

Developing a Transliteracies Framework for a Connected World

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Abstract

This article introduces a transliteracies framework to conceptually account for the contingency and instability of literacy practices on the move and to offer a set of methodological tools for investigating these mobilities. Taking the paradox of mobility—the simultaneous restricting or regulation of movement that accompanies mobility—as its central dialectic, a transliteracies framework functions as a flexible heuristic for attending to how meaning making and power are intertwined in and distributed across social and material relationships. We argue that a transliteracies framework encompasses two primary dimensions of mobile literacy practices: (a) the everyday activity of creating, maintaining, and disassembling associations across movements of people and things (indicated by the prefix *trans-*) and (b) the dynamic and material nature of meaning making in activity (indicated by the plural root word *literacies*). To trace the emergent and consequential ways mobilities are managed within and across systems, we introduce four analytical tools for inquiry: emergence, uptake, resonance, and scale. These inquiry tools address the paradox of mobility by highlighting the systemic dimensions of practice that create and perpetuate inequities. We argue that these transliteracies tools facilitate an inquiry stance that positions researchers to attend to people’s emic meaning-making processes, work to balance multiple perspectives, account for privilege and position, question normative assumptions and beliefs, and engage in and value multiple ways of knowing.

Keywords

mobility, literacy, emergence, materiality, activity

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One Friday afternoon at a recently opened public high school located in a large, resource-challenged urban school district, Amy (Author 1) was working in the literacy lab—a library/tutoring space filled with comfortable tables, a couch, chairs, shelves of art materials, and a wall of books designed to support the school’s project-based independent learning model. Eva, a 14-year-old freshman, flung open the door of this relatively quiet room as she entered from the hallway. Waving the handwritten pass her math teacher provided, she called across the room to Amy that she had been sent to study in the lab because she was distracting the other students in her math classroom. Amy suggested she sit on the couch with a laptop to work on her math assignment in Google Classroom.

Once settled on the couch, Eva proceeded to switch her attention back and forth among several tabs on the laptop, apps on her phone (including using the camera to fix her hair), and a notebook and pen, all while offering ongoing commentary in English and Spanish about her life to anyone in earshot. When Amy came over to sit next to her, Eva leaned over excitedly to show Amy the book she was reading on her mobile phone. Describing how she had just received a Wattpad notification that a new chapter was available, Eva said she was eager to come to the literacy lab so she could read instead of work on the online math assignment. The three nearest girls edged closer (one of them downloading the Wattpad app on her own phone) as Eva described the plot in detail and the other students peppered her with questions about the book, serial street fiction, and the Wattpad platform, which Eva described as a place to both find new stories and post one’s own writing.

We open this article with a vignette from Amy’s study of adolescents’ literacy practices in a design-focused high school to highlight both the routine, everyday nature of Eva’s movements and interactions as well as their unfolding across spaces, objects, technologies, languages, modalities, and people. We do so to emphasize that while people’s literacy practices are—and always have been—mobile, the nature, scope, and visibility of such mobility are amplified in the contemporary world (Leander, Phillips, & Taylor, 2010). Over the last two decades, literacy scholars have attended to mobile dimensions of people’s literacy practices, theorizing emergence and movement as central to the ways people interpret, manage, and produce the world in complex space-time crossings (e.g., Compton-Lilly, 2014; Kell, 2011; Leander & Sheehy, 2004). However, during that time, the world has undergone profound transformations, with digital technologies and globalized networks facilitating movements and interactions among people, languages, and artifacts on a previously unimagined scale—even as those practices have become quickly intertwined in and across people’s daily lives and routines (Appadurai, 1996; Blommaert, 2010; Jenkins, Ford, & Green, 2013). With all the world “on the move” (Suárez-Orozco, 2005, p. 3), literacy researchers are increasingly challenged to study the global flows of information, things, and persons in critical, reflexive, and humanizing ways that take into account multiple ways of knowing and engaging with the world.

One of the central challenges for literacy researchers is to “temper romantic notions of mobility” by focusing on the ways that movement must always be understood in relation to what does not (or cannot) move—what Lorimer Leonard (2013) calls the

“paradox of mobility” (p. 17). Scholars studying the ways borders and boundaries restrict, impede, or compel movement unequally (Urry, 2007) have examined how mobilities simultaneously involve the tightening of national and state borders (Papastergiadis, 2000), the increased screening and regulation of marginalized people’s movements (Suárez-Orozco, 2005), and the forced relocation or displacement of entire groups (Bauman, 1998). In the opening vignette, we can see the mobility paradox play out in how Eva’s movement across spaces, times, and texts emerged in relation to, and was regulated by, the institutional norms of school: Eva was sent from one classroom by a teacher, directed by Amy to particular locations in the lab and online, constrained by school policies to use certain devices in particular locations, blocked by district firewalls from accessing popular websites on her laptop, and discouraged from bringing her home life and outside interests into conversation with other students during class time. Eva’s experiences negotiating literacy practices in those few moments illustrate how mobility is routinely managed within and across systems and institutions. For literacy researchers studying the contingency and instability of literacy practices on the move, one of the central questions becomes, “How do we examine movement in a way that captures fluidity but equally the contradictions and gateways that restrict, sift, and marginalize?” (Stornaiuolo & LeBlanc, 2016, p. 264).

Literacy scholars have to this point focused less on the paradox of mobility and more on the opportunities and possibilities afforded by people’s mobile literacy practices, particularly across digital spaces (e.g., Bjørgen & Erstad, 2015; Leander & Vasudevan, 2009; Leppänen, Pitkänen Huhta, Piirainen Marsh, Nikula, & Peuronen, 2009; Squire & Dikkers, 2012; cf. Ehret & Hollett, 2013). Methodologically, the focus has been less on the emergent and contingent nature of literacy practices across space, time, and material objects and more on the patterned, durable nature of practices across contexts (e.g., Koutsogiannis & Adampa, 2012; Roozen, 2010; Yancey, Robertson, & Taczak, 2014) or the aftereffects of movement in a situated site of practice (e.g., Gibbons, 2010; Kendrick, Chemjor, & Early, 2012; Purcell-Gates, 2013). Although we recognize the importance of this work theorizing mobility in literacy studies—and we draw on foundational insights from that scholarship here—we suggest there remains an imperative need for theoretical and methodological approaches to explain and study the contingency, instability, and emergence of mobile literacy practices that simultaneously open some opportunities and foreclose others. Such a focus on the paradox of mobility invites close analysis of how people’s literacy practices can be differentially valued and recognized, in turn reproducing, exacerbating, or challenging existing social inequities. We propose that a *transliterations* framework can serve as a flexible heuristic for addressing this mobility paradox in its efforts to examine who and what moves, how, why, and under what conditions.

The framework we detail takes the paradox of mobility as its central dialectic, examining how materials, persons, practices, and texts are dynamically configured across varied temporalities and spaces. This approach to research involves adopting an inquiry stance on practice (Cochran-Smith & Lytle, 2009), as researchers follow connections that emerge without predetermining the nature of those pathways or the role literacies play across them. Such an inquiry stance involves both cultivating sensitivity

toward others' emergent meaning making and interrogating one's own assumptions and positionalities to make visible who and what is mobilized and immobilized in activity and how power is negotiated and inequities instantiated in and through literacy practice. Responding to calls to study how literacy travels and endures beyond the local (Brandt & Clinton, 2002) and the now (Prior & Hengst, 2010), this article addresses the challenges of studying mobile phenomena that emerge and persist across various spatial-temporal scales by introducing four analytical tools for inquiry. In unpacking how these inquiry tools position researchers to take into critical account multiple ways of knowing and engaging the world, we take seriously Leander and Boldt's (2013) charge for literacy researchers "to think more expansively about research" by traveling "in the unbounded circles that literacy travels in" (p. 41).

This article represents our attempt to work across our individual areas of scholarship to theorize transliteracies collaboratively and iteratively. We began this effort several years ago as we found ourselves individually and collectively grappling with productive ways to understand and study young people's mobile, digital, and networked practices. In our independent scholarship, we worked to trace literacies as they unfolded across networks (e.g., Stornaiuolo & Hall, 2014; Stornaiuolo, Higgs, & Hull, 2013), time/temporalities (e.g., Smith, 2015; Smith, Hall, & Sousanis, 2015), and geographies (e.g., Leander et al., 2010; Phillips, 2014), but collaboratively we expressed dissatisfaction with current methodologies for tracing the complexity of contemporary literacies while addressing issues of equity and disenfranchisement. We have met regularly over the last several years to develop a transliteracies framework, inviting colleagues to critique our work, converse with us, and collaborate in our efforts to take account of the emergent, social, cultural, embodied, mobile, and emotional dimensions of literacies in more equitable, responsive, reflexive, and ethical ways. The transliteracies framework we detail in this article has grown from this collaborative theory-building process as we sought a generative means of understanding and studying the paradoxical dimensions of mobility in contemporary literacy practices.

Theorizing Transliteracies

Transliteracy is a term that originally emerged from an interdisciplinary working group of scholars and educators, who defined it as "the ability to read, write and interact across a range of platforms, tools and media from signing and orality through handwriting, print, TV, radio and film, to digital social networks" (S. Thomas et al., 2007, para. 3).¹ Growing from the scholarship of Liu and the Transliteracies Project (sponsor of the first gathering of the working group in 2005)² and the work of Thomas and colleagues in the Transliteracy Research group at De Montfort University, this definition frames transliteracy as part of "a unifying ecology not just of media, but of all literacies relevant to reading, writing, interaction and culture" (S. Thomas et al., 2007, para. 5). This original definition is rooted in the verb *to transliterate*, which involves mapping from one script to another, and draws a parallel to the activity of moving across a broad range of communication platforms and tools.

In the collaborative spirit in which the concept of transliteracy has developed over the last decade, we seek to extend the original definition even as we return to Liu's plural conception of *transliteracies*. We suggest that a transliteracies framework can productively build on and extend the work of scholars in the New Literacy Studies (e.g., Street, 2003) and multiliteracies (e.g., New London Group, 1996) that examines the situated, contingent, and ideologically rooted nature of meaning making across modes. By deliberately attending to how people make meaning across interactions among people, things, texts, contexts, modes, and media, a transliteracies approach can foreground how people and things are mobilized and paralyzed, facilitated and restricted, in different measure and in relation to institutions and systems with long histories. Such a focus addresses recent calls for theoretical and methodological approaches to studying literacies that attend to social and material relationships and the power dimensions within and across them (Cushman, Juzwik, McKenzie, & Smith, 2016) and that extend beyond a rational, linguistic focus (Leander & Boldt, 2013).

Our expanded definition understands transliteracies to be critical and creative social semiotic practices arising within complex ideological networks and characterized by the movement of people *and* things. Such an expansive definition extends beyond conceptualizing literacy *or* mobility as taking place within individuals (i.e., an "ability") and highlights how meaning making and power are intertwined in and distributed across social and material relationships. This definition suggests a different morphology than S. Thomas et al.'s (2007), one that captures the derivational possibilities of the prefix *trans-* for rearticulating the root word *literacies*. Using this alternative morphology, we turn now to elaborate what we see as two central dimensions of transliteracies: the relationships and connections created in mobile practice (indicated by the prefix *trans-*) and the dynamic and material nature of contemporary meaning making in activity (indicated by the plural root word *literacies*).

Theorizing the Trans- in Transliteracies: A Focus on Mobilities

Scholars of language and literacy have long sought expansive approaches for considering literacy in ways that move beyond individuals' competencies and bounded contexts by considering, for example, how movement can be understood and described through crossings (Rampton, 1995), navigation (Moje, 2013), semiotic remediation (Prior & Hengst, 2010), resemiotization (Iedema, 2003), third spaces (Gutiérrez, Baquedano-López, & Tejada, 1999), syncretic literacies (Gutiérrez, 2008), connected learning (Ito et al., 2013), and trajectories (Kell, 2011), to name but a few. These approaches to studying mobile practices have been influential in our thinking, and we have sought to build from them to understand not just how phenomena move and intersect as separate entities, but how phenomena intermingle, interpenetrate, and assemble in emergent configurations.

Increasingly, scholars in many disciplines are turning toward the prefix *trans-*, often glossed as "across, beyond, or through," to describe such mobile, intermeshed, border-crossing practices. For example, in sociolinguistics, theories of translanguaging (Canagarajah, 2012) and translanguaging (García & Wei, 2014) call attention to fluid

and dynamic linguistic practices without demarcating a priori borders among languages or how movement across languages unfolds. Emerging from queer and feminist theories, *trans** scholarship (e.g., Nagoshi & Brzuzy, 2010) conceptualizes social identity as dynamic, fluid, intersectional, embodied, and constructed in lived experience. Sociologists and anthropologists studying transnationalism focus on the intersecting mobilities of languages, people, and materials in contexts of migration (Lam & Warriner, 2012) as migrants participate across national borders through a complex constellation of everyday practices (Vertovec, 2009), especially in contexts of forced migration (Fiddian-Qasmiyeh, Loescher, Long, & Sigona, 2014). In media studies, *transmedia* refers to the distribution of media elements or stories across platforms (Jenkins, 2006). In studies of semiotic mobility (Kress, 1997; Newfield, 2015; Stroud & Prinsloo, 2015), *transmodalities* attend to flows of power as semiotics are recontextualized across time, space, and social groupings (e.g., Blommaert, 2010; Kell, 2011). All of these approaches append the prefix *trans-* to a root word to transform prior understandings of the root concept by theorizing the fluid, dynamic, contingent, and intersectional dimensions of practice.

Another reason *trans-* functions as a generative derivation for literacies is its ambiguity—it leaves unspecified who or what is moving or being moved, and how. Without assuming the relationships between what moves in advance, a *trans-* focus spotlights the activity of creating, maintaining, and disassembling associations across space-times. Such ambiguity leaves conceptual and analytic space for tracing connections and boundaries, framing difference and disjuncture as a norm. Transliteracies play a central role in constructing and maintaining social relations across many kinds of borders beyond the national, inviting analysis of the mechanisms that both drive and constrain people’s opportunities to participate in the world, particularly the way power, ideologies, and histories manifest in everyday activity. Questions of who (or what) can move, in what ways, and under what conditions can be a matter of life and death for young people of color targeted under “stop and frisk” laws, funneled into the school-to-prison pipeline, or killed because of their movements in predominately White public spaces (Alim & Smitherman, 2012; Haddix & Sealey-Ruiz, 2012; Winn & Behizadeh, 2011).

A *trans-* lens, by leaving unspecified the direction, outcome, or nature of mobile literacy practices, holds in productive tension the ways mobilities, rooted in practices of power, simultaneously create and constrain opportunities. We have been guided on this point by Lam’s (2009) work exploring the tensions of transnational literacies, as she examines how people’s linguistic and cultural practices operate in “new mediascapes” that provide opportunities for newly imagined geographies, which can equally open up participatory potentials and constrain language learners. In her study of one young woman’s instant messaging practices across different languages, Lam (2009) interrogates those practices in relation to contested language ideologies and fields of power. Scholars of literacy have long explored the ways that power is locally constituted in interaction (see Gutiérrez, Rymes, & Larson, 1995), illustrating Foucault’s central thesis about power as an active, socially constructed process produced in and distributed across dynamic relationships. Yet as Lam and Warriner (2012)

suggest, we need more studies that carefully examine how practices of power emerge *across* contexts and relationships and in interactions with systems that regulate, manage, and shape mobile practices.

Theorizing the Literacies in Transliteracies: A Focus on Activity and Materiality

We propose that affixing *trans-* to the root word *literacies* foregrounds particular dimensions of literacies that can prove generative for research and analysis as literacies are lived, explored, described, analyzed, and enacted in critical and creative social practices, situated within and across ideological systems and characterized by the movements and interactions of people and things. This framing rests on foundational sociocultural claims that literacies are not located solely within individuals' minds (i.e., as skills or abilities) but are developed and constructed in distributed social practices constitutive of all human activity (e.g., Street, 2003; Wertsch, 1991). In highlighting this social nature of literacy as rooted in activity, Bloome and Green (2015) call on Yeats's image of the inseparability of the dancer and the dance: "Literacy cannot be separated from what people are doing, how they are doing it, when, where, under what conditions and with whom they are doing it; metaphorically, there is no separation of the dancer from the dance" (p. 20). The metaphor of the inseparability of dancer and dance nicely imagines the ways literacies' social dimensions always involve mobilities—how the *doing* of literacy practices is inevitably the *movement* of literacy practices.

Such an activity orientation to literacies emphasizes that people and things move and act in the world across broad, systemic, and collaborative dimensions of practice (Engeström, 2007; Latour, 2005). As activity is conceptualized in cultural historical activity theory (CHAT), relationships among people and things (i.e., artifacts) are culturally and historically rooted, shaped by past experiences, social practices, and material and institutional arrangements (Cole & Engeström, 1993; Engeström, 2007; Wertsch, 1991). An activity emphasis for transliteracies spotlights these collaborative, collective dimensions of meaning making as the relationships among people and things emerge in connection to people's intentions and goals, which themselves are dynamic, collective, and shaped across complex networks. Latour (2005) suggests that these relationships—what he calls social ties—are always in the process of being modified, leaving traces that analysts may follow. Drawing together the work of actor-network and CHAT theorists, Prior (2008) argues that one of the most productive ways of "seeing" practices, to study and understand them, involves paying close attention to moments of genesis and disruption, which are two sides to the same coin: "Every genesis is a disruption of functional systems, [and] every disruption initiates a genesis as re-adaptations emerge" (p. 15). As things are made and break down, an activity orientation in transliteracies positions researchers to follow these constantly modified social traces, and in so doing to examine the simultaneously goal-directed and emergent nature of activity.

Reimagining literacies through a mobilities lens invites attention to material dimensions of activity (see Haas, 1996; Jones, 2015; Wohlwend, 2009, for examples of how materiality has been taken up in literacy studies). As people use multiple modes to

engage the world, researchers seeking to follow those engagements need to be attuned to the affective, local, interactional, spatial, and social practices that are inherent in people's bodies being involved with the material world (Streeck, Goodwin, & LeBaron, 2011). Such a material focus creates space to consider the intentional, rational control of meanings *alongside and entangled with* affect, emotion, and emergence. Lemke (2013) argues that "meaning and feelings are inextricable. No meanings are made devoid of feeling; the experience of our feelings makes sense to us in terms of available meanings" (p. 58). In other words, as feeling and thought emerge in relation to the world, researchers may follow "the imbrication (intricate interlocking) of matter and meaning" in ways that do not separate thinking/feeling, body/mind, or object/individual (de Freitas & Curinga, 2015, p. 250; cf. Lewis & Tierney, 2013). In transliteracies work, remaining open to multiple ways of knowing and experiencing expands how researchers might attend to the ways the paradox of mobility emerges in interaction, especially the embodied, material, and affective dimensions and consequences of everyday practices (e.g., Blackburn, 2012; Kinloch, 2009; Kirkland, 2013; Souto-Manning, 2013).

The material dimensions of literacies involve close attention to the role of things in meaning making. Things—"non-human actors" in Latour's (2005) terms or "artifacts" in CHAT's terms—play a key role in mediating activity, carrying traces of their histories that can be brought to bear in any current activity (Cole & Engeström, 1993) and that may thus serve a transcontextualizing role in people's literacy practices (Brandt & Clinton, 2002). These artifacts, or nonhuman actors, are multivoiced agents that bear traces of previous cultural work even while acting in current interactions (Pahl & Rowsell, 2010). As actors in their own right, moving in time and space, objects are not "raw material for humanization" sitting still and "waiting only to be read" (Haraway, 1988, p. 593). Scholarship that theorizes the fusion of the "material-semiotic" (Haraway, 1988, p. 595; cf. Burnett, Merchant, Pahl, & Rowsell, 2014; Prior & Hengst, 2010) emphasizes the complex interpenetration of matter into all meaning making and challenges the proliferation of dualisms (e.g., cultural/natural). In studying the mutual entailment of the discursive and material in and across jostling networks of humans and nonhumans (Barad, 2003), researchers taking up a transliteracies heuristic can follow how literacies become threaded across the material world in dynamic and unpredictable ways. In theorizing the material-semiotic world as systems of interconnected, entangled assemblages, a transliteracies approach opens space for many ways of knowing, especially for understanding how affect, emotion, and the body are inherent in making meaning with the world and challenging dominant paradigms about how knowledge is generated and valued (Boldt, Lewis, & Leander, 2015).

Transliteracies as Inquiry

Although literacy researchers have proposed generative approaches to studying the active, mobile, and multisited aspects of literacy practice, for example through connective ethnography (Leander & McKim, 2003) and mediated discourse analysis (Scollon, 2001), we suggest that a transliteracies framework positions researchers to

render visible the paradox of mobility and trace the contingent, unstable, and inequitable dimensions of literacies. One of the central means for transliteracies researchers to engage in such indeterminate, unbounded exploration is by taking an inquiry stance on practice, tracing contingent relationships as they emerge in activity, without determining those relationships in advance. In this process, the researcher adopts a “spirit of discovery” (Debord, 2006, p. 23) and reflexive disposition, thereby accounting for her own role in unfolding activity while keeping in check a priori assertions about the ways knowledge is constructed, the scales at which processes occur, and/or relationships among actors. Cochran-Smith and Lytle (2009) describe that working from and with an inquiry stance “involves a continual process of making current arrangements problematic; questioning the ways knowledge and practices are constructed, evaluated, and used” (p. 121). As a “continual process” of questioning current arrangements, an inquiry stance is not something achieved so much as an orientation that requires researchers to routinely question their own assumptions and positionalities while remaining sensitive and open to multiple interpretations in unfolding activity. As a deliberate and strategic approach to engaging an inquiry stance, this process is the antithesis of a neutral perspective—it does not render the analyst apart from activity or pretend toward objectivity or “truth” but roots the analyst ever more firmly within the landscape, locating her in relation to her history and experiences. Such a stance toward research is involved in the intertwined, emergent process of data collection and analysis. Through inquiry, a transliteracies approach to analysis seeks to expand what counts as data and highlights the ways methods must be responsive to participants and communities, which have their own histories and commitments (see Campano, Ghiso, Yee, & Pantoja, 2013).

Tools for Transliteracies Inquiry

We turn now to propose a set of tools for inquiry we have found helpful in tracing systems of relations in literate activity while emphasizing issues of power and ideology in those systems. We contend that researchers engaged in transliteracies inquiry should be outfitted with a range of methodological moves sensitive to the paradox of mobility, particularly to issues of equity and justice with youth and communities (Paris & Winn, 2014). Following Gee (2014), whose work articulating tools for discourse analysis produced a tool kit of “thinking devices,” we have developed four such tools, which can work together to “guide inquiry in regard to specific sorts of data and specific sorts of issues and questions” (p. 12). Developing these kinds of inquiry tools, Gee suggested, positions researchers to attend to phenomena in flexible and responsive ways rather than in a prescribed order or method. Assembling a responsive constellation of strategies requires researchers to address their positionality, not by reading “the meaning of practices as outsiders opening up others’ key texts” (Leander & Boldt, 2013, p. 34) but with attentive reflection to the ways the discourses and logics of the methods (and the active role of researchers) inform the interpretation of data (Smith et al., 2015).

The four tools for inquiry we articulate in greater detail below are *emergence*, *uptake*, *resonance*, and *scale*. In developing these four tools to guide transliteracies

research, we drew upon “thinking devices” that have proven useful in our own work (e.g., Smith et al., 2015; Smith, West-Puckett, Cantrill, & Zamora, 2016; Stornaiuolo & Hall, 2014; Stornaiuolo & LeBlanc, 2016). Although this is certainly not an exhaustive list, we offer these as an opening set of tools that position researchers to trace the paradox of mobility as it emerges in practice, and we invite others to refine these tools and contribute others. We intend these to be tools that can foster an inquiry orientation as researchers negotiate and orchestrate the delicate dance of following traces and connections while maintaining a reflexive stance about their roles in the research process and the epistemologies they bring to bear in their observations. In introducing each tool below, we flesh out theoretical and empirical work that has contributed to their development. We also include accompanying “questions for inquiry” that can guide researchers in using each tool.

Emergence. We begin with the first tool for inquiry, *emergence*, to tune researchers to the indeterminacies of meaning making across interactions—to moving with bodies, materials, texts, and discourses moment to moment. Only through close, systematic, and reflexive attention to ways meaning bubbles up in interactions among people, texts, and things can researchers develop sensitivities to the paradox of mobility, as the emergent, felt, mobile dimensions of literate practice are neither easily recognized nor accounted for by actors and/or analysts (Leander & Boldt, 2013). Emergence attends to the intertwining of cognitive and affective aspects of meaning making—that is, the way that interactions simultaneously create and embed affective meanings (i.e., “mean something” emotionally or physically to participants; cf. Lewis & Tierney, 2013) and cognitive meanings (i.e., come to be comprehended and acted on by participants). The shift for analysts is away from post hoc explanations for/of activity and toward “an emergent mapping of affective intensities and their effects produced across texts, bodies, and interactions” (Leander & Boldt, 2013, p. 38). Leander and Boldt (2013) describe aspects of emergence that we draw on in articulating this tool for actualizing a transliteracies framework: the *emergent body* that “gives (or doesn’t give) expression to the energies and potentials of the present that are constantly generated as the always-emerging body interacts with the always-emerging environment” (p. 30) and *research as emergence*, in which researchers “position [them]selves in the midst of activity in the present” (p. 35) in both observations and analysis. Both the emergent body and research as emergence offer conceptual and analytic potential for experiencing and expressing asymmetrical, disenfranchising, or empowering aspects of moment-to-moment activity. These aspects of emergence attend to the paradox of mobility through the affective intensities of unfolding interactions, the movements, and sensations of felt power and weakness, potential, and impossibility.

To those principles of emergence, we add other influences that inform our definition and use of emergence as a tool for inquiry. First, we draw on Deleuze (1988), who understood emergence as the process by which unprecedented, unimaginable ideas and events come to be in the world, a process he saw as a contrast between the possible and the virtual. The possible is reality read backward in time before it was realized. New, surprising, and unexpected things, on the contrary, emerge from the virtual.

What is important for the use of emergence in transliteracies inquiry is the willingness to engage in analytic processes that allow for the unprecedented, surprising, and meaningful to emerge in observations of human activity without predetermined and text-centric endpoints of explanations. Emergence, as an analytic tool, can act either/both as microscope and telescope, not only providing, microscopically, a lens on unfolding activity that is open to desire and nonrational action but also making possible a telescopic vision from afar that sees surprising and unfolding newness in developing practices, systems, and individual growth and change.

In current work, emergence has guided Nate's (Author 3) collaborative explorations of youth and adult learning pathways with educators and teachers in museums and schools in Chicago. Participants and researchers have collaborated to develop methods of inquiry that support young people and adults in reflecting on the ways that their own everyday experiences (e.g., riding to school on the subway, preparing music or poetry for an evening performance, recording oral histories for an after-school program at a museum, and conducting intensive urban ecological fieldwork for a summer youth program) are practices of placemaking—ways of making meaningful spaces for learning through interactions with others, with things, and with the natural and built environment. As a tool for inquiry, emergence has led participants in these studies to consider ongoing affective engagements as enmeshed with opportunities to learn (e.g., when prompted unexpectedly to stop and account for their feelings and engagement at a particular moment), and also to investigate trajectories that have extended from experiences 10 years ago that have led to current university and employment opportunities (e.g., by articulating these pathways on a digital map, annotating moves across years and locations that are connected to memories and future possibilities; see also Phillips, 2014). The imaginative component of these studies, with participants drawing lines on digital or paper maps to predict future movements, learning and employment opportunities, and affective engagements in future times and spaces, suggests ways that emergence can move with meaning making across times and spaces, accounting for unfolding affects and engagements as well as proleptic possibilities.

Two recent studies offer additional examples of how researchers might trace emergence analytically while foregrounding the paradox of mobility. Ehret and Hollett (2013) *moved with* five middle school students as they composed with iPods, paying close attention to the ways students' "countermobilities" conflicted with the school culture. Wargo's (2015) analysis of the mobile and ephemeral composition process of a 17-year-old high school student composing with Snapchat offers an expansive repertoire of methods to "research with" (as opposed to "research on") as a stance of experiencing emergence alongside participants. These studies engage emergence as an analytic lens on activity: Affect, feeling, surprise, interruption, and movement are seen and given analytic space in the moment-to-moment unfoldings of human action. The use of emergence as a tool for inquiry makes it possible to account for felt experiences in everyday mobilities that may have otherwise been elided or unnoticed. In foregrounding participants' perspectives and tracing connections as they emerged, these studies also illuminate the ways youth felt surveilled and constrained in their movements. Emergence can position analysts to attend to affectively charged moments in

process, and how those are intertwined with materials, people, and systems that may oppress and discriminate as much as they liberate and amplify.

Questions for inquiry suggested by the emergence tool might include the following: How do people create/assemble/feel/experience meaning from resources at their disposal (e.g., human body, material objects, emotions, virtualities)? How do meanings shift, transform, and travel over time and across spaces in relation to these differentially available resources? What pathways emerge from people's meaning-making practices, and how are these shaped in/by/through interaction within and across spaces? What trajectories are opened up as possibilities that are followed (or not), and how do possibilities emerge/open/close and reemerge/reopen/re-close in practice? What emerges in action that is surprising, new, interruptive, and unexpected? How are microanalytic interactions assembled into practices?

Uptake. Our second analytic tool, *uptake*, focuses on how researchers can trace ways people's bodies and material/semiotic objects respond to one another and otherwise make visible collaborative sense-making processes. This tool for inquiry draws on Bakhtin's (1986) insights about how "any understanding of live speech, a live utterance, is inherently responsive" (p. 68). In emphasizing the responsive character of understanding, Bakhtin situates meaning making as simultaneously historic and proleptic, both shaped by what has come before and oriented toward who or what might follow. In transliteracies research, uptake helps us trace people's sense-making practices as they signal their understandings in response to myriad things and people over time. In other words, a transliteracies approach can help researchers follow how people take into account other people, ideas, feelings, and things by making emergent understandings visible. In linguistics research, many scholars have explored uptake by drawing on Gumperz's (1986) work on contextualization cues, a set of tools exploring how people signal their understanding of others' actions and intentions through verbal and nonverbal signs, prosodic shifts, and the manipulation of artifacts. Similarly, scholars have found Goffman's (1981) work on *footing*, or how people align to one another within and across contexts, to be particularly generative in understanding the complexities of interaction.

One reason uptake functions as a generative transliteracies tool is because it highlights the ways sense making is never neutral. What people attend to and value is intimately tied to systems of power and privilege (Bourdieu, 1977), with some people more constrained than others in what they can say or do, to and with whom, and when. Tracing these "entitlement rights" (Bloome & Egan-Robertson, 1993) can illuminate the micro-dimensions of power and ideology, especially as these rights have been shaped historically in relation to race and gender and have played out through people's everyday literacy practices. One of the domains in which this stratified nature of uptake is most visible is in classrooms, with Bloome and Egan-Robertson (1993) offering a framework for analyzing how researchers might attend to the ways texts are created. For Bloome and Egan-Robertson, a text cannot be defined ahead of time because it is created as people "textualize experience and the world in which they live" (p. 311). In their microethnographic example of a classroom interaction, they describe

how first-grader Randy mirrored classmate John's play with a toy car during a classroom lesson—and how John's play became a text that was recontextualized over the course of the lesson as it was recognized by Randy, acknowledged as meaningful by both participants, and assumed social significance in the context of the classroom. Researchers are exploring ways to signal uptake through visual (e.g., Smith et al., 2015) or sonic emergence (e.g., prosody in de Freitas & Curinga, 2015; body/sound orchestration in Hall, 2015; sound spaces in Phillips & Smith, 2012). We imagine uptake to be a productive tool for tracing how people and things work together to make visible what is recognized, acknowledged, and socially significant, and how such textualizing emerges in response to past, present, and future dimensions of practice.

As researchers examine “what takes hold” (Gutiérrez, 2008, p. 150) in activity, a transliteracies approach prepares them to examine not just the historical dimensions of uptake but also the distributed nature of understanding. This shift helps move beyond the human-centric view that individuals are primarily responsible for generating understanding or making visible their intentions and beliefs. Jenkins et al.'s (2013) notion of spreadability helps illuminate the collaborative dimensions of “what takes hold.” For example, as they examine the role of Twitter in the Iranian elections, Jenkins et al. (2013) push back on the notion of “viral” media as positioning people (and objects) as passive, instead highlighting the collective, distributed power of things (computers, networks) and people (Iranian citizens, expats, bloggers, journalists) to recontextualize and repurpose meaningful content on a broad scale (e.g., Jocson, 2013; Kirkland, 2013; Knobel & Lankshear, 2008). In Amy's work with her colleague (E. E. Thomas & Stornaiuolo, 2016), she has explored these collaborative dimensions of uptake in social media, focusing on how young people are simultaneously taking up and pushing back on mainstream media representations online. In their fan practices, young people are transforming fictional characters to better reflect their own experiences in the world, such as by recasting primarily White characters like Disney's princess Elsa as a young person of color. We characterize these racebending practices on social media as one form of “restorying,” as young people not only *take up* popular culture expressions but *transform* them by writing marginalized identities and perspectives into existence. In this way, uptake considers both what takes hold and what is undergoing transformation and change, while attending to the boundaries and launching points for the micro- and sociogenesis of everyday practices.

Questions for inquiry related to this tool might include the following: How does meaning shift in relation to other texts, people, and contexts, both historically and proleptically? How do people take each other into account and signal their understandings to one another? What are the textualizing processes at play, and how are these recognized, acknowledged, and made socially significant? What roles do people and objects play in relation to one another in making meaning visible/invisible? How do people and things allocate their attention in activity, and what resources do people make use of in these processes?

Resonance. The third analytic tool we suggest, *resonance*, helps researchers address questions about how ideas, practices, symbols, objects, and the like become “shared”

and circulate across spaces and times, even when they do not seem to share direct links or traces to follow. In physics, resonance among objects refers to a specific phenomenon of the natural vibratory response of one object when another object with a matching frequency comes within range. Although the two objects are not touching or otherwise seemingly connected, they vibrate together. As a conceptual metaphor, resonance highlights how phenomena mirror, echo, parallel, and weave together across spaces, people, texts, and times, even those widely separated by time and space. In considering resonance, transliteracies inquiry attends to whose meanings and practices are amplified or muffled in which systems, and how and why some objects and forms find resonance and persist while others wane.

Resonance is challenging to operationalize in transliteracies research: Meanings ripple across and sediment within texts, objects, and people, activating and amplifying multiple, often contradictory, meanings as people act in the world. Ahmed (2010) offers affect and emotion as key mechanisms of connection or “stickiness” across time and among people as they are anticipated and felt in the body, explaining that feelings operate as “a promise that directs us toward certain objects, which then circulate as social goods” (p. 29). To trace the circulation of such resonance, Lewis and Tierney (2013) suggest attending to the emotional investments felt and expressed through the body—gesture, tone, pace, volume—as objects move. In our work, we began tracing resonance as vibrations across online networks, with Amy and her colleague (Stornaiuolo & Hall, 2014) examining how sexuality and gender definitions were traceable through recursive cycles of data gathering and visual mapping over time on- and offline. Building on these approaches to trace echoes that were difficult to see through traditional methods, we suggest that a transliteracies focus can help illuminate how particular voices, dispositions, practices, metaphors, and so forth find traction and resonate across systems, and in what ways others are stifled, cordoned off, and fade as they move.

Recent studies point to methodologies that can help trace how resonance occurs among loose and widely distributed networks. These studies address questions regarding how resonance surfaces among space-time crossings such as those posed by Lemke (2000): “What processes, what kinds of change or doing, are characteristic of each relevant timescale of organization of the system/network? and How are processes integrated across different timescales?” (p. 275). In efforts to better understand contemporary flows of new media and “discourse in motion,” Gries (2013) traces how meaning resonated in the viral uptake of Shepard Fairey’s 2006 *Obama Hope* poster. In working across Internet searches, images, geographic data mining, and traditional qualitative data, Gries and her team examined the *mechanisms of virality*, drawing on Debord’s (2006) *dérive* (or drifting) approach to argue that meaning became shared through otherwise disconnected yet resonant rhetorical approaches to remediation and distribution. Using collaborative, interactive visual maps, Anna (Author 2) and colleagues (Smith et al., 2016) examined the processes through which remix practices and sensibilities surfaced and became shared by attending to the varied rhythms and paces of remixing among a large, openly networked and self-selected professional development opportunity for educators. Each of these studies offers suggestions for ways to trace

resonance—not just in terms of *what* gets taken up, but *how* particular resources become meaningful and then are adapted, hybridized, and circulated across networks.

Equally important in using resonance as an inquiry tool is attention to what does not resonate over time. Working alongside young men to trace their transcontextual learning pathways, Anna and participants gained insights into what materials and practices did and did not resonate for them over long time scales (Smith, 2015). As they collaboratively mapped literacy practices over time (see Smith et al., 2015), they identified resonance patterns that were tightly bound up with their writing, identities, and bodies. That is, the participants' ethnicities, genders, and life circumstances were "read" differently by various publics, and certain practices and identities (e.g., spoken word artist, activist) became resonant across contexts while others were disregarded or sanctioned, rendering visible the influence of boundary-making practices to the rippling and resonance of meanings.

Attending to resonance requires researchers' positions and gazes to span relationships, contexts, spaces, and times to address the paradox of mobility. The typical boundaries of educational research, such as a classroom (cf. Leander et al., 2010) or a class period (cf. Lemke, 2000), are often too hemmed in to observe resonance rippling across spaces and times. Analytically attending to resonance across widely distributed and intersecting space-times requires researchers to take seriously Lemke's (2000) suggestion to rethink the project of social science that valorizes the independent researcher in a system that is, presently, "still masculinized, still middle-class, still Eurocultural, still specific to the interests of a particular age range within our own social system, in ways we can just barely begin to perceive" (p. 298).

This analytic tool suggests the following questions for inquiry: What "takes hold" for participants (individuals and objects) in interactions? What resonates both within and across groups and networks, and how does that build and wane over time? How are phenomena resonating differently across spaces and times, and how are phenomena differently situated? How is the question of "what resonates" reflective of mainstream and subaltern perspectives and beliefs, and how might analysis reveal patterns about what becomes privileged in interaction?

Scale. Our fourth inquiry tool, *scale*, is an analytic construct that has been taken up in critical geography (e.g., Moore, 2008) and sociolinguistics (e.g., Blommaert, 2010; Canagarajah, 2012) to understand how spatial and temporal relationships (e.g., global, national, local) are microgenetically and ontogenetically constructed and produced in and through people's practices. In literacy studies, scholars have examined relationships between the global and local (e.g., Brandt & Clinton, 2002), and a focus on scale helps us realize the ways these categories are not pre-formed but locally contingent, interactionally produced, and actively negotiated (Collins, Slembrouck, & Baynham, 2009). Scale is a particularly apt tool for transliteracies work because it does not assume scalar relationships in a priori fashion (e.g., an email sent from someone in Ghana to a relative in India before being forwarded to another relative in the United States is not assumed to be "global") but holds that all scalar relationships are fluid and dynamic, constructed through social practice (Stornaiuolo & LeBlanc, 2016).

One of the primary reasons scale offers a powerful analytic focus for transliteracies work is because it highlights inequities and asymmetries. Although many metaphors describing connections and relationships draw on networked logics, in which global flows travel along horizontal or free-form trajectories, scale adds a vertical dimension to understanding how hierarchies are constructed and boundaries between people and things reinforced. For example, scale can help researchers question spatial orthodoxies about classrooms as embedded in schools, which are nested hierarchically within districts, states, and nation; this concept pushes us to complicate such pre-given scalar categories by asking how these relationships actually unfold in practice and are understood (and created) by participants. Similarly, scale encourages us to rethink pre-given time scales, as Ehret and Hollett (2014) do when examining the contrastive relations between how teachers and schools construct and organize time and how participants feel and experience it. Literacy researchers have drawn on scale to illuminate how literacy practices emerge over a variety of temporal (Lemke, 2000; Pahl, 2007) and spatial scales (Compton-Lilly, 2014; Lam & Warriner, 2012), and how these push us to rethink our definitions of the local (Kell, 2011).

In transliteracies analysis, researchers can follow indexical trails created when scale is produced. In light of the ways all language is indexical in nature (Silverstein, 2003), pointing within and beyond the immediate circumstance to contexts, objects, and people in different times and spaces, a focus on scale can illuminate how people and things index other people, places, and objects in differential relationships to one another. In other words, scale allows us to trace how an artifact (let's say an assignment written for English class) moves from its initial site of production (where the English teacher, despite a few proofreading issues, gives it an A) to different spaces of interpretation (like a college admissions office), and how participants engage in scaling practices that position people and objects in different relations (the admissions officer may discount the writer because the assignment does not conform to college admissions genre expectations). Researchers might follow these indexical scalar traces, examining what resources people have access to, which resources they draw upon and for what purposes, and how access to resources positions people in particular ways.

In recent work with a colleague, Amy has explored how scaling functions in everyday literacy practice as both a strategic response to power asymmetries and a disenfranchising means of unequally distributing and ordering access to resources (Stornaiuolo & LeBlanc, 2016). We traced how teachers participating in a global education project negotiated scale in their interactions with one another, for example, tracing how the use of English as the main language in the international project positioned teachers in asymmetrical ways. We describe six scalar moves (upscaling, downscaling, aligning, contesting, anchoring, and embedding) teachers used that can be helpful in tracing how inequities are produced and reinscribed in local practices over a variety of time scales (seconds to years) and spatial scales (from the immediate to the distant). For example, the South African teacher Kgotso used downscaling to push back against the dominant role of English in the project and U.S.-centric assumptions (see also Blommaert, Westinen, & Leppänen, 2015; Canagarajah, 2012). The

downscaling moves Kgotso used served to reassert local authority by calling attention to the significant burden to his time caused by the translation he had to engage in with his multilingual students. We suggest that literacy researchers might find these scalar moves useful in teasing apart the ways inequities get constructed and emerge across global and local scales in literacy practices—especially the strategic ways people negotiate those inequities.

Although we intend scale to be sensitive to the development of practice over broad swaths of time and space, these developments are built microgenetically and ontogenetically in constructed, fluid, and dynamic fashion. Scale, then, points to these relationships of moment-to-moment interaction with broader developmental cycles. Scale provides transliteracies researchers an analytical tool for holding phenomena equal (e.g., not assuming in advance what constitutes “local” or “neighborhood” or “state”) and letting participants’ scalar practices inform emergent understandings about the relationships among them.

Questions for inquiry related to this final analytic tool might include the following: How are sociotemporal scales constructed in activity? How do these scaling practices position people and things in relationship? How are these scalar relations inscribed and articulated in and across texts and objects? How is sociogenesis accomplished microgenetically across contexts, space, and time?

Future Directions for the Study of Transliteracies

This article introduces a transliteracies framework in response to calls for theoretical and methodological approaches to studying literacies’ pathways in space and over time (Brandt & Clinton, 2002; Prior & Hengst, 2010) that are attentive to dimensions of power across social and material relationships (Boldt et al., 2015; Cushman et al., 2016). We suggest that a transliteracies framework serves as a flexible heuristic to conceptually and methodologically account for the contingency and instability of people’s literacy practices “on the move.” Drawing on the work of scholars who have emphasized that literacy practices are, and always have been, mobile, we argue that literacies research must also address the “paradox of mobility” (Lorimer Leonard, 2013)—that is, that mobility must always be understood in relation to immobility. A transliteracies framework positions researchers to attend to the mobility paradox through an iterative inquiry process that does not predetermine what constitutes text nor take an a priori focus on the nature of relationships among people and things. Such a move makes newly visible different kinds of relations among people and things—whether in horizontal, vertical, rhizomatic, or other relationships—and highlights people’s literacy practices within and across systems that (re)produce, exacerbate, and/or challenge social inequities.

Our intention in identifying the transliteracies framework as a flexible heuristic for theorizing and conducting research related to people’s everyday literacy practices is to build on existing efforts to understand and analyze meaning making as a mobile practice while attending to the ways in which mobilities must be read with/against immobilities. We believe the iterative inquiry process we introduce in the article represents

a stance on literacy research that makes a contribution to these efforts, and we have sought to articulate four tools—emergence, uptake, resonance, and scale—that work together to support such a stance. Together, these tools attend to the ways people make meaning on the move and to the ways people’s literacy practices interact with systems of power and privilege as people and objects construct, reify, contest, and redraw boundaries and connections in practice. These four analytic tools, with guiding inquiry questions, represent an initial set of methodological moves with potential for addressing the paradox of mobility, and we are eager for others to adapt, remix, and develop these and additional tools that are responsive to people’s ways of interacting with the world while on the move.

One of our goals in developing the transliteracies framework has been to work in collaborative and iterative fashion, engaging in a collective effort to theorize and articulate methods for observing and analyzing phenomena that we individually have found challenging to study and explain. We believe the framework addresses these challenges in ways we anticipate will be helpful for literacy researchers and practitioners more broadly—that it outfits and prepares us to attend to phenomena in ways that attempt to see, hear, and feel lived experiences in meaning making while interrogating cultural givens. In particular, we believe a transliteracies framework has the potential to orient researchers to everyday, and often systematic, practices of exclusion and marginalization that move with/alongside/against youth and communities. Committed to continuing in the tradition of the collaborative genesis of transliteracies with each other and with other literacy scholars, we are eager to see how the conversation about transliteracies evolves to include additional voices and perspectives, to remix and extend our efforts here, and to develop new methodological and theoretical directions that help make visible the multiple, interconnected, and systemic dimensions of human practice.

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Notes

1. See details about the history of this conversation at <https://transliteracyresearch.wordpress.com/>.
2. For those interested in how Liu's transliteracies work, rooted in digital humanities, has explored the "technological, social, and cultural practices of online reading," see the RoSE project (Research-oriented Social Environment): <http://transliteracies.english.ucsb.edu/category/research-project/rose>.

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