Article

Written Communication
2014, Vol. 31(1) 91–117
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DOI: 10.1177/0741088313514023
wcx.sagepub.com

Ubiquitous Writing, Technologies, and the Social Practice of Literacies of Coordination

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Abstract

This article shares results from a multi-institutional study of the role of writing in college students' lives. Using case studies built from a larger population survey along with interviews, diaries, and a daily SMS texting protocol, we found that students report SMS texting, lecture notes, and emails to be the most frequent writing practices in college student experience and that these writing practices are often highly valued by students as well. Our data suggest that college students position these pervasive and important writing practices as coordinative acts that create social alignment. Writing to coordinate people and things is more than an instrumental practice: through this activity, college students not only operate within established social collectives that shape literacy but also actively participate in building relationships that support them. In this regard, our study of writing as it functions in everyday use helps us understand contemporary forms of social interaction.

Keywords

texting, SMS, college students' writing, everyday writing, frequent writing, social practice, literacy practice, social interaction

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Outlining a research agenda for texts mediated by information technologies, the IText Working Group (Geisler et al., 2001) advocated for research that analyzes how digital texts function and shift the practices of everyday life. According to the authors, literacy historians emphasize how particular "junctures in human history" highlight "the intricate relation between technology and literacy" (p. 275). The historical moments that accompany communicative innovations "from writing, to printing press, to telegraph, to computers and the Internet" illuminate changing relationships between writers and readers, shifting contexts for literate acts (i.e., which forms of mediated text are appropriate in a given situation), and new understandings of time and space relationships (i.e., potential for overcoming distance or maintaining messages over time; p. 275). The IText Working Group highlights an important line of reasoning in literacy studies that claims that to study writing as it functions in everyday use is fundamental to understanding contemporary forms of social interaction.

Our current research is designed to contribute to this theoretical project to explore relationships between literacy and technology and to attend to the dynamic relationships between literacy and social practice. The Pew Research Center (Madden, Lenhart, Duggan, Cortesi, & Gasser, 2013) has recently reported that 78% of teens have cell phones and 47% of them own smartphones. This report followed similar Pew research (Duggan & Rainie, 2012) that showed that 85% of American adults own cell phones and use them frequently for both inscription and information-seeking activities (e.g., 82% for taking photos, 80% for texting, 56% for accessing the Internet, and 50% for emailing). As communicative devices, smartphones are remarkably agile and mobile writing technologies that provide users with the ability to leverage the speed, reach, anonymity, and interactivity afforded by computer networks (Gurak, 2001). It is no wonder, then, that we see an increasing amount of scholarship focusing on writing as a spatially and temporally enduring presence across lifespheres (Yancey, 2009) or concerned with new forms of vernacular literacies (Buck, 2012; Gee, 2003; Haas & Takayoshi, 2011; Lankshear & Knobel, 2008; Roozen, 2009) and, in the case of the new Pew report, on the rhetorical complexity of our social lives as they have become increasingly mediated by writing technologies.

The study reported here was motivated by these issues and embedded in the working lives of this research team, which included people focused on researching writing at the university as well as writing in professional contexts. We began with simple descriptive questions such as these: What are today's college students writing? What kinds of writing do they value? Such descriptive questions are useful for framing research that concretely (yet temporarily) grounds an understanding of writing's everyday emerging forms and values during times when shifts in communication technologies can be

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felt strongly, such as the present moment. With technologies, literate contexts, and social practices coevolving, "snapshots" of how writing is understood and valued are necessary to assist in the theoretical and practical work of writing research, pedagogy, and theory (i.e., curriculum design, methodological innovation).

In this article, we detail and present findings from research aimed at articulating students' experiences of and with writing today. After describing our data collection in survey, diaries, and interviews, we report how SMS texts, emails, lecture notes, and academic papers are understood to be frequent and valued writing practices. Following these results, we analyze how writing functions and is valued as *coordination*, a practice that is rather mundane but that we argue has cultural, technological, and literate significance in managing day-to-day lives. We examine how three study participants use short-form writing to orchestrate their social/personal lives and academic productivity. As we will discuss, the idea that texts generally "coordinate" goal-directed activities is well documented in writing studies (see Bazerman, 2008) and in literatures on computer-supported collaborative work (e.g., Bodker & Christiansen, 2006; Schmidt & Wagner, 2004). However, we describe a less routinized view of coordination as a written communication practice that organizes college students' personal, professional, and academic memory, sociability, and planning. This coordination is located in writing that is enabled by the ubiquity of computer networks and handheld computing devices and has implications for sustaining relationships and maintaining productivity. Through small, mundane practices of coordination, individuals operate within and shape established "ecological" systems that shape literacy practice. By "practice," then, we refer not simply to literacy acts but to more general cultural practices associated with writing (see Barton, 1994), and we argue that our project makes a useful contribution to how we understand the relationships between literacy and social practice, to understanding writing as a social practice. Through these writing practices, we see college students actively participating in creating literacy ecologies. Writing—as an act, a verb—shapes contemporary social and personal lives.

Technology and Writing in Everyday Life

Writing technologies and the cultural changes associated with their adoption are important to the dynamic we describe in this article. Literacy scholars have long argued for ways to socially situate how we understand literacies, which was one of the first impulses of what became known as the new literacy studies (e.g., Barton, 1994; Street, 1984). In an effort to counter the persistence of so-called autonomous (Street, 1984) notions of literacy that located consequences and agency either in literacy as a cognitive skill or in

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broader historical narratives such as the invention of writing or technological systems, literacy scholars have developed theoretical frameworks that emphasize contextual connections among social systems, values, and discrete practices, such as Barton's "ecological" framework, which informs our work in this study (for more on this framework and its use, see Barton, 1994; Barton & Hamilton, 1998; for composition, see Cooper, 1986; Grabill, 2001).

Technologies are always central to the ecological contexts that frame literacy, although perhaps not as visibly as necessary in examinations of literacy and social practice. Our project is intended to help strengthen the conceptual connections among literacy, technology, and social practice by exploring how developments in writing technologies have effects on everyday writing practices. Mobile phones, for example, are shaping everyday literacy practices in ways similar to those the IText group referenced.[1] In order to understand the impact of this technology on literacy, researchers must take into account multiple layers of context including their functionality, their ideological meaning, and their local use. By nature of their functionality, Katz and Aakhus (2002) have suggested that mobile phones merge communication media previously separated (pp. 3-4). Fortunati (2002) has argued that this convergence, along with the continual access afforded by these devices, corresponds with organizational and economic transformations that affect social and professional productivity (see Harvey, 1990). While embedded in and constructing these ideologies, mobile phones are simultaneously subject to local, situated norms of use (Ito & Okabe, 2005). Cultures of local domains in which individuals use a given technology (i.e., home, schools, workplaces) shape and even create the need for forms of communication a given technology affords (Nardi & O'Day, 1999).

It is within this set of contexts—that of a given technology's functionality, of its embeddedness in ideologies, and its situated, contextual use—that we might begin to understand the changes that a technology like a mobile phone can enact on literate practice. In addition to these concerns at the scale of culture or social system, a given individual's experience is shaped by how he or she has accessed technologies, practiced literacies, and been affected by many contextual associations (e.g., race, geography, family, values; see Hawisher, Selfe, Moraski, & Pearson, 2004). One contribution of this article is to argue that individuals' understandings and values attached to literacy offer explanatory power for researchers attempting to gain perspective on how emerging technologies affect literacy and social practices, particularly (in our case) at a moment of technological change. This is particularly important in the case of literacy that takes place on screens of computers and mobile phones because they bring together multiple literacy domains, practices, events, and genres—many of which are rather ephemeral. This study was

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concerned with mapping how college students experience the current terrain of writing practices, given recent ubiquity of cell phones as writing devices. Grounding our study in this way allowed us to map participants' understandings of what they write and how they value it in ways that maintained a commitment to situating and accounting for local contextual factors of use, including purpose, location, and interactions that shape their practice.

Method

Research Questions

Given our commitment to the understandings and values that shape college students' writing experiences, the study focused on a set of issues that led to a three-phase descriptive case study design. Our interests in what college students were writing, why, and what they valued about that writing led us to ask the following questions in this study:

1. What kinds of writing do students understand themselves to practice most frequently?
2. What writing practices do students value and why?
3. How do students understand their most frequent and valued writing practices to function within the broader contexts of their goals, roles, and interests?

The role writing plays in student experience is closely connected to both value and frequency, or how often a given form of writing is present in their daily lives, and thus we focus on the intersection of the two in our design and findings.

Recruitment and Data Collection Method

In our recruitment of participants, we sought to identify students interested in the research subject matter who would therefore have the motivation to engage in the study process. We hoped seeking motivated students would allow us to solve the historical problem we have had recruiting participants from writing classrooms (i.e., high initial interest but high "mortality" with regard to persistence and compliance). Our approach, therefore, was to recruit students who fit our profile (enrolled in a writing class) but who also had an interest in the subject matter of the research.[2]

Our data collection process had three phases. We began our data collection with a survey instrument developed in a prior study (Revisualizing Composition

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Study Group, 2010).[3] The survey presented participants with a list of writing practices ranging from lists to research papers to texting to multimedia compositions. From this list, participants ranked their five most frequent writing practices. Next, they ranked the five types of writing that they valued the most. For each type of writing either most frequent or valued, participants were asked to detail why, where, with whom, for whom, and with what technologies they typically write in order to account for contexts associated with these practices. We administered the survey to a group of 65 students who contacted us with interest in the project. Survey results from these participants provided baseline data about their writing lives and allowed us to gauge the extent to which our participants fit the population and results of the our prior survey study, which represented a much larger population.

Next, we asked survey participants to take part in a weeklong diary study in which we prompted them to share what they were writing at specific times during each day. Given the challenges of retrospective self-reporting (Tomlinson, 1984), we conceived of this diary as a memory prompt that would provide participants with specific acts of writing on which to reflect during later interviews (Hart-Davidson, 2007). In order to facilitate that process across several days of data collection, we developed a system that sent SMS text messages to students via their phones at programmed intervals (9 a.m., 12 noon, 3 p.m., 6 p.m., and 9 p.m. daily during the collection period). These texts prompted participants to respond (also via SMS text message) by telling us what they were writing at the time that they received the text or immediately prior to receiving the text. The final prompt of the day directed participants to an online diary form where they could look back over their responses for the day. In order to further stimulate memory, the diary form prompted participants to provide additional detailed information about three specific writing acts from that day that indicated information about local contexts in which the writing was conducted (i.e., audience, purpose, place, collaborators, technologies used). The third and final phase of data collection entailed interviews that explored questions of writing frequency and value tailored to each participant based on survey and diary results. Our goal with the interviews was to prompt students to share more about how their most frequent and valued forms of writing connected to their individual goals and interests, as well as to illuminate the local contexts in which this writing participated and circulated (see the appendix for sample interview questions).

Case Selection

We focused on cases to retain and illustrate local contexts for writing, while constructing holistic descriptions of how it was made meaningful (Yin, 2009). Cases enabled us to attend to variables introduced by multiple layers

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Table 1. The Nine Case Participants.

Alicia	Accounting major at a very-high-activity research university. Works as a crew lead at an on-campus dining facility.
Hannah	First-year student considering a political science major at a private master's university. Works part-time in a movie theater.
Janine	First-year international studies major at a private master's university. Works as a counselor at a mission camp during the summer.
Lauren	First-year physics and creative writing double major at a private master's university. Active student representative on residence life committees.
Marisa	Student at a high-activity research university and a community college. Volunteers for a well-known nonprofit foundation, focusing on "Teens for the Cure."
Michael	History major at a high-activity research university. Active in game chatrooms.
Sarah	First-year student at a private master's university. Member of the university dance team for athletic events.
Stephanie	First-year psychology major at a private master's university. Works at a summer Spanish immersion camp.
Tina	Social work major at a very-high-activity research university. Sings in a band as a hobby and works as a waitress.

of context. Because case studies focus on detail, context, and even affect, Mary Sue MacNealy (1997) suggested selecting cases for reporting because they are (a) unique or (b) representative (p. 183). Such advice is typical, and in our study choosing "representative" cases was important given our questions and our interest in exploring in more detail dynamics that were present in our survey. Our case selection process, therefore, identified both complete and representative participants. Of the 65 students who completed the survey, 50 participated in the diary texting protocol. Not all students participated consistently, and so given the variation and incompleteness in the data collection, we made decisions about what constituted a "complete" case of students to interview. We selected 10 students who represented a completed collection of data, which included a survey, a minimum of three quality days of diary data, and an hour-long interview (see Table 1; all names are pseudonyms). This group included at least one case from every participating institution. For these students, we analyzed three weekdays of diaries,[4] as well as the interviews. Of these 10 cases, we eliminated one graduate student participant from this analysis because of the marked differences in experiences.[5]

The resulting nine cases that form the core of our analysis are diverse with respect to race (five declared a non-White racial status) but are almost

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exclusively women (8 female, 1 male). As we will discuss, it is important to keep in mind that these demographic factors influence our findings, given research that has suggested women use online tools more often than men for communication and enriching relationships (Fallows, 2005). The participants of our survey and cases generally fit the age and educational status profile of students who took our Phase 1 survey in which 90% of the participants were a "traditional" age for U.S. institutions of higher education (18-23).

Data Analysis

Our process yielded descriptive data that were amenable to both quantitative and qualitative analysis. We analyzed survey data by figuring descriptive frequencies for demographics, writing done most often, and writing most valued. Next, we compared those results to those of our prior larger population survey study (Revisualizing Composition Study Group, 2010). In addition, we coded instances of writing recorded in the diaries and discourse recorded in the interviews for the nine cases. Our first, "open" pass through the data was informed by the survey analysis and yielded three categories of codes: purposes of writing, functions of writing, and values of writing.[6] Our second analytical move looked for relationships among the codes for functions, purposes, and values by attending to frequency and placing purposes, functions, and values in relation to each other to determine if they clustered or grouped in any way, paying particular attention to codes with greater frequencies. This work yielded, for example, "coordination" and "transactional" as emergent categories that described several of the individual codes we had previously assigned (both highly relevant to this article). Our final analytical move was to generate a set of statements that we took back to the data to see how the narratives implied by those statements held up. Those statements took the form of short claims such as "writing functions as social glue" and "writing is valuable as preparation for life." We used these statements for a final, more narrative pass through the data to establish data-driven story lines.

Findings

The analysis reported here focuses first on the writing practices that emerged as most frequent and valued from the survey. Focusing in particular on those practices, we turn to a story of how students understand writing to function as "coordination" and what values are associated with that function. Our analysis suggests that writing to maintain interpersonal connections (e.g., "social glue") is frequent, highly valued, and almost always associated with

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digital technologies. Writing to coordinate "things" such as events or one's personal memory is mediated by many technologies (i.e., phones but also nondigital mobile technologies like pen and paper) and is both frequent and valued. The arguments we make about the importance of "coordination" reflect our efforts to understand the most dominant student writing practices that emerged through our study in a context that is attentive to data and meaningful with regard to the experiences our participants shared by way of survey responses, diaries, and interviews. The data reported in the remainder of the article are consistent with these intentions. As we argue below, analyzing participants' understandings and values related to literacy provides one means for better understanding the role of technologies as participants in larger literacy (social) practices. This approach, furthermore, provides the opportunity to understand cross-domain practices that are supported by digital technologies, such as the rhetorical work that we call "coordination." These practices are largely invisible and deserve attention as a category of student writing and cultural work, not only because of their frequency but also because they are best understood as a form of social practice with cultural significance.

The Writing Students Practiced Most Frequently

The 65 students who participated in our survey pointed to three kinds of writing—SMS texts, emails, and lecture notes—as the most frequently practiced writing of college life.[7] We arrived at this conclusion through a weighted ranking process: specifically, each instance in which a practice was assigned as the most frequent scored 5 points, the second most frequent practice scored 4 points, the third most frequent scored 3 points, the fourth most frequent scored 2 points, and the fifth most frequent scored 1 point. This weighted ranking allowed for us to account not only for how often a writing practice was listed in a participant's top five choices but also for what ranked position that practice was assigned from most often used to fifth most often used. We were not surprised that our participants described texting, emails, and lecture notes as their three most frequent written communication practices because these results aligned precisely with the findings of our prior survey of 1,366 students. Also consistent with the findings from our prior study, texting emerged as a particularly important writing practice among our sample, more prominent than other kinds of writing we might have assumed to be parallel (e.g., social media status messages or instant messages). In our prior survey, 78% of participants said that texting was one of the five kinds of writing they did most often and nearly half (46%) also ranked texting as their most frequent writing practice. Texting was even more dominant among students in

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this phase of research.[8] Of the students in our survey, 90% indicated texting was one of their five most frequent writing practices and 76% ranked it as their most frequent writing practice.

From the standpoint of frequency, the prevalence of SMS texting provided evidence that the mobile phone is not only an important writing device, but perhaps *the* dominant writing technology for most students, a finding further supported by data showing that students used their phones for emails, status updates, instant messaging, lists, and even academic writing like lecture notes, reading notes, essays, and research papers. Based on the prevalence of the phone as a writing technology, it is hardly surprising that students say they write for personal fulfillment nearly as often as for school assignments, nor is it surprising that digital writing platforms easily accessible on phones—such as Facebook and email—are frequently associated with the forms of writing done most often. As we will discuss in more detail below, these frequent self-supported and self-driven practices often function for interpersonal connecting; however, many also support academic activities as well (e.g., signing up for classes, emailing advisors, and so forth).

The Writing Practices That Students Valued Most

While texting was an especially dominant writing practice for students in terms of frequency, the results regarding value were more complicated. Participants indicated that texting and academic papers were the two most valued forms of writing in their lives. Again, this finding aligned precisely with results from our prior survey. Their third most valued form of writing was email, which ranked fourth in our prior study behind lecture notes. While texting was the most highly valued form of writing, its value was not as dominant as its frequency. Of participants, 70% still ranked it as one of their top five most valued forms of writing and 34% said it was the writing practice they valued more than any other. Academic papers garnered the next highest response after text messages, with 15% of participants choosing it as their most valued writing practice. Notable across both instances of our survey was the relatively low value participants assigned to digital writing practices associated with social networking compared with the value they associated with texting and email. Using our ranking system, status message updates ranked 22nd out of the 30 practices, and comments on status messages or posts ranked 16th of 30. This finding is consistent with findings from our larger population study.

While it might seem surprising that two writing practices so dissimilar—texting and academic writing—would surface as the most valued forms of writing, interviews and diary collection helped us understand a connection

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between them. Both represent a form of *transactional value* for students, a term we use to describe the value placed on what can be derived in exchange for an act or a product of writing. For instance, students frequently told us that academic papers were valuable because by doing well they could earn good grades. Students understood good grades as a building block to success in their lives. While grades were a common way participants described the transactional value of academic writing, the value assigned to texting was a bit different. Students frequently described "maintaining connections" as an explicit value of SMS texting. In a sense, transactional value described what made interpersonal writing like texting valuable: It enabled participants to maintain a connection with someone with whom they had a relationship. Thus, our discussions with participants during interviews helped us understand that it was not generally the text as a product that was most valuable to students, but instead what they derived from the act of writing it. The verb (texting) was much more important than the noun (the text) because these acts of writing maintained relationships or feelings of connectedness with people important to them. Texting also corresponded with other values in our coding that academic writing usually did not: efficiency/speed and entertainment. Transactional value reveals one way that academic writing and short-form digital writing share a relationship for college writers: The practice of participating in these forms of writing accomplishes real-world, pragmatic benefits extending beyond what the individual text composed might mean as an isolated product.

Table 2 shares short explanations from students' end-of-day diary writing that describe how participants valued texting and academic writing. These general results, however, still leave us with questions better addressed for particular students in local social, cultural, and geographical contexts. How did particular students understand these writing practices to function in the context of their everyday lives? What did they enable or afford?

Writing as Coordination Across Three Cases

In order to more fully understand these frequent and valued writing practices, we have chosen to focus the remainder of our results discussion on one function of writing prevalent both with regard to frequency and value and associated with the transactional value that we have just described. We call this function "coordination." To explain what we mean by coordination, we draw on the use of the term in disciplinary and organizational writing to refer to the role texts play in bringing people and organizations into alignment (see Bazerman, 2008; Swarts, 2008). We also build on a definition of coordination offered in recent scholarship on the cultural and social

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Table 2. Forms of Transactional Value in Two Highly Valued Writing Practices.

Writing practice	Participants' short explanations of value from diary collection
Texting	Reminds me about stuff.
	Just friends.
	Way of communicating with distant friends.
	It's a way to communicate with people who are distant.
	I do not get to communicate with my dad often so I value every opportunity I have to talk with him.
	It is important to talk to people back home.
	Communicate with people back home.
	To stay in communication with friends and family and to keep plans.
	Helps me communicate with friends.
	It's a necessary means of communication.
	Text messaging is my way of communicating and keeping in touch with people around campus and my family at home.
	Though I think personal interaction is still stronger, this type of writing ranks high for its value in not losing touch.
	It is a means of communication and quick connection across campus/to home.
Academic writing	Finals grade.
	I feel strongly about how well I do in this class.
	I have to do it. It's for a grade.
	It's my job.
	Sometimes, academic essays feel contrived, but the importance of arguing a point with support is valuable in many disciplines.
	I believe responding to what I have been required to read helps me think more critically about the subject.
	It is turned in for a grade, therefore it is important to complete with accuracy.

impact of SMS communication. Ling and Yttri's (2002) concepts of "micro-coordination" and "hyper-coordination," for example, are useful to describe functions of integration our participants described when contextualizing SMS and other short-form digital writing. By micro-coordination, Ling and Yttri emphasize the instrumental ways writing brings together individuals through the ongoing act of making arrangements (i.e., scheduling meetings) that are rarely set in stone and adjusted continually as allowed by the contact of mobile media (p. 140). Hyper-coordination includes this instrumental work but enhances it, as keeping ongoing connections not only

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encourages planning discrete events but also grounds social group formation. For Ling and Yttri, who analyzed text messaging in a Norwegian context, the ongoing expressive, discursive exchange of texting created and reinforced social norms, including appropriate ways of communicating and presenting oneself within a peer group. Hyper-coordination resonates as well with Habuchi's (2005) concept of the "tele-cocoon" in Japanese youth culture, which described how youth used text messaging to maintain tight-knit social groups.

We believe that "micro-coordination" is descriptive of what we see in our data and may extend beyond texting and into other short digital forms of writing. In addition, our participants led us to believe that the more expressive and integrated "hyper-coordination" is taking place not only among geographically colocated peer groups as described by Ling and Yttri and Habuchi but also among spatially distributed peer groups and even across generations in family units. In order to explore this intersection in the writing lives of our participants, we turn to narrative fragments derived from interviews in three cases of students of the same gender but who have different races/ethnicities and live in different geographic locations. As we have noted, it is important to acknowledge that female Internet users have historically been associated with higher uses of digital tools to maintain relationships. We also understand that in relying on participant perceptions of their own practices, we are relying on self-report. However, in this case, we understand students' perceptions of their own activity to be a particularly meaningful way to begin to understand the value of writing practices they engage in frequently.

Sarah. First-year student Sarah's survey responses for writing frequency aligned with the findings from the entire sample. This traditionally aged student (born in 1993) told us that she texted, kept lecture notes, and wrote emails more than any other forms of writing. An example day in her diary included text messages and notes for two different classes, which we used as a prompt in her interviews to learn more about these practices:

> 9:49 a.m.: a text message
> 12:10 p.m.: biology notes, things to remember in my planner, and text messages
> 3:10 p.m.: lab notes
> 5:16 p.m.: text message

Sarah told us that texting was important for "connect[ing] with people that aren't here." She initially told us that she texted three groups primarily:

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"friends from back home, my boyfriend, and my family," all of whom were disconnected from her geographically. "Um, family it's just catching up, and friends from back home same thing. And my boyfriend I text all day . . . about what he's doing and plans for when we're gonna see each other." When we asked Sarah explicitly about the value of these practices, she mentioned how texting enabled her to overcome geographic separation:

> Since I don't have a car I can't just go and see people and friends from high school or anything. People that went all over the United States, I can't just go and see them. So it's easier to keep up with them over text messaging. I think that's important to keep that connection for people that are far away from me, and keep those relationships.

She emphasized that her boyfriend "goes to another school . . . about an hour away" so texting was a necessary way to close the gap of physical distance she found between herself and those closest to her before she left for college. These texts were not only the short jokes or acknowledgments that have been documented in prior SMS scholarship but also "pretty substantial conversations" like with her sister about choosing colleges and making decisions about internships. She noted that these texts often included links to other information available on the web: "I'm trying to decide a major so my mom's been sending me stuff to look over for possible majors, so stuff like that." She positioned the value of this activity as related to its efficiency and ease. Sarah described how sending a text is

> easier than having to sit down and be on the phone with someone. It's easier to just text and be able to multitask when I have a lot of work to do. It's easier than talking, I guess, talking on the phone or doing any of that.

While texting allowed Sarah to keep in touch with those she was separated from geographically, Sarah later added that she also texts her university friends who live nearby, but for different reasons. As she put it, with "[university] friends it's planning." Coordinating events like going out together or seeing one another often happened through texting. When it came to the other most frequent practice—lecture notes—Sarah described the role that writing plays in her memory: "I can memorize things better when I write them." She reiterated,

> The notes are for my memory and to be able to read back over them and then go through the book and compare my notes. Usually my notes I'll write something that catches my attention so I'll be able to remember it when I read back through my notes.

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Marisa. Dually enrolled in a research university and a community college, Marisa was a Mexican/Mexican American female born in 1991 who wrote text messages, research papers, and emails most often. We focused on diary entries such as the following as we tried to learn more about this writing she did frequently:

> 11:00 a.m.: lecture notes
> 2:02 p.m.: notes for a meeting
> 4:01 p.m.: status update
> 7:00 p.m.: texting

Marisa, who routinely sends and receives more than 100 texts a day, stated that even though she is texting "all the time," she directs those texts to only "about three people." She understood this activity as natural, something that everyone did: "Texting is just . . . it's what life is now." As with Sarah, part of Marisa's inner circle for texting was her family to whom she sent small jokes and updates about her day. Describing her relationship with her parents, she reflected, "Texting like brought us closer, I guess. Because, I don't know, they found it comfortable to text me funny jokes . . . and then a conversation would build out of that." In Marisa's words, the speed of texting is what makes it so valuable:

> It's a quick thing. You can do it really quick, you can be having a conversation with someone or just like doing homework, you get a text, it takes like 20 seconds to do a text, and you're back at your homework.

She also described it as valuable because of its pervasiveness:

> I value texting seeing as it's always there. Note taking, I value it at that moment because I was in that class. But once I get out of that class, I go on to the next class and that class isn't on my mind anymore. . . . Texting so . . . it's an all day thing, so I would value it more.

Like Sarah, Marisa micro-coordinated events, projects, and other activities through writing and particularly through texting. With her friends, she used text messages "if we are going to meet somewhere." Like Sarah, she also frequently used writing as a memory device; however, Marisa typically texted herself instead of writing things down. As she put it, "Sometimes I use [texting] for like reminders. Like, I'm always texting so I'm bound to see a message" for "appointments" or a reminder that "I have to call someone. Or I'll send an address to myself, like an email address and I'll just write it

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quickly on my phone and stuff." Email, however, was a particularly important practice for coordinating things like events or even her educational trajectory. When coordinating schoolwork, such as connecting with classmates for a group project, Marisa used email to plan, exchange information, and determine when to meet. But she also emailed her academic advisors to plan. Because she was enrolled at two colleges, she had to work through technicalities, and thus frequently emailed her advisor to ask, "What classes can I take? If I'm taking this class what class can I take next semester?" or "If I'm starting these classes at [community college], what classes can I take at [university]?" Marisa also emailed to ask instructors when assignments were due. Similarly, she used email as part of her community work to get in touch with supervisors and high school students she mentored as part of her volunteer work with a large, national nonprofit organization: "In order for them to get things done I have to check with other people and I have to write emails and make sure it's ok with other people."

Alicia. Alicia, an African American female born in 1991, was an accounting major at a research university. She told us that her writing done most often was texting, journal/diary (i.e., an online journal composed on her phone), and email. Her diary entries often looked like the following:

> 11:00 a.m.: texting a friend
> 2:00 p.m.: lecture notes for class
> 4:12 p.m.: lecture notes for class
> 7:05 p.m.: texting

Alicia was one of the most ambivalent voices with regard to texting in her life. She told us that texting was important because it helped her keep in touch with her family because that is the medium they use most frequently. However, she personally did not enjoy texting: "Text messaging is good for my family. But I swear I wish they could do something else. I really do." Revealing a personal detail, Alicia told us that texting is particularly important because of her father's health condition: "Like he's in a hospital, he's on bed rest like for good, so he uses his phone. That's how I communicate with my dad because he has a tube down his throat. He can't talk, so I talk to my dad [through texting]." For Alicia, a combination of her busy schedule and her family's communication needs made texting a primary medium for maintaining her connection to them now that she was living a hour's drive away. She also valued texting because it allowed her to be available to her family and to her work even when she needed to be doing other things: "Yeah, um . . . since I'm in class so much and I'm at work so much, everyone texts me. They . . . my

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job, [café name] . . . I don't know how they learned to text from their phones, [laughs], but they text now." She noted, though, that her brothers texted her "nonstop" and she had even turned her phone over to her economics TA to avoid being distracted by text messages during class time. She said she often noticed students texting during class and thought, "You've only got 50 minutes in this class and you've been texting the whole time and then you wonder why you don't understand this or understand that. . . . It's a very big distraction."

Notably, Alicia was much more interested in email, which she said she used for important professional work like applying for internships because "it's all they do," referring to potential employers. For that reason, she explains, "emailing is way more important for me than text messaging or Twitter or Facebook." Some of Alicia's later comments helped explain why she sees texting and other shorter forms of writing associated with social media as less important or valuable even than email:

> I feel my job and my school, that's my future. Like that's what, that's what I'm gonna be dwelling on like within like 10 years from now, not my phone. Like Twitter and Facebook, I might not even have it within like 10 years from now. So I have to keep up with emails like I check my email all the time, I don't care what it is. So like emailing, doing stuff for my job, like that's so important to me.

With her attention toward her future and not the social life of her present, social media and text messaging offered less transactional value: "I can't see myself 25 pushing 30 still like on Facebook . . . I can't see myself doing that [laughs]." She understood writing as a way to take control over her own learning process, to make her own connections. She said,

> I am the type of person like I have to like if I constantly write it over and over again, it's gonna be stuck in my head. So that, like writing my notes and everything, it helps me a lot. Instead of like being a person that gotta read the book all the time and try to memorize, I have to write it, like I write it 24/7. I write it over and over and over again until it's stuck in my head.

Conclusion

With regard to short forms of writing and the powerful, handheld writing technologies many of us carry around, what does it mean for a student to say something like "texting is just . . . it's what life is now"? The emerging answers suggest that texting is connected to different forms of transactional value that students equate with school and career success and with social integration. With regard to social integration, it seems clear that relatively

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mundane acts such as texting are part of a much more complex social practice that supports and sustains roles that our participants play in their communities and that are meaningful to them. As Barton and others in the new literacy studies have long argued, literacy practices are understood to be always embedded in broader social practices. But beyond "embedded," we would argue that such practices—and here we would also insist on careful attention to technologies—*are* social practices with cultural significance. With our participants, text messages keep students connected to family members, friends, and loved ones they left behind or don't see as often as they transition into new lives as college students. Texting's coordinative function in particular is interesting not simply because of the sheer volume of this writing work but because of the way that this practice directly shapes the local ecologies within which college students practice literacy. Because of the affordances of the technologies, "local" here refers to people distributed in space and time, a literacy ecology dynamic not anticipated when the concept was originally developed by literacy scholars in the early 1990s (and so at the birth of widely available computer networks). Other practices, such as emails and self-sponsored academic texts like lecture notes provide similar avenues for coordinating and maintaining alignment with professional and academic communities. However, changes in technologies, participants, and intentions endow these practices with very different social and cultural meaning.

We therefore suggest that the practice of coordination is rhetorically, socially, and culturally interesting and may prove significant. Looking across these case studies, we find that coordination through short-form digital writing like text messaging is an important tool for social interaction. In addition, our analysis suggests that written coordination not only aligns people into social formations but also provides college students an active means for organizing "things" that matter to them within the contexts of the goals, identities, and domains that are meaningful to them: projects, internships, information, personal memory—even their own learning trajectories. From the perspective of the everyday practice of writing, micro-coordination is a more pervasive written activity than has previously been documented. It is also more than simply functional or instrumental. By bringing people and things (like events or projects) into alignment, coordination becomes a way for students to actively participate and meaningfully direct their relationship to many of the roles and identities that characterize their lives in college. While these acts of writing are "small" in isolation, taken together they appear as an expansive space for agency (and a quite substantial body of writing). These persistent, pervasive literate acts are a way that students can create action in small and large ways. While the students in our study most frequently associated this power with reaching personal and individual goals (i.e., staying in

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contact with people, working toward better grades), coordination has been framed as foundational to large-scale civic and social interventions as well. Keyani and Farnham (2005) gestured to this sense of coordination when describing Swarm, a system they developed to create forms of ambient awareness among groups, drawing on Rheingold's (2002) conception of "smart mobs." In addition, the importance of short forms of communication has recently come to the fore in moments of social upheaval (e.g., green revolution) and at moments of disaster when social coordination can mean the difference between life and death (Potts, 2013). However, the students we interviewed did not describe coordination as a form of collective intelligence directed toward broader social issues, which suggests an opportunity for further writing research and pedagogy in this area.

Coordination is not without difficulties. We stress that when individuals write across technological platforms and cultural domains (i.e., within peer groups, within different university settings), even the personal micro-coordination that happens in everyday life may be a highly rhetorically complex form of work for college students—one that also requires more attention from writing researchers, theorists, and educators. Beaufort (2007) defined the domain of rhetorical knowledge for college writers by how writers specify audiences and purposes for a text and then make decisions about how best to communicate rhetorically in that instance, especially related to negotiating material constraints like timing and relationships that exist within the communities for whom they write (p. 20). SMS text messages by their nature frequently cut across discourse communities and social domains. Making successful contextual choices when writing for coordination means understanding the functionality of a particular medium, weighing its impact on one's own goals, and understanding its appropriateness for the audience and particular communicative scene in which one might use it. These choices, as we have discussed, happen against a backdrop of conflicting values and pressures to maintain productivity.

For example, participants frequently positioned writing as merely transactional, an efficient and yet almost invisible exchange that provides something they need or want. However, in their discussions of texting and other forms of writing, it is easy to identify how the expectation of reciprocity (Hoflich & Gebhardt, 2005) that comes along with short-form communication makes this form of writing an ongoing way of being. That is to say, students do not typically just send one SMS text and then go on with their lives; the norm is to continually reply to SMS texts (Laursen, 2005). Therefore, texting and the interpersonal and identity work attached to it stretch temporally through other activities rather than occupying a simple, differentiated space and time. Thus, students like Alicia can find SMS texting to be a hindrance, especially

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as it intersects with other kinds of writing that matter to her more. But even as she finds it burdensome, she continues to practice it. Acts of micro-coordination have already reshaped everyday literacy practice for Alicia and many college students like her. The literate practices of micro-coordination are part of the fabric of writing in the lives of our students (and likely many others). Some, like Alicia, found it burdensome. Others found it sustaining. But all of our participants found it unavoidable, often "natural," and clearly a commonplace way in which they engage the world.

Appendix

Interview Questions

Part 1: Opening Questions

First, we would like to ask you a few questions about whether and how writing is related to some of the things you do in your life as a college student—things like taking courses, working, community life, and personal life.

1. How do you use writing in your life? What kinds of writing did you do in your writing class this semester? What did you value about the writing you did in this class—and why?
2. Do you write for other courses you are enrolled in? What kinds of writing do you do in those classes? What did you value about the writing you did in these courses—and why?
3. Do you have a job? What kinds of writing do you do at your job? What do you value about the writing you do at work—and why?
4. Do you participate in any community service work [note: if unsure what this means, explain in terms of volunteer work for community, political, or cause-based organizations]? What kinds of writing do you do as part of your community work? What did you value about the writing you did as part of this work—and why?
5. We noticed in the diaries that people report using some forms of writing to maintain connections to people. Do you write as a way to maintain or create connections with people? What kinds of writing? Why are these forms of writing useful for connectivity?

Part 2: Case Study Specific

Now we will ask you a few questions that are related directly to what you told us you were writing in the survey, texts, and diary entries.

[Specific questions here related to each case study and activities reported in the diary and SMS protocols.]

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Part 3: Controversial Statement Prompts

From your survey, diary, and texts and those of other participants, we learned interesting things about how you think about, value, and use different kinds of writing. Based on what we learned, we'd like to ask you how you feel about a few different statements related to writing. So for each statement, we will ask whether you agree or disagree and then we will ask you why.

Section 1: Grades/transactional value

1. Writing for school is valuable to me because grades are valuable to me.
   Agree or disagree? Why? Give an example?
2. Texting helps me get good grades, so it is valuable to me.
   Agree or disagree? Why? Give an example?
3. Writing allows me to do my job better.
   Agree or disagree? Why? Give an example?

Section 2: Intrinsic value

1. A piece of writing that takes a lot of effort is valuable to me.
   Agree or disagree? Why? Give an example?
2. A piece of writing that takes a lot of time is valuable to me.
   Agree or disagree? Why? Give an example?
3. A piece of writing that lets me think through challenging subjects is valuable to me.
   Agree or disagree? Why? Give an example?
4. A piece of writing that I feel is original is valuable to me.
   Agree or disagree? Why? Give an example?
5. Writing in academic/school settings (academic essays, research papers, tests, etc.) is more difficult than writing for personal reasons (diary, journal, texting, social media, etc.).
   Agree or disagree? Why? Give an example?
6. Writing that makes me feel happy is valuable to me.
   Agree or disagree? Why? Give an example?

Section 3: Social coordination and value

1. Writing that makes me feel more connected is valuable to me.
   Agree or disagree? Why? Give an example?
2. Texting helps me keep in touch with my family.
   Agree or disagree? Why? Give an example?
3. Texting helps me keep in touch with my friends.
   Agree or disagree? Why? Give an example?

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Section 4: Time, productivity, and value

1. Writing that I can complete quickly is valuable to me.
   Agree or disagree? Why? Give an example?
2. Facebook wastes important time that I could spend doing more valuable things.
   Agree or disagree? Why? Give an example?
3. Texting wastes important time that I could spend doing more valuable things.
   Agree or disagree? Why? Give an example?
4. Academic writing wastes important time I could spend doing more valuable things.
   Agree or disagree? Why? Give an example?
5. Some writing that I spend a lot of time doing is not very valuable to me.
   Agree or disagree? Why? Give an example?

The End
Thank you for taking the time to talk with us today. You can find out more about the study online if you are interested.

Acknowledgment

The authors wish to thank the Michigan State University Center for Statistical Training and Consulting for providing statistical support that made this research possible.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

Notes

1. It is largely recognized that mobile, digital technologies have contributed to a changed conception of space and time that leads people to be “always on” or “wired” (Baron, 2008). It has also become commonplace to claim the pervasiveness of technology is leading young people to write more than ever. The spatial and temporal pervasiveness of technology is a commonplace in scholarship and public discourse (Aarts, Collier, van Loenen, & de Ruyter, 2003; Greenfield, 2006; Niebert, Schieder, Zander, & Hancock, 2007; Weber, Rabaey, & Aarts, 2005). In the vernacular, the idea that social media pervade everyday experience has become commonplace.

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Thompson (2009), drawing on an interview with rhetoric and composition scholar Andrea Lunsford, remarked that students are writing more than ever.

2. Undergraduate researchers designed our recruitment strategy in order to identify motivated students enrolled in writing classes. The strategy focused on engaging participants as they went about their day-to-day lives on campus through the use of bulletin board flyers with information about the study and tear-off contact information that enabled prospective participants to communicate their interest with us. We posted these flyers in locations on campus that we believed would attract the attention of students enrolled in a writing class. We also recruited interested participants by emailing a project description and contact information to select first-year writing classes.
3. In the prior survey, the instrument had been distributed to students enrolled in a first-year writing class from April to June of the spring 2010 semester (N = 1,366). We constructed a purposive, stratified sample in an attempt to match the demographic profile of U.S. college students (those enrolled in both 4-year and 2-year institutions in 2010). The survey asked participants to identify writing practices in which they engage based on a list of 30 possible choices. We adapted this list of writing practices from the instrument used by the Stanford Study of Writing (n.d.). To their list, we added several practices that had emerged since their study (i.e., social networking statuses and comments).
4. While we focused on weekday writing to capture the writing that happened when classes were taking place, we did not look at the same three weekdays in each case. Diary data from weekends were most incomplete and had the greatest variation across cases.
5. The graduate student was older, was working, and drew on those experiences more fully than did other participants. The other nine were very much "students" in terms of their identities and activities. The graduate student identified as a professional. For us, the differences in the graduate student case point to how distinct variables such as age, work, and cultural contexts can be.
6. Our initial codes for purposes aligned with those used in the survey: for school, for social good, for entertainment, for personal fulfillment, and for work. Our initial codes for functions included facilitating learning/school activities, facilitating success at work, maintaining interpersonal connections, maintaining personal organization, communicating, having fun or entertainment, and maintaining memory. Our initial value codes included a list that overlapped with these functions, which suggested to us that many participants valued particular writing practices because of their functionality. These codes included facilitating learning/school activities, maintaining interpersonal connections, maintaining personal organization, communicating, having fun or entertainment, and maintaining memory. In addition, other value codes that differed from function codes included personally meaningful (intrinsic value), challenging, frequent (i.e., valued because it was done often), transactional, and easy/convenient.
7. One reviewer noted that our methodology flattens the difference between different practices of writing (e.g., between something "short" like an SMS text message and something more involved like an academic essay). This is a feature of

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our approach. Our approach focuses on accounting for—from students' perspectives—what writing they do most often regardless of how involved or formal it is. Our reviewer is also getting at issues of value. We agree that value is important, and subsequent features of our approach allow us to ask questions about value.
8. We should acknowledge the possibility that our methods, using SMS texting to connect to students, may have attracted a student population for whom texting is an especially frequent writing practice.

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