

Chapter 14

Relational Methodologies for Mobile Literacies: Intra-action, Rhythm, and Atmosphere

Ty Hollett and Christian Ehret

Introduction

In our first collaborative research project, we wanted to explore how youths' literacy practices with mobile devices moved with them across their everyday lives, and in particular how those literacy practices were influenced in the context of formal schooling (see Ehret and Hollett 2013, 2014). We designed and co-instructed a 12-week digital media and learning class for fifth grade students called stem3686 at a charter school in the Southeastern US, and we focused the course on teaching students to make new media using iPods. The course involved a number of 'challenges' that facilitated mobile composition across the school: creating QR code-based audio narratives of wordless graphic novels; photo walks relaying fictional accounts of found objects; augmented reality stories about Flat Stanley and Stella's adventures throughout the school.

When we think back to stem3686, we miss Yvette, Adela, Tiana, and Louie and the place we made together. We are also struck by how assiduously we worked to 'capture students' interactions with their screens. Audio recordings of our research debriefs were filled with discussions about new apps that might let us screen capture activity on students' iPods. When that proved too difficult, or too partial, we considered applications that would transmit screen activity to a nearby laptop—another screen we knew we could record—while simultaneously video recording each student with a stationary camera. Finally, we dropped the idea of recording screens altogether, opting instead for head cameras that could help us see students'

T. Hollett (✉)
The Pennsylvania State University, Pennsylvania, USA
e-mail: tyler.hollett@gmail.com

C. Ehret
McGill University, Montreal, Canada
e-mail: christian.ehret@mcgill.ca



Fig. 14.1 Vantage point from Adela's head camera

interactions with their iPod screens—what apps students used, how they swiped, tapped, pinched, and rotated throughout their composition process (see Fig. 14.1).

It was never about the screen, though. In fact, what the head cameras helped us 'see' through students' perspectives was, no surprise, the school. But more than the material environment, we began to see the place that the school was for them, how they moved through place, and how place moved them. Through the head camera videos, through their digital videos, and through our experiences walking alongside our students, we experienced their continual remaking of their school as an everyday place: as they felt the atmosphere of an off-limits teacher workshop room, as they sensed creative potential in an electric outlet, as their feet clattered on tile. It was not the apps that deserved our analytic attention in this project. It was bodies' potential for meaning making, what bodies could do with mobile devices in this or that place, and how those potentials made place differently. And so we began to ask questions that continue to move us as researchers interested in mobile literacies: What can bodies do with mobile devices? How can bodies story and remake the everyday places of learning and schooling while they move with mobile devices? No number of GoPros can capture all that moving and making, all that feeling, whether head-mounted or not.

Moving Methodologies Forward

In this chapter, we illustrate methodologies we have developed since our overeager and misguided attempts to capture mobile literacies by focusing on students' interactions with apps, screens, and whatever-the-mobile device. The methodologies we demonstrate spring from a central theory of 'intra-action,' here described by Barad as distinct from 'interaction':

The usual notion of interaction assumes that there are individual independently existing entities or agents that preexist their acting upon one another. By contrast, the notion of 'intra-action' queers the familiar sense of causality (where one or more causal agents precede and produce an effect), and more generally unsettles the metaphysics of individualism (the belief that there are individually constituted agents or entities, as well as times and places). (Barad 2012: 77)

Barad's agential realism, especially her theory of intra-action, has helped us to think about the experience of making new media beyond what is happening on screens alone, and to feel how those glassy, glossy screens are themselves only another part of the matter of new media making that is never simply directed by human actors, or human fingers touching and swiping (Ehret et al. 2016). Manning cogently describes the distorted perspective of agency that we forced ourselves into with head cameras: 'This is the problem with agency: It makes the subject the subject of the action. What if the act did not fully belong to us?' (Manning 2016: 16). What if the act of new media making did not fully belong to us?

Manning's posthuman proposition 'queers the familiar sense of causality' that has framed so much research on iPads in education, on mobile literacies, on literacies, on, well, most work in education research. And her proposition has moved us, the authors, beyond methodological perspectives that analyze subject-object relations: youth interacting with iPods to make new media out of an inert, material world. We have come to think about how place-iPod-genre-students-GoPros-researchers-and- intra-act to coproduce texts. Because youth are not separate or standing above the materials and places with which they make new media. Materials and places are not separate or standing above youth which *they* make new media. Place-youth-materials affect each other in making new media. There is not a subject, a prime mover, conducting the act. New media making is *of* the act, a relational unfolding among intra-actors, where agency is coproduced across bodies-materials as the act unfolds.

Moving methodologies forward, we have retrained ourselves, as intra-actors in the activities that we study, to attune to the movements of new media making in the act. Since our class with Yvette, Adela, Tiana, and Louie, we have been intra-actors in affective atmospheres of learning and care while playing Minecraft in a children's hospital (Hollett and Ehret 2015), and we have felt the rhythms of youth making a place for a learning and change in a library-based digital media and learning program (Ehret and Hollett 2016; Hollett and Ehret 2016). We use this chapter to illustrate the methodologies we have developed to know and express atmospheres and rhythms not because they are the only or primary foci that follow

from propositions such as Manning's, but because they followed from propositions such as Manning's when, in our places of study, we opened ourselves to the proposition of intra-action, of posthumanism, of new media making in the act.

Moving Methodology from Interaction to Intra-action: The Case of the iPad in Education

We recognize that all this feels like a radical reorientation not only of methodology but of the privileged position of our own rationality. But for some time now scholarship outside of education research has wrestled with this reorientation, recognizing for instance the limits of human rationality and experience (Haraway 2013; Braidotti 2013). Radical as it may seem at first, consider all that is left out when we observe experience from the outside as something that human beings compose, as students act on their iPads to make something out of a world waiting for them to act upon it, when we see data through head cameras.

We do not situate a methodology of intra-action in contrast to the methodology (and methods) put forth by interaction analysis [IA] (Jordan and Henderson 1995). Instead, we build from guiding tenants of IA as an additional 'way forward' in terms of coming to know the so-called data of lived experience. Following Barad's distinction between interaction and intra-action, it is not our intention to reject interaction analytic methods, or necessarily to offer something completely new. Instead, like Barad, we 'renew ideas by turning them over and inside out, reading them deconstructively for aporias, and re-reading them through other ideas, queering their received meanings' (p. 34). Thus, as we move forward, we 'renew ideas' regarding IA, first by providing initial background for intra-action and then expanding that understanding through an explicit focus on rhythm and atmosphere.

Intra-action operates through an agential-realist ontology. 'Individuals,' Barad notes, 'only exist within phenomena...in their ongoing iteratively intra-acting reconfiguring.' (p. 77) Phenomena, literacies in the act, result from the entanglement of intra-acting agencies. In the act ourselves, we have evoked three key terms of intra-action: phenomena, entanglement, and agency. While IA might observe the interaction between humans in analytic 'hot spots,' intra-action follows the relational production of entangled phenomena. For instance, in an earlier intra-action analysis of the experiences featured below, we explored how a portion of the digital book trailer took shape within a stairwell of the students' middle school. Rather than using IA to analyze the ways in which, for example, student discourse and gesture partially facilitated the production of that specific scene, we questioned the various agencies that were at work in this emerging 'soundscape.' That is, we did not simply posit human 'bodies' as having agency; rather, we traced the entangled agencies of humans and nonhumans: students, shoes, floor tiles, walls, and energies that rose and fell as other students were moved to observe. As opposed to

privileging the human bodies of students as having agency in the stairwell, we argued that agency was co-constituted in the intra-activity of bodies, materials, and place.

There are nuances to IA that are ripe for expansion, however, especially those emphasizing time, chronology and, especially, rhythm. Of rhythm, for example, Jordan and Henderson (1995) write:

Many workplaces are tightly organized around more or less rigid schedules that impose repetitive activities. For example, at hub airports, one may find interaction in airlines operations rooms organized around complexes. The time during which a flock of connecting planes come in, exchange passengers and baggage, take on fuel and food, and take off again. During these complexes, activity in the operations room is highly energized, only to slow down to a more leisurely level in between (p. 63).

We wonder, for instance, how this room becomes ‘highly energized.’ On the one hand, through IA, we might think that the arrival of the planes leads to a sudden influx of baggage, which then leads to an increase in the tempo of workers and so on. Interaction, in short, seeks explanations of subject-object causality.

On the other hand, intra-action analysis may illuminate how charged atmospheric conditions result from entangled agencies producing the phenomenon. Workers are not predictable automatons, moving at a rapid pace because there is more baggage in need of sorting. Workers-baggage-departures are entangled: the physical bodies of co-workers are the luggage that needs to be lifted, the human baggage handlers, the concept of departing-on-time as pressured by a neoliberal atmosphere of market-driven realities. Place-materials, too, become entangled in this moment in the making—a flight from Vail, Colorado, one might assume, yields a different kind of luggage than that coming from Orlando, FL. And still more is entangled in this moment. The rhythm is in production with the time of day, the hours in a worker’s shift (and how far into that shift they are), the size of plane, the weather on the ground and in other areas of the country that have led to this sudden influx of planes.

Project Background

Our illustration of rhythm and atmosphere below emerges from a 6-week study of youth production of a digital book trailer. Digital book trailers retain many characteristics of traditional book reports. For instance, trailer producers assume a persuasive and informed perspective, encouraging viewers to read the book. But digital trailers are also a visual-auditory experience, a narrative collage of film and soundtrack constructed by an invisible author to sell and tell a remixed film narrative. In the case featured here, five fifth grade students worked together to create a digital book trailer for the novel *Holes* (Sachar 2008): Domiana, Marcus, Ciera, Claudia, and Gerald. Students attended Heritage Middle School (HMS) in the Southeastern US, where they were selected by HMS English Language Arts

teachers to work with two Reading Masters Candidates (RMCs), interning as part of their program at a local university, to create a sample book trailer over six, 2-h long sessions using a shared iPad that belonged to Karly. Students did not have access to iPads via HMS. The RMCs, Karly and Ginny helped students use the iPad to film video clips, to select images to help depict the landscape of the novel, to record sound effects, and finally, to edit the film using iMovie. The students took on, shared, adapted, and switched between various roles throughout the planning, enactment, and editing of the film trailer, such as director, actor, cinematographer, consume designer, etc. After completing their book trailer with the RMCs, the students would return to their class as production experts, acting in supportive roles for their classmates as the classmates, in turn, began their own digital book trailer project. Partly because our previous analysis of students' production process focused heavily on Domiana and Marcus, we reentered our data with an explicit focus on students who seemingly operated on the periphery of production: Gerald and Ciera. Seemingly on the periphery, these students are, of course, integral to the production of rhythm and atmosphere. And because agency not *in* any one person or thing, all bodies-materials are immanently responsible for the socio-material conditions that are productive of peripheries. Indeed, all bodies-materials are responsible for generating physical, conceptual, and affective boundaries that can be excluded across temporal scales of learning and making, from moment to moment, place to place. We reentered our data interested in how such peripheries are produced through the ongoing production of rhythms and atmospheres, because we are concerned that these affective dimensions of new media making are often overlooked in descriptions of inclusive digital literacies pedagogies. Understanding more about the production of rhythms and atmospheres in moments of digital literacies learning may therefore aid in feeling out, in the moment, how to move more youth in from the margins of ongoing activity.

Attempting to attune ourselves to the ongoing production of peripheries, we returned to our video data attempting to re-feel moments in which agencies became perceptively entangled in, what we have previously described as, felt focal moments (FFM) (Ehret et al. 2016; Hollett and Ehret 2014). FFMs, we have argued, are signaled by interruptions (Dawney 2013), or corporeal moments felt upon bodies, causing unexpected movements. Bodies, then, become 'site[s] of intensity through which feelings, textures, and resonances emerge' (p. 635). These moments disrupt the flow of experience as students produce with the iPad—but they also strike us—as researchers—interrupting the flow of our own analytic experience of our data. As Dawney writes:

The researcher can, to a greater or lesser degree, respond and become attuned to these moments—make connections, argue for their significance, become self-consciously materialist through a reflexive and ongoing attention to the way in which philosophy and life can be thought and performed together. (Dawney 2013: 635)

By targeting felt focal moments, we make what Barad calls an agential cut. Agential cuts, she writes, 'enact a local resolution within the phenomenon.' We stop experience in order to attempt sense-making. Therefore, first identifying FFMs,

we make an agential cut; then, we work to disentangle the various elements that are intra-acting, not to separate them out and parse them, but to try and understand the relations among them in composing the act which is part of the phenomena-in-the-making. Here, the phenomenon is new media making. Thus, as Barad writes: ‘Cuts cut things together and apart’ (2007: 178).

In particular, we were attuned to moments in which activity began to take on a new tempo, a flurry of moving bodies, hands, materials, and digital objects. But, as noted above, these intra-actions also produced affective boundaries: as things began to pick up speed for some, they also began to slow and stall for others. Thus, through the following accounts of rhythm and atmosphere, respectively, we question, first, how social rhythms were produced during the book trailer’s production and, second, how an affective atmosphere emerged throughout the production of the digital book trailer, and we focus on how these rhythms and atmospheres were productive of excluding, affective peripheries.

Rhythms and Atmospheres of New Media Making with iPads

Rhythm

Lefebvre’s (1991) study of the everyday dynamics of spatial encounters, his rhythmanalysis, informs our explorations of the rhythmic mobilities produced through new media making with mobile devices, like the iPad. The world, for Lefebvre, produces a multiplicity of rhythms in the flow of relations between things, places, bodies and acts—(McCormack 2013: 41). Rhythmanalysis necessitates cultivating a heightened awareness of—an attunement to the affects of—the ongoing rhythms of the everyday. The rhythmanalyst think-feels both with and through her body. Her aim is to ‘mobilize the body as a set of rhythmic relations through which the spatiotemporal turbulence of everyday life registers as so many intensities of feeling’ (McCormack 2013: 32). While remembering that rhythm is fungible and immanent to the unfolding of singular acts, we have found the following three characteristics of rhythm especially useful for attuning to its production in the becoming of literacy-in-the-act with iPads.

1. **Rhythms are harmonious as often as dissonant.** Various scales, pulses, and durations of rhythms may ‘clash or harmonize, producing reliable moments of regularity or less consistence variance’ (Edensor and Holloway 2008: 84). Lefebvre identifies both eurhythmia and arrhythmia as potential rhythms in the city, with the former signaling a kind of harmony and the latter a kind of dissonance. The various tempos and intensities of rhythms produce ‘modulations of unpredictability and disruption’ which, in turn, are felt as ‘polyrhythmia, eurythmic synchronicity, or arrhythmia’ (Edensor and Holloway 2008: 84).

2. **Rhythms are multiscalar.** Rhythms range from the scale of the body to that of institutions, regions, nations, and more. For instance, rhythm is always linked to ‘such and such a place, to its place, be that the heart, the fluttering of the eyelids, the movement of a street or the tempo of a waltz’ (Lefebvre 2004: 89). In any given space, the rhythms of disparate social actors intersect: suburbanites, shopkeepers, tourists, dog-walkers, police officers, school children, but so do those of seasons, for example, as well as neoliberal, market-driven entities.
3. **Rhythms affect the tonality of the act unfolding, and can affect esthetic judgment of the act.** Even before Lefebvre, artists and philosophers alike drew on rhythm to understand the artistic experience. Dewey (1934), for example, became enamored with rhythm. Rhythm, for Dewey, is central to the artistic experience: ‘the first characteristic of the environing world that makes possible the existence of artistic form is rhythm. There is rhythm in nature before poetry, painting, architecture and music exist’ (p. 147). Dewey’s rhythm served as a counter to ‘uniformly even flow, with no variations of intensity or speed’ (p. 158). Thus, for Dewey, rhythm was critical to the experience of artistic production. Rhythm factored heavily into the ‘building up of an integral experience out of the interaction of organic and environment conditions and energies’ (p. 70). In the methodological illustration that follows, we attune ourselves not to the ‘interaction’ as Dewey writes, ‘between organic and environment conditions and energies’ but to the intra-actions between bodies—human and nonhuman—entangled in emergent rhythms of new media making.
4. **Touch, tap, friction, and flow: from micro to macro-rhythms.** Our focus on rhythm begins, incidentally, with friction, especially the rhythms produced as users intra-act with mobile devices. Fors (2015) describes mundane friction as ‘the friction caused by habitually touching, rubbing, clicking, pinching through media technologies’ (p. 1). Mundane frictions are an entry point to the rhythms of digital production—that digital production, especially with mobile devices, like iPads, is far from a visual, ocular-centric production: digital production is an emergent, form-taking process in which sensing, feeling, and touching are deeply integrated into the experience.

Mundane frictions are also rhythmic, however. Friction, for instance, changes the pace of production; it gradually slows down burgeoning velocity. These mundane frictions, we argue, foster the micro-rhythms of collaborative production around iPads. In the following, we first follow the mundane frictions of youth collaborative production by tracing those frictions that emerge as they select specific images for their book trailer. Then, we turn to the ways in which those micro-rhythms are entangled with macro-rhythms of embodied flows, or the fluid movements of students around the iPad.

We begin with this scene (Fig. 14.2). Domiana, Marcus, and Gerald work together at the iPad, selecting, inserting, and resizing images—including snakes, cacti, and other desert shots—that they can place in their digital book trailer. The students’ energy is rhythmic, punctuated by the narrative possibility of certain



Fig. 14.2 Domiana, Marcus and Gerald choose and orient images together

images—the snake looks menacing (swipe to next image) the sunset looks beautiful. Mundane frictions, and the subtle manipulations produced by them, further fuel this rhythm.

Importantly, part of this energy is generated by the rhythmic movements of hands. Over a period of 20 min, hands produce mundane frictions as they tap, swipe, and pinch possibilities. These micro-rhythms consist of action and pause, of flurries of movement and lulls of reflection. That is, brief pauses emerge in between pinches and taps, short moments in which Domiana, Marcus, and Gerald examine the image and choose either to (1) select it and manipulate it or (2) jettison it in favor of another image. Figure 14.3, for example, follows the movements of Domiana's hands over the iPad as the group selects and manipulates an image.

Domiana's initial hand movements toward the iPad (1) signify a shift in the rhythm that is becoming among the students. Marcus senses this burgeoning energy, pulling his hand back, making way for Domiana's to enter (2), especially as her fingers begin to spread (3) in preparation to pinch (4). After her first manipulation, Domiana pulls back slightly (6–7), and reorients her fingers before pinching the screen one more time (8–9). This is the micro-rhythm of new media making. Fingers touch, tap, and pinch as they feel out how their images can contribute to the story they want to tell. These mundane frictions are rapid, subtly slowing down the process before it speeds up again as the group moves forward and on to a new image and a new rhythm.

Still, we wonder about the other agentive elements entangled in this rhythmic production. What about the app that houses the images? How easy is it for a finger to manipulate images? To change their shape, size, and even texture? How might students' bodies respond to forms of 'digital fatigue' that they may encounter when



Fig. 14.3 Micro-rhythms of Domiana as she manipulates images

having to navigate within and beyond numerous apps? How is this ‘fatigue’ potentially felt by collaborators? How does this emergent feeling fuel—or syphon—the energy of the group?

Micro-rhythms do not exist by themselves, however. The rhythms of mundane frictions, and their concomitant movements of digital artefacts or through digital space, reverberate outward. These movements, in turn, affect the physical movements of others who are also copresent in the collaborative process of new media making with the iPad. In the above illustration, for example, Marcus pulls his hand back as Domiana begins to reach forward with her own. Marcus and Domiana fall into embodied rhythm with one another, feeling and sensing each other’s movements while they manipulate images. They rhythmically flow toward, and away from, the iPad.

Embodied flows, we argue, denote the macro-rhythms at work as students collaboratively work around iPads. Bodies, becoming together in the act of new media making, affect one another—they move one another. That is, the affective intensities generated throughout making with new media—emanating from the entanglement of physical body and digital artefact—push and pull students to-and-from the iPad. In Fig. 14.4, for example, Domiana, Arthur, and Gerald all enter into an embodied flow with one another.

Their bodies enter into a kind of rhythmic dance, akin to Lefebvre’s ‘tempo of a waltz.’ Domiana leans forward, hands pinching, as described above (1–2). Upon touching the iPad, Domiana then swings backwards, making room for Marcus to contemplate possibilities in response (3). Gerald, too, feels out (of) this rhythm, waiting for an opportunity move in toward the iPad. As Marcus leans back, and shifts his attention toward Karly, the RMC, Gerald seizes the opportunity to



Fig. 14.4 Embodied flows of Domiana, Marcus, Gerald and Ciera

contribute (4). He slightly shifts the iPad to give himself a better view before testing possible images. Domiana and Marcus both return to the iPad. Domiana orients herself to pinch the iPad screen while Gerald finishes his contribution (5).

Still there are other participants feeling out this rhythm. Karly observes over the shoulders of the students. Most notably, she feels and senses the rhythm that the students have fallen into—Marcus, Domiana, and Gerald all moving together. Karly, however, recognizes that Ciera has not entered into this embodied flow. Karly interrupts the rhythm that the students have established, by inserting herself between them and pushing the iPad toward Ciera (6).

These macro-rhythms, these embodied flows, are not separate from the aforementioned micro-rhythms. The touches, taps, pinches, and swipes produced through mundane frictions draw attention, primarily, to the subtle ways in which movement through digital space affects movement in physical space. This is real virtual intra-action. That is, our intra-active methodology does not simply orient us to the movements of hands, but attunes us to the entanglement of hands + digital images + physical bodies. Collaborative work around iPads, especially in settings that may not have a device for each student, are largely rhythmic productions. Students fall into—and out of—rhythm with one another. New media making, in the case of the digital book trailer's production, is less a visual enactment of seeing, choosing, and selecting specific images. Rather it is an emergent, form-taking production that brings together the real virtual entanglement of digital and physical bodies moving, and being moved by, students in rhythm with one another.

Atmosphere

Rhythms emerging in the act contribute to the continuous production of atmosphere. Consider the excitement-in-motion as Marcus, Domiana, and Gerald swipe through images with spikes in speed and stops for laughter and jest. It does not have a name yet, a distinguishing quality that students might recognize verbally as excitement. But something's happening, something's almost coming together. The pace quickens, and voices gain in tempo even when hands are still. Smiles smile. Eyes dart, shimmer, anticipate. Space begins to feel like *something*. Geographers and anthropologists, especially, have described how social space takes on a feeling, an atmosphere, in specific places ranging from annual community celebrations like the Blackpool Illuminations on the British seaside (Edensor 2012) to the home (Pink and Mackley 2016). Beyond any one place, cultural geographers have also described countries' contingent, collective atmospheres of nationalism, as in England during the London 2012 Olympic Games (Stephens 2016), or international atmospheres of neoliberalism as they move and morph at local and global scales (Anderson 2015). While remembering that atmospheres are also immanent to the unfolding of acts-in-the-making, we have found the following three characteristics of atmospheres especially useful for attuning to their production in the becoming of new media making with iPads.

1. **Atmospheres emerge as the concrescence of multisensory experience, movement, and place.** Pink and Mackley (2016) described how atmospheres emerge through the everyday rhythms and routines of home life, and are ‘on-goingly co-constituted through flows of digital media and their affordances, people and other things and processes’ (p. 358). In their study of the Ashton family, Pink and Mackley described Barbara’s multisensory experience of her home, where she lived with her two children, her husband and their dog, ‘feeling right:’

Because the sound of the TV, or of streamed YouTube videos would spill out of the rooms where they were used, Barbara, who was likely to be in the kitchen, could follow where people were and what they were doing...Their sounds contributed to the sensory, emotional and affective elements of the atmosphere of home. (p. 360)

Through the everyday rhythms of home life that include digital media, atmospheres emerge from, and are materially grounded in, moving, multisensory experience. Family members’ care for each other, and the shared sense of place ‘feeling right,’ is a relational experience of bodies’ emergent capacities to move and be moved. Imagine these emergent capacities through Barbara sensing her children’s movements and feeling potentials for their care, including moving to them if the soundscape shifts unexpectedly with laughter, a crash, quiet. The socio-material production of atmosphere is, in this instance, an emergent, affective attunement to place that is relational to the present and to histories of everyday rhythms.

2. **Atmospheres are experienced differently among different groups.** Although place holds atmospheric resonances related to routine rhythms, experiencing the atmospheres of place and event are contingent and perspectival. Edensor (2015) described how a Manchester City football game is experienced differently by aficionados than by newcomers. He further described how the intensifying commercialization of football on a national scale affected aficionados’ and newcomers’ relations with each other and therefore the coproduction of an emergent atmospheric experience of the event, a Premier League football match. Pink and Mackley (2016) argued that with such events, ‘the analytical task of the researcher is not to ask if an atmosphere was generated, but rather to ask what it meant for a certain group of people’ (p. 353). What does the atmosphere mean for our students on the periphery of new media making with iPads?
3. **Atmospheres are more-than-human productions.** Imagining how different groups experience and coproduce atmospheres requires admitting the agency of things. Things, like balloons, affect and are affected by circumstantial atmospheres, and circumstantial atmospheres are ‘inflected by the properties of those things and by their capacities to move and be moved in different ways’ (McCormack 2014: 607). For instance, consider the mundane reiterative practices of schooling in conjunction with the materiality of iPads. The iPad app momentarily locks up, and the iPad’s materiality asserts itself into the production of frustrating feelings that become contagious, that become a feeling in the

air, a feeling that a teacher might mobilize herself in response to before saying to herself, ‘these students are getting off track’; the iPad restarts itself and allows the flow of production to continue; teachers and students feel again an enthusiasm for the new media projects developing.

[Yawn]: Boring Atmospheres on the Periphery of Intermittent Excitement. In illustrating these characteristics of atmospheres, we contribute to the continued and necessary complication of numerous and pervasive popular assumptions related to technology in education, here specifically that iPads lead to automatic student excitement and engagement in project-based learning. To do so, we experiment with addressing the reader in the second person, attempting to invite you into the felt atmosphere we attempt to describe on the page.

If you could hear it while reading this chapter, you would feel uninspired by the squeaky overhead fan in the auditorium where our students made their book trailer. When no one was trying to talk over it during the episode describe above, when human voices were absent, the fan moved and infused the air with the feeling of an abandoned factory. A hybrid social space, the auditorium resisted the feeling of a factory, though: one day a place for special assembly, the next a place for jazz band practice, the next a place for an evening play performance. Today, it is a free place for researchers and RMCs to walk students to while their friends are still in class. So, there is perhaps a feeling of exceptionality that moves students to joke around, and even strut a bit, on the way to the auditorium. If only that fan would be more festive.

Our methodology orients us to the movements of bodies and how the capacities for those movements become in relation to a place for new media making not-yet made, not yet inviting of familiar social rhythms like, for example, the Ashton’s home as described by Pink and Mackley. One entry point to understanding the place it is becoming, the place for new media making or not, is to ask: What does the atmosphere feel like as the concrescence of multisensory experience, movement, and place? There is not a right way for this not-yet-place to feel, however, so how is the place becoming as an experience of different groups? How are bodies beyond the human, and beyond the fan, affecting the feeling in the air?

A look back to Fig. 14.4 might remind you how small a single iPad becomes when three students collaborate on editing and producing a trailer. The iPad’s diminutiveness asks you to turn it side to side so each of the three students can see—‘This picture! Let’s use this one!’—but it compels Karly, the RMC, more than it does Marcus and Domiana, who are exclaiming over the fan. Gerald, head in hand, is softer with his words and, as if wincing at the overexcitement too close to him, glances left at Ciera, head on arm on table, only to wince again at her exclusion. We wince with you and with Gerald. Exclusion feels. But the periphery in which Ciera is becoming bored is not the effect of Marcus and Domiana’s excitement. When they realize her exclusion they become still and quiet for a moment, as if feeling awkwardness in the air, feeling in the air again the off-kilter-not-yet-in-place-in-the-making. Rhythmic flows of *not* coalesced into an atmosphere that feels like something *together*. Together and apart from the Ciera becomes bored, lulled by the

fan, the iPad refusing to let her see. And she modulates the moment's tone in relation to the fan, the not yet place, the sideways glances, Gerald's acknowledgements and his becoming bored with her.

Although atmospheres are contagious, they are also contingent. In emergent relations, excitement in the air lulls when affected by a quick glance over at an atmosphere of disinterest and exclusion, evinced in Ciera's body. Boredom and excitement are equally valid perspectives, but each experience informs, reciprocally, the other, the atmosphere. A methodological perspective that opens questions around atmosphere is important analytically, as well as pedagogically, for feeling the peripheries of new media making in the moment. How can pedagogical attunement to atmospheres aid in adjusting them, in the moment, in making a place for making that *feels* more inclusive?

Relational Methodologies for Mobile Literacies: Moving Forward with the Past

What is it...that makes us so certain that the act is volitionally directed by a human subject?
 What is it that gives us the strong sense that the act's effort belongs to us? (Manning 2016: 16).

Relational methodologies do not discount human agency; they are more fully attuned to agency becoming among the relations of multiple, material intra-actors. In this chapter, we have attempted to tell the story of our own coming to terms with the overly 'strong sense that the act's effort belongs to us.' No Ty, No Christian, the act cannot be 'captured' through any one perspective, through human eyes, through head cameras. But as young researchers the lure of scientism, of doing a particular brand of social science that positions human rationality above and over the world, was too much. But trying to push one another beyond ourselves, we have made efforts to expand our methodological orientations, especially as we continue to explore mobile literacies and move alongside youth, who move and make with mobile devices. Feeling-thinking through methodologies of intra-action has so far sustained our desire to push ourselves beyond the ego seemingly sedimented in our species, that the act is ours alone.

Just after our class with Yvette, Adela, Tiana, and Louie, we had the opportunity to work with youth making, playing, and creating with digital media in a children's hospital (Hollett and Ehret 2015). While playing *Minecraft* with one of these youth, Bean, we pushed each other to focus less on the screen where the game seemingly unfolded and to attune more to the felt-relations emerging in the act, on the affects moving bodies—digital and physical, material, and immaterial. We attuned ourselves, for instance, to how relaxed human bodies, lounging on bean bag chairs, resonated with one another, collectively producing an affective atmosphere of fear as digital zombies + humming the *Jaws* theme + lights off + AHHHHHHHHHHHHH! YOUJUSTDIED became entangled with one another.

Moving with the many bodies entangled with one another led us to also consider the rhythmic qualities of learning and literacy. Through studies of youth civic engagement when playing *Minecraft*, we explored the affectively charged ways of being in social flow with one another that emerge—and cohere—during gameplay (e.g., Hollett and Ehret 2016). We felt the emergence of social textures through rhythmic elements, like pulsation, or energetic spikes and lulls; reciprocation, or affectively charged ‘call and response’ among participants; and oscillation, or participants’ repeated expansion and contraction from a unique location. Moving with these rhythms led us through the emergence of civic engagement, such as caring for collaborators and their *Minecraft* builds, and for the socially-just aims shared among the group and across build sites.

Across a range of research experiences, we have continued to return to the *places of learning and literacies* that have been produced through the entanglement of people, things, feelings, and more. We have observed—and felt—as places of learning and literacies have come together, as they have risked falling apart, and as they have held together over time (Ehret and Hollett 2016). Moreover, atmospheres and rhythm are essential affective dimensions of making place, and make new media *with* place as we continually remake place. Our shift from interaction to intra-action signals the inextricable relationship between place and the kinds of new media making that are possible with mobile technologies, like iPads.

It is not enough to say that literacy is material. Through our illustrations, we attune ourselves to the rhythms and atmospheres produced when students and things and materials and environmental factors *and* became together. Atmospheres and rhythm are essential affective dimensions of making place, and make new media *with* place as we continually remake place. We wonder what kind of place we could have made with Domiana, Marcus, Ciera, Claudia, and Gerald at Heritage had we stayed with them, imagined with them, and created with them in that place for a longer period of time? What stories could we have unearthed together? Instead, rather than producing a place, one that dissolved boundaries, one that generated a feeling of being in this moment together, we produced a digital book trailer (for the students) a research project (for us), in which we entered and exited after a pre-ordained period of time. Ultimately, if we are successful as education researchers, then we will have made a place alongside our participants. A place we can miss like that stem3686. A place where stories are still written on the (digital) walls.

References

- Anderson, Ben. 2015. Neoliberal affects. *Progress in Human Geography*.
- Barad, Karen. 2007. *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning*. Duke University Press.
- Barad, Karen. 2012. Intra-actions: An interview with Karen Barad/Interviewer: Kleinmann, Adam. *Mousse Magazine* 32: 76–81.

- Braidotti, Rosi. 2013. *The posthuman*. London: Wiley.
- Dawney, Liela. 2013. The interruption: Investigating subjectivation and affect. *Environment and Planning D: Society and Space* 31 (4): 628–644.
- Dewey, John. 1934. *Art as experience*. New York: Penguin.
- Edensor, Tim, and Julian Holloway. 2008. Rhythmanalysing the coach tour: The ring of Kerry, Ireland. *Transactions of the Institute of British Geographers* 33 (4): 483–501.
- Edensor, Tim. 2012. Illuminated atmospheres: Anticipating and reproducing the flow of affective experience in Blackpool. *Environment and Planning D: Society and Space* 30 (6): 1103–1122.
- Edensor, Tim. 2015. Producing atmospheres at the match: Fan cultures, commercialisation and mood management in English football. *Emotion, Space and Society* 15: 82–89.
- Ehret, Christian, and Ty Hollett. 2013. (Re)placing school: Fifth-graders' counter-mobilities while composing with mobile devices in a digital media enrichment class. *Journal of Adolescent & Adult Literacy* 57 (2): 110–119.
- Ehret, Christian, and Ty Hollett. 2014. Embodied composition in real virtualities: Adolescents' literacy practices and felt experiences moving with digital, mobile devices in school. *Research in the Teaching of English* 48 (4): 428–452.
- Ehret, Christian, and Ty Hollett. 2016. Affective dimensions of participatory design research in informal learning environments: Placemaking, belonging, and correspondence. *Cognition and Instruction* 34 (3): 250–258.
- Ehret, Christian, Ty Hollett and Robin Jocius. 2016. The matter of new media making: An intra-action analysis of adolescents making a digital book trailer. *Journal of Literacy Research* 48 (3): 346–377.
- Fors, Vaike. 2015. Sensory experiences of digital photo-sharing: 'Mundane frictions' and emerging learning strategies. *Journal of Aesthetics & Culture* 7.
- Haraway, Donna. 2013. *Simians, cyborgs, and women: The reinvention of nature*. Routledge: Abingdon.
- Hollett, Ty, and Christian Ehret. 2015. Bean's World: (Mine)crafting affective atmospheres for gameplay, learning and care in a children's hospital. *New Media & Society* 17 (11): 1849–1866.
- Hollett, Ty and Christian Ehret. 2016. Civic rhythms in a media-rich, informal learning program. *Learning, Media and Technology*. Online before print.
- Jordan, Brigitte, and A. Austin Henderson. 1995. Interaction analysis: Foundations and practice. *The Journal of the Learning Sciences* 4 (1): 39–103.
- Lefebvre, Henri. 1991. *The production of space*. Oxford: Blackwell.
- Lefebvre, Henri. 2004. *Rhythmanalysis: Space, time and everyday life*. London: Continnum.
- Manning, Erin. 2016. *The minor gesture*. Durham, NC: Duke University Press.
- McCormack, Derrick. 2013. *Refrains for moving bodies: Experience and experiment in affective spaces*. Durham, NC: Duke University Press.
- McCormack, Derrick. 2014. Atmospheric things and circumstantial excursions. *Cultural Geographies* 21 (4): 605–625.
- Pink, Sarah, and Kerstin Leder Mackley. 2016. Moving, making and atmosphere: Routines of home as sites for mundane improvisation. *Mobilities* 11 (2): 171–187.
- Sachar, Louis. (2008). *Holes*. Macmillan: New York.
- Stephens, Closs Angaharad. 2016. The affective atmospheres of nationalism. *Cultural Geographies* 23 (2): 181–198.

Author Biographies

Ty Hollett is an Assistant Professor at the Pennsylvania State University. He studies youth learning and literacies across formal, informal, and not-school settings in order to design equitable learning settings, opportunities, and arrangements for all youth.

Christian Ehret is an Assistant Professor at McGill University in Montréal. He investigates affective dimensions of learning, literacies, and digital culture through anthropological modes of inquiry across schools, communities, and children's hospitals. He recently received a 2016 Promising Researcher Award from the National Council of Teachers of English (NCTE) for his fictocritical exploration of writing and learning alongside youth in a children's hospital.