(Re)placing School

MIDDLE SCHOOL STUDENTS' COUNTERMOBILITIES WHILE COMPOSING WITH IPODS

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As mobile digital devices such as iPads and iPods proliferate in ELA classrooms, how might we think about the connection between students' literacies and physical mobility?

"Technology is on the move; it moves with us now. It is as mobile as we are."

(Merchant, 2012, p. 770)

In this article, we describe the experiences of five middle school students moving and composing with iPod touches. We do so as the rapid development and diversification of mobile technologies are influencing adolescents' literate lives across formal and informal learning environments (Merchant, 2012). For example, Hagood and Skinner (2012) described the morphing of texts between 2008 and 2012 as connected to the "near-ubiquity of students' own mobile devices" and the implementation of bring your own technology (BYOT) programs in school districts throughout the country. This shift in the consumption and production

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of texts relates not only to the proliferation of mobile devices but also to the concomitant sociotechnical practices that human beings are developing with their use. As mobile devices enter schools, it becomes increasingly important to study the sociotechnical practices that adolescents carry with them to school, practices that move with adolescents as they move with mobile technologies.

We describe five 12-year-old students engaged in mobile composing activities that we designed as part of a digital media enrichment course. As teacher-researchers, we designed activities that addressed the integrated approach to literacy and technology indicated by the Common Core State Standards. We guided students toward an expansive understanding of the literacies associated with varied technological tools, requiring, for example, that students be familiar with the strengths and limitations of digital mobile devices for achieving their communicative goals. Thus, we worked alongside the school and these students to develop their literacies with mobile technologies, integrating iPod touches into all learning activities. We chose these devices because of their

technical similarity to smartphones and tablets (e.g., touch interface, Internet connectivity), and because of their connection to youth culture, mobile-device mediated communication, and mobile learning (i.e., knowing and learning by being mobile). Although much remains to be understood about how, or whether, these devices enable meaningful learning, literacy researchers can no longer ignore their presence in schools and in the social lives of our students.

We focused specifically on how students moved with these devices and the effect of this movement on their experience of mobile composing. This analytic focus often evinces students' mobilities as countermobilities, or mobilities that conflict with those their school culture typically espouses. Yet, we assert that students' countermobilities were essential to not only their development as mobile composers but also their forging of a new, closer connection to their school. Reviewing the relationship between mobility and learning, Leander, Phillips, and Taylor (2010) argue that despite the changes in sociotechnical practices, "mobilities and their relations to learning within education are still understudied and undertheorized" (p. 329). In this article, we contribute to the study and theorization of mobility for literacy, learning, and composing with mobile devices. Further, we show that our students' countermobilities disrupted what Leander and colleagues identify as the social traditions and conventions that can constrain our movements as students, teachers, and researchers and that can frame our expectations about where learning might "take place" (Leander et al., 2010, p. 329).

Related Research: Composing With Mobile Devices

Although researchers have begun to explore how adolescents use mobile devices for learning generally, we focus on the ways in which adolescents *move* with mobile devices while composing—for example, while writing, taking pictures, and shooting video. Vasudevan (2010) highlights these compositional capabilities, describing how one adolescent, Joey, created a multimedia narrative with his PlayStation Portable (PSP), using it to edit images, store data, and shuttle among multiple programs. Moving *with* the device, he composed whenever and wherever he wanted: "while riding the subway, at the park, at home, attending the digital media elective" (p. 71). The device's portability—the fact that it moved with Joey—allowed him to present a variegated digital self that changed from place to place.

Also rife with mobility, Buck's (2012) inquiry into digital literacy practices on social networking sites describes Ronnie, who, not unlike Joey, used his mobile device to produce and share artifacts across time and space. For example, moving *with* his mobile device during the study, Ronnie filmed a short video of his friends before posting it to multiple social networks, and he frequently tweeted his "thoughts and musings on his way to class" (p. 16). When tweeting and posting on the move, Ronnie painted a temporal and spatial portrait of his day for his social media followers, making his audience aware of his experiences from place to place.

In Løvlie's (2011) *textopia*, participants used mobile devices to compose *on* the world as they moved through it, layering digital material onto physical spaces. Using GPS-enabled mobile devices, users could "geotag" specific locations with videos, texts, and sounds. Participants created "locative literature," telling digitized stories accessible to others moving through the same physical spaces. Løvlie's textopia draws attention to the ways in which locative literature can layer locations with stories, facts, and movie clips that can be accessible for "any wanderer, or dweller, anywhere" (p. 250).

Curriculum and Research Foci

Inspired to build on this research, and also by the rapid integration of mobile devices in schools, we designed and implemented a digital media enrichment course to investigate five adolescents' use of mobile devices for literacy learning. As visiting teacher-researchers, we developed a 12-session semester-long course that focused on creating a new sense of place through mobile device mediated learning activities. Connecting to the research we described in the previous section, we imagined students forging these new experiences of place as they moved with mobile devices, wrote their digital narratives on the physical environments through which they moved, and distributed those narratives digitally across time and space. With these foci in mind, we used the following questions to guide our analysis of participants' mobilities while learning and composing with their iPod touches:

- How did students experience their mobilities during instructional activities? What compelled and constrained their mobilities?
- How did students' mobilities affect their feelings about place while digitally composing on their material environments?

Site and Participants

We developed the course in partnership with a charter school in a midsize, urban southeastern city. We had an existing relationship with the school's administration and, as university-based researchers, offered to assist them in advancing the school's core mission of cultivating talent in 21st-century skills. The school had neither a BYOT policy nor offered mobile devices for student use. To facilitate mobile digital media production, we provided our students with iPods and loaded them with "real" apps (see the "Take Action" sidebar). We connected all devices to the school's wireless network. The administration selected five students for the course, wanting to meet these students' needs by providing additional challenge during a schoolwide literacy enrichment period. The students were excited to participate, and they often made suggestions for new apps they wanted integrated into the course.

Conceptualizing Mobility for Learning and Literacy: Wayfaring and Wildfire Activities

Most definitions of *mobile learning* focus on the use of wireless, Internet-driven, mobile devices. Recently, however, researchers have called for a shift of focus from device to person, suggesting a broader view that accounts for learners moving freely in both physical and digital environments (Wright & Parchoma, 2011). Reviewing theories of mobile learning, Enriquez (2011) attends to the "embodied ways of knowing and learning by being mobile" (p. 39). These embodied ways of knowing and moving are intimately connected to the mutability of physical spaces. For example, school spaces seemingly governed by rules and conventions that discipline bodily practice are, at times, socially and spatially fungible: "The assembly hall becomes the dining hall at lunchtime and the dancehall for school celebrations or the gym for physical education." (p. 49). From this perspective, places are constantly remade by bodies *being in* them. Places are a process: They, too, "take place" (p. 49). Thus, questions about how students live and learn

> *Mobility is the very experience of movement, of the path traveled.*

with mobile devices should involve the potential for remaking place as mediated by interconnected digital technologies.

Though mobile learning is in no way exclusive to schools, we wonder specifically how our students experienced their mobile composing while moving through and being in similarly fluid school spaces. We found two conceptions of mobility and learning particularly useful for understanding our participants' experiences of mobility with their iPods, constructs that helped us understand them as learners who are mobile *with* mobile technologies: wayfaring (Ingold, 2007; 2011) and wildfire activities (Engeström, 2009). These conceptions of mobility are especially helpful for understanding how participants in our study generated countermobilities in the process of mobile composing, challenging the sometimes highly scripted, intricately mapped mobilities of formal literacy learning (Engeström, 2009; Gutierrez, 2008).

Wayfaring

Working from historical studies in anthropology, Ingold (2007; 2011) contended that lives are not lived "inside places, but through, around, to and from them, from and to places elsewhere" (2011, p. 148). He used the term *wayfaring* to describe the "embodied experience of this perambulatory movement" (2011, p. 148), contrasting it with what he calls "transport." In Ingold's (2007) juxtaposition, wayfarers move *through* the world while transporters route *across* it:

> Unlike wayfaring…transport is destination oriented. It is not so much a development *along* a way of life as a carrying *across*, from location to location, of people…in such a way as to leave their basic natures unaffected. (p. 77)

Transport erases the experience of getting there.

Alternatively, the wayfarer is "continually on the move" (p. 75). Wayfarers *are* their movement. Mobility, in this instance, is not a matter of moving from destination to destination; rather, mobility is the very experience of movement, of the path traveled, and this path cannot be predicted in advance (pp. 83–84). If the wayfarer experiences the same route as the transporter, it is a different experience: It is felt, sensed, and lived differently as wayfarers inhabit the path along which they move.

Wildfire Activities: Wayfaring as Countermobility

Engeström (2009) develops Ingold's notion of wayfaring for learning in his conception of wildfire activities. Building from sociocritical notions of third space (Gutierrez, 2008), wildfire activities depend on both official, authorized scripts of mobility as well the unofficial counterscripts of mobility: countermobilities. For instance, field trips to museums, or "educationally valuable" sites, are authorized mobilities; skateboarding locations that emerge within a cityscape are countermobilities. Official mobilities are destination bound; they have fixed endpoints. Countermobilities have no endpoint. For countermobilities, as for wayfaring, the terrain itself is the journey. Countermobility "opens up to all directions of exploration" (Engeström, 2009, p. 2).

For Engeström, wildfire activities are exemplified in birding, skateboarding, and disaster relief. Such activities pop up in unexpected locations, but they also tend to die out just as quickly, "extinguished from time to time, yet they reappear and flare up again" (p. 5). Moreover, wildfire activities are resilient: They confront a variety of constraints—like skateboarders not being allowed to occupy a specific space—yet they persist, transcending those constraints and overcoming adversity (p. 5). They coalesce in mobile cultures and ways of being, like skateboarders moving toward particular sites in a city because they sense the potential of a place for skateboarding activity; in fact, they may sense the traces of past skateboarding use, grooves on curbs, indentations on rails.

Conceptualizing Mobile Composing: Digital Literacies on the Move

Within the course, our students became wayfarers. They did not have teacher-directed destinations. As a result, mobile composition became a wildfire activity. While moving freely through the classroom and school, students converged on locations or people of mutual interest; later they dispersed in other directions, pursuing their unique interests before reconverging at other locations. Mobile composition as wildfire activity compelled students' countermobilities. Students wayfared through the classroom and school, moving against traditional, typical mobilities during literacy events, against how and where literacy should "take place" in their school. As wayfarers, students became attuned to the affordances available in the environment (Gibson, 1979) for composition. Like skateboarders sensing indentations on rails, our students sensed meaning potential in their physical environment as they composed on the move.

Methods

Methodology

We adopted "inquiry as stance" throughout the course, a stance Cochran-Smith and Lytle (2009) argue is essential to practitioner inquiry. This approach emerges "out of the dialectic and synergy of inquiry, knowledge and practice and from the intentional blurring of theory and practice" (p. 3). From this perspective, we applied theories of digital learning and literacy within a specific, local context and in synergy with the school's needs, mission, and culture. Moreover, as method, Cochran-Smith and Lytle argue for inquiry as stance as a systematic form of naturalistic inquiry, which can accumulate evidence about innovations in practice over time (p. 161). Taking a similar methodological approach, Wissman (2011) noted that this systematicity acknowledges that the "teacher researcher has a unique relationship to, and plays a fundamental role in, the creation of knowledge within the study" (p. 413). Thus, we engaged in constant reflection with one another, both to understand our students' literacy learning and to adjust and innovate new pedagogical approaches in response.

"Working the Dialectic": Data Sources, Analysis, and Researcher Positions

Specifically, we approached our analysis as both researchers and teachers concurrently, working from Cochran-Smith and Lytle's (2009) entreaty that long-held dichotomies between, for example, the role of the researcher and the role of the practitioner be turned on their heads (p. 94), what they call "working the dialectic." This approach fuses academic inquiry and practice, understanding them to have a "reciprocal, recursive, and symbiotic relationship" in data analysis (pp. 94–95). Thus, we developed structures for reflection and analysis throughout our practice and inquiry, in which we responded to our students' learning and retrained our investigative focus with constant attention to their learning. For example, we recorded conversations among ourselves after each class period, in which we reflected not only on students' learning during the days' activities but also on their experiences of learning with mobile devices. Because we were interested in students composing on the move, we also analyzed data from small digital cameras that students wore on their foreheads while

FIGURE 1 Still Image Taken From Manuel's Head Camera

producing their digital media products (Figure 1). Video from these cameras provided students' point of view and their attention to both physical environments and digital spaces—e.g., their interactions with classmates, their iPod screens—while moving about the classroom and school. All data sources and their uses in this analysis are reported in Table 1.

Data evinced a need to focus on students' motility—their potential for mobility—and on their movement through socially constructed school spaces. Moreover, as our research questions focused on students' embodied experiences of mobility while composing on the move, we adopted motility as our unit of analysis, training our analytic approach on moments in which either potential or unrealized mobilities became evident through students' bodies, talk, and interactions. For this analysis, data were reduced to three general themes using the constant comparative method (Corbin & Strauss, 2008): (1) the meaning potential students sensed in their material environments, (2) the new relationships they formed with the people and places in their school in the process, and (3) their movements through—and

against—socially constructed school spaces. Each of these themes, in turn, became codes as well as pedagogical foci. During axial coding, we developed subcategories to understand, for example, students' experiences of moving against socially constructed spaces. For instance, a student's quick, fearful eye contact with a teacher while leaning against a desk is a type of self-surveillance of the body in the act of mobile composing. Our position as teacher-researchers, as knowers in direct contact and interaction with our object of inquiry, led to the generation of knowledge with respect to these codes in the form of "enhanced conceptual frameworks, altered practices, and/or reconstructed curricula" (Cochran-Smith & Lytle, 2009, p. 42). Thus, our analysis extends from our position as teacher-researchers working to enact successful practices in the immediate context we describe.

Findings

Working from our presentation of data in two vignettes, we illustrate our students' experiences of mobility while composing with iPods as a complex interplay between the meaning potential they sensed in their material environments, the new relationships they formed with the people and places in their school, and their movements through—and against— socially constructed school spaces. We present the following vignettes because they convey these qualities of mobility and mobile composing, which were the most influential in students' forging new senses of place while composing with their iPods. Additionally, these themes were pervasive and intricately enmeshed within students' experiences of mobility. We do not attempt to map themes onto these vignettes. Instead, we present these vignettes as a map, as best we can compose, pointing toward our students' experiences.

TABLE 1 Data Sources and Use in Study

Data source	Use in study
Video-recorded class sessions	Observational data for classroom mobilities
Video recordings from head-mounted micro-cameras	Student perspective on mobile composition process across physical and digital spaces
Audio-recorded conversations between authors after data collection events	Field notes for research and pedagogical adjustments
Semistructured, individual interviews	Student perspectives on process; pedagogical adjustments based on student learning
Students' media products, planning sheets, and work products	Insight on students' process; pedagogical adjustments based on student learning

Vignette 1. Tiana's "Suspenseful" Countermobilities: Amplifications of Felt Meaning During Mobile Composing

In this vignette, we explore the ways in which Tiana's wayfaring during a digital mapping and storytelling activity led to what she describes as "suspenseful" moments of discovery around specific places that she felt were off-limits to her. In the digital mapping and storytelling project as a whole, we asked students to imagine their compositions in response to the question, "What if the school could speak?" Further, we asked students to consider that "if the school could speak, what would it say to visitors?" We organized their responses by asking them to compose digital media about people, places, and things in their school that visitors could later access and learn from by scanning Quick Response (QR) codes (see Table 2). Students chose between the apps Viddy and Instagram—for creating short videos and images, respectively—to generate their digital media. In addition, both apps allow users to apply preloaded filters to original videos and images, and they represent the authors' commitment to the use in education of so-called real apps (Ensor, 2012), or apps that we understand as holding social capital and that are useful beyond formal learning environments.

Tiana's mobile composing process during the project was one composed almost exclusively of countermobility. As she put it, her school's official mobility script requires that "we only go to classrooms [during] school and the cafeteria and the storage closets." During her participation in the digital mapping and storytelling project, however, Tiana moved freely through the school, focusing her compositions on places that were mysterious, places that she usually "only peeked into through the window" and described as feeling like a "puzzle."

Immediately after learning about the assignment, Tiana left the classroom and moved about the school recording notes and ideas for her Instagrams and Viddys. She spent the most time around the Workshop—a teachers' workroom—before, hesitantly, moving into it. When we asked her why she thought about the Workshop for her composition before even having entered the space, she responded:

> 'Cause when people look at it, when I first looked at it, I did not know what a Workshop was [shaking her head]…but then I found out it was for teachers…where they drink coffee and make their lunches and stuff.

But Tiana's experience of taking Viddys inside the Workshop (re)placed it for her. No longer did she feel it, understand it, as a "teachers' lounge" by hearsay. After composing her Viddys, she thought differently about the life inside the room: "It made me think that a lot of teachers do their work, 'cause when I went in there, their desks were full of papers, so they must do a lot of work."

Indeed, the room's mystery and the "suspense" Tiana felt during the composing process not only signaled its meaning potential during this wildfire activity, like the indentations on rails for skateboarders, but also affected the filter she chose for her Viddy, a video of the papers strewn over her science teacher's desk. She chose a grainy, black and white filter that she felt "fits the puzzle" of the place. That the Workshop afforded mystery, and that entering it evoked suspense, may not surprise teachers accustomed to lounges cordoned off from students. But the interrelationship

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TABLE 2 Digital Mapping and Storytelling Project

CCSS: ELA-Literacy.W.5.2 and W.5.6

Directions:
What if the school could speak? What would it say? We will make a digital brochure of the school that visitors can access by scanning QR codes with a mobile device. To do so, you will use the apps we have been using in class: Audioboo, Viddy, and Instagram.

Steps:

1. Complete the organizer as you move through the school [see "More to Explore"] by explaining the topic that your image, video, or audio is about.

2. Complete your task by moving to your chosen locations.

3. When finished, return to the classroom.

4. With guidance from Mr. H or Mr. E, use the classroom computer and printer to create your QR codes.

between place, emotion, and movement in Tiana's meaning-making process lends a necessary perspective to thinking about how students compose new media, especially with mobile devices.

Tiana's felt experience of the Workshop during this literacy event was central to the meaning she made of the physical environment and the meanings that extended to her histories around the Workshop and her future relationships with the teachers who use it. Johnson (2007) argues that "emotions are key components of complex processes of bodily perception" and, further, that emotions provide "the basic contours of our experience…at a pre-reflective level" (p. 66). Tiana's feelings of suspense and mystery drew her toward the Workshop and marked its meaning potential. Once inside, these feelings were amplified to what she would later put into words as "suspense" and evoke through a grainy, black and white filter. Tiana embodied this meaning amplitude—this amplified feeling of meaning potential—by scampering back and forth alongside her science teacher's desk, excited to capture the situation from all angles, and after speaking to the researcher's camera in quick, bursting sentences.

Situations like Tiana's experience of composing in the Workshop are the very locus of emotions. When bodies are involved in action and experience with the felt environment, emotions are not merely internal, private feelings (Johnson, 2007), they are the joint product of human–environment interaction: "Emotions are both *in us* and *in the world* at the same time" (p. 67; emphasis in original). Johnson's description of the interconnectedness of emotions and bodies' movements through physical environments illuminates Tiana's meaning-making process. Her countermobility contributed to the felt experience of the composing process—it contributed to her feeling of suspense—but as the situation evolved, as she wayfared about the Workshop, she noticed and composed in felt response to her surroundings. It is no surprise, then, that her planning sheet spanning each of her productions evinces her choice of filters based on how they evoke "mood," feel "happy," and conjure the "mysterious": The meanings she anticipates are her anticipations of embodied, felt experiences.

Vignette 2. "Can I stand on this chair…?": Sensing and Surveilling Mobility

In this vignette, we consider the ways in which Yvette's movement through classroom space while composing with her iPod led to a breach of typical classroom practices. On the third day of our digital media enrichment class, students took part in the creation of a digital narrative using an iPod app based on the popular children's book *Flat Stanley*. The app works alongside the iPod's digital camera to layer a Flat Stanley (or Stella) avatar over an image that the user captures. On this day, we challenged students to begin telling a story, fictional or nonfictional, describing their avatar's interactions with artifacts they brought to class.

Throughout her composing process, Yvette gradually expanded the space in which she composed. For example, seated at her desk for her first image, she took a picture of her avatar interacting with the book *The Hunger Games*. She later stood up and leaned against a nearby wall while taking her second picture. By her third picture, Yvette began to move throughout the classroom (Figure 2). The classroom walls were relatively bare, although an antismoking campaign advertisement was taped next to the dry-erase board. Yvette saw the advertisement and wanted to take a picture of her avatar interacting with it, but it was too high.

FIGURE 2 Yvette's Avatar Interacting With the Anti-Smoking Advertisement

Yvette noticed a chair below the advertisement—she could stand on it to take her picture. As she began climbing on the chair, Yvette hesitated. She turned to Ty and asked: "Can I stand on this chair to get, like, the…" Recognizing that she wanted to take a picture of the advertisement, Ty responded, "You may. Thanks for asking." With permission, Yvette then fully stood up, situated her avatar, took a picture, stepped down, and continued her narrative.

Built within this seemingly simple interaction are expectations about how students move throughout classrooms and how they position their bodies. At Yvette's school, as in many others, students' bodies are carefully disciplined: Students are expected to walk through hallways in straight lines; to begin class, their hands rest on desks, fingers interlaced. Accustomed to these bodily expectations, Yvette hesitated before standing on a chair, turning to ask Ty for permission. Ty—also following the bodily expectations of the school—gave Yvette his permission and then thanked her for asking for it. Both Yvette and Ty displayed an awareness of the ways in which Yvette was breaching the typical norms of movement throughout a classroom.

Through Engeström (2009), we understand as countermobilities both Yvette's movement throughout the classroom and her standing on the chair to take a picture. As Yvette wayfares through the classroom, she encounters moments in which her developing narrative compels her to move—and compose—in ways that run counter to her school's expectations for movement within classrooms. Typically well-trodden paths of classroom mobility—from desk to pencil sharpener, for instance—give way to countermobilities, alternative ways of moving through the classroom and the school that do not follow a normative script. Her mobile composition process opens up the "imagined geography" (Leander et al., 2010) of the classroom to "all directions of exploration" (Engeström, 2009) and increases the potential to discover material, semiotic resources, such as the antismoking advertisement on the classroom wall.

As mobile technologies are integrated further into literacy curricula, we must consider—and critique—the ways in which we regulate students' sociotechnical practices with these devices. This regulation predates contemporary technological innovations. Foucault (1979), for instance, argued that "regimes of practice" are designed to produce subjects who comply and behave according to desired norms. Specifically, of education he noted that "surveillance, defined and

regulated, is inscribed at the heart of the practice of teaching" (p. 176). Both Yvette and Ty participated in an ongoing push–pull between multiple regimes of practice: those established by histories of schooling and those sociotechnical practices engaged within the mobile-device mediated digital-enrichment course. Yet, Yvette's breach of normalized space and bodily discipline, her countermobility, provided her with the opportunity to compose with the sense of in-betweenness experienced during wayfaring. Her composition became less about taking five pictures and more about the journey through the classroom, seeking out appropriate settings, diverting from well-trodden pathways. In these vignettes, mobile literacies were felt, sensed, and improvised as bodies moved through the world.

Implications

De Certeau (1984), viewing New York from atop a skyscraper and observing people moving through the city below, wrote, in a way, about mobilities and countermobilities:

> The geometrical space [created by] urbanists and architects seems to have the status of the "proper meaning" constructed by grammarians and linguists in order to have a normal and normative level to which they can compare the drifting of figurative language. (p. 100)

Our students' countermobilities forced us to interrogate the ways in which we, the grammarians, normalized their movements with the demands and prompts we provided in our assignments, with the classroom expectations we set, and in dialogue with previously established school culture. As literacy educators continue to integrate mobile devices into instruction, we wonder how we might create learning environments that foster mobilities, that allow for wayfaring and the wildfires that may ensue. To what extent are we allowing—or denying—students to *move* toward meaning in their mobile literacy learning?

Without our prompting, students generated countermobilities like those in the scenes of everyday life de Certeau describes. But more, they used their bodies: They observed, sensed, and felt their environments in the process of mobile composing. Nespor (1997) asserted that schools sometimes turn students into detached observers, not unlike de Certeau viewing the city from atop a skyscraper. This detachment occurs primarily through the regulation and control of bodies. For example, as children grow up in schools,

Nespor argued, their bodies lose value as instruments of meaning making; communicative modes like language overshadow the body's opportunity to make nondiscursive meaning with the environment. We argue that literacy researchers' recent call for expanded notions of texts and textuality (e.g., Jewitt, 2008) might also include an expanded notion of mobility, especially in investigations of adolescents producing media with mobile devices. As Tiana taught us in particular, this notion of mobility should attend to bodies'

Take Action
STEPS FOR IMMEDIATE IMPLEMENTATION

How can teachers create opportunities for students to develop literacies with mobile devices?

✓ Choose *"real" apps that have import outside formal learning environments*. We used apps such as Viddy and Instagram, which iTunes does not list under "Education." Using "real" apps helped ensure that activities guided students toward literacies associated with digital, mobile devices. Additionally, the social networks connected to these apps provided models for students and allowed for peer feedback.

✓ Use *"real" apps, mobile activities, and literacies associated with digital mobile devices across content areas*. Mobile devices are not laptops. Although they can certainly be used as such, they also travel in students' pockets, acting as notepads, gaming systems, social mediators, and more. Consider integrating mobile devices into general classroom activities rather than sidelining them to "mobile device time." And don't stick to using only "English" apps or to using apps only in English classes—doing so limits students' access to mobile device literacies. A Shakespeare app can deepen students' understanding of the text, but a gaming app can push students to consider, for example, the construction of narrative and modes of characterization.

✓ Explain *expectations for students' range of movement during their composing processes*. Many teachers are wary of allowing excited students to move with shiny, new, fragile devices. Discussing expectations for students' movements during instructional activities both averts potential accidents and opens up possibilities for meaning making on the move.

potential for meaning making, to the feeling, sensing body as medium for consumption and production, in addition to inorganic communicative tools.

Lastly, if we wish to understand students' mobilities and their mobile meaning making, how can we (re) place ourselves as teachers and researchers, indeed, as teacher-researchers, such that we move *with* our students? Are we watching our students and participants from atop a skyscraper, constructing school-scapes and research-scapes of proper mobilities, or are we walking shoulder to shoulder with them, feeling and (re) encountering our shared environments? We suggest accounting for multidirectionality and boundary crossing by imaginatively empathizing with students' experiences of mobility, e.g., how might they fear moving in the classroom? Researchers should explore ways to feel the pulsations of participants' mobilities. How do we access and account for participants' felt, embodied experiences? What does literacy feel like on the move?

Conclusion: Lighting Wildfires With Mobile Composition

Mobile devices provide a unique opportunity to immerse adolescents within their own localities, to forge new connections to and new feelings about the people, places, and things they encounter every day. Our project was uniquely designed to leverage this opportunity, prompting students' mobile device use to cultivate their awareness of their school. For example, in one early narrative, an image of an electrical outlet became a gateway for Yvette to speak and write about her father. In another, a walk to the cafeteria led students to generate stories about a stain growing on the corner ceiling tiles. Tiana described the difference between these mobile composing activities and her experience of typical school mobilities: "It's different because during school hours we'll sit the period, stay in advisory, go to lunch, recess, and then go to do the whole thing [makes circling motion with her index finger] again and again every day."

By the end of our time together, students began (re)placing their school, layering the physical environment with digital material, populating it with images, stories, videos, and audio recordings that expressed their experiences and made them accessible to others. In the process, they disrupted the typical mobilities of schooling and enlarged our understanding not only of where learning might take place, but also of the importance of walking, sensing, and feeling along the way. They forced us to consider, as teachers and

as researchers, that what stymies mobile composing dampens wildfires and obstructs a potential conduit to new relationships between students and their learning environments.

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