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Emplacing Mobile Composing Habits: A Study of Academic Writing in Networked Social Spaces

This article details the material, locational, and time-use dimensions of student writing processes in two networked social spaces. Drawing on case examples, the findings show how composing habits grounded in the materiality of places can build persistence for learning in a mobile culture. Public social spaces support these habits, enabling some students to control social availability and manage proximity to resources.

“This semester it’s been Tuesday, Thursday, Saturday and Sunday,” said a master’s student named Kim. As we talked, she sat in a familiar location on one side of a café booth with her laptop snapped shut and a muffin stacked on a journal alongside it. She was describing her current routine for studying in the Gone Wired Café, which was an independent coffeehouse located on the avenue linking a large public research-intensive university to the “East Side” of the adjoining city where she lived. Kim completed work for her graduate courses at Gone Wired and rarely diverged from her routine even when spending time there with others. Often donning noise-reducing headphones plugged into her Mac laptop, Kim treated time in Gone Wired like a job commitment. She was amused at herself for being so set in her ways:
I wrote like a poem or something about coming to Gone Wired. First thing you put down your bag, you sit down, or you plug your computer in, and like you take your laptop out . . . and you plug it in, and you put your headphones on and you open the laptop and you get all your stuff situated. You know? And then I go check my email and I check Twitter and all these things have to happen in a very specific order for me to feel like okay now I can work. You know?

Although I would describe Kim as particularly methodical, I did understand. Research examining the relationships that composers form with places, technologies, and other artifacts emphasizes how material environments tacitly and explicitly support thinking and writing practices (Reynolds; Prior and Shipka; Bowen). For example, Paul Prior and Jody Shipka assign the term environment selecting and structuring practices to describe “the intentional deployment of external aids and actors to shape, stabilize, and direct consciousness in service of the task at hand” (44).

The study from which Kim’s case is drawn extends this focus on the connections between materiality and composing processes by analyzing “how people move through the world” when writing in a hyperconnected, information-rich culture (Reynolds 26). Scenes for writing shift significantly when individuals maintain nearly constant contact with one another through mobile devices and online social networks (Katz and Aakhus, “Introduction”; Ito, Okabe, and Matsuda; Ling and Yttri; Parry; Pigg et al.) and experience what Richard Lanham has called drowning in floods of circulated data and text online (6). To learn more about how these contexts affect composing practices, this qualitative research examined writing in two semi-public places. The first site was the Gone Wired Café, a coffeehouse and frequent workspace for graduate students, faculty members, and undergraduates that was located three miles from a large midwestern university. My second fieldwork site was a university social learning space called the Technology Commons, which was also located on a highly traveled pathway: a pedestrian crossroads traversing one of the country’s largest metropolitan universities. During several weeks of research, I inhabited each place as a participant-observer and interacted with twenty-one student participants in interviews and videotaped observations.

After describing why research on composing with digital, mobile technologies can benefit from situating device use in place and time, this article traces two cases of everyday writing process from the larger project. As a result of this analysis, I suggest that public social places like coffeehouses and social learning spaces offer a temporary place to dwell and locate writing, which is a need expe-
rienced by composers who work and learn with smartphones, laptops, and tablets. When focused on the screens of mobile technologies, we can easily forget that their use is never disembodied or immaterial. Writing with mobile technologies is enabled not only by servers, cables, Wi-Fi networks, and histories of development and labor, but also by how users make places for devices in everyday practice. Coffeehouses, cafés, and other semi-public locations offering wireless Internet are sometimes popular sites for composing with portable digital writing devices because they offer a place where it is socially acceptable (and safe) to keep one’s body physically still while moving across virtual places. When used in this way, informal public places sometimes facilitate a delicate balance of social access and restriction by helping writers control social availability while maintaining proximity to needed people and materials. While public social spaces provide momentary stasis for composers who frequently move, the cases further highlight how the embodied, material memory associated with repeated composing habits can lend stability to distributed processes such as learning.

Locating Writing Processes in a Mobile, Information Culture
Mobile, networked technologies and changes in the global economy have initiated shifts in the lived experience and use of physical places. For example, although community writing groups still thrive in the agentive public and semi-public spaces that Anne Ruggles Gere has identified, shared social sites frequently become locations for individual activities or less structured or overt collaborative formations. For example, Clay Spinuzzi has recently called attention to coworking, a phenomenon in which knowledge workers seek shared semi-public places with varying levels of material, social, and technological support to work (often individually) in the presence of others. Although Spinuzzi describes how some coworkers initiate ad-hoc collaborations with individuals present in these physical places, they are perhaps more likely to access the wealth of collective wisdom and resources available through online crowds, while focusing immediate attention toward mobile devices that connect them to online networks (Porter; Surowiecki). When we move and carry networked mobile writing technologies with us, coffee shops can become office spaces, seats on the bus can become sites of academic learning, and classrooms can become
Domains of personal communication. Transformations of space resulting from using literacy technologies have occurred for as long as those devices have been mobile (e.g., pencils, books, notepads). However, as Kazys Varnelis and Anne Friedburg have recently described, the “everyday superimposition of real and virtual spaces” resulting from using networked mobile devices in public places affects social arrangements through an emerging “mobile sense of place” (15). As critical geographer David Harvey has theorized, the expansion of global capitalism and demands for increasing productivity further push individuals to make more use of time, compressing space and leading to a sense that the world is smaller and more navigable.

Mobile, networked technologies and the global economy thus mean augmented—if not precisely new—spatial tensions and challenges for academic writing processes in a mobile culture. Although a key pedagogical concern of the past ten years has been constructing campus writing environments that integrate positive attributes of the extracurriculum,3 Jonathon Mauk articulates a growing concern that students will never fully establish foundations in academic places and discourses because they are lured away by nonacademic places, information, and interactions. Mauk describes a generalized “placelessness” experienced by students whose personal lives and work schedules are more pressing than their study (370). However, networked smartphones, laptops, and other mobile devices introduce related tensions into the intersection between extracurricular sites and academic learning. In a culture where “students entering the academy already live in a culture of wireless and mobile technologies” (Kimme Hea, introduction 2), they may experience what new media theorist Sherry Turkle calls a “fully tethered life” where mobile devices connect them at all hours to people and information (172). Describing the complications of constructing online locations as a “frontier,” Nedra Reynolds notes that many “Web users find it hard to leave—not only from confusion but also from a sense that virtual spaces are more inviting or attractive” (35). Against this backdrop, students who write with networked devices confront a double challenge of locating their learning. In physical space as well as on screens of their writing devices, academic composers must set and maintain the scenes of their own process once they leave classrooms.
Mobile Writing as Embodied and Emplaced Practice

For reasons I have briefly described, we need more research that analyzes how student writers simultaneously and actively navigate—and become influenced by—physical and virtual environments. I am not alone in calling for materially situating mobile literacies. In his recent argument for more in situ research on mobile device use, literacy scholar Guy Merchant links physical and virtual spaces by defining “everyday mobile practices” as “how portable devices, and particularly those with some level of connectivity, are being used in people’s day-to-day lives—in informal space and in those boundary spaces that are only loosely controlled by institutions, employers, and so on” (771, emphasis his). Although Merchant cites phenomenologists and social practice theorists to position mobile device use as everyday practice, the long-standing tradition of studying writing as material, embodied practice might provide a similar foundation for compositionists. In *Writing Technology: Studies on the Materiality of Literacy*, Christina Haas theorizes writing as a physical activity of manipulating technologies and other materials. As she puts it, “Writers use their bodies, and the materials available to their bodies via the material world, to both create and to interact with textual artifacts” (226). In methodological terms, this theory suggests writing researchers might learn more about mobile composing by accounting for material writing processes. While process research in composition studies has historically modeled internal stages of thought that lead to effective essay writing (Emig; Rohman and Wlecke; Rohman; Flower and Hayes), Derek Van Ittersum and Kory Lawson Ching note an emerging sense of process research that describes the material constraints and conditions of literate activity in everyday practice. From this perspective, processes are contingent, lived actions and interactions with the world that are 1) distributed in time and space and 2) invoke social, technological, and economic forces. Thus, researching process can uncover trajectories of textual development and movement: “the point is to make the complex and highly distributed processes involved with the production, reception, circulation, and valuation of texts more visible” (Shipka qtd. in Van Ittersum and Ching n.p.).

Accounting for writing processes in a mobile, networked culture means facing the difficult task of tracing interactions with a wealth of materials. Often—for good reason—researchers focus most explicit attention on the virtual
locations and written discourse through which individuals and groups interact when analyzing emerging digital and mobile literacies. However, I suggest that researchers can benefit from increased attention to the agentive role physical environments play in interactions with bodies and virtual spaces. Social anthropologist Sarah Pink, for instance, calls for ethnographic research that accounts for the “emplacement” of active bodies, which situates individuals “as part of a total (material, sensorial, and more) environment” (25). In rhetoric studies, the move toward emplacement has led theorists such as Thomas Rickert to define environments “not just as the setting for activity but as a participant” (41). This move further positions places as dynamic, evolving, and mediated—an alternative vision to more static rhetorical conceptions of place associated with topical invention (Jeff Rice 10) or rhetorical situation (Edbauer).

More closely analyzing how virtual and physical places intersect for mobile composers can illuminate 1) how embodied memory and resulting literacy habits are constructed through place-based interactions and 2) suggest what factors lead mediated places to support effective composition in information-rich cultures. Scholars have long suggested that the sensory experience of places leads to ingrained habits—what Beverly Sauer has called “embodied knowledge” built from moving through the world. For example, Nedra Reynolds identifies how “firstplaces” of home shape future literacy habits (142). Describing formative locations where one takes on his or her earliest embodiments, Reynolds shares her own story of moving through a space filled with siblings while seeking privacy to support her childhood reading practices (155). Reynolds’s discussion later complicates a nostalgic linking of place and habit, an idea that has been explored by cultural rhetoricians who further identify how the experience of place is always political. By portraying “what it feels like to be in the archive,” Malea D. Powell in “Dreaming Charles Eastman” evokes how the mundane sensory experience of archives—“the way they smelled, the hard, wooden chairs”—transmits colonial, economic, and cultural forces that become “held captive by the body” (116, 117). In another recent analysis of place-based habits, Terese Guinsatao Monberg has theorized how “recursive spatial movement” can elicit new understandings for students of color who consciously and reflectively experience and re-experience familiar places.
While more attention to the political and sensory effects of networked places can provide lenses into the literacy habits formed through interactions with place, mobile composing researchers can also benefit from accounting for how virtual and material interfaces potentially work together to support composing. For example, Jason Swarts has traced how place (or lack of place) affects the labor required to assemble coherent narratives of care when veterinary students work with mobile devices, arguing that “mobile technologies short-circuit locative assumptions and transfer more of the burden of interpretation back to readers and other resources in their environment” (280). For Swarts, this means that mobile device interfaces need to work in a symbiotic relationship with the space around them—supplementing contextual information that might be absent in a given place. Johndan Johnson-Eilola’s Datacloud similarly identifies relationships between on-screen interface arrangements needed for “symbolic-analytic work” (28) and physical workspaces that support on-screen negotiations, where both work together to afford and constrain the possibility to access, combine, and juxtapose complex information that overflows single interfaces. These dual concerns—of the symbiotic relationship among screens and material places and of the effects that experiencing them might have on later literacy habits—informed the project I now discuss, which focuses on how students and professionals compose in networked social spaces.

A Case Study Analysis of Academic Writers in Networked Social Spaces

This study of everyday writing practice was guided by broad questions: Given the integration of mobile technologies and changing notions of space and time, how are individuals locating writing in virtual and physical places? What composing habits are associated with writing in a mobile, information-rich culture?

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by personal, professional, civic, or academic goals. Therefore, building on the literature reviewed above, I use the term *composing habits* to capture the idea that the process choices participants made were often not fully self-conscious or premeditated and could often be described as operations or everyday ways of doing things. To begin data collection, I conducted participant observation and recorded detailed field notes about arrangements of space, people, and materials over several weeks in both locations. I followed this participant observation with qualitative case studies of individuals selected because they aligned with common social configurations and technologies identified through participant observation. Twenty-one of these cases were university students, including four graduate or professional students and seventeen undergraduate students. Eleven students were female, and ten were male, and they identified with a range of races and age groups. Their majors included criminal justice, microbiology, health sciences, mechanical engineering, business management, anthropology, psychology, and many others.

To trace the relationship between virtual and physical places, I video-recorded one work session for each participant in the public social space that captured activity on the device screen and in the surrounding physical workspace. I followed these observations with at least one follow-up interview, which made use of the recording as a prompt. Interview questions focused on work session activity along with questions about why, how, with whom, and with what technologies individuals use the space. To analyze data, I transcribed interviews and talk from the work sessions, segmented the data into conversational turns, entered it into relational databases, and coded it in two passes. The first pass applied a set of starter codes to identify experiences of sociability and interaction (e.g., assigned groups, alone, student-formed groups, micro-coordination or short-form writing for planning, hyper-coordination or keeping constant interpersonal contact through digital writing, chance encounters, keeping to oneself) as well as experiences of time, space, and materials (e.g., places used, materials used, place affordances, time affordances, affordances of materials). A second pass identified forms and functions of writing in the space and established relationships among previous codes. Along with this analysis of talk, I transcribed the actions of work sessions, divided them into time segments, and coded time segments for central mediating artifacts to which participants attended at a given time (e.g., social media sites, word processors, external hard drives, people). This time-use coding produced visualizations of process that led to the narrative interpretations presented in this article.
The activity I observed in both locations was diverse. Students worked on academic assignments alone and in groups, killed time between classes, and spent time with hobbies and individual interests. In the following discussion of findings, I use two cases to highlight a pervasive practice of associating public social spaces with a social context that is conducive to work and learning. Public social spaces allowed many participants the sense of temporarily disengaging from peer social networks and other objects that exert a strong hold during everyday life (i.e., televisions, their pets). Furthermore, I highlight their experiences as case examples because they speak to the role writing can play in processing information through creating a personal memory system. This was only one use of writing identified among others, including the use of short-form writing to connect to broader networked publics (Pigg) and/or coordinate with peers.

The Gone Wired Café and Kim’s Workspace
Morning hours in the Gone Wired Café brought a line of patrons filing to the cash register, where the barista took orders. Like many independent coffee-houses, the location contained deli cases full of muffins and scones and floor-to-ceiling columns stapled with bulletins advertising local artists and community events. As each participant described, Gone Wired was large by coffeehouse standards with two levels of mixed-purpose booth and table seating. Its location combined with its internal configuration meant that community collectives regularly met there: from politically affiliated action groups to nonprofit groups training volunteers. Kim, whom I introduced earlier, mentioned this as one of Gone Wired’s most compelling qualities: she liked that the owners cared about the local community, encouraged local art and music, and allowed her to be among groups such as the “Compassion club,” “lesbian moms,” and role-play gamers.

As already suggested, however, Kim used Gone Wired primarily to complete academic reading and writing alone or alongside one other person who also worked individually. She was not unique. Students and professionals with laptop computers were so common in Gone Wired that a local news outlet described it as one of the city’s best places for working outside the home or office, even “better suited to studying than dining” (Miner-Swartz). While seated upstairs at a large booth alongside a balcony overlooking the bottom floor, Kim
told me that she brought her laptop and academic work to Gone Wired because it helped her focus: “there are certain things that I can’t do at home because I get distracted. So the TV’s at home, my dog’s at home, all these things sort of either need my attention or demand in some way my attention. Here I can put my headphones on and be in this world.” For Kim, the objects of home life possessed a strong attraction: while in their presence, she tended to orient her attention toward them, which could be detrimental to reading and writing.

The opportunity to do extensive academic work beyond home or school had arisen after purchasing her laptop computer. As she explained, “Before I had the laptop, I had a desktop, so if I was writing, I had to be at home, I had to be at my desk. And I had to be, you know, in that space, which was a lot different. Using a laptop, I can take it anywhere.” Gone Wired was not the only local café she used for schoolwork, but it was her favorite. She occasionally visited two other coffee shops, but found one a bit tedious because it did not make its Wi-Fi network readily accessible, and the other was located in “a strange place” (two sharp left turns off the highway) that made driving to it less convenient. Thus, she had developed her four-day-a-week schedule (“Tuesday, Thursday, Saturday and Sunday”) and found that she could consistently finish coursework in this space.

**The Technology Commons and Heijin’s Workspace**

The Technology Commons is a multiuse social learning space at the center of a metropolitan university. Thus, it is not surprising that students suggested many reasons for using the Technology Commons. For students who live off campus and commute to this high-enrollment university, a break from classes automatically means finding space to occupy, what junior criminal justice major Ann called searching for “a place to sit” when not in class. However, as sophomore pre-med student Sofia stressed, many undergraduates who live on campus go to public campus spaces for different reasons: many do not have cars and thus spend many hours on campus. Rather than looking for a “place to sit” until they go elsewhere, students such as Sofia seek social locations less isolating and enclosed than dorm rooms and residential common areas. With both dynamics in play, the Technology Commons had forged a relationship to campus social networks. As sophomore computer engineering major Dean described, well-connected students develop an intuition about how their schedules intersect with others in their social spheres. Without discussing it, they begin to understand where to find people they enjoy meeting. Max, a
finance major and member of the Filipino Student Association, poked fun at how his friends gathered one by one in the Technology Commons until they formed a large group: “People always start coming and . . . they pass by and then they start talking to [each other] and then they’re there. Then another friend comes by that knows them . . . I was there with like one person and I’m like damn [we] are taking over the Tech Commons, you know?” As Max suggested, the Technology Commons had become incorporated into social travel patterns at the same time that it attracted individuals looking for a place to kill time between classes.

However, college students also have reasons to avoid peer social/locational networks. Some students such as senior event management major Heijin used the Technology Commons to remove themselves from people with whom they usually hung out or co-studied. Although she was enrolled at the central campus location where the Technology Commons was located, most of Heijin’s classes took place on a separate campus housing the school’s hospitality management programs located twenty-eight miles away—a thirty-minute or longer drive depending on traffic. Heijin, not surprisingly, moved nearer to her academic program’s location, which also bordered the city’s tourism industry where students in her field sought part-time jobs and internships. This branch campus location, then, had in many ways become the social and intellectual center of her academic and developing professional life. Discussing the close-knit network of friends she had made in her major, she described how they routinely (for an hour after one class in particular) met on her branch campus to dissect the lecture material for upper-level courses and prepare for tests together.

The Technology Commons thus functioned differently for Heijin than it did for Max or Ann. Although it was a substantial commute, Heijin traveled to the main campus “usually for studying.” Reflecting on why she travels to the main campus, Heijin expressed that “at home I get distracted very easily” because she has “the TV right there, the remote control.” In addition, she found it motivating to work in the presence of others whom she did not know but with whom she shared a common goal: “it gets me more on task when I see other people studying.” When traveling to study on the main campus, Heijin sought quiet, “less crowded places” to sit with her laptop (i.e., the Student Union or campus engineering center) or made use of desktop computers in the Technology Commons, often staying “for a good 5–6 hours” at a time. Occasionally she located herself among friends with degree programs on the main campus, but she chose her study companions carefully: “people I can work with and study at the same time and know they won’t be bothering me.”
Informal Public Places and Negotiating Proximities

Looking across these two cases, it is inaccurate to reduce Gone Wired or the Technology Commons to their roles in academic writing. In both locations, some school writing takes place, but many more unrelated things happen. Similarly, it is reductive to suggest that these places are the center of Kim's and Heijin's livelihood or even the “intellectual center” of their academic lives (Mauk 373). Instead, for both students, these locations became useful in situated moments. In particular, these sites became part of local ecologies of place, people, and materials that cultivate an unusual form of sociability. Writing processes often require social interaction at particular moments: social resources such as people who can provide feedback; texts that reveal shared information; and search engines, online encyclopedias, blog pages, and other wired locations that hold collective understandings. However, writing processes also sometimes require an individual focus that can be difficult to sustain in the presence of social objects, including those completely unrelated to a given task (e.g., television) and those partially or fully related (e.g., people or online environments) that nonetheless pull attention toward other activities. Informal public places such as cafés, coffeehouses, and commons areas serve as commonplace productive locations for many writers because they ground a delicate interactive balance, positioning composers to feel in control over their immediate social and material environment, which is crucial to balancing access to social resources with enough removal from them to focus. Their infrastructure supports the materials writers frequently use to access resources (the mobile laptop for Kim and the laptop or in-house desktop for Heijin) and yet offers the opportunity for what participants called “clean space” where they could focus.

Writing processes always involve negotiations about proximity to people and objects—even when many social resources can be accessed “anywhere” thanks to mobile writing devices.
temporarily closer to academic discourses, perspectives, and knowledges and temporarily farther from other possibilities.

The spatial practices of negotiating social proximity, however, are not as simple as individuals choosing materials; they are always political, economic, inflected by ideology, and bound in discourse. In the case of these students, creating the material conditions to support learning involves affective and political negotiations. Some bodies cannot be located in particular places because of the threats those places pose, because they are not accessible, or because they have been systematically excluded from them (Sibley). Kim explicitly connects working at Gone Wired to the fact that it accommodates her body: “for me, writing needs a certain level of being comfortable. I think that comfort is comfort with who I am. This place is very queer friendly.” Heijin also contrasted the Technology Commons with other places on campus that made her feel uneasy: “when I go to the library I tend to . . . see people looking over my shoulder and people . . . kind of like glancing at my screen and stuff, and I just find it uncomfortable.” Neither student explicitly mentioned the economic implications of working in public social places, and yet economic materialities are also invoked through their choices. For example, Kim effectively paid a small fee each working day in exchange for the clean space that allowed her to focus. This choice would not be available to all students—just as the fee structure of professional coworking means that not all knowledge workers can take advantage of its benefits. In short, accessing “good” material writing environments is not simply a matter of personal choice: it shapes and is shaped by cultural economic systems that are also implicated in constructing the discourses of productivity and time use that push composers into public places for work purposes.

It is important to note that this research begins with composers in public, social spaces and thus is limited to understanding the motivations and practices of those who inhabit them. Not all students or professionals experience the precise social/material issues that lead Kim and Heijin toward cafés and social learning spaces. Even among those who share a difficulty disengaging from home environments and a lack of private writing space elsewhere, many individuals find public social places more distracting than home or cannot cross

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political, economic, gendered, or accessibility barriers of entry around them. However, all writers negotiate spatial demands related to social proximity as part of the lived experience of writing process, even when these challenges are experienced differently. They also participate in and are affected by cultural (i.e., economic, gendered, raced) discourses that structure the time, space, and materials of learning.

Activating Habit through Resources: Workflow and Writing’s Materiality

While both Kim and Heijin felt more in control of distractions when working in public social space, neither completely shuts down the flow of information coming from her mobile devices as she studies. Thus, both still encounter interruptions—and also have the opportunity of taking advantage of collective social mobilizations that take place in virtual places. Kim and Heijin described choices about social and spatial proximity as “routines” in which they returned to familiar places that had yielded positive results over time. The following section adds another layer to the relationship between habit, materials, and spatial negotiations by explicating on-screen composing habits that bring temporary stability to the distributed process of learning. These habits enable Kim and Heijin to make use of what writing affords materially in order to manipulate, juxtapose, and personalize information encountered through coursework, while they occasionally integrate other virtual social places into their workflows.

Resources and Routine in Heijin’s Outlining

When I videotaped an hour of Heijin’s work session in the Technology Commons, she was reading her city and country club management textbook and constructing a detailed outline. This academic writing had not been assigned; she had developed this strategy for learning content over several years beginning with her first high school AP classes. She now outlined constantly—for each class she took that was not explicitly experiential (i.e., internship, her client interaction course). As Heijin and I discussed what outlining afforded her, I was struck by how this routine relocated previously unfamiliar information into a meaningful personal context. For example, Heijin said:
• I don't like to *just* read the book because . . . when I take the exams or, like, quizzes or do my homework I’m, like, “oh I remember putting it somewhere, reading it somewhere,” but then I don’t remember where I read it . . . and I don’t like flipping through the book the whole time trying to figure it out.

• It helps me, it makes me, it forces me to reread it again and, like, focus on where it goes and stuff so I remember it more clearly.

• Even if, like, teachers give us PowerPoints, I kind of put it in my own outline because I like it my way . . . because it makes it easier for me to find stuff.

Heijin often outlined course readings before receiving her instructor’s presentation notes or listening to lectures, so that she could annotate her outline during the lecture and thus situate her instructor’s thoughts with reference to her own already evolving understandings. Describing that process, she said, “there are certain times where she’ll be, like, ‘oh, remember this for the exam’ or ‘this is something that will pop up in the final,’ so all I have to do is, like, mark it down on my paper.” Being ahead of the game prepared her to understand the lecture, reducing her cognitive load and putting her in a position where she “already [knew] what she’s talking about.” As Heijin put it, “instead of trying to write it all down and focus on what she’s trying to teach at the same time,” she could simply add the instructor’s discussion to an existing, personalized information infrastructure.

Thus, sitting at a Macintosh computer in a mixed-use zone of the Technology Commons, Heijin had constructed both a macro and micro foundation to spatially orient herself toward course content. With a clean screen in front of her, her book open on the desk, and her phone, planner, and school file (a portfolio where she kept printed syllabi and course handouts) arranged around her, Heijin moved from reading the book to filling in her outline template in Microsoft Word, which drew on standard bullets and numbering format. She worked in the “Notebook View” of Word, so that she could maintain one file throughout the semester, adding a tab for each chapter she outlined. After finishing her time on the public computer, she emailed the file to herself, so that she could access it on other personal and shared devices.

Of course, spending “five to six hours” reading, summarizing, and arranging material from a textbook would be a feat of focus for anyone. Heijin
admitted that she integrated movement toward different tasks or her social life to sustain this process. She explained, “Sometimes when I do my outlines I get a little bored or tedious and I just, like, kind of stop for a minute, do something else to get my mind off of it and I can recuperate and get back into it.”

Heijin received a text message on her phone about halfway through the work session. When this happened, she picked up her phone, walked away from her workstation (and the observation), and returned three minutes later to resume outlining. She explained later that during this kind of break she typically checks text messages, Instagram, and GroupMe, a group chat application she used to coordinate with sorority sisters, classmates for group projects (common in her major), and small groups of friends. She also kept Photoshop and a web browser page directed toward the university course management system open but minimized in the dock of her desktop screen. She periodically opened Photoshop to work on a flyer for her sorority and habitually checked the CMS to monitor course updates. Although she worked on these tasks incrementally, she did not leave alternate applications visible while working on her outlining: “Yeah, I don’t like it when, like, all these things are up on my computer . . . because it bothers me because the next thing I do is look at that and then I’m not focused on what I was actually doing.”

**Resources and Routine in Kim’s Reading Response**

Kim allowed me to videotape her working in Gone Wired on a similar task: she was reading four assigned journal articles in PDF format on her laptop screen and had been assigned to compose a short reading response synthesizing them. Kim explained that this was a weekly activity with a deadline before class began. Thus, over time, Kim understood the preparation work required to produce an effective response: “it’s a very similar process,” she explained, “so the readings, and then the notes, and then the reading response.” In her words, “that’s my workflow.” To be more specific, Kim had cultivated a specific note-taking routine to prepare for her class and for writing her response. She opened each PDF document one by one in the left-hand side of her screen. While reading each document, she took notes by transcribing or cutting and pasting text directly from the PDF into a new Microsoft Word document entitled “Notes” and transcribing the page number for the direct quotation. After composing this document containing important material from all four readings, Kim moved the notes document to the left-hand side of her screen and opened a new Word document on the right. Into this document, which would
later become her response, she cut and pasted information from her notes that she wanted to address (quotation marks still around all cited material) and began to “compose around” this information. While Kim’s response text began as patches of others’ writing, she eventually cut bulky quotations, added elaborations and commentary, and synthesized across multiple readings until there were no traces that indicated she had used this technique.

Like Heijin, Kim described her note-taking approach in spatial terms—concerned with how to make information relevant by locating it within a personal material infrastructure she constructed to synthesize and understand information. Kim said:

- I actually prefer [reading PDFs on the computer] because I can organize it in this rectangle screen, and it’s not out here, it’s not in a folder somewhere. I can’t forget it unless I forget the computer. Which is really unlikely.
- [The first step to writing a response involves] drawing out the things that I want to talk about or that I might want to talk about and I’ll put that into the reading response document.
- [Before taking notes in this way,] I remember that I would refer back to my notes and be, like, “well what did they actually say?” Because, like, what I wrote here referring back to it, that’s not helping me. I need, like, exactly what they were saying instead of having to go back and say, “oh I took this note on page, you know, 218 and then have to go back to page 218.”

Kim said this process was “something that I taught myself” that evolved from experiencing the course. Taking notes had originally meant recording her impressions on a Word document as she read. In her words, she “would say ‘Oh that’s interesting’ and write what I thought was happening.” However, the problem with these impressions in the long term is that they quickly became disorienting. It was difficult for her to remember with what parts of the reading her impressions corresponded. For this reason, she started writing “full quotes and putting that in my notes as a way to contextualize what this person was talking about. And if I had something to say, I would write, like, underneath it.” For the particular academic tasks she had been charged with so far, this process “ended up working a lot better.”

Kim enacted this habitual movement while monitoring online social sites. Although Heijin generally kept away from the Internet, Kim checked Twitter and
her Gmail relatively frequently during her time in Gone Wired—often prompted by an alert on her screen when an email entered her inbox. This activity was always fast paced and ended when she returned to her Word document. As someone who had been a professional before returning to graduate school, Kim mentioned that monitoring her online presence had arisen during her previous job, when she found herself “the only one who worked so one person at a time. And we had access to the Internet and that’s what I did. I was on the Internet all day.”

Kim, unlike Heijin, also drew on the Internet explicitly for social information that was relevant to her learning. As she began composing around the quotations that formed groundwork for her response, she spent several minutes reading Wikipedia to learn about a historical movement that her reading referenced. Reflecting on the role that the Internet played in her work session, Kim said it’s “multifaceted. It’s a distraction, it’s a resource.” She commended Wikipedia for providing important collective information but understood that introducing it into her work session also brought the lure of other places: “I can go look it up and find out more about this writer or this movement or whatever it is that I think I need to know about. But at the same time, when I open up Firefox, all those other tabs are there too. So it’s not just a resource, it’s a resource that I then use to distract myself.”

**Connecting Screen to Social Space**

In general, writing research has paid relatively little attention to the places and materials students choose when making a place for completing academic writing projects. Heijin and Kim have cultivated material resources and embodied habits that orient them toward academic learning once they leave classrooms. Instructors encountering these students would likely notice the products emerging from these foundations but miss the strategies they have developed to sustain them. Their composing habits are neither fully self-sponsored nor fully academic: they rest on the foundation of places rich with materials that range from power outlets to desks to Wikipedia. While doing so, they use flexible but habitual strategies to confront challenges of going elsewhere, from the pull of the TV to incessant email arrivals.

Both participants have become influenced by and connected to these frequently traveled places and materials through habits and embodied memory. In combination, these places and materials promote a stability—or set of rhythms—that can be observed in routine movements both on-screen and in physical space. While working in public social spaces, both Kim and Heijin
focus primarily on their writing device screens rather than the activity or materials surrounding them. However, the combination of materials and shared understandings in their environment enable this focus—rendering it possible and socially acceptable, for instance, to avoid talking to people seated just a few feet away from them. As Johnson-Eilola stresses, on-screen interfaces “struggle to contain” complex symbolic work, which overflows containers (59). Thus, the physical environments around mobile device screens matter a great deal to effectively working with information; space to spread out one’s materials, surfaces on which to display emerging ideas (McNely et al.), and even ambient sounds like the repetition of others’ typing or listening to music on headphones become an active part of locating habits for working in information-rich contexts.

Of course, while Kim and Heijin feel less distracted than when at home, networked device screens present a different collection of social objects to be negotiated during writing time, and these students navigate the social pulls of the Internet in different ways: Heijin closes her web browser and only interacts with social sites through her phone, while Kim quickly monitors online sites in her browser at brief regular intervals. Importantly, these forms of negotiating online interactions allow participants to potentially seize opportunities that may come from so-called distractions without sacrificing too much attention from primary writing tasks. While most individuals need to shut off the Internet temporarily in order to accomplish some of learning’s cognitive labor, doing so represents an unintuitive bodily response to mobile device screens as well as an act of resistance toward discourses that suggest individuals should remain always on and available. How students habitually navigate this overlap between virtual and physical space creates an embodied memory for and through writing, which influences their academic identities. In this case, both students draw on writing’s materiality as a way to stay focused, giving process to distributed work through repeated and methodical acts of arranging external information into personal memory systems.
Composing Habits and Cultivating Persistence in a Hyperconnected Culture

While instructors often observe students bringing the extracurriculum into classrooms (e.g., texting or using social networking sites), students also locate academic literacy practices in nonclassroom locations. Kim and Heijin provide successful examples of combining shared social spaces and personal technologies to support learning processes over time through informal but sustained writing processes. Their cases suggest that much as rhetorical commonplaces act as intersections between invention and memory toward the creation of new ideas, arrangements of sociomaterial resources become places of departure for embodied movements that form familiar writing routines. When working in the midst of burgeoning online information and interactions, these composing habits can become personal memory systems that create momentary stability during distributed processes such as learning. However, as products of qualitative case analysis, these descriptions of activities should not be generalized to all college students (or even all participants in the study). Both students stressed that routines for cultivating temporal, spatial, and material aspects of their learning emerged over time, as through experience they became more embedded in the discourses of school, their respective disciplines, and the geographies of the cities to which they relocated to attend the university. To assume that all students will acquire strategies for effectively locating mobile composing habits on their own is likely to privilege some students while leaving others underprepared.

All students confront challenges of locating mobile composing—whether or not they own high-tech mobile devices. As I learned from research participants such as a senior management major named Gabriel, university students who do not own laptops—or who own older, less mobile models—often work even harder and travel even farther to create places for learning. Assembling materials toward the end of creating effective composing habits thus may be a space of agency for students confronting the attention economy but also a hidden burden with the potential to privilege students from higher socioeconomic strata or with increased sociocultural access to technology discourses and practices. For these reasons, the emplacement of mobile composing habits should be a more visible component not only of writing research and theory but also of pedagogy. Composition pedagogy has already recently emphasized embodied and material elements of composing habits through the recent attention to “persistence” as one of the eight habits of mind outlined in the
“Framework for Success in Postsecondary Writing.” The Framework describes persistence as “the ability to sustain interest and attention to short- and long-term projects,” which it suggests can be supported by allowing writers to explore complex or demanding ideas or projects, “follow through” and complete tasks that unfold over time, and make use of support from social resources (Council 1, 5). Based on my analysis, I argue that persistence is an embodied and emplaced habit—a product of interactions with places and materials—as much as it is internal or cognitive. To ignore the material and social negotiations of persistence as mere study skills or time management or align persistence only with a neurologically framed conception of attention would be to ignore important political, affective, and material negotiations that accompany making a place for learning.

In her recent discussion of the pedagogical possibilities for the habits of mind, Kristine Johnson advises composition instructors to consider habits of mind such as persistence to be enacted practices (536). She emphasizes that instructors should “foster” habits of mind by “construct[ing] landscapes—experiences with writing, reading, and critical analysis—that students must navigate freely” (537). But what would it mean for writing instructors to “construct landscapes” for building persistence? While the answer depends upon local institutional contexts, writing specialists need to think in more social and material ways about pedagogical interventions. Students need temporary places to dwell with mobile technologies, where they can situate (even momentarily) their material and embodied habits. Thus, the findings of this study suggest that writing theorists, researchers, and instructors have a responsibility to become involved in the design of material literacy environments: both of on-screen interfaces and of campus and community social spaces. As Johnson-Eilola argues, designers commonly assume that campus computer labs should “pack as much technology as you can within the space” (77). However, designers who want to support learning persistence must consider how to construct material spatial arrangements that can support the current uneven adoption of mobile technologies: spaces that both support those without material access and those who have formed habits for learning using personal technological arrangements. Because writing issues such as “persistence” are material, social, and embodied, we cannot simply give students guidelines to do better cognitively.
and hope to address them; we have a responsibility to construct better places and materials to support learning.

In addition to design work, helping students navigate information and social interaction in a hyperconnected culture will require continued research, theory, and new pedagogical frameworks and maps. As an emplaced and embodied action, writing creates memory and simultaneously gives material shape to language. These dual properties imbue it with a great deal of power for building persistence. Writing process research should thus continue to examine how composing unfolds materially through space and time in a mobile culture, while uncovering how writing participates—in positive and negative ways—in stabilizing distributed processes at cultural and individual levels. Understanding how mobile composers establish workspace and workflows might be understood as a rather mundane component of a larger project to understand writing’s long-standing role in coordinating cultural, economic, and technological projects. While the materiality of academic writing easily slips under the radar, how students access and incorporate places and technologies in composing habits outside classrooms may be one of the most important determinants of their success within them.

**Acknowledgments**

This research was supported by a National Endowment for the Humanities summer stipend and an internal research grant from the University of Central Florida. Any views, findings, conclusions, or recommendations expressed in this publication do not necessarily reflect those of the National Endowment for the Humanities. In addition, the author wishes to thank Kathleen Blake Yancey and the CCC staff, Jim Porter and an additional anonymous reviewer, and Melody Bowdon and Angela Rounsville for excellent feedback. Finally, thanks to the participants and research assistant Amy E. Giroux for their time.

**Notes**

1. All participants’ names are pseudonyms, a convention required by the Institutional Review Boards that approved this research.

2. Since I concluded fieldwork in the Gone Wired Café, its name, atmosphere, and design have changed. I retain the older name to reflect the lived experience of participants during my research.

3. On-campus writing spaces like writing centers, labs, and studio courses that occupy a middle ground between academia and personal space have long negotiated tensions between the extracurriculum’s agency and the unavoidable institutional
power dynamics inherent in academic writing situations (Grego and Thompson; Tassoni and Wilson; Gresham and Yancey; Boquet).

4. For example, Paul Prior and Jody Shipka examine lived process trajectories by asking individuals to visualize multiple places and times that led to the production of a given academic text. Through this method, they illuminate the “chronotopic lamination” of literate activity, in which various spaces, times, and materials become layered during the generative series of actions that ends in a written product. Jenny Edbauer Rice similarly calls for a move toward materials and mechanisms in order to better understand contemporary production.

5. As Danielle Nicole DeVoss, Ellen Cushman, and Jeffrey T. Grabill have argued, networked writing relies on infrastructures often invisible to users in moments of composing. Thus, it is important to consider analyzing embodied, emplaced practice as only one possible methodology among others for understanding mobile composing practices.

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