she did for the course.

No to language, yes to technology: Participants' mixed views on utilizing digital literacies in FYW. While Allison, John, and Elise did not wish to utilize their non-academic digital literacies in their college education, two interview participants had mixed opinions about whether students' non-academic digital literacy practices should be utilized in FYW courses. Neither Zachary nor Craig felt that the language sometimes used in digital communication, including the slang words and acronyms often associated with text messaging, has a place in academic settings. Each of these interviewees, though, had ideas for how the communicative

situations engendered by his non-academic digital literacy practices could enhance a writing course.

Zachary, a student who writes novels outside of school, identified clear divisions between his academic and non-academic writing and said he prefers to keep those divisions clear. He noted, "I kind of like the idea of my creative and formal [writing] being separate … for the fact of if … my creative [writing] starts being forced in class, then I'm going to dislike it" (interview, December 15, 2011). Along these same lines of keeping academic and non-academic writing separate, Zachary argued that the informal language commonly used in text messaging or on online sites such as Facebook has no place in academic work. He explained, "It's one thing to use that kind of [language] if you're talking to your friends or something, but when you're writing like formal papers and that, it's not appropriate."

Like Zachary, Craig argued that the language common to non-academic digital communication has no place in school. Craig said he dislikes the slang and abbreviated language he sees used by some of his peers in their text messages. He said, "I just hate the *dis* and *dat* and *ppl* … it just looks so ugly to me" (interview, December 15, 2011). Craig argued that unless it were used within a creative writing exercise, such language has no place in an academic environment because it "will dumb us down a bit." He added that students should "take the time to write proper English." Craig's opinion on this point was similar to Zachary's in that each of these interviewees perceived a distinct division between the language used for some digital writing spaces and the language they feel should be used in academic settings, which employs more standard spelling and sentence structure.

While Zachary saw a clear delineation between writing for academic and non-academic purposes—and between the types of language used for each type of writing—he did identify the

potential for the communication possibilities of technology to enhance academic work. Zachary was one of three interviewees who discussed the potential for non-academic forms of digital communication to be utilized to create communication lines among students in a course. He noted the benefit of friending classmates on Facebook, explaining that doing so allows him to have someone to contact about missed homework assignments. He also discussed a group project assignment from his first-year writing course and said that in similar group projects, connecting with classmates on Facebook would allow group members to keep tabs on each other's progress.

Similarly, while Craig did not perceive a benefit to bringing the language common to digital spaces into the classroom, he felt that digital communication itself could benefit students in a writing course. Craig, a Spanish major who makes frequent use of text messaging and instant messaging on Facebook to practice the Spanish language, said his use of digital tools for Spanish conversation benefits his learning of the language: "That's a really good practical way to practice I think because I'm going to get response, like feedback, right on the spot" (interview, December 15, 2011). As I discuss shortly, Craig extended this practice of using digital tools to learn Spanish to suggest that students' non-academic literacies in such digital tools could also benefit their learning to become better writers.

"We don't hang out … but we can text each other": Participants' desire to connect with classmates through their non-academic digital literacy practices. Both Zachary and Craig saw potential for some aspects of students' non-academic digital literacies to be utilized effectively in first-year college writing courses: Zachary thought that Facebook could provide a way for students in a class to connect with each other easily when working on course projects, and Craig thought either Facebook or text messaging could be utilized in a writing course to situate students' writing practice. Three other interviewees, Rachel, Bethany, and Sarah, also saw

the potential for their non-academic digital literacies to enhance a first-year writing course in a positive manner.

Rachel is a student who has had experiences in which being friends with classmates on Facebook has caused her to connect with people for academic purposes outside of class. In one example she shared, a psychology classmate contacted her in the first week of the semester. She explained, "[T]here was a boy that lives in my [dormitory who] messaged me one day and was like *hey, aren't you in my psych class?*" (interview, December 9, 2011). Rachel said that this classmate asked if she and he could meet to study and added, "[S]ince that we've been studying for all our tests together and it's been really helpful." In this example, having a connection to a classmate through Facebook led to Rachel establishing an ongoing study meeting that benefitted her work in the psychology course during her first semester in college. As I will discuss shortly, Rachel suggested that a similar Facebook connection could benefit students enrolled in a writing course.

Whereas Rachel saw the potential for Facebook to connect classmates, Bethany saw the potential for cell phone technology to enhance her education. Bethany shared a positive experience from her first semester of college in which text messaging allowed her to stay connected to classmates. She said that in an introductory business course:

> [T]here's a group of us and we swapped numbers. We don't talk, you know, we don't hang out outside of class but we can text each other [and write] *Hey, what was the assignment in class today?* or *How did you submit your paper?* (interview, December 14, 2011)

Bethany said she finds text messaging useful for "homework things" such as those in her business class. Relatedly, Bethany said she sees potential for teachers to bring cell phone use into

the classroom. As mentioned previously, she explained that when a question arose in her first-year writing course to which no one had an answer, the teacher would encourage students to use their smartphones to find the answer online. Bethany said she also finds texting useful in larger courses, in which students can text each other for clarification of ideas presented in class when speaking aloud would not be appropriate.

As I have shown in the previous paragraphs in this section, interviewees ranged in their preferences for bringing digital technologies into education. Among the eight interviewees, Sarah, a pre-pharmacy major, saw the greatest potential for bringing her non-academic digital literacies into the FYW classroom. As I discuss later in this chapter, Sarah had ideas for bringing her non-academic digital literacies into the classroom that draw on the language commonly used in digital writing—the same language that Zachary and Craig said has no place in the classroom, though Craig allowed that a creative writing exercise could be an exception.

Participant Ideas for Inclusion of Non-Academic Digital Literacies in Writing Education

The individual interview phase of data collection yielded results in response to research question 2, "In what ways do first-year college students think their non-academic digital literacy practices could be effectively enacted in the first-year writing classroom?" As I discuss in Chapter 5, the ideas that emerged from interviewees' conversations with me led to the creation of writing pedagogy ideas for utilizing students' non-academic digital literacies in FYW courses.

Participants' Ideas for Utilizing Non-academic Digital Literacies in First-year Writing Courses

Those interviewees who saw potential for their non-academic digital literacy practices to be utilized effectively in connection with their FYW courses had various ideas for how such integration of non-academic and academic literacies could occur. Interviewees brainstormed

ideas for how Facebook could be used to establish connections among classmates outside of a writing course, how writing practice situated in digital environments could enhance students' learning of writing, and how the language students use to communicate digitally could be utilized in connection with an academic writing assignment.

Using Facebook to connect with classmates. Rachel shared the idea that students enrolled in the same writing course could be connected via Facebook and use such a connection to communicate about the class. She said:

> There's groups you can form on Facebook. I know I'm part of the freshmen class of 2015 for [university name removed], so maybe if classes formed groups on Facebook and then you can write stuff right on the group page, and share things, you could probably share links. … That would be really cool. That way, you know, outside of class, everyone's connected, because everyone has Facebook. (interview, December 9, 2011)

As Rachel explained, having a designated digital space in which to connect with classmates could provide a way for students to share resources or ask each other questions about a course. She explained that "it'd be nice if anybody needed help with something, they could just go on the Facebook page and say, *Does anybody know … this?* and then their classmates could [answer]." Rachel said it would not be problematic for an academic resource to be housed within Facebook, one of her non-academic digital literacy spaces, because she could choose to visit the class Facebook page only when necessary.

Zachary saw similar potential for Facebook communication to positively enhance students' work in a first-year writing course. He shared an experience from his writing class in which each of several groups of students compiled a "cd mix" of songs. In his class, students

communicated via e-mail for the course project, but Zachary said Facebook would have been more effective. He explained:

> [I]n my writing class this last semester, we had one project where we did a cd mix where we had a group of people … we each picked songs and wrote up analyses for them. But if we were sitting in class and one of the people didn't send in their part of our paper and wasn't there that day … if one of us had had their Facebooks, we could have just pulled out our laptops real quick and gone on [to] see if they were on and say, *Are you coming? What's going on here?* (interview, December 15, 2011)

Zachary said that Facebook would be an easy way for students working together on a group project to maintain real-time communication with one another, particularly when, as in his explanation, one member of a group does not show up for class. He said that e-mail worked for group members to send parts of the project to one another but explained that a technology with the option for synchronous communication, such as Facebook, "could be helpful for like, *Hey, when do you want to meet up for this?* or like in class, *Where are you? We need you.*" Zachary's and Rachel's ideas for using Facebook to connect with classmates rest on the assumption that the majority of their peers are already using and familiar with Facebook, an assumption that is upheld by the study survey, on which 97.73% of respondents indicated that they either create or receive written content on Facebook a few times a month or more frequently.

Using digital communication for situated writing practice. Just as Rachel and Zachary saw the potential for their existing use of Facebook to enhance their connections with classmates in a FYW course, Craig also saw the potential for the communication students engage in in non-academic digital spaces to enhance these students' learning about writing. Drawing on his experience of using texting and Facebook communication to practice Spanish, Craig suggested

that writing activities could be situated in actual communicative environments in order to raise students' awareness of how their writing is received by readers. He explained:

> I think that if you are conscious about what you're writing you could … practice it well. … [Y]ou could maybe think more when you're, say if you're sending a text message, maybe you could think of a different way to say something rather than just the basic way of saying it, try to use more vocabulary, more words. (interview, December 15, 2011)

Craig's idea here was that if writing activities connected to a class were created so that students had an actual audience in mind while writing, students could be prompted to think more closely about how they write. Craig further explained his idea for situated writing practice by saying, "[I]t's one thing to teach something but then it's another thing to see where it's actually applied in life." Because Craig has had such positive experiences in learning Spanish by practicing the language through digital communication, he noted that similar practice could benefit students who are learning in a writing course.

As explained previously, Craig's ideas for situated writing activities emerged from his practice of Spanish online. He further explained:

> [T]here are times when I get so frustrated with Spanish that I just want to throw my books, but then … I'll start thinking of things and I'll, or if somebody talks to me, my enjoyment comes back because it's, you know, it's the real life application of it and … I really like responding and thinking and trying to use it. (interview, December 15, 2011)

Because of Craig's positive experiences practicing Spanish in actual communicative situations via texting and Facebook, he argued that similar methods could enhance a student's development into a better writer. He noted, "[T]he best way to learn is when you're not … trying to do it, and through that I feel like I [am] not trying to learn everything but I'm just trying to practice what I

know." Drawing on his experience with Spanish, Craig identified the potential for digital communication to situate writing in the real world.

Craig cited examples from two classes in which he felt such real-life application enhanced his learning. He said that in his Spanish class, students "watch[ed] conversations or music videos … just listening to the way that dialects [are] different, the way they talk" in order to understand how Spanish is used in communicative situations outside of the classroom (interview, December 15, 2011). In a similar manner, he gave an example from his writing course, saying that the teacher "showed us poetry through music." In this class, the teacher connected writing to students' own music interests by having students discuss the lyrics of songs as texts. In both of these examples, Craig appreciated having course content be related to non-academic communicative situations.

Using the language of digital communication in a first-year writing course. As discussed previously, two interviewees, Zachary and Craig, were adamant in their opinions that the slang language and acronyms common to some digital communication have no place in an academic setting. The opinion of one interviewee, though, differed. Sarah spoke about the difficulty of transitioning between the language she frequently uses in digital communication, which includes acronyms and less "proper" written language, and the language she is expected to use in a writing class (interview, December 13, 2011). She said that "English is supposed to be proper," but that the writing that many students do outside of the classroom does not resemble formal academic writing. Sarah commented that teachers should maintain an awareness of the struggle students go through in switching between non-academic and academic forms of language. She explained:

> I know some English teachers want [writing to be] professional, but … [in] texting you have the slang words and you have the lingo for like *ttyl*, talk to you later, but I don't think that some English teachers understand that you have that too, so you're more used to doing that then you are [to] writing professional.

Sarah indicated that teachers could help students by remembering the role, or lack thereof, that formal academic writing plays in students' lives. She said, "[Y]ou're not really used to going and writing proper English papers when you're texting, you want to use lingo … or slang words so I think [writing for classes] should be a little more lenient toward that." Sarah's use of the terms *lingo* and *slang* were prompted by my own use of the same terms in interview questions; her use of the term *proper* in describing academic writing was her own.

Sarah suggested that a first-year writing class could draw on students' non-academic digital writing skills to give students the opportunity to be themselves in the classroom. She explained:

> [I]t might be cool to give students the chance to do a freewrite in whatever language they wanted … because it'd be a cool way to get to know people, like how they really talk … even if it's just a little bit, that'd be, it'd be a fun way of showing that [classes and teachers are] not really all about writing formally, if that makes any sense, like they're all trying to get to know you too. (interview, December 13, 2011)

In her discussion above, Sarah identified freewriting as a potential space within writing courses in which students could exercise their non-academic digital writing practices. Sarah also offered a more specific idea for utilizing such writing practices in the classroom: writing "mystery papers," creative mystery stories in which students could use the language they use for texting in writing a story, particularly in writing dialogue within the story. Sarah said that writing an

assignment that allowed students to utilize forms of language that they are comfortable with would be a more authentic way for students to write, rather than, in her words "bringing somebody that I'm not" into the classroom. Sarah suggested that such an assignment could draw on the writing skills she learned in her first-year writing course—she cited using details and description in writing as an example of these skills—while also allowing students to write in a language in which they feel comfortable.

Chapter Summary

As is evident in the data presented in this chapter, the study results indicate that most, but not all, participants are using digital tools frequently. The data also indicate that while most participants are aware of one or more audiences when creating content through digital tools, only about half of these participants take an audience into consideration when writing online. Finally, the study results indicate that participants have mixed opinions on whether technology in general, or their non-academic digital literacies in particular, should be utilized more often in the college classroom. Those participants who do perceive the potential for their non-academic digital literacies to enhance a FYW course identify communication among students, situated writing practice, and experimental writing using language common to digital writing as ways that such integration could occur.

CHAPTER FIVE

DISCUSSION, IMPLICATIONS, AND FUTURE RESEARCH DIRECTIONS

In the process of analyzing the collected data and presenting study findings in Chapter 4, I identified a number of themes that emerged from the data that shed light on the ways that participants use digital tools for non-academic purposes and the ways these individuals envision using digital tools in FYW. In Chapter 4, I presented the results of the study as they correspond with my research questions. I found, first, in analyzing the study data that participants use a range of digital tools and that they view content more frequently than they create it in many digital social spaces. Second, participants pay varied levels of attention to audience in their use of digital tools, with some demonstrating a sophisticated understanding of how their online writing is received by those who read it. Finally, I demonstrated in the presentation of findings that participants did identify the potential for their digital literacy practices to be incorporated into their college writing education, and they emphasized the communicative opportunities presented by digital tools in discussing the roles such tools could play in their college writing courses. In this chapter, I explore the themes that I have identified in the data and put these thematic findings into conversation with current digital literacies research. I then discuss the implications that such findings hold for writing pedagogy in the FYW classroom and for education of writing teachers. Finally, I address the areas of potential future research indicated by this study.

Discussion of Themes Emerging from the Study Data

In the following sections, I draw on my data analysis and presentation of the study findings to discuss three notable thematic strands that have emerged from the data. First, in examining the evidence of participants' uses of digital tools for literate activity, I have found that

a number of participants are resisting the potential for frequent communicative connections availed them by digital tools and are, instead, turning inward to spend time away from digital communication or to write for themselves, even in the face of an online audience. As one participant wrote, "There needs to be a 'shut-off' at some point, or a time for one's self when technology is ignored or set aside." As I will discuss shortly, this sentiment is shared by participants who wish to become less available through digital connections and, similarly, by others who wish to keep only their own needs in mind when writing online.

Second, I have found that much of participants' description of their digital literacy activity fits within Street's (2003) definition of literacy as a social practice. Participants reported engaging in frequent reading practices online, most of which occur in digital spaces in which these participants are already engaged in communication with others, such as on Facebook or Twitter. Some of these participants' online reading practices are even spurred by social connections, such as my interview participant Craig's explanation that he would not seek out a blog to read on his own, but that he will click on his Facebook friends' links and read their blogs to "see what they're up to." The location of digital literacy activity within social spheres also affects participants' use of language, which I will address in this chapter.

Third, the data regarding participants' opinions on the roles of their non-academic digital literacy practices in FYW courses highlight participants' desire to connect through digital means with classmates as well as with people who are not part of the class. As Bethany explained, "[O]ther people might know [the] answer," so cell phones could be used in class discussions to draw on the knowledge of people outside the class. Participants' ideas for extending classroom conversation beyond the classroom walls further highlight the social situatedness of these individuals' reading and writing activity.

In this section, I present notable themes that have emerged in relation to participants' choice to resist frequent digital communication, their practice of reading and adaptation of language in social spaces online, and their identification of the potential for digital tools to foster academic community outside of the classroom. In presenting these ideas, I put the study findings into conversation with related published literature where relevant, drawing on ideas discussed in my review of the literature in Chapter 2 and on newly introduced ideas from related interdisciplinary literature.

Turning Inward: Participants Claim Agency in the Face of Dialogic Literacy Practices

Study participants have access to and use a range of digital tools to read and write: Through texting, instant messaging, interacting on Facebook and Twitter, and viewing and posting content on blogs, photo sites, and YouTube, these individuals have the option to exercise multiple digital literacies on a daily basis. What differentiates so many of these digital literacies from the non-academic print literacy skills that students might exercise—reading books in their free time, say, or writing in a journal—is the presence of an audience. In general, when individuals text someone on a cell phone or participate in any of a range of online reading and writing practices, they are joining a dialogue, either in the literal sense that their text messages or online communications are exchanged with one or more other individuals as part of back-and-forth conversation or in the broader sense that the content they contribute to a social network or other online site becomes part of a semi-public or public forum in which others have the option to read and respond to it. Yet, in the face of this potential for frequent dialogue, many study participants reported resisting digital interactions with others.

Seeking "shut-off" time: Participant resistance of frequent cell phone use.

Participants who could use a cell phone frequently to interact with friends, or who could make

themselves available for frequent communication on that cell phone, are choosing to step away from the dialogue. These individuals say they need "shut-off" time and attest to choosing to turn their phones off, to leave their phones at home or untouched in a purse or backpack, or simply to refuse to engage in digital communication when the option for face-to-face communication is present. These participants are drawing away from the potential for constant dialogic digital literacy practice and instead focusing on their own needs for time away from such communication.

As presented in Chapter 4, a number of survey participants indicated that they do not use their cell phones frequently because they do not wish, as some of their peers do, to maintain constant connectivity with others. These participants commented that they leave their phones turned off and avoid texting when they are with friends. One student noted that there are "more important things in life" than using a cell phone and another wrote, "I think it is important to live life w/o texting constantly. being in your phone that much, you miss out on the real, good things in life." As these responses and the others presented in Chapter 4 show, a number of participants are resisting using a cell phone frequently in their daily lives.

This image of a college student who does not want to use a cell phone frequently is one that is absent from the literature on students' digital literacy practices. Instead, literature in this field that addresses students' use of cell phones tends to follow Prensky's (2001a) characterization of "digital natives" who "have spent their entire lives surrounded by and using computers, videogames, digital music players, video cams, cell phones, and all the other toys and tools of the digital age" (p. 1). Prensky wrote that cell phones and other digital technologies are "integral parts of [these students'] lives." As is the case in literature that promotes sweeping generalizations of students' digital tool use, which I addressed in Chapter 2, Prensky's uniform

depiction of Millennial students as frequent cell phone users contradicts the findings in my data that show many students resisting such frequent use of cell phones.

Prensky's characterization of young adults who are frequently using cell phones is echoed in other research on digital literacies. In Turkle's (2011) study of young people's use of texting, she met adolescents who had no desire to spend time away from their cell phones. Turkle wrote:

> I ask the group [of participants] a question: 'When was the last time you felt that you didn't want to be interrupted?' I expect to hear many stories. There are none. Silence. 'I'm waiting to be interrupted right now,' one says. For him, what I would term 'interruption' is the beginning of a connection. (pp. 171-172)

While Turkle expected to encounter some evidence of a desire for time away from a cell phone, she found instead that her participants wished to be constantly connected to their friends and were willing to interrupt other activities, such as driving, face-to-face communication, or current phone conversations, to take phone calls or read text messages on their cell phones.

Turkle's portrayal of middle- and high-school-aged students characterized these students, based on her interviews with them, as constantly connected. My data have shown a different picture, however, in which a number of participants actively resist such constant connection. As one student wrote on the survey:

> There needs to be a 'shut-off' at some point, or a time for one's self when technology is ignored or set aside for a short time each day. When I am with friends or family I generally don't text or excuse my self from them to do so, or apologize if I absolutely must reply. It is rude to do otherwise, and a lot of people now-a-days don't seem to be considerate of others this way.

This student's response is representative of a number of other responses in which participants attested to needing time away from their cell phones. Yet this response contradicts what Turkle and other technology researchers have identified in young people's use of cell phones.

A great deal of current popular literature on the subject has painted a picture of young people's cell phone use in broad strokes that ignore those individuals who actively seek time away from their phones. Many news items in the past few years have reported on Americans' frequent texting and cell phone use, characterizing this use as a form of obsession or addiction (Gibbs, 2012, August 16; Goodman, 2012, July 10; Spencer, 2012, September 30). Reporters authoring a number of these news pieces have recounted disbelievingly stories of distracted texters caught on videotape, such as a woman who stumbled into a shopping mall fountain while texting and a man who was texting and walked to within feet of a bear before noticing the animal and running in the opposite direction (CBS News, 2011, January 20; "Oblivious texter," 2012, April 10). Such reports are fueled by individuals' own statements that they feel addicted to their cell phones, many of which were reported in a multi-country study of college students' attempts at media abstinence in which the majority of students could not last without electronic devices for a 24-hour period (Moeller et al., 2010). These reports have highlighted individuals' feelings of needing to be constantly connected to their cell phones, yet they have ignored the sector of individuals who do not feel this way. This sector of individuals seeking time away from their phones is only recognized in the public media in part, within reports of individuals who purposefully choose less-advanced versions of digital technologies when more advanced versions are available; such was the case in a *New York Times* article (Wayne, 2012, March 23) that cited a number of professionals who resisted owning a smartphone in favor of using older,

non-web-capable models that would make them less likely to use a phone as frequently as if they could access the Internet on it.

Such claims of cell phone addiction pay little attention to individuals' actual connections with this digital tool and, instead, simply sensationalize the behaviors we observe when we see individuals who appear to be frequently using a cell phone. A similar outcry accompanied early uses of microcomputers, when hackers—the term used in the 1980s to denote individuals who spent a great deal of time working on computers—were said to be addicted to computer use (Lewis, 1988, November 13). Such frequent use of microcomputers was observed most prevalently among men, with reporters fearing the decline of men's personal and family relationships due to excessive computer use ("Computer addiction," 1983, May 31; Lewis, 1988, November 13). Today's claims of individuals' cell phone addiction rest primarily on casual observations of social phenomena rather than empirical evidence; in a related manner, claims of computer addiction in the 1980s were not backed by research determining how attached computer users were to their digital tools (Shotten, 1989). In a study of the psychological ramifications of frequent computer use, Shotten explained that *addiction* was a term misused in describing the computer activity of her participants, who "voluntarily and willingly" used computers, both behavioral characteristics that contradict the definition of addiction (p. 5). Thus, it is common for a popular trend in technology to be represented in the mainstream media as an addiction with no evidence to support such a claim.

Although research into students' digital literacy practices and mainstream attention to individuals' cell phone use has largely ignored the presence of young people who want time away from their phones, recent psychological research into young people's cell phone use has addressed the variance in attachment to cell phones. Walsh, White, and Young (2010) reported

that individuals' "mobile phone involvement," not the frequency with which they use a phone, is an indicator of the degree to which individuals may exhibit features akin to "behavioural addiction" in their use of a cell phone (p. 200). The researchers identified a connection between young people's feelings of validation and their cell phone involvement, the latter of which they characterized in terms of the emotions an individual experiences in connection with his or her cell phone use.

Similar to investigations reported in mainstream literature, research done by psychologists into individuals' cell phone use has been connected to questions of whether people are in fact addicted to cell phones (see Takao, Takahashi, & Kitamura, 2009; Walsh & White, 2006). However, such studies have obtained information about the range of ways that young people use cell phones and have begun to question the reasons underlying these ways. As a result, researchers conducting these studies have begun to expose individuals' reasons for not frequently using a phone in addition to their reasons for using one. For example, Walsh and White (2006) questioned college students about a range of cell phone behaviors, including their likelihood to answer a phone call or text message when engaged in face-to-face communication with others. The authors' results, like those of the present study, revealed a range of behaviors and made visible the presence of participants who do not seek nor respond to potential digital connections at all times.

Participants who ignore audience on Facebook write for themselves. As discussed in the previous section, a number of study participants reported resisting frequent cell phone use in order to secure more "shut-off" time away from their phones. When these participants go online, I see evidence of a similar manner of isolating one's self in the face of multiple options for dialogue. Some participants who responded on the survey indicated that when they write on

Facebook, they ignore those audiences who will read the material they produce. Far from being unaware of the presence or rhetorical role of an audience, the study data indicates that these participants understand how their online posts are read and received by those who view them, yet they say that they write as they choose regardless of these audiences' reactions, a stance in which an "I don't care" attitude pervades their choices. These participants are claiming a sense of agency online by choosing to write for the self in an arena marked by the ability to write for and in the presence of others.

When writing on Facebook, a number of participants reported that they do not filter or censor what they write because they do not care how anyone reacts to it. Participants made comments such as "I write as I speak, and I don't really care how my 'audience' interprets it" and "I put what I want and what I feel is necessary. I don't care what others think." These comments indicate that their authors are aware of the presence of audience when writing on Facebook but choose not to adapt their writing in reaction to that presence. As discussed in Chapter 4, participants whose responses fit within this category tended to align their choice to ignore audience when writing on Facebook with an understanding of writing on Facebook as personal. Comments such as "I write what I feel," "it's my page," and "I post for me" point to some participants' understanding of Facebook writing as writing done for the self, albeit in a public or semi-public sphere.

The type of writing for the self that some participants' responses indicate echoes the type of writing that Britton, Burgess, Martin, McLeod, and Rosen (1975) termed *expressive* writing. In studying young people's writing processes, Britton et al. found that early stages of writing resemble speech in their informality. The authors wrote that such expressive writing "leave[s] much implicit [and] is closer to the way the individual thinks when he thinks by himself than

more developed or more mediated utterance" (p. 141). In Emig's (1971) notion of *reflexive* writing, the author characterized a manner, similar to Britton et al.'s description of expressive writing, in which student writers write to express ideas but in which "[t]he self is the chief audience" (p. 91). In the case of both Britton et al.'s and Emig's studies, writers who were not yet ready to conceptualize the rhetorical situatedness of their compositions wrote with little to no attention to audience.

Participants' statements about writing for themselves on Facebook also resemble researchers' findings of many writers' prewriting methods, or early stages of writing that precede the composition of polished written products. As I discussed in Chapter 4, participants who do not revise Facebook posts with attention to audience reported a sense of immediacy about their Facebook writing acts; participants want to convey their thoughts as they have them online, without taking the time to revise or change the way those thoughts are written. Perl (1979) identified a similar type of writing with little attention to audience in studying college students' writing practices. The five students whose writing Perl studied "wrote from an egocentric point of view. … They did not see the necessity of making their referents explicit, [or] of making the connections among their ideas apparent" (p. 332). Perl noted that such inattention to audience does not necessarily indicate a student's inability to revise his or her own work carefully but may simply indicate that such revision may not occur within a student's writing process if it impedes the student's ability to express his or her ideas.

Flower and Hayes (1977) called the results of similar early-stage writing products *writer-based prose* and argued that such writing directed toward or understandable by only the self "is often the natural result of generating ideas" (p. 459). The authors' goal in outlining a set of guidelines for working through the composition process was to elucidate methods by which

writers could move from such self-directed writing to writing that is rhetorically situated in terms of its audience and purpose. Rafoth (1989) identified a similar tendency for students to ignore audience in their early stages of writing. In studying two groups of students, identified as "good" and "below-average" in their writing abilities, Rafoth found that the majority of both groups chose not to attend to information about audience in composing an initial draft of a writing task they were given for the purposes of the study (p. 281). Both Flower and Hayes's and Rafoth's studies indicate that while students may go on to address readers' needs in later stages of their writing, much early-stage writing happens with little attention to audience. A primary difference, of course, between these researchers' discussions of the products of early stages of writing as egocentric and the findings in the present study is that when participants write on Facebook, their writing is likely, in most cases, never revised or re-purposed for future writing projects. Instead, participants reported engaging in writing for themselves but likely do not ever go on to revise that writing with any attention to an audience.

In addition to the resemblance between my findings and previous research on underdeveloped writing or prewriting (Flower & Hayes, 1977; Perl, 1979; Rafoth, 1989), there is a resemblance between the findings presented in Chapter 4 and Fishman, Lunsford, McGregor, and Otuteye's (2005) exploration of students' *self-sponsored writing.* The authors found that when students wrote for non-academic purposes, they did not concern themselves with the guidelines they normally would in their academic writing. Students who were interviewed in Fishman et al.'s study reported that their self-sponsored writing often documented whatever they were thinking at the time of composition and did not reflect the attention to revision they would give to academic writing. As was the case in Fishman et al.'s study, some participants in the present study reported writing with only themselves in mind when writing on Facebook.

The findings that indicate that some participants write for themselves when writing on Facebook contradict other findings in the present study that reveal participants' attention to audience in revising their Facebook posts as well as findings in studies in which researchers have described young writers' purposeful construction of their writing in digital spaces to achieve certain ends (McLean, 2010; Turkle, 2011). Thus, research exists, including some findings in the present study, that points to individuals' revision of written material with attention to audience online. As discussed in the literature review in Chapter 2, both McLean's and Turkle's research has highlighted ways that students construct their identities online by choosing what and how to write about themselves. Yet, a portion of the study results here show that some participants are carving writing space for themselves within their digital literacy practices. For every participant who is resisting the dialogue inherent in digital communicative methods—by putting away a cell phone or by ignoring audience when writing on Facebook—there is another participant who is embracing the social side of his or her digital literacy practices.

Reading and Writing in Concert with Others: Digital Literacies as Social Practice

As discussed in the introduction to the dissertation, studying individuals' literacy practices within a *new literacies* framework necessitates recognizing the roles that social and other contexts play in shaping the development of any literacy practice. Street (2003; 2005) argued that literacy practices cannot be effectively understood unless they are studied within their ideological contexts. Street (2005) has also argued that the social contexts in which reading and writing practices are enmeshed blend into one another as individuals move from one context to another. My study findings indicate that participants' digital literacy practices are enacted in decidedly social spaces, making the social context for reading and writing especially visible here. In other words, any manner in which a particular student chooses to read or write is affected by

the multiple contexts in which that individual student exists. If a student chooses to read a book from the *Harry Potter* series, for example, his doing so is a result of multiple influences, including perhaps his upbringing as a reader and the advice of friends who have read the book. If he chooses to read the book in public or in the company of friends, his choice of this particular book will continue to be influenced by other people's reactions to it. Furthermore, the reader's social, historical, and political experiences and outlooks will shape the way he reads the story and interprets the book's contents. When an individual student reads or writes online in an already social space, then, these factors are heightened. Participants whose literacy practices, from a new literacies perspective, are already shaped by the contexts in which they exist indicated that they choose to frequently engage in literacy activities in spaces—Facebook, Twitter, blogs, photo sharing sites—that are already social.

Prevalence of non-academic reading practices online. Among participants who reported engaging in digital literacy practices in social spaces, online reading practices are prevalent. Participants who access Facebook, Twitter, or a blog on a daily or weekly basis read content on these sites more often than they write it. For example, while 48% of survey participants said they write something on Facebook each day, 82% said they read content on the site daily (see Table 6 in Chapter 4). The same disparity exists between participants' writing and reading on Twitter and blogs, with content reception being more common than content creation.

The type of text reception that participants indicated they do with such frequency online falls outside the realm of traditional academic reading. Reading Facebook, Twitter, and blog posts is dissimilar to the reading of books and articles that students are often asked to do in connection with college courses. The presence of non-traditional reading practices in students' lives outside of school is recognized and discussed in Vasudevan's (2006) work, in which the

author noted that her students' "diverse nonschool reading and writing" activities are prevalent and yet differ from their academic reading and writing practices (p. 253). Vasudevan found that her student Angel engaged in frequent reading of graffiti and graffiti artists' tags and that in his decoding of these texts, he was enacting the literacy skills that other teachers had decided he lacked because of his resistance to more traditional forms of reading. Vasudevan's discussion supports my findings of participants' non-traditional reading practices in that she also identified the prevalence of reading practices in individuals' lives outside of school.

Williams (2008) also discussed this prevalence of reading practices in students' time outside of school. In studying adolescents' descriptions of their online reading and writing, Williams found that many individuals multitask online, receiving information and interacting with others through a variety of methods simultaneously, including texting, playing online games, and posting on social networking sites. He wrote that the influx of non-academic digital literacy practices "are in some ways quite heartening [because] today's online technologies have young people reading and writing far more than they were 20 years or even a decade ago" (p. 682). Similar to Vasudevan's point that young people's reading practices outside of school often do not resemble those that they are able to practice in the classroom, Williams argued that students' "literacy practices are being fundamentally altered" as these students engage in daily reading using digital tools.

My study findings indicate that the prevalence of online reading practices extends beyond text-based content reception. Survey respondents indicated that they view photos on Facebook and videos on YouTube more frequently than they post either (see Table 6 in Chapter 4). Again, this disparity between content creation and reception indicates that a large number of participants

are viewing content each week, a digital practice akin to reading in that it involves the reception of information and the decoding of photographs or videos as types of texts.

The prevalence of photo and video reception is similar to that found by researchers authoring a recent Pew report of Facebook use. Hampton, Goulet, Marlow, and Rainie (2012) found that the majority of Facebook users are on the receiving end of actions such as liking content, friending others, and sending messages, while roughly one-fourth are "power users" who engage in these actions far more often than others (p. 12). The authors wrote that "when we look at the average amount of content sent and received in a month, it appears that Facebook user[s] ten[d] to receive more than they give." This finding is parallel to the difference I found between participants' viewing of photos and videos and their creation of the same, a difference in which many participants attested to viewing content, while far fewer said they create such content. In the same manner, Hampton et al.'s study showed that a small number of users on Facebook tends to create the content that is viewed by the rest of users.

Takayoshi's (2012, July) presentation of an individual's think-aloud protocol in a Facebook study revealed a similar prevalence of content reception on Facebook. At a presentation of preliminary findings in Brand et al.'s (2011b, May) study, Takayoshi discussed a recorded narrative of an individual using Facebook. When coupled with visual evidence of the individual's screen activity, the recording revealed that during the time the individual was engaged in writing a Facebook status update, he was frequently interrupted by instant messages from friends, each of which he attended to immediately. In the same way that Williams (2008) noted digital tool users' practice of engaging in multiple literacy activities simultaneously, Takayoshi showed how in the time it took the user to write one status update, he read, decoded by explaining aloud, and in some cases even responded to many other messages on Facebook.

Evidence from my study coupled with similar findings in the researchers' work cited in this section highlight the prevalence of reading practices in students' non-academic use of digital tools.

Language awareness and adaptation for different rhetorical purposes. As discussed in the previous section, participants reported engaging frequently in reading practices online, the location of which in social spaces highlights the presence and effects of social context in literacy practices (Street, 2003, 2005). Another aspect of the findings highlights the way in which literacy is a social practice as well: participants' attention to their language use. Participants indicated that they are aware of ways that their non-academic digital writing practices affect their language use in other contexts, namely academic writing, and many participants held opinions on whether such new forms of language should play a role in the writing they do outside of non-academic, social spaces.

As presented previously in the study findings, a number of participants identified ways that netspeak abbreviations and acronyms common to digital communication have bled into other forms of writing they do. The participant who cited her tendency to mentally hashtag interpersonal experiences or to hashtag ideas in her written academic papers is one example of this type of linguistic awareness. A number of other participants indicated their preferences for using "standard English" in writing on Facebook or sending text messages to their friends. One survey respondent wrote, "I check for grammatical errors [on Facebook] because I see it as just proper english, I also text using proper grammer ex. I dont use 'lol' or 'wtf' I write it out." These participants' responses coincide with research that I will discuss shortly in which the language common to digital communication is found to be carefully constructed to achieve certain linguistic purposes.

Participants also spoke to ways that they adapt their language use on Facebook in anticipation of the reaction of audience members who will read what they write. One participant wrote that he or she revises Facebook posts because "I don't like when people come at my grammar or choice of words" and another wrote, "I make sure to spell everything right so I don't sound like an idiot. Also I look at it to make sure it makes sense." Responses from these participants, along with others from participants who professed that they revise their posts to make them understandable or entertaining to those who read them, indicate that participants are aware of ways to adapt their language to achieve certain rhetorical gains. In contrast to the participants discussed earlier in this chapter and in Chapter 4 who noted that they do not care how others might react upon reading their Facebook posts, these participants are concerned with adjusting their use of language to achieve—or avoid—certain reactions from an audience.

The finding that some participants adjust their written language to avoid acronyms and abbreviations common to netspeak corresponds with Tagliamonte and Denis's (2008) findings that such markers occur less frequently in digital communication than many people assume they do. The researchers studied a corpus of instant message conversations and found that incidents of the sixteen most frequently used acronyms represented less than 3% of the total words used in conversation, a total they call "infinitesimally small" in the context of their study data as a whole (p. 24). Tagliamonte and Denis wrote that these "results challenge the adverse perceptions of IM promulgated in the media and suggest that they have been overblown." In my study, participants' discussion of their own uses of netspeak forms of language indicate that while a number of participants perceive the use of such language forms in their peers' written communication, they choose to avoid or change such forms in their own digital writing.

Haas et al. (2011), who also studied a corpus of instant message conversations, found that instant messaging is not, overall, a shorthand form of writing. The researchers characterized instant messaging as a mode of communication through which users make conscious linguistic choices that break down and rewrite rules of standard English usage. Haas et al.'s and Tagliamonte and Denis's (2008) linguistic analyses of instant messages indicate that individuals are using language in sophisticated ways within this type of digital communication.

The findings presented in Chapter 4 point to a similar level of attention to language in participants' writing on Facebook and through text messaging. Interview participants had opinions on whether new forms of language such as netspeak abbreviations and acronyms should become part of their academic writing. The majority opinion was that such forms of language should not be a part of formal writing. As Craig explained, "[A] lot of people think that oh it saves time. Well, take the extra time to write proper English." Participants such as Craig who argued that netspeak does not have a place in academic writing often cited "standard English" as the form their writing for school should take; many of these participants said they prefer standard usage of English for their digital communication as well. Participants' attention to audience in adjusting their use of language online highlights the fact that language use—and all literacy practice—is social. The ways in which participants choose to adapt their language on Facebook or through text messages in order to be perceived in a certain way by their readers point to these individuals' awareness of the social context and the rhetorical situations of their digital writing practices.

Digital Literacies Take Learning Beyond the Classroom Walls

The social contexts of literacy development were also evident in participants' discussion of the role of digital literacies in their writing education. Participants who were asked to consider

how their non-academic digital literacy practices could be utilized in a FYW course demonstrated that they conceptualize digital literacies as having the potential to expand the learning that occurs in a college course beyond the classroom itself. Many participants talked about the connections between themselves and people outside of the classroom that are made possible by digital tools. As discussed in Chapter 4, participants talked about using computers, Facebook, and their cell phones to contact people outside of the classroom during class time, including to contact missing classmates about course projects or to contact friends for help with questions that arise in class. Participants' ideas for how to bring their digital tool use into the classroom suggest that for students, the classroom only has figurative walls.

Participants' ideas for utilizing Facebook to stay in touch with each other outside of class echo studies in which teachers reported using digital tools such as Facebook to communicate with students outside of class. One teacher who Ruefman (2010) spoke with offered office hours on Facebook and in a traditional office setting and found that students more frequently sought him out on Facebook than in person. Similarly, Childs (2008) had a positive experience using Facebook for office hours, explaining that "Facebook's messaging system … [is] far more student- and teacher-friendly than email. Students could contact me through the group site by clicking on my name instead of looking up my email address." Both of these teachers utilized Facebook as a way for students to contact them outside of class, an idea that some study participants suggested in talking about the potential for Facebook pages to be used to connect classmates. While students do have options for contacting each other or their teachers outside of the classroom—including visiting someone in person or even sending an e-mail—the general consensus among participants was that Facebook is a communicative space in which students are

already present, so locating their communication avenue for a particular course within Facebook is convenient.

In addition to using Facebook to connect with classmates and a teacher, one interview participant spoke about the potential for digital tools to enable writing practice to be rhetorically situated with real audiences. This participant, Craig, said that writing in digital spaces might get students to think more closely about what they write, such as about the vocabulary choices they make in writing. Sweeny (2010) discussed this same potential for writing in online spaces to situate students' work. She wrote:

> When students post their writing online, the audience transforms from one person (i.e., the teacher) to a larger social community. This changes the dynamic of writing from something that is done to receive a grade to place it in a social context where form, style, and understanding of audience take on increased importance. (p. 127)

As Sweeny explained, writing in online spaces allows students to see how their work will be received by readers, an idea that also arose in my conversation with Craig about his ideas for situating students' writing practice on social networking sites.

Sweeny's distinction between the traditional "one person" audience of a teacher for whom students write and a wider, online audience resembles the distinction another interview participant, Elise, made between most academic writing and the writing she does online. Whereas Elise saw the communication in most academic writing happening between "me [and] the teacher," she saw online communication as communication to a group, a rhetorical situation she said was mimicked when she and her FYW classmates engaged in freewriting and then shared their writing aloud in class. The manner in which participants discussed the communicative potential of their non-academic digital literacies indicates that many of these

individuals see potential for the communication that takes place in their academic writing to resemble that in which they engage in outside of school, in which communication happens within a web of many people, rather than only going back and forth between two.

As discussed above, in examining the themes that emerge in the collected data, I identified three points of discussion worth noting: participants' resistance of frequent communicative connections through digital means; their preferences for reading and writing in social spaces; and their desire to foster academic connections outside of the classroom. As I have put these thematic findings in conversation with existing digital literacies research in this chapter, I have found that there is much, still, to be learned about the ways college students use digital tools to read and write. Drawing on this discussion, I illustrate in the next sections the implications my research holds for teacher education and the areas of digital literacy studies in need of further research as they are made visible through this study.

Implications of the Study

Taking into consideration participants' ideas for utilizing their digital literacy practices in FYW, I return in this section to my larger goal in the study of contributing to the professional conversation regarding the ways that teachers can effectively include technology in writing education. As I stated in the introduction to the study, teachers are in need of guidance in how to utilize students' existing digital literacy skills and facilitate students' further development of these skills, but we need to understand students' perspectives on the use of such literacies in FYW in order to draw on these literacies without unfairly co-opting individuals' non-academic practices for academic purposes. In recognition of this need for teaching practices and philosophies that validate students' perspectives on the roles their existing digital literacies can play in FYW, I outline in this section three ideas for course activities that utilize students' non-

academic digital literacy practices in FYW in ways that have emerged from the study data. I then discuss implications the study holds for teacher education and explain how this research indicates areas in which we can educate teachers in bringing digital literacies into the writing classroom.

Implications for Writing Pedagogy: Bringing Students' Non-academic Digital Literacies into FYW

Participants shared a range of ideas for ways that their non-academic digital literacy practices could be used to enhance their FYW or other college courses. A number of participants overall, including a number of interviewees, noted the potential that digital technologies hold for connecting students to teachers and to one another, making out-of-class connections one area in which digital literacies could enhance FYW. Additionally, the data revealed that many participants engage in frequent digital reading practices; these practices, coupled with the review of literature presented in Chapter 2, indicate that students may benefit from direction in developing critical reading skills for digital sources. Finally, some participants identified ways that they write differently in non-academic and academic spaces, and a few shared ideas for how their digital writing practices could be translated into experimental writing assignments. In the paragraphs below, I outline three pedagogical ideas for FYW course components that I have developed by synthesizing participants' ideas for utilizing their existing digital literacy practices in writing courses.

Facebook course page. Drawing on study participants' desire to connect with each other outside of a course, the FYW teacher can create a Facebook page for an individual section of a composition course. Students are asked to join the Facebook page at the start of the course and

use the page to ask each other questions, make arrangements to meet or share work related to course projects, or make inquiries of the teacher about course policies or assignment guidelines.

Activity goals. Students will connect with one another for course purposes outside of the course. The teacher and students will communicate about course matters in an online venue in which students are already present. Additionally, if the teacher chooses to utilize the page for discussion, students will write about course topics and respond in writing to each other's ideas about the same.

Learning outcomes. As a result of the inclusion of this activity in a FYW course, students will be able to:

- Seek help from peers for questions related to course content or procedures.
- Engage in written exchange of ideas with peers related to course topics of discussion.
- Practice written communication in a semi-public venue online.

Teacher-scholar reflection. Student participation in the Facebook course page activity may need to be optional if not all students have or wish to create a Facebook account. In the case that not all students use Facebook, the page can be made public so that those students who do not participate in its activity are still able to visit the page and read others' questions and interactions without having to log into a Facebook account.

If all students do have or are willing to create Facebook accounts and the teacher requires students to participate in conversation on the page, he or she will need to give students guidelines for how often they are required to write on the page, what type of content their posts should contain, and what length their posts are expected to achieve.

My conversations with interviewees who proposed this idea suggested that students will appreciate having a venue for asking questions of the teacher and for connecting with each other related to course projects. Interviewees also indicated that students may be hesitant to write material on the page if their classmates are not doing so and that they would want the teacher to explicitly outline expectations for student participation in the page's activity.

Online rhetorical analysis. Drawing on study participants' frequent practice of online reading, a FYW teacher can assign a rhetorical analysis of online texts related to students' interest areas. For this activity, students choose a public figure or public organization and analyze its various online representations. Students have the option to choose any person, business, or organization that has a public representation online, such as a politician, a celebrity, an activist organization, or a local business. Students then conduct a rhetorical analysis of that entity's online representations. For example, a student who chooses Barack Obama can analyze, among other sources, Obama's official White House website and the website, Twitter account, and Facebook account linked with his presidential campaign. The student can also analyze videos of Obama's interviews that are available online. The student will study these various online representations and the ways each one represents Obama, then analyze the credibility of each online space and the ways each is attempting to send a particular message to a particular audience.

Activity goals. Students will strengthen their abilities to critically read material that they encounter online and will develop an understanding of rhetorical strategies used in online texts.

Learning outcomes. As a result of the inclusion of this activity in a FYW course, students will be able to:

- Identify a public entity in which they are interested.

- Search for and collect a range of online texts representing that entity.
- Analyze the use of rhetorical strategies in a variety of online texts.

Teacher-scholar reflection. Prior to introducing the online rhetorical analysis activity, teachers can guide students in the rhetorical analysis of a text that all students in the class have read. The online analysis activity will be most effective within a course in which the teacher is already promoting students' thinking about texts in terms of their rhetorical functions, including the message a text sends, the way that message is geared toward a particular audience, and the credibility of the author or authors constructing the message. The class a whole could be directed to read an article, identify its message, and analyze the rhetorical strategies the author is using to connect with an audience and to demonstrate his or her own credibility. Once students have practiced and discussed the process of rhetorical analysis of a common text, they will be better equipped to analyze the texts they collect related to their individual topics.

The activity will present a challenge to teachers because students' interest areas are likely to result in their choosing a variety of public figures or organizations to research. Teachers can build in time in the classroom for students to identify and explore a number of public entities to possibly study in order to identify one whose range of online representations is particularly interesting. Students can be guided to choose options that will offer a range of online texts with differing purposes, rather than choosing an option whose representations are more narrowly focused. For example, if a student chooses a celebrity as a public figure and discovers that all of the online texts related to that celebrity are tabloid-like, he or she might wind up conducting a relatively similar rhetorical analysis of each of these texts. The student could be guided to find a celebrity who, instead, is represented in tabloid-like pieces online but who also shows up in connection with a charity organization and who has his or her own blog or Twitter account. By

finding a public entity with a range of online representations, students will be able to make their rhetorical analyses more varied, and these analyses will allow room for comparison of multiple types of sources.

Literacy narratives written about and through digital tools. Drawing on participants' ideas for bringing their ways of using language in digital settings into experimental writing assignments, a FYW teacher can assign a narrative focused on how students use technology to communicate. For this activity, students will choose one technology that they use to communicate with other people. For example, a student might choose writing on a blog, creating videos, taking pictures, making art online, or text messaging as a topic. Then, students will write a narrative about their use of that technology through the medium of the same technology. In other words, students will use the type of communication they are discussing to communicate their narrative to readers.

Activity goals. Students will reflect critically on their use of a particular technology to communicate. Students will also develop their understanding of the possibilities and limitations that technology-based communication presents when used in writing for academic purposes.

Learning outcomes. As a result of the inclusion of this activity in a FYW course, students will be able to:

- Identify the ways in which they use technology to communicate.
- Experiment with writing a narrative in a non-traditional form.

Teacher-scholar reflection. For this project, students can describe how they use a form of technology to communicate with others in everyday life in general, or they can tell the story of a specific communication experience involving that technology. For example, a student who uses Twitter frequently could write a narrative about what he or she uses Twitter for and why he or

she enjoys communicating in this way. Alternately, the student could compose a story about a specific time he or she used Twitter and the events that resulted. A new college student, for example, could write about using Twitter at university orientation, hashtagging tweets to link them to specific orientation activities, and connecting with other new students around campus as a result. In either case—whether the student writes about using the technology to communicate in general or about a specific experience related to communication with that technology—the student would use Twitter itself to tell the story, by writing the narrative in a series of tweets. This composition could be completed on the student's actual Twitter feed or could be completed in a Word document, with the student using the format and character limitations of tweets to compose each segment of the narrative.

Prior to introducing this experimental narrative assignment, teachers can facilitate students' discussion of multiple forms of communication and the ways these different forms are used for different purposes. Students can be guided to make lists of the ways they communicate using technology and to identify the various purposes for which and audiences with whom they use each form of technology-enhanced communication. Students who do not use technology to communicate in any way can still experiment with technology-enhanced communication for this project or can be guided to experiment with various print-based forms of communication. For example, a student could write a narrative in the style of a diary, as a comic book, or by composing a song. The same guideline of writing about a form through that form can be achieved in these ways as well.

Based on my experiences assigning experimental types of writing in the past, I anticipate that students who are assigned this activity will question whether their narratives need to be non-fictional. If doing so fits with the overall writing goals for a particular course, I would welcome

students' desire to be creative in their composition of this project, as long as they convey a narrative about a form of technology-based communication through that form of communication. For example, a student could write about his or her use of Facebook by writing a series of fictional Facebook posts and responses from a cast of characters whose topic of conversation is their use of Facebook. Doing so would give the student the freedom to experiment with fictional characters and storylines but would still achieve the same goal of reflection on a method of communication through that same method.

The ideas outlined above for a course Facebook page and for course assignments involving analysis of online texts and production of texts in technology-related modes of communication draw on participants' ideas for utilizing their non-academic digital literacy practices in FYW. While participants spoke frequently of the differences between academic and non-academic literacy practices, they saw potential for these two areas to overlap, with the reading and writing they do outside of school being able to play a role in their FYW education.

Implications for Teacher Education: Preparing Writing Teachers to Navigate Students' Digital Literacies

As I have studied college students' existing digital literacy practices, I have been made aware on numerous occasions by evidence in the study data that the field of digital literacies is one in which many generalized assumptions about young people's literacy practices remain to be dismantled. The implications that this research holds for teacher education, which I discuss in this section, rest on the premise that teachers need to be better informed of the ways that their students are using digital tools and need to resist the tendency to use sweeping generalizations to characterize their students' digital literacy practices. In addition to the assumptions teachers make about students' frequency of use of technology, we sometimes make assumptions about

students' literacy practices in general. I have spoken with numerous teachers in the last decade who ascribe a perceived degradation of students' writing abilities to these students' lack of reading practice; I myself have made this connection on many occasions, fearing that students who choose not to read traditional literary texts outside of school may never encounter the wealth of vocabulary I did, through reading, at their age. Yet students are reading often, even if they may be reading in ways not traditionally recognized as such by English teachers. In this section, I address implications for teacher education that rest on the premise that we need to recognize the ways that students are using digital tools and help these students become critical users of those tools. As I have explained elsewhere in the dissertation, some teachers are eager to bring their students' existing digital practices into the writing classroom, while others are wary of using technology at all in their courses. Teachers in both of these groups need to discover how their students are using digital technologies and need to have access to training in effective teaching pedagogy that involves digital tools.

Recognizing students' individualities as users of technology. The first of two areas in which my study has implications for teacher education regards teachers' knowledge of their own students. Teachers, myself included, tend to color students as all frequent users of technology, but the study data indicate that such broad generalizations are far from accurate. The data suggest, instead, that when teachers make the assumption that all, or even most, of our students are frequent users of digital technologies, our generalizations may leave out a larger sector of our student populations than we realize. As a result, teachers need to be encouraged to seek and acquire knowledge of their students' actual uses of technology rather than making assumptions about such uses based on students' age.

In order to get to know their students' relationships with technology, teachers can begin by asking students to write about or discuss the various digital tools they use, the frequency with which they use them, and the purposes for which they use such tools. Teachers can also ask students to respond, in writing or discussion, to the generalizations used to characterize members of their generation as addicted to or as frequent users of digital tools. In a FYW course, teachers can achieve knowledge about their students in these areas by asking students to compose a digital literacy narrative in which students write about their digital tool use, by completing a survey questionnaire, or by compiling information about their own and their classmates' uses of technology in an in-class survey activity. Such activities on students' parts can also be bookended by teachers' own reflective writing: Prior to gathering information about students' technology uses, teachers can reflect on their own uses of technology and the assumptions they have about their students' uses. Teachers can then return to this reflection after gathering information from students to evaluate their previously held assumptions in light of students' actual uses of technology.

In reflecting on their assumptions about students' use of digital tools, teachers can begin to question how these assumptions develop and to dismantle assumptions that inaccurately reflect students' practices and abilities. This need for teachers to acquire information about students' actual uses of technology rather than making assumptions about such uses is echoed in the research of scholars who have worked against the digital native generalization perpetuated by Prensky's (2001a) work (Kennedy, Judd, Churchward, & Gray, 2008; Martinez, 2011; Mills, 2010). Similarly, the need for teachers to be critical of their own assumptions can be informed by language pedagogy practices, such as Howard's (2003) call for teachers to reflect on and work to dismantle their assumptions about students' racial and cultural contexts and Park's (2012)

identification of the need for new pedagogies that address students' range of linguistic and learning abilities. Teachers who reflect critically on the assumptions they hold about students will likely be better prepared, than those who do no such reflection, to challenge those assumptions by gathering information about their individual students' digital literacy practices.

Issues of students' access to technology are also important for teachers to recognize. Bangou and Wong (2009) directed teachers to pay attention to students' access to technology both inside and outside of school and to understand the ways that disparities in access may be related to students' race. This goal of reflecting on access—not only in connection with race, but with all aspects of students' individual positions—will enable teachers to acquire a more thorough understanding of their students' uses of and relationships with digital tools. As teachers consider how to utilize digital literacy skills in a FYW course, they must be aware of possible disparities in technology access, particularly when asking students to complete assignments that require access to digital tools. Reid (Mina, Simnitt, & Reid, 2012, July) explained that when asking students to work on a digital project, she first asks them to bring to class any handheld digital tools that they own, including phones, mp3 players, and cameras. She then guides students in identifying the composition-related tasks they can accomplish with these tools, such as writing text, taking pictures, or recording audio or video. Reid brings a selection of additional recorders and cameras to class so that students who do not own any of their own devices will have tools to work with for the project. In this way, before proceeding with the digital assignment, Reid is able to assess which students have which digital tools at their disposal.

Goals for teachers. By asking students to share information about their use of digital tools, teachers will gain knowledge about the individual learners in their courses. Teachers will shed light on their own assumptions about students' uses of technology and will be prompted to

dismantle those assumptions in favor of acquiring knowledge of students' actual digital literacy practices.

Possible outcomes. As a result of engaging in the activities described above, teachers will be able to:

- Identify the assumptions they hold about students' digital literacies.
- Acquire information about the digital literacy practices of individual students in their courses.
- Reflect on and work to dismantle their assumptions about students' use of digital tools.

Promoting students' critical digital literacies. A second area in which the present study holds implications for teacher education is in teachers' facilitation of students' critical digital literacy skills. In exploring students' opinions of the role of digital literacies in their writing education in this study, I have identified a need for teachers to facilitate students' critical understanding of these literacies. In addressing students' desire to utilize digital communication, teachers can take the opportunity to facilitate critical literacy education regarding digital communication and digital material.

As mentioned in Chapter 2, Considine, Horton, and Moorman (2009) have called for a critical media literacy component to digital literacies education. The authors cited the production of media as an area rich for critical exploration, writing that "[p]roduction questions enable students to critically analyze the creative process and institutional context in which the text is created, distributed, marketed, and consumed" (p. 477). A media literacy component of a composition course might, for example, involve students' studying a television commercial and analyzing what message it sends, what audience it targets, and what values it promotes. The

critical literacy lens that Considine, Horton, and Moorman have called for would involve taking such an assignment to another level by asking students to analyze, among other things, where the commercial appears, who has the ability to see it, and what material constraints or allowances went into its making.

Considine, Horton, and Moorman's (2009) critical literacy lens echoes Canagarajah's (2006c) call for multilingual students to analyze the "situated," "social," "material," "ideological," and "historical" contexts in which writing is produced (pp. 212, 213). In both of these pieces of scholarship, authors have called for teachers to facilitate students' awareness of the ideological constructs of any text. I consider this to be a lofty goal, particularly for FYW teachers. Canagarajah, for example, has argued that multilingual students need to understand the discourses that are privileged in academic writing and decide how to work within or against those discourses in their own academic work. I find that it is difficult enough for graduate students to understand the conventions of academic writing, to perceive how certain discourses are privileged within those conventions, and to choose how and whether to subscribe to or resist the conventions as a result. It does not seem to be realistic—or, perhaps, fair—to expect undergraduate students to wrestle with this type of critical navigation of academic writing at the same time they are, in a FYW course, being asked to produce such writing. What is more realistic is that teachers can simply introduce students to the topic of critical literacy. In terms of digital literacies, teachers can encourage students' critical reception of the information they encounter online.

In terms of academic literacies, while it is not reasonable to ask students new to the academy to resist its conventions, teachers can make students aware of the existence of debates about academic conventions. For example, if some students' use of netspeak in their non-

academic communication causes abbreviations and acronyms to creep into their academic writing, teachers can engage students in discussion about what academic writing looks like and who gets to set its parameters. Critical literacy education, Schneider (2006) wrote, functions "as a rearticulation of the relationship between education and the direct experience of students" (p. 60). By introducing students to such a debate and giving them the knowledge necessary to consider whether to buy into or resist academic conventions—even if students aren't ready to enact such resistance in FYW—a teacher can promote students' critical literacy skills.

A number of researchers have explored the intersection of students' existing digital literacy practices and critical literacy education. In having students study and then compose political remix videos, Palmeri (Dubisar & Palmeri, 2010) noted that he "hoped that students would gain a more critical understanding of the rhetorical implications of political remixes if they had the opportunity to produce one" (p. 80). In this assignment, the authors saw production as a necessary component to students' understanding of the role of such online videos. In particular, by giving students the chance to make editorial decisions in their own projects, Palmeri allowed students a window into "the rhetorical ways in which media organizations construct reality through editing practices." By studying videos and then producing their own, students are both analyzing the role of a message within a communicative situation and then constructing their own message for a similar situation. In particular, such an assignment provides opportunities for students to strengthen their awareness of audience and their understanding of how audience affects communication.

Drawing on the above mentioned scholars' notions of critical literacy education, teachers can introduce course activities or assignments in which students are asked to critically read or evaluate the digital texts they encounter in their own time. For example, students can be asked to

keep a reading log in which they notate each item they read or view online throughout the course of a day or a week, including items such as articles, blog posts, YouTube videos, Facebook feeds, and so on. Then, students can be asked to answer a number of questions about the material they read online, such as by identifying what author or agency produces the content they read or view, what purpose the content serves, and what reaction the content is attempting to elicit in its readers or viewers. This activity can be coupled with a reflective component for teachers, in which teachers reflect prior to the activity by writing about what types of reading they think students are engaging in and what difficulties they think students will face in conducting a critical evaluation of the content they read. Following the activity, teachers can reflect on students' progress through the assignment and whether any unexpected challenges arose in students' abilities to be critical of the material they encountered online.

Goals for teachers. By asking students to engage in critical readings of the digital texts they encounter in their non-academic reading, teachers will help students develop their critical digital literacy skills. Teachers will facilitate students' practice in evaluating, rather than simply taking in, the material they receive online in a variety of venues.

Possible outcomes. As a result of engaging in the activities described above, teachers will be able to:

- Gather information about the types of content their students are reading or viewing online, contributing to their overall knowledge of individual students.
- Assess students' ability to critically evaluate the information they encounter online.
- Reflect on and begin to dismantle their assumptions about students' reading practices and critical digital literacies.

Future Research Directions

Having discussed the study findings in combination with existing research into college students' non-academic digital literacy practices previously in this chapter, I have identified several strands of future digital literacies research that emerge from the research in this study. The following are lines of inquiry I plan to pursue in further analyzing the collected data from additional perspectives and further considering implications within the present research.

Communicative Connections Afforded by Digital Technologies

First, more research is necessary to better understand the fluidity of communication in college students' lives made possible by digital technologies. The study data point to a number of ways in which participants are interconnected through their digital reading and writing practices, and many participants cited these connections when discussing the roles that digital technologies can play in enhancing college education. I plan to further explore the lines of discussion in this chapter in which I address the roles of literacy as a social practice in students' lives and to explore the potential for connecting students to one another and to individuals outside of the classroom through the use of digital tools. Future research in this area will necessitate speaking with teachers about the role that digital technologies currently play in their classrooms to connect students to one another and about the potential for these connections to break down the classroom's walls.

Potential research questions. Further research in this area could address the following research questions:

1. Through what digital methods of communication do students in FYW courses contact their teacher?

2. Through what digital methods of communication do teachers in FYW courses contact their students?
3. Through what digital methods of communication do students in FYW courses contact each other for purposes related to the course?
4. Do students perceive that their learning in FYW is enhanced in any way by contact with one another outside of class?

Influence of Digital Writing on Academic Writing

Second, more research is needed to understand the influence of students' non-academic digital writing on their academic writing practices. As a teacher, I have encountered netspeak abbreviations and acronyms such as *lol* and *u* in student writing. Similarly, the study data show that participants are aware of the influences of their digital writing on their writing in other areas and that many of these participants have strong opinions on whether such new forms of language should be a part of their academic literacy practices. I plan to research this topic from an applied linguistics perspective to better understand how students' frequent writing through digital means might contribute to their development of academic writing literacies. Research in this area could involve collecting and studying academic and non-academic writing samples from study participants and speaking with participants about the ways they use language in each.

Potential research questions. Further research in this area could address the following research questions:

1. What evidence of digital writing influence is present in FYW students' academic writing?
2. Do FYW students take any steps to either use or avoid language forms common to their non-academic digital writing in their academic writing?

Influence of Digital Reading on Academic Reading

Third, research is needed in a related vein to examine the influence of students' online reading practices on their development of academic reading skills. As noted earlier, teachers sometimes make assumptions about students' lack of reading. Further research into students' existing reading practices could shed light on what students read on their own time, what social or other forces guide their reading choices, and what purposes they read for. I plan to draw on theories of literacy as a social practice to explore the influence of students' non-academic reading practices on their development of academic reading skills. Research in this vein could involve collecting and studying evidence of students' non-academic reading practices and speaking with students about what they read on their own time and why.

Potential research questions. Further research in this area could address the following research questions:

1. What material do FYW students read online that is unrelated to their academic work?
2. For what purposes do FYW students seek out or pursue this information to read online?
3. Do students perceive any ways that their reading for non-academic purposes influences their learning or their ability to read in academic courses?

Power Struggles in Digital Literacy Practices

Finally, research is needed to investigate the data collected in this study in terms of individual students' varied access to and experience with digital tools and digital literacies. In particular, the study raises questions about the power struggle inherent in students' digital literacy practices. As I investigate ways in which to draw effectively on students' existing digital literacy skills in the composition classroom, I plan to document the ways that digital literacy

practices within and beyond the classroom raise questions about students' technology access and the cultural capital they possess in connection with their access to digital tools. While the present study does not account for individual participants' subject positions, I plan in future research on this topic to address the ways that students' individual positions, characterized by age, gender, race, and historical and political experiences, among other factors, influence their relationships with digital tools and their use of such tools for reading and writing. Research in this area will require collecting demographic information from participants and speaking with participants about their backgrounds to understand the relationship between each participant's individual contexts and his or her uses of technology.

Potential research questions. Further research in this area could address the following research questions:

1. What levels of access have FYW students had to digital tools in the past?
2. What levels of access do FYW students currently have to digital tools?
3. How does FYW students' current access to digital tools affect their abilities to use technology for course projects or course-related purposes?

In analyzing the collected data in response to my research questions, and in discussing the study findings in connection with current digital literacies research, I addressed a number of important findings in this study. However, as indicated in the previous paragraphs in this section, there remain a number of avenues to pursue in future research on the topic of students' non-academic digital literacies and the role of these literacies in writing education.

Study Conclusions

My work on the dissertation has responded to the need for student voices to be included in the professional literature on digital literacies. As I began researching the various roles of

technology in composition pedagogy a few years ago, I noticed again and again that scholars were drawing conclusions about how technology can and should be used in education, or in the writing classroom in particular, but none of these scholars were asking students for their opinions on the matter. As a result of my identification of this gap in the existing digital literacies research and my work on this study, "Student voices!" has become my rallying cry. Each time I speak with a colleague about a potential educational research study, and each time I have a conversation with anyone who is questioning changes to his or her writing pedagogy, I find myself saying the same thing: Ask your students. Whether we want to explore how students are learning certain aspects of writing or how we can best teach these students in the writing classroom, teacher-scholars working in all areas of digital literacies and writing pedagogy will be well-served by bringing students into our conversations more frequently. Having achieved this goal of acquiring students' opinions on the subject of their digital literacy practices and the roles these practices can play in FYW, I turn in this final section to reflections in three areas upon completing the dissertation research.

Theoretical Reflections

Within new literacies research into non-print forms of reading and writing, I perceive room to further understand the value of college students' non-academic digital literacy practices within the wider scope of their continued development of literacy skills. Digital literacies researchers still have much to learn about the rhetorical abilities and reading and writing skills students are developing by texting and by reading and writing on Facebook, Twitter, and other online sites. The progress in the field of composition toward better understanding, and in turn toward validating, these literacy practices is similar to the progress that has been made in the past three decades toward validating students' uses of language varieties. Starting with the Students'

Right to Their Own Language CCCC resolution (Conference, 1974), and continuing with ongoing efforts to validate language differences among our students, we have come to recognize that while we can educate students on code switching—on how they do and how they can, for example, choose to use language differently for different purposes—we should not expect students to code switch out of their own language forms if doing so devalues those forms (Young, 2004). Instead, we can teach students how to use the language of the academy while also prompting them to question the power struggles inherent in that language and to value their own ways of using words (Schneider, 2006).

What underlies the thrust of the Students' Right to Their Own Language resolution and the resulting push to validate language differences is the idea that the systematic ways that individuals use the English language—those ways that are often influenced by culture, race, or historical context—are equally valid to what we consider standard usage of English. In this same way, if we recognize that the students we teach are using language and engaging in written discourse in intelligent ways in digital spaces, we should attempt to understand those ways and validate them as literate practice. As empirical research of digital forms of composing continues to show the linguistic and rhetorical complexities of such writing (Brand et al., 2011b, May; Haas et al., 2011; Tagliamonte & Denis, 2008), research that discusses writing pedagogy is forwarding notions of validating such practices in the composition classroom (Grant, 2011, May; Grant, 2013; Rodrigo & Jolayemi, 2011). Just as Gee (2003, 2007) has explored the value of video game play for literacy development, digital literacies researchers can explore and theorize the value of reading and writing through digital means so that we can move toward understanding the roles of students' literacy activities in non-academic social spaces in terms of these activities' contributions to students' overall literacy development.

Part of this theorizing the literacy value of digital reading and writing includes developing a more thorough understanding of the relationship between individuals' academic and non-academic literacy practices. Scholars have explored how literacy practices in academic and non-academic spaces affect one another (Finders, 1997; Gee, 2003; Heath, 1983; Hull & Schultz, 2001; Mills, 2010; Nathan, 2005; Sitler, 1997; Williams, 2005), and many researchers are resisting a dichotomy between these two spaces of literacy development in their scholarship (Alvermann & Moore, 2011; Bulfin & North, 2007; Hull & Schultz, 2001; Kirkland, 2009; Smith & Moore, 2012). Yet, with the presence of digital tools, non-academic literacy practices do more than just influence academic activity—they are at times woven into it. Non-academic digital reading and writing have become practices that some college students are doing during school, such as would be the case of a student writing on an online social site while sitting in a history lecture. There is room within new literacies research to further theorize these overlaps among literacy activities. For example, does the student's digital activity during the lecture enhance or detract from his or her learning in the history course in any way? Alternately, are there any parallels between academic work that is tempered by non-academic social activity, such as a student's writing online during class, and non-academic social activity that is tempered by academic practice, such as a student doing homework for the history class while hanging out and talking with friends? In order to further theorize the influence of non-academic digital literacies on literacy development, we need to better understand the way that individuals' connections via technology affect their learning in academic courses.

This issue connects with the thread of discussion I pursued in Chapter 4 and earlier in this chapter in which I explained that study participants saw potential for their non-academic digital literacies to facilitate connections among classmates outside of the classroom. Conversations

with my own students indicate that these connections are already happening quite frequently; many students who meet each other in a college class, for example, establish connections with one another on Facebook or other social networking sites and use those connections to communicate for course purposes. A student in a recent semester, for example, told me that a classmate who regularly missed class would frequently contact her on Facebook to ask about assignments, and another student used a picture of one of her classmates that she had acquired on Facebook in a digital project she composed for class. As researchers explore literacy development in digital social spaces, we can also question the role that social connections play in academic success. What advantage, if any, for example, do the students who can ask each other questions about class online have over students who do not use Facebook or other online means to communicate with anyone? There is a great deal of room within digital literacies research to further theorize the ways that students' digital connections and digital activities contribute to their development of reading and writing skills and to their development of academic literacies in general.

Methodological Reflections

In the process of collecting and analyzing data for the study, I had a number of learning moments in which I became aware of methodological complications in this research project. In particular, my analysis of the survey data revealed that I had inadvertently introduced complications into the survey instrument that were not evident until participants had completed surveys. For example, I asked participants in question 3 on the survey (see Appendix A) to indicate the audiences they have in mind when using particular digital technologies, but I did not give participants who do not use a particular technology the option to indicate as much. As a result, many participants chose the answer "No Audience" for technologies that they had

indicated in a previous question they do not use. My intention had been for this answer to represent technologies that participants use without a particular audience in mind, but in the case of many completed surveys, the answer indicated technologies that were not used at all.

A similar complexity became evident in my analysis of the data collected on the *exhibit questions* (Stake, 2010) used on the survey. Because of the use of detailed narrative anecdotes in these questions, participants responded to a range of details in their answers. The use of exhibit questions resulted in my gathering a number of responses that effectively characterized participants' use of cell phones and Facebook, but the complexities of answers resulted in rather extensive analysis. These complexities would not dissuade me from using exhibit questions in future qualitative research but would prompt me to pilot the exhibit questions and revise the language I use within them according to how participants respond to particular words or concepts.

Additionally, I had a methodological realization in the process of analyzing data regarding my choice to not collect demographic data about survey participants. In my design of the study, I decided to focus the survey only on participants' digital literacy practices and to not collect demographic information, thinking that such information about participants' age, race, gender, or field of study in college would be irrelevant to my analysis of the data. While I was able to answer my research questions and fulfill the study goals without the presence of this demographic data, I realize now that such information would have allowed me to better characterize the data I collected in future analysis by inquiring into the relationship between participants' individual positions and their digital literacy practices.

Pedagogical Reflections

As I continue to teach composition, now with an awareness of what I have learned from this research, I see constant reminders of the importance of getting to know individual students and understanding their relationships with technology when technology is a component of a course's content or of course projects. In my first-year composition courses this year, I have asked students one of the questions Turkle (2011) asked the young people she spoke with: "When was the last time you felt that you didn't want to be interrupted?" (p. 171). While a few students agreed with those whom Turkle spoke with and said they welcomed digital interruptions at all times, more disagreed with her participants. One student said that right then—in class—was an example of a time when he did not want to be interrupted by a text or phone call.

A similar reminder of the need to pay attention to students' individual relationships with technology came when I assigned these students a short response paper in which I asked them to reflect on a way that they write publicly. Nearly every student in my classes wrote about digital forms of writing that others can view—Facebook, Twitter, blog posts, and so on—but one student struggled to come up with a topic for his short paper, because he did not participate in these forms of digital communication as his classmates did. This short writing assignment led to most of the students in the class discussing how they write when an audience is watching, but this one student was only able to contribute to the conversation by discussing why he does not engage in any public writing forms. His choice to not participate in online communication of any form was a reminder to me that any course components that ask students to utilize or reflect on their uses of technology must accommodate those students who do not, for any of a variety of reasons, use the technologies under discussion.

I also continue to be aware of the possibility that any time I ask students to draw on their non-academic digital literacies in my courses, I risk unfairly co-opting those practices for course purposes. Bringing students' non-academic digital literacies into the classroom has the potential to upset a traditional academic paradigm in which the work taking place in an academic writing course is traditionally academic, which may mean that it is formal, produced for academic purposes, and uses standard language forms common to academic writing. I recognize that in addition to the fact that breaking down traditional academic paradigms may be a threat to the ways that other teachers or administrators view writing education, it may also be a threat to students, who may wish themselves to maintain a more traditional separation between their academic and non-academic literacy practices.

When I bring a digital tool such as Facebook into the classroom, for example, I send the message that there are not clear boundaries between academic and non-academic discourse: Facebook becomes something suitable for class discussion, and academic work becomes something that can find a home on Facebook. As Vie (2008) noted, when social networking sites are used in a course, they can "pose a potential threat to the established order of things in academia" (p. 19). Even as I research ways to effectively utilize students' non-academic digital literacies in the composition classroom, I struggle with this tension between academic and non-academic spaces. I want to draw on students' digital practices if doing so will enhance their learning in a writing course, and I want to accommodate these students' preferences for making connections with me and with each other through digital means, as was the case in some of the study data. Yet these means of accommodation do not always align with my own preferences. I do not necessarily want to maintain a course Facebook page, for example. Although my own use of Facebook sometimes contains discussions of academic subjects, I do not make connections

with students on the site, and I see it as a social space that is separate from my work with college students. While I do plan to pilot the idea of a course Facebook page along with the other ideas outlined earlier in this chapter for utilizing digital literacies in ways that students have conceived, I recognize that I will have to balance my own comfort level with blending academic and non-academic digital spaces as I maintain sensitivity to students' balance of the same.

Closing Thoughts on the Role of Digital Literacies in Rhetorical Education

In between working on a master's and a doctoral degree, I took a course titled "Rhetorical Education: Past, Present, Future" with Jessica Enoch at the University of Pittsburgh in which she asked the class what a truly rhetorical education is. Our class readings began with Isocrates and worked forward in time to present-day compositionists, and as we discussed these works, the question hung in the air above the table around which we sat. By week 15, the class had an answer: A true rhetorical education—an education in rhetoric, whether it be writing, speaking, or some other form of communication—had to include a public component. We determined that for students to truly understand how the messages they craft are rhetorically situated, teachers have to offer students the opportunity to actually situate their messages. I left the course questioning what such a public component might be. I have had teaching colleagues whose writing courses have service learning components and others whose students display or present their work in public fora. But, as of yet, I do not have an answer for myself to this question: If teaching my students to write rhetorically effective messages necessitates an actual audience, who will that audience be?

In this dissertation, I have found a seed that I hope will grow into an answer. This seed, or the finding most germane to my work and that of other writing teachers, is the realization that the real potential for bringing students' non-academic digital literacies into the FYW classroom

lies in locating students' writing activities, the communication they do about writing, and the communication they do about their writing courses within actual rhetorical situations. By bringing the digital spaces that students are already using into the FYW classroom, teachers can situate students' work in the actual communicative situations in which these students are already often engaged. As Dubisar and Palmeri (2010) wrote, "As teachers of writing, one of our primary goals is to help students engage audiences beyond the university—to understand the ways in which their composing can do powerful rhetorical work in the world" (p. 87). Drawing on students' existing digital literacies may give teachers a valuable avenue through which to work toward this goal of situating students' writing in relation to real-world audiences. Before we can situate composition in relation to such audiences, though, we first need to inquire into the audiences to whom students write. Teachers wishing to draw on students' digital literacies need, above all else, to maintain a curiosity about what those literacies are and how they function. Furthermore, only by involving students in this inquiry can we hope to understand these students' uses of technology and the ways that such digital literacy practices can potentially enhance college writing education.

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Appendix A: Survey of Students' Non-academic Technology Use

Survey Purpose: The goal of this survey is to learn what digital technologies first-year college students use and what audience(s) students have in mind when using these technologies. If you do not wish to participate in this survey, simply leave the survey blank. If you have any questions about this survey, please contact Ann Amicucci at nbwp@iup.edu.

1. This question is about how often you use technology for non-academic reasons. For each of the uses of technology below, put a check mark to indicate how often you use it for non-academic reasons. ("non-academic reasons" means anything that is not for a class.)

How often do you do each of the following?

	Every day	A few days a week	A few days a month	Never	Don't know	Prefer not to answer
a. **Text messaging** on a cell phone.	☐	☐	☐	☐	☐	☐
b. **Chatting** on an instant messenger online.	☐	☐	☐	☐	☐	☐
c. Updating your status or writing other posts or comments on **Facebook**.	☐	☐	☐	☐	☐	☐
d. Reading posts or comments on **Facebook**.	☐	☐	☐	☐	☐	☐
e. Posting pictures on **Facebook**.	☐	☐	☐	☐	☐	☐
f. Looking at pictures on **Facebook**.	☐	☐	☐	☐	☐	☐
g. Posting pictures on photo websites such as **Flickr**.	☐	☐	☐	☐	☐	☐
h. Looking at pictures on photo websites such as **Flickr**.	☐	☐	☐	☐	☐	☐
i. Posting messages on **Twitter**.	☐	☐	☐	☐	☐	☐
j. Reading messages on **Twitter**.	☐	☐	☐	☐	☐	☐
k. Posting videos on **YouTube**.	☐	☐	☐	☐	☐	☐
l. Watching videos on **YouTube**.	☐	☐	☐	☐	☐	☐
m. Writing on a **blog.**	☐	☐	☐	☐	☐	☐
n. Reading a **blog**.	☐	☐	☐	☐	☐	☐
o. Posting photos on a **blog**.	☐	☐	☐	☐	☐	☐
p. Looking at photos on a **blog**.	☐	☐	☐	☐	☐	☐
q. Taking **photos** with a camera.	☐	☐	☐	☐	☐	☐
r. Recording **videos**.	☐	☐	☐	☐	☐	☐

2. Are there other ways that you use technology that aren't listed above? If so, please list any that come to mind:

3. This question is about the audience(s) you have in mind when you're using technology. For each of the uses of technology below, put a check mark next to any audiences that you have in mind when you're using this technology for non-academic reasons. Check all the audiences that apply. If you think of an audience that isn't listed, you can write it in. ("audience" means anybody that you are sending messages to or creating photos or videos for.)

Who is your audience for each of the following? Check all that apply.

	Friends	Family members	The general public	No Audience	Don't know	Prefer not to answer	Other audience not listed (Please write one in)
a. **Text messaging** on a cell phone.	☐	☐	☐	☐	☐	☐	_____
b. **Chatting** on an instant messenger online.	☐	☐	☐	☐	☐	☐	_____
c. Updating your status or writing other posts or comments on **Facebook**.	☐	☐	☐	☐	☐	☐	_____
d. Posting pictures on **Facebook**.	☐	☐	☐	☐	☐	☐	_____
e. Posting pictures on photo websites such as **Flickr**.	☐	☐	☐	☐	☐	☐	_____
f. Posting messages on **Twitter**.	☐	☐	☐	☐	☐	☐	_____
g. Posting videos on **YouTube**.	☐	☐	☐	☐	☐	☐	_____
h. Writing on a **blog.**	☐	☐	☐	☐	☐	☐	_____
i. Posting photos on a **blog**.	☐	☐	☐	☐	☐	☐	_____
j. Taking **photos** with a camera.	☐	☐	☐	☐	☐	☐	_____
k. Recording **videos**.	☐	☐	☐	☐	☐	☐	_____

4. Read the following scenario: Steve jokes that he is addicted to technology. He sleeps with his phone by his side, and he sometimes wakes up at night to answer texts. He's always texting when he's walking around campus and usually texts or plays on his phone even when he's hanging out with his friends.

Can you relate to Steve and his use of his technology? Please explain:

5. Read the following scenario: Every time Maggie posts a status update to Facebook, she revises what she's going to post several times before posting it. She's always thinking about the words she's using, who is going to read them, and whether she's going to sound too smart or not smart enough. She wants to sound cool, but she doesn't want to sound like she's trying too hard.

Can you relate to Maggie and the way she thinks about who will read her posts when she's writing them? Please explain:

6. This survey asked you about the digital technologies you use and the audience(s) you have in mind while using them. Please add any additional comments you have about these topics or about this survey here:

Thank you for your participation in this survey.

Appendix B: Interview Schedule for Individual Interviews

I facilitated conversation with participants using questions such as the following.

1. What types of technology do you use to write or communicate outside of school?

I chose one digital literacy practice from what student described in response to question 1 and proceeded.

2. Describe what you use this technology for and how you use it.

3. When you use this technology, what audience do you have in mind?

4. What are you thinking about in terms of that audience when you're using this technology?

5. Please tell me about your writing class. What types of things do you do in class? What types of assignments do you do?

6. If there were a way to use the technology we've been discussing in your writing class, would you want to use it?

7. Would it be a good idea for teachers to have students start using this technology in classes like your current writing class? Why or why not?

Appendix C: Interview Schedule for Follow-up Interviews[14]

I facilitated conversation with follow-up interview participants using the following set of questions.

1. I will present two scenarios that could occur in a college writing class—these are assignments or activities connected with a class. Each one is connected to the ways some students already use technology outside of school. When I present these scenarios, I'd like you to pretend that you are a student in the writing class. I'll ask you to discuss how you feel about each assignment—what you like and what you don't. Just be honest—don't be afraid to tell me what's wrong with an idea or why you or other students wouldn't like it. Do you have any questions about what we're doing?

2. Here's the first scenario.

On the first day of class, the teacher explains that there will be a class Facebook page for the semester. He says that all the students in the class will be asked to join the page and that the page will give students in the class the chance to talk to each other outside of class to exchange ideas or answer each other's questions.

> 2a. Let's start with your initial reaction. What do you think right off the bat when you hear that this writing class will have a class Facebook page?
>
> 2b. What do you like about this idea? What don't you like about it?
>
> 2c. What questions would you have for the teacher?
>
> 2d. What benefit would this have for you as a student in the class?
>
> 2e. What problems could occur with this idea?

3. Here's the second scenario. This one is a little longer, so take as much time as you need to read it.

It's now time for your first writing assignment in this class. In class, you've been learning about how to analyze things you read. For example, you might read an article and analyze what the author is saying and whether the information presented is credible. You might also analyze what strategies the author is using in writing to connect with an audience and whether those strategies are effective.

For this writing assignment, the teacher says that you have to pick a public figure or organization and analyze its online representations. I'll explain what this means.

[14] Data resulting from follow-up interviews is not included in the presentation and discussion of findings in chapters 4 and 5 because only two such interviews were conducted.

First, you'd pick a public entity: This could be a person, a business, an organization—anything that has a public representation online.

Then, you'll analyze those online representations in the same way you would analyze the texts you read in a class. Here is an example…

Let's say you picked President Obama as your public figure. He has an official White House website, and his presidential campaign has a website, a Twitter account, and a Facebook account. He has also been videotaped in several public interviews. If Obama was your topic, you would study these various online representations and study how each one represents Obama. You would analyze how credible each online space is and how each one is attempting to send particular messages to its audience.

Here's one more example…

Let's say you picked a local business, such as the restaurant Culpepper's in Indiana, PA. This restaurant has a website and a Facebook page, and people have written reviews of it on websites such as Tripadvisor.com and Yelp.com. If Culpeppers was your topic, you would analyze all these online representations.

3a. Let's talk about some initial reactions to this assignment so far. What are your first thoughts if you were assigned this in a class?

3b. Okay, let's talk more specifically about what this assignment brings to mind for you. Does any particular public person or organization come to mind that you would use for your topic if you were given this assignment?

3c. What do you like / not like about this assignment?

3d. This assignment idea asks you to identify things online (websites, Facebook pages, etc.) that you would read and analyze critically. In many writing classes, this type of analysis is done with more traditional texts, such as books and articles. What are your thoughts about doing an assignment that uses online sites rather than more traditional texts?

3e. Would this focus on online texts make you feel more connected or less connected to the assignment than you would if you were asked to read traditional books and articles?

3f. What problems could occur with this assignment idea?

4. Okay – we have one more scenario.

Now it's time for your second writing assignment for the class. The class has been reflecting on how people develop as writers and how certain activities help people become better writers.

For the second writing assignment in the class, the teacher explains that you will write a story about how you use technology to communicate. And, you'll use the type of communication you're talking about to tell the story. I'll explain this more.

For this assignment, you'll want to choose one technology that you use to communicate with other people. For example, you might communicate to people by writing on a blog, by creating videos, by taking pictures, by making art online, by text messaging, or many other ways.

Once you pick the way you use technology to communicate, you'll want to tell a story about it…and you'll be using that method of technology to tell the story. You could describe how you use the technology to communicate with others in your everyday life in general, or you could tell the story of a specific communication experience that was important to you. I'll give a few examples.

Let's say you use Twitter a lot. For this assignment, you could tell the story of what you use Twitter for and why you like it. And, you would actually use Twitter to tell the story – you could write your story in a series of tweets (140-character posts used on Twitter). Your final product for this assignment wouldn't look like an essay, it would look like a Twitter page with multiple posts that would tell your story. Here's another example…

(This next example comes from an idea that a student I interviewed gave me.) Let's say you choose text messaging lingo as the method you want to write about. You could write a story about a typical day in your life…and you could write the story in text messaging lingo, using abbreviations and acronyms for conversation between people in your story.

These are just a few examples. The overall purpose of the assignment would be to pick a method of communication to write about and to write using that method of communication.

> 4a. This assignment is a bit more confusing than the previous one, so let's start with some general thoughts. What reactions or questions do you have to this one?
>
> 4b. What, if anything, is exciting to you about this idea? What parts of this assignment, if any, would you dislike doing?
>
> 4c. What questions would you have for the teacher?
>
> 4d. What ideas come to mind for what you could write about for this one? (and what form of communication you could use to write the assignment)

5. In general, these scenarios have all talked about ways that writing classes could use more technology. I have one more question for you. What advice would you give to teachers who are thinking about using more technology in writing classes? What would you want teachers to know?

Appendix D: IRB Protocol

Indiana University of Pennsylvania Institutional Review Board
for the Protection of Human Subjects

Human Subjects Review Protocol

1. Principal Investigator

   Name Ann N. Amicucci Department
   English Position/Rank PhD Candidate
   E-Mail Address: nbwp@iup.edu Address [removed]

   Phone where you can be reached during the day [removed]
   Date of Submission 11/7/11

2. Co-Investigator (e.g. thesis/dissertation committee chair; use a second sheet for any additional names):

   Name Dr. Michael M. Williamson Department English
   Position/Rank Professor Office Phone 7-2671
   Address 110 Leonard Hall E-Mail Address mmwimson@iup.edu

3. Project Title A Qualitative Descriptive Study of First-Year College Students' Non-academic Digital Literacy Practices with Implications for College Writing Education

4. Check one: Thesis ___ Dissertation X ___ Faculty Research ___

   Student Research ___ Staff Research ___

   Dates during which project will be conducted: From 11/1/11 To 10/31/12

5. A. Project Funding Source: Check as many as apply:

   ___ External Grant: Agency name: IUP Grant: The Principal Investigator has applied for a Graduate Student Research Grant to fund this project.
   _X_ Non-funded research
   ___ Other

   B. If grant funded, application deadline or date of transmittal ___
   (Please submit one copy of grant proposal as soon as it is available).

6. Consider each of the following separately and place an X next to each to indicate that the information is complete. PLEASE NUMBER ALL PAGES!!!

   ___A. PURPOSE, RESEARCH VARIABLES, AND POPULATION

Purpose of the study

The purpose of this study is to learn more about the ways that college students' existing digital literacy practices (their ways of reading and writing that involve technology) can be utilized effectively in first-year college writing courses. This study has two goals related to its overall purpose. The study aims to 1) describe participants' existing digital literacy practices and 2) describe ways that participants envision for exercising these practices into first-year college writing courses. The larger purpose of this study is to describe ways to effectively integrate technology into college writing pedagogy.

Background

Researchers (Levin & Arafeh, 2002; Williams, 2005) have identified a significant divide between the ways that students use technological tools outside of school and the ways they are asked or expected to use technological tools in school. For example, students may read and write on their own time through text messages or online social networks, but these types of reading and writing are usually not enacted within academic settings.

Additionally, researchers have argued that education is made more effective when students' out-of-school digital literacy practices are utilized in school (Considine, Horton, & Moorman, 2009; Mills, 2010). However, researchers largely have not asked students whether they want this divide to be bridged. Students' voices are missing from much of the existing research into their technological literacies (Alvermann, 2008; Kirtley, 2005; Williams, 2005). More research is needed to determine whether students perceive that they will benefit educationally upon the introduction of their non-academic literacy practices into their academic environments and to describe students' perceptions of how such existing literacy practices could be effectively integrated into their academic experiences.

The following research questions will direct work on the study:

3. What digital literacy practices are students engaging in outside of school?
   1a. Who are the audiences for students' digital writing practices?
   1b. Do students want to enact these practices in the first-year writing classroom? Why or why not?
4. In what ways do students think their out-of-school digital literacy practices could be effectively enacted in the first-year writing classroom?

References

Alvermann, D. E. (2008). Why bother theorizing adolescents' online literacies for classroom practice and research? *Journal of Adolescent & Adult Literacy, 52*(1), 8-19.

Considine, D., Horton, J., & Moorman, G. (2009). Teaching and reading the Millennial generation through media literacy. *Journal of Adolescent & Adult Literacy, 52*(6), 471-481. doi: 10.1598/JAAL.52.6.2

Kirtley, S. (2005). Students' views on technology and writing: The power of personal history. *Computers and Composition, 22*(2), 209-230.

Levin, D., & Arafeh, S. (2002). The digital disconnect: The widening gap between internet-savvy students and their schools. Retrieved from http://www.pewinternet.org/~/media//Files/Reports/2002/PIP_Schools_Internet_Report.pdf.pdf

Mills, K. A. (2010). Shrek meets Vygotsky: Rethinking adolescents' multimodal literacy practices in schools. *Journal of Adolescent & Adult Literacy, 54*(1), 35-45. doi: 10.1598/JAAL.54.1.4

Williams, B. T. (2005). Leading double lives: Literacy and technology in and out of school. *Journal of Adolescent & Adult Literacy, 48*(8), 702-706.

Characteristics of the Subject Population-The following information should be provided:

a. Age Range- 18 and above (all potential participants are IUP students)
b. Sex- male and female
c. Number- approximately 200 for survey; approximately 10 for interviews and focus groups
d. Inclusion Criteria- Students enrolled in Engl 101: College Writing at IUP.
e. Exclusion Criteria- None.
f. Vulnerable Subjects- None.

B. METHODS AND PROCEDURES

Method of Subject Selection

The researcher has identified fifteen instructors who are teaching Engl 101 in either Fall 2011 or Spring 2012 with whom she has an existing professional relationship. The researcher will e-mail these teachers to explain the study to them and to request permission to visit their classrooms (see Appendix A for e-mail to teachers). In class visits, the researcher will explain the study to students and circulate the anonymous survey to students and ask them to consider participating in it (see Appendix B for survey). Students who agree to participate will complete the survey instrument; those who choose not to participate will leave the survey blank. All students will be asked to leave the survey (whether completed or blank) in a box by the door when exiting the classroom for the day. Additionally, the researcher will ask the teacher of each class to step out of the room while the survey is being administered so he or she is unaware of which students choose to participate. The survey will take students approximately 15 minutes to complete.

During class visits, the researcher will also explain to students the interview and focus group portions of the study. Students who complete the survey will be given the option to self-identify if they are interested in being contacted for further participation in the study. Students who opt to provide their names and e-mail addresses on the survey will be contacted and asked to consider participating in the interview and focus group portions of the study.

Study Site- The study will be conducted on the IUP campus.

Methods and Procedures Applied to Human Subjects-

Data collection methods will be carried out in four stages: Survey, Individual Interview, Focus Group, and Follow-up Individual Interview.

Survey: The researcher will distribute an anonymous survey in person to students enrolled in selected Engl 101 sections at IUP during Fall 2011 and Spring 2012 that will take approximately 15 minutes to complete (see Appendix B for survey). Students who choose to participate in the survey will be anonymous unless they self-identify on the survey.

Individual Interviews: Students who choose to identify themselves on the survey will be contacted by e-mail and given the opportunity to participate in an individual interview (see Appendix C for e-mail). Prior to meeting with a student for an individual interviews, the researcher will e-mail the student with pre-interview questions (see Appendix D). The
researcher will begin an individual interview by presenting students with an Informed Consent form and explaining and discussing the study with the student. If the student consents to participate, the researcher will begin audio recording the interview. The researcher will then read any notes or writing that the student has brought in response to the pre-interview questions; individual interviews will then proceed according to a schedule of interview questions (see Appendix E). Individual interviews will last approximately 45 minutes. Following an individual interview, the researcher will talk with students about the focus group portion of the study. Students who are willing to consider participating in the focus group portion of the study will be contacted via e-mail to arrange a meeting time and place for the focus group.

Focus Group: Depending on the number of students who indicate willingness to participate in a focus group, the researcher will arrange one or more focus group meetings comprising 3-5 students each. The researcher will begin the focus group session by presenting each student with an Informed Consent form and explaining and discussing the study with students. If students consent to participate, the researcher will begin videotaping the session. A video recorder, rather than an audio recorder, will be used to document the session in order to distinguish multiple speakers from one another during transcription of the focus group conversation. The researcher will lead the focus group session by asking questions and asking participants to respond and discuss their responses (see Appendix F). A focus group meeting will last approximately one hour.

Follow-up Interviews: After the researcher has analyzed the data collected from individual interviews and focus groups, she will contact individual student participants via e-mail to inquire about the possibility of meeting for a follow-up interview. Along with this e-mail, the researcher will provide students with a copy

of the sections of the data analysis that are relevant to their interview and focus group participation (see Appendix G for e-mail). The researcher will begin follow-up interviews by presenting the student with an Informed Consent form and explaining and discussing this portion of the study to the student. If the student consents to participate, the researcher will begin audio taping the session, and the follow-up interview will proceed according to a schedule of interview questions (see Appendix H). Follow-up interviews will last approximately 15 minutes.

C. RISKS/BENEFITS

Potential Risks: Risk in this study is minimal. Students who participate in a focus group interview will have their identities become known to other focus group participants. As a result of participation in a focus group, knowledge about participants' out-of-school digital reading and writing practices will become known to other students who they may know in other contexts, such as as classmates or colleagues at campus jobs.

The subject matter of the study is not sensitive, and many of the out-of-school literacy practices being discussed are already public, such as on Twitter and YouTube. However, the researcher will ensure that potential participants understand the ramifications of having their identity known to other students within the context of the study.

Protection Against Risks: Participants' identities will not be known on the survey unless they choose to self-identify. For participants who do self-identify and choose to participate in a focus group, the researcher will ensure that each participant's identity is only known to other members of the focus group. The audio recordings of interviews and the video recording of the focus group will be retained in a password-protected file on an external hard drive stored at the researcher's home. Participants will be identified in transcriptions of all audio and video recordings by pseudonyms.

Prior to publishing a write-up of the study, the researcher will allow participants to read portions of the study that contain information related to them. At this time, participants will have the opportunity to remove any information they feel could potentially make them identifiable within the study write-up.

Potential Benefits: Participants will benefit from this study by engaging in conversation with the researcher and with their peers about ways to utilize their existing digital reading and writing practices in the first-year writing classroom. Such discussion will potentially allow these participants to determine ways to improve their practice in their writing classes by helping them to identify ways to use skills they already possess to enhance their work in English 101.

The academic community in general will benefit from this study by learning more about the ways students read and write with digital tools outside of the classroom.

Learning about these literacy practices will help teachers and administrators better understand how we can make undergraduate education relevant to students' lives by drawing on their existing literacy practices.

Compensation for Participation- None.

Alternatives to Participation- None.

Information Withheld- None.

Debriefing- None.

D. CONFIDENTIALITY

Survey participants will remain anonymous unless they choose to self-identify. The identity of those participants who self-identify and who participate in interviews will be known only to the researcher. The identity of participants who participate in the focus group portion of the study will be known only to the researcher and to other focus group participants. The researcher will explain to focus group participants the necessity of maintaining one another's identity in confidence, and the Informed Consent form presented to focus group participants will specify that each will maintain each other's identity in confidence.

Scanned copies of surveys, audio recordings collected during interviews, and video recordings collected during focus groups will be retained in a password-protected file on an external hard drive stored at the researcher's home. This data will be retained in the password-protected file for three years in compliance with federal regulations.

E. COPY OF CONSENT FORM
Please see attached Informed Consent Form for Survey and Informed Consent Form for Interviews and Focus Group. All Informed Consent forms will be reproduced on English Department letterhead.

7. Protected Populations and Sensitive Subjects: If any Human Subjects from the following list would be involved in the proposed activity, place an X next to the category.

___minors	___fetuses	___pregnant women
___test subjects for new drugs or clinical devices	___abortuses	___illegal behavior
	___incarcerated	___mentally disabled
___educationally or economically disadvantaged persons		

8. Nature of Risk. In your judgment, does your research involve more than minimal risk? "Minimal risk" means that the risk of harm anticipated in the proposed research is not more

likely than those risks encountered in daily life, or during routine physical or psychological examinations/tests.

____Yes __X__No

9. In your judgment, does your research fall under one of the six exempt categories? (List of Exempt Categories attached.) If you believe it does, indicate the number of the category under which you are claiming an exemption.

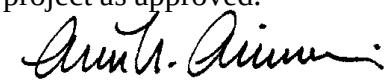
   Yes, category 2.

10. Does your project fall under one of the categories eligible for expedited review? (List of Expedited Review Categories attached.) If you believe it does, indicate the number of the category under which you are claiming expedited review.

    Yes, category 2.

11. Additions to or changes in procedures involving human subjects as well as any problems connected with the use of human subjects once the project has begun must be brought to the attention of the IRB.

    I agree to provide whatever surveillance is necessary to ensure that the rights and welfare of the human subjects are properly protected. I understand that I cannot initiate any contact with human subjects before I have received approval/or complied with all contingencies made in connection with the approval. I understand that as the principal investigator I am ultimately responsible for the welfare and protection of human subjects and will carry out the project as approved.

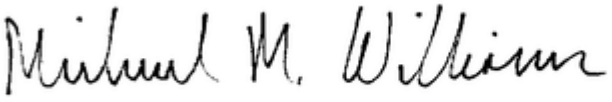


10/18/11

Signature of Principal Investigator/Program Director Date

12. Approval by Faculty Sponsor (REQUIRED FOR ALL STUDENTS):

    I affirm the accuracy of this application, and I accept the responsibility for the conduct of this research and supervision of human subjects as required by law. THE PROPOSED PROJECT HAS BEEN APPROVED BY THE THESIS/DISSERTATION COMMITTEE.



10/18/11

Signature Date

IRB Protocol Appendix A: E-mail to Teachers

Dear ,

I am conducting a study of first-year college students' digital literacies for my dissertation in the English department's Composition and TESOL program. I am writing to ask you to consider allowing me to visit your English 101 classroom to solicit student participants for this study.

For this study, I am visiting sections of English 101 twice: In the first visit, I simply sit in on the class session; my purpose for this visit would be to become visible to students so that they might be comfortable participating in my study. In the second visit, I distribute a survey to students that asks them to describe their digital literacy practices (they ways they use technology to read and write). Prior to distributing the survey, I explain the study briefly to students. My explanation takes less than 5 minutes, and the survey takes students approximately 15 minutes to complete. If you were to agree to participate, you would only need to give up 20 minutes of class time for this study. On the survey, students are given the option to identify themselves; I will contact those students who self-identify to ask them to consider participating in later stages of the study, which are individual interviews and focus group discussions among students.

My purpose in conducting this study is to learn more about students' digital literacies and to learn whether and how students envision utilizing these digital literacies in a first-year writing course. I will not be collecting any data about individual English 101 courses or about your course. If you agree to allow me to visit your classroom, you will remain anonymous within this study; the data I collect from student participants will be grouped with students from multiple sections of English 101, with no identification of individual student's English 101 teachers or course sections. Additionally, any students who participate will be instructed to not identify their English 101 teachers at any time during the study.

If you would be willing to let me visit your English 101 class for this study, please let me know. [For teachers who teach more than one section of English 101: Because you are teaching more than one section of English 101 this semester, your agreement can be for me to visit one or more than one of your course sections, depending on your preference.] Also, please let me know of any questions you have about the study. I would be glad to speak with you to explain the study further prior to your deciding whether to let me visit your classroom.

Thank you,
Ann Amicucci
PhD Candidate in Composition and TESOL

IRB Protocol Appendix B: Survey [see dissertation Appendix A]

IRB Protocol Appendix C: E-mail to students after survey

Dear ,

My name is Ann Amicucci, and I am a doctoral student conducting a study for my dissertation. I am writing to you to ask you to consider participating in an interview for this study. You are receiving this e-mail because you provided me with your contact information when I visited your English 101 class to distribute a survey related to my study earlier this semester.

I am conducting this study to learn more about the ways that college students use digital technologies to read and write and to discover whether students want to use these technologies in their first-year college writing classes. In order to learn about these things, I am conducting interviews with students.

I am writing to ask if you would be willing to participate in an interview for this study. If you are willing to participate, you and I would meet at a time and place that is convenient for you, and we would have a conversation about the ways you use technology to read and write. This conversation would be audio recorded.

Your participation in this study is entirely voluntary. If you do not wish to participate, feel free to let me know or to ignore this e-mail. Your participation in this study is in no way connected to your academic performance at [study site] or to your enrollment in English 101; your English 101 teacher will not know that I have contacted you, and he or she will not know about your choice to participate or not participate in this study.

If you would be willing to learn more about the study or to meet with me for an interview, please let me know. Also, please be in touch with any questions that you have about the study.

Thank you,
Ann Amicucci
PhD Candidate in Composition and TESOL

IRB Protocol Appendix D: Pre-Interview E-mail

Dear ,

Thank you for agreeing to meet with me for an interview related to my dissertation study on students' use of technology. Our interview is scheduled for [Date] at [Time] at [Place].

If you have the time prior to our interview, please consider taking some notes or writing down your experiences related to the following questions:

> What digital technologies do you use to write or communicate ideas outside of school? (For example: texting, Facebook, blogs, Twitter, YouTube, taking pictures or videos, etc.) How do you use these technologies? Is your use of these technologies similar in any way to the work you are doing in English 101?

If you decide to write some thoughts related to the questions above, please bring this writing with you to our interview. If you aren't able to write anything down prior to the interview, that is fine.

Thank you,
Ann Amicucci

IRB Protocol Appendix E: Interview Schedule for Individual Interviews [see dissertation Appendix B]

IRB Protocol Appendix F: Focus Group Schedule

I will facilitate focus group discussion using questions such as those below, and discussion will proceed based on students' interests.

1. Describe your English 101 class [for the benefit of others present] without using your teacher's name. What types of things do you do in class? What types of assignments do you do?

2. In our individual interview conversations, I've talked with each of you about some of the technologies you use, such as [identify the technologies discussed in interviews]. We also talked about whether you think those technologies should be brought into first-year college writing classes. In general, do you think the technologies that students use outside of school should be used in first-year writing classes? Why or why not?

3. What ways can you imagine for bringing these technologies into first-year writing classes, either for in-class activities or out-of-class assignments?

4. If these technologies were brought into first-year writing classes, what opportunities would you have as writers or students?

5. If these technologies were brought into first-year writing classes, what problems do you think might occur for you as students?

If students are interested in incorporating digital literacy practices into first-year writing classes, I will also ask questions such as these:

6. What do you think you as a student could do to bring these technology practices into first-year writing classes?

7. What do you think teachers could do to bring these practices into first-year writing classes?

8. Would bringing these practices into first-year writing classes help you develop as a writer? How?

9. What other skills would these practices help you to develop?

IRB Protocol Appendix G: E-mail to students about follow-up interviews

Dear ,

Thank you for participating in an interview and/or focus group for my dissertation study. I am writing to share with you my analysis of the portions of this study related to your participation. The file attached to this e-mail contains this analysis. My purpose in sharing this analysis with you is to give you the opportunity to review it to ensure that your participation in this study is represented accurately.

I would like to meet with you for a brief follow-up interview to discuss your role in my study. This interview would take approximately 15 minutes. In this interview, we would discuss any questions or concerns you have about the way that I've analyzed your contributions to the study in the attached document. If you are willing to meet for this follow-up interview, please let me know, and I will be in touch to arrange a meeting time and place that works for you.

Your participation in this portion of the study is voluntary. If you have concerns or questions about the study analysis but do not wish to meet for a follow-up interview, please write back to share your concerns or questions. If I do not receive an e-mail back from you within three calendar weeks of the date of this message, I will take this as your acceptance of the analysis as presented. Otherwise, please let me know if you would be willing to meet for a follow-up interview.

Thank you,
Ann Amicucci
PhD Candidate, Composition and TESOL

IRB Protocol Appendix H: Interview Schedule for Follow-up Interviews

Prior to follow-up interviews, I will e-mail participants a copy of the sections of the data analysis that are relevant to their interview and focus group participation. I will then facilitate conversation with participants using questions such as the following.

On data analysis:

1. Do you have any questions about the materials I sent you?

2. Please show me any places within these materials where I did not accurately portray your ideas or experiences.

3. How could I revise these sections to accurately portray your ideas or experiences?

4. Is there any additional information that you would like to offer me to clarify what you have shared with me?

On focus groups:

5. Was there anything that you thought of during the focus group that you didn't get to share?

6. Was there anything said during the focus group that you disagreed with but that you didn't share your opinion on?

Informed Consent Form for Survey

You are invited to participate in a survey for a research study. The following information is provided in order to help you to make an informed decision of whether or not to participate. If you have any questions please do not hesitate to contact either researcher Ann Amicucci at (724) 357-2671 or research supervisor Dr. Michael M. Williamson at (724) 357-2671. You are eligible to participate in this survey because you are enrolled in English 101 at [study site].

The purpose of this survey is to gather information about students' digital reading and writing practices. The survey includes multiple choice and open-ended questions and will require approximately 15 minutes of your time to complete. The survey is anonymous; you are not required to write your name on the survey document. At the end of the survey, you will be given the option of providing your name and e-mail address if you are willing to be contacted to talk about your survey responses. By providing your name on the survey, you are not obligated to participate further in the study. If you agree to be contacted, you will be contacted via e-mail by Ann Amicucci, who will ask to meet at a time and place that is convenient for you to conduct an interview.

You will not be asked for your signature in order to consent to participate in this survey: If you choose to complete the survey, your completion of the survey will indicate your agreement to participate at the level of the survey. Because the survey is anonymous, once you complete the survey, I will be unable to identify your answers in order to remove them from the study. If you choose not to participate in the survey, simply leave the survey blank. Please turn in your completed or blank survey in the box by the door.

Your participation in this study is voluntary. Your participation or non-participation in this survey is in no way connected to your academic performance at [study site]. If you choose not to participate in the survey, I will not know who you are. If you choose to participate but do not provide your name or e-mail address on the survey, I also will not know who you are. If you do choose to offer your name or e-mail address on the survey, your identity in connection to this study will only be known to the researcher and research supervisor listed below.

Researcher:
Ann N. Amicucci, PhD Candidate
English Department
Campus Address: 110 Leonard Hall
Campus Phone: (724) 357-2671
E-mail address: nbwp@iup.edu

Research Supervisor:
Dr. Michael M. Williamson
English Department
Campus Address: 110 Leonard Hall
Campus Phone: (724) 357-2671
E-mail address: mmwimson@iup.edu

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724/357-7730).

Informed Consent Form for Interviews and Focus Group

You are invited to participate in a research study. The following information is provided in order to help you to make an informed decision of whether or not to participate. If you have any questions please do not hesitate to ask. You are eligible to participate in this study because you are enrolled in English 101 at [study site].

The study includes an interview, a focus group, and a follow-up interview. If you choose to participate in an interview today, you are not obligated to participate further in the study. The purpose of the interviews and focus group is to gather information about student's digital reading and writing practices and to learn students' opinions about incorporating these reading and writing practices into first-year college writing classes. The information gained from this study will help the researcher educate other teachers in how to best understand students' existing digital reading and writing practices and how to best utilize these practices in first-year college writing classrooms.

The initial interview will be audio recorded and will take approximately 45 minutes. The focus group will be video recorded and will take approximately one hour. The purpose of the video recording is so that the interviewer can distinguish among voices when transcribing the information gathered at the focus group. The follow-up interview will be audio recorded and will take approximately 15 minutes. The audio and video recordings will not be seen or heard by anyone other than the interviewer and the researcher supervisor listed below.

Your participation in this study is voluntary. You are free to decide not to participate in this study or to withdraw at any time without harming your relationship with the interviewer or with [study site]. Your English 101 teacher will not know about your participation or non-participation in this study. If you choose to participate but change your mind, you can let the researcher know that you would like to withdraw from the study at any time. Upon your request to withdraw, all information pertaining to you will be destroyed. If you choose to participate, all information will be held in strict confidence and will have no bearing on your position within IUP. Your responses will be considered only in combination with those from other participants. The information obtained in the study may be published in journals or presented at conferences or meetings, but your identity will be kept strictly confidential through the use of a pseudonym in any publications or presentations.

If you are willing to participate in this study, please sign the statement below. Take the extra unsigned copy with you. If you choose not to participate, you may leave the room. After the interview or focus group, should you need to withdraw from the study, please contact Ann Amicucci at nbwp@iup.edu or Dr. Michael M. Williamson at mmwimson@iup.edu.

Note: By signing below, I agree to keep the identities of all other study participants who I meet in a focus group in confidence. I will not share with anyone outside of the focus group any identifying information about the members within the focus group.

Participant Name: (please print)_____

Signature: _____

Date: _____

Interviewer:
Ann N. Amicucci, PhD Candidate
English Department
Campus Address: 110 Leonard Hall
Campus Phone: (724) 357-2671
E-mail address: nbwp@iup.edu

Research Supervisor:
Dr. Michael M. Williamson
English Department
Campus Address: 110 Leonard Hall
Campus Phone: (724) 357-2671
E-mail address: mmwimson@iup.edu

Interviewer's Signature: _____

Date: _____

This project has been approved by the Indiana University of Pennsylvania Institutional Review Board for the Protection of Human Subjects (Phone: 724/357-7730).

xc: participating subject

Appendix E: IRB Protocol Approval Letter

Indiana University of Pennsylvania
www.iup.edu

Institutional Review Board for the
Protection of Human Subjects
School of Graduate Studies and Research
Stright Hall, Room 113
210 South Tenth Street
Indiana, Pennsylvania 15705-1048

P 724-357-7730
F 724-357-2715
irb-research@iup.edu
www.iup.edu/irb

November 8, 2011

Ann N. Amicucci
635 Plum Street
Indiana, PA 15701

Dear Ms. Amicucci:

Your proposed research project, "A Qualitative Descriptive Study of First-Year College Students' Non-academic Digital Literacy Practices with Implications for College Writing Education," (Log No. 11-265) has been reviewed by the IRB and is approved as an expedited review for the period of November 8, 2011 to November 8, 2012.

It is also important for you to note that IUP adheres strictly to Federal Policy that requires you to notify the IRB promptly regarding:

1. any additions or changes in procedures you might wish for your study (additions or changes must be approved by the IRB before they are implemented),
2. any events that affect the safety or well-being of subjects, and
3. any modifications of your study or other responses that are necessitated by any events reported in (2).

Should you need to continue your research beyond November 8, 2012 you will need to file additional information for continuing review. Please contact the IRB office at (724) 357-7730 or come to Room 113, Stright Hall for further information.

Although your human subjects review process is complete, the School of Graduate Studies and Research requires submission and approval of a Research Topic Approval Form (RTAF) before you can begin your research. If you have not yet submitted your RTAF, the form can be found at http://www.iup.edu/page.aspx?id=91683 .

This letter indicates the IRB's approval of your protocol. IRB approval does not supersede or obviate compliance with any other University policies, including, but not limited to, policies regarding program enrollment, topic approval, and conduct of university-affiliated activities.

I wish you success as you pursue this important endeavor.

Sincerely,

John A. Mills, Ph.D., ABPP
Chairperson, Institutional Review Board for the Protection of Human Subjects
Professor of Psychology

JAM:jeb

xc: Dr. Michael Williamson, Dissertation Advisor
Ms. Jean Serio, Secretary

Appendix F: IRB Request for Change in Protocol

INSTITUTIONAL REVIEW BOARD

REQUEST FOR CHANGE IN PROTOCOL

TITLE OF RESEARCH PROTOCOL: A Qualitative Descriptive Study of First-Year College Students' Non-academic Digital Literacy Practices with Implications for College Writing Education IRB# 11-265

PRINCIPAL INVESTIGATOR: Ann N. Amicucci

DEPARTMENT/COLLEGE: English / CHSS

ZIP CODE: 15705 ADDRESS: [removed]

TELEPHONE NUMBER(S): [removed]

DESCRIPTION OF PROPOSED CHANGES (Use additional pages as necessary):

Data collection methods in this study occur in four stages: Survey, Individual Interview, Focus Group, and Follow-up Individual Interview. As described below, the proposed change is to the Focus Group stage. The prior protocol specified that focus groups would occur in person with participants. The proposed change specifies that focus groups will occur online.

Depending on the number of students who indicate willingness to participate in a focus group, the researcher will arrange one or more focus group meetings online comprising 3-5 students each. Focus group meetings will occur in an online video chat or text chat session; the choice between these two options will be made by participants depending on their access to and preference in using these online technologies. All potential participants for this stage of data collection have already participated in individual interviews and have signed informed consent forms for participation in the interview and focus group portions of the study. Prior to the focus group session, the researcher will review with students the purpose and scope of the study to determine whether students are still interested in participating in this stage of data collection. If students choose to continue their participation, the researcher will begin recording the focus group session on the computer. The computer recording will record both audio and video; the images of participants within a video chat, their spoken words, and any text conversation that participants type to one another will be recorded. The researcher will lead the focus group session by asking questions and asking participants to respond and discuss their responses. A focus group meeting will last approximately one hour.

JUSTIFICATION OF PROPOSED CHANGE(S):

The proposed change is justified for two reasons. First, data collected in the first two stages of the study (Survey, Individual Interview) has revealed that student participants are comfortable communicating with their peers online. Because online communication is a topic on which the study focuses, the researcher has determined it will be more appropriate to conduct focus groups online rather than in person. Second, the focus group stage of data collection will occur during the Summer term, when some potential participants will not be in the Indiana, PA, area. As a result, holding the focus groups online rather than in person will be more convenient for students who are willing to participate but are not able to travel to the IUP campus to do so in person.

_____

SIGNATURE OF INVESTIGATOR DATE

_____

SIGNATURE OF ADVISOR DATE

Consent Form: Are there required consent form changes? Yes__ No_X__ If the consent form requires revision, a copy of the revised consent form with the changes highlighted should be attached.

Appendix G: IRB Change in Protocol Approval Letter

Indiana University of Pennsylvania
www.iup.edu

Institutional Review Board for the
Protection of Human Subjects
School of Graduate Studies and Research
Stright Hall, Room 113
210 South Tenth Street
Indiana, Pennsylvania 15705-1048

P 724-357-7730
F 724-357-2715
irb-research@iup.edu
www.iup.edu/irb

June 7, 2012

Ann Amicucci
635 Plum Street
Indiana, PA 15701

Dear Ms. Amicucci:

Your proposed modifications to your previously approved research project, "A Qualitative Descriptive Study of First-Year College Students' Non-academic Digital Literacy Practices with Implications for College Writing Education," (Log No. 11-265) have been reviewed by the IRB and are approved as an expedited review for the period of June 6, 2012 to November 8, 2012. I will report this to the Board.

It is also important for you to note that IUP adheres strictly to Federal Policy that requires you to notify the IRB promptly regarding:

1. any additions or changes in procedures you might wish for your study (additions or changes must be approved by the IRB before they are implemented),
2. any events that affect the safety or well-being of subjects, and
3. any modifications of your study or other responses that are necessitated by any events reported in (2).

Should you need to continue your research beyond November 8, 2012 you will need to file additional information for continuing review. Please contact the IRB office at (724) 357-7730 or come to Room 113, Stright Hall for further information.

I wish you success as you pursue this important endeavor.

Sincerely,

John A. Mills, Ph.D., ABPP
Chairperson, Institutional Review Board for the Protection of Human Subjects
Professor of Psychology

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xc: Dr. Michael Williamson, Dissertation Advisor