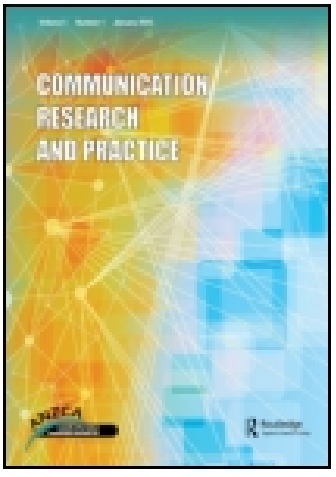

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Stories, spaces, and bodies: The production of embodied space through mobile media storytelling

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Stories, spaces, and bodies: The production of embodied space through mobile media storytelling

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The rise of mobile media – which are now the most pervasive digital technologies on the planet – has caused a reexamination of our spatial practices of everyday life. One vital element of the production of space is the ways we use media to tell the social stories of a place and, ultimately, orient our bodies toward (or against) the narratives of these locations. Positioning mobile media and location-aware technologies among the long history of site-specific storytelling, this article looks at a range of mobile story projects that offer insights into the social practices of embodiment, identity, and community in the digital age. These storytelling projects demonstrate ways of recuperating the materiality and infrastructure of digital media; they highlight the importance of location and proximity for contemporary computing culture; and they offer important examinations into the ways in which media ecologies address certain bodies while excluding others.

Keywords: mobile technologies; locative media; storytelling; embodiment; materiality; cultural geography

Introduction

Our contemporary mobile technologies, like the many mobile media that have come before them throughout history, are radically transforming how we produce and practice space. This impact of a mobile device's location awareness can be seen, for example, in the emerging ways that we document the world around us (Hand, 2012; Schwartz & Halegoua, 2014) to how we create and share historical narratives (Durington & Collins, 2014; Oppegaard & Grigar, 2014; Tebeau, 2013); from the mapping of crisis zones after a natural disaster (Munro, 2013; Zook, Graham, Shelton, & Gorman, 2010) to the cultivation of local knowledge through locative social networks (ranging from the wheelchair accessibility of a university campus to the racial tensions in an urban neighbourhood) (de Souza e Silva & Frith, 2014); from ways that sexuality is impacted by increasingly routine features like 'who's nearby' (Race, 2014; Roth, 2014) to the shifting practices of artists who create site-specific works (Hansen, 2005; Hemment, 2006). In other words, mobile technologies are influencing nearly every facet of life.

One especially vivid area of study in which such transformations can be seen is storytelling with mobile media. Storytelling is important for the production and practice of space because the meaning of a space is typically communicated through the stories attached to those spaces. For the communities in a given space, modes of spatial

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storytelling are of vital significance to how that community is represented in the world. These stories are often the narratives of a particular place or places, a site or group of locations that are meaningful to a community. Imagining such a meaningful location without a story is impossible; stories, spaces, and communities are intimately tied together. In this article, I explore these ties in our mobile media age and how emerging mobile platforms intercede in the long history of community storytelling and site-specific narratives.

Throughout this exploration of the tie between stories, spaces, and mobile media, I will expand on four key tenets of embodiment that have been developed throughout my research in this field. Of key concern in elaborating on my theories of embodiment is an argument for making bodies and communities *more visible*. As we consider issues of social justice and the role that digital media play in advancing human rights and social causes worldwide, it becomes apparent that making certain stories visible is a fundamental component for empathy, for making visible the communities and people who are on the margins and whose voices are often silenced, and for communities to practise their identities in locations that are deeply linked with their heritage. Stories and social justice go hand-in-hand and mobile media are increasingly offering ways to tell the stories that have often gone untold.

Shifting geographies of computing

The storytelling projects I analyse in this article are situated among a paradigm shift in how computing gets practised. This shift is from the desktop model of computing to the mobile model of computing. In this shift from *personal* to *pervasive* computing, practices of access to digital information are no longer tethered to a desktop but instead are with us wherever we go. This allows us access to the internet and to engage in other computing practices that once required going to a location specific for computing (e.g. the desk at the office or home).

Accompanying this shift is a transformation around the ideas of geography. The desktop paradigm, while tethered to a single location, linked that location to the cultural imaginaries of internet users being able to connect with each other without regard to global borders. This was an era that revelled in the ability for people to log in and connect to anyone, anywhere, at any time. Borders and the material constraints of geography were not only conquered, but were made irrelevant. With the rise of mobile, location-aware technologies, proximity once again came to the fore. In the pervasive computing paradigm, location – and the specifics of a location – has become central to the practice of computing. Those priorities that were seemingly dismissed in the era of personal computing are now dominant elements for our current era of pervasive computing.[1]

Such notions of 'the death of geography' in the earlier paradigm of personal computing were often coupled with utopian ideals of the ability to escape the material realities of these spaces. This is illustratively seen in an early commercial for MCI, an internet provider of the time, which argued that the physical realities of everyday life no longer signify in the same way in this new digital landscape. This 1997 commercial directed by Sam Bayer and titled, 'Anthem', intersperses black and white shots with colour footage and cuts from person to person as they collectively say,

> People here communicate mind to mind. There is no race. There are no genders. Not man to woman. There is no age. Not young to old. There are no infirmities. Not short to tall or handsome to homely. Just thought to thought, idea to idea, uninfluenced by the rest of it. There are only minds. What is this place? Utopia? No. The Internet. (Garfield, 1997).

Commercials like this, which were ubiquitous at the time, helped emphasise the notion that there was a distinction between the categories of 'virtual' and 'real'. With such a split, according to these arguments, what happened in the digital world was distinct from what happened in everyday life. The rules were different. A person's practice of identity, under such rules, was different in the digital realm than in the physical realm.

However, we saw from very early on that such imaginaries didn't fit the actual uses of these media. Chun (2008), using the MCI Anthem commercial as her example, argues,

> Significantly, this rewriting of the Internet as emancipatory, as 'freeing' oneself from one's body, also naturalizes racism. The logic framing MCI's commercial reduces to what *they* can't see, can't hurt *you*. Since race, gender, age, and infirmities are only skin-deep (or so this logic goes), moving to a text-based medium makes them – and thus the discrimination that stems from them – disappear. (p. 132)

Similarly, Nakamura (2008) was one of the first scholars to articulate this logic and to launch critiques against the notion that digital realms removed racism and the power structures that support discrimination. She showed that the structural inequalities that exist in everyday life seamlessly fed over into digital realms. In her article, 'Cyberrace', she writes,

> New media appeals to us so powerfully partly because it satisfies our needs in postindustrial society to construct our own custom lifestyle from a large (but not infinite) number of choices . . . . If identity construction and performance in digital space is a process of selection and recombination much like shopping, another privileged activity of the nineties, what types of objects are on offer, what price is paid, who pays, who labors, and who profits? (Nakamura, 2008, p. 1674)

These are the questions that scholars and everyday users of digital media need to be asking; these are questions that were not sufficiently asked in the early days of personal computing and the internet.

The logic of the era of personal computing, which centred on the ability to overcome the geographical constraints of everyday life, linked these imaginaries with the ideas of overcoming other material constraints like the body (and the prejudices against particular bodies). For digital studies, it is vital that we explore the material conditions that make possible the computing practice that exist around the world. One of the key starting points for such an inquiry is to understand the human bodies as well as the labour that goes into the creation of these devices. Where, for example, did my phone come from? What is its 'life cycle'? Where did the elements such as coltan, copper, or rare earth elements that are necessary components for my phone to function come from and who mined them? Who assembled the phone? How did it get to the store where I purchased it? Where will it go once I recycle it? Will it be refurbished or will its parts be broken down in toxic conditions in a developing country?

Such questions couple well with inquiries into the infrastructures that make our mobile devices function. My scholarly interest into the life cycle of mobile devices emerged around the same time that I began researching the pathways of mobile data and the infrastructures that serve as the foundation for mobile computing (Farman, 2015). After getting the chance to step into one of the most important sites for the internet in the Mid-Atlantic region of the United States – the Equinix peering point

on the outskirts of Washington, DC, a set of data centres that hosts the vast majority of internet traffic in this part of the country – my views of the geographies of the internet and digital media were absolutely transformed. In the field of mobile media, we have relied on the terms like 'wirelessness' or 'the cloud'; yet, such terms do a disservice to the tangible realities of digital culture and mobile media practices. By tracing the pathways of my mobile data while I was at the Equinix site, the materiality of mobile media became central to understanding how mobile media function. Beyond the non-tangible radio signals that left my phone when I used the mobile internet at the Equinix site, termed as the 'air interface' of my phone to the nearest cell antenna, the rest of the journey of my mobile data was across very static infrastructure. From the cell antenna, my data travelled down fibre optic cables out to a Mobile Switching Centre (MSC) that handles where the data will be directed (e.g. if it's a call, it pushes that data out to the public telephone lines; if it's a mobile website or app, it pushes that data out to the data centres like Equinix), to the databases (and, in my instance, the 'cloud' servers hosted by Amazon in the Equinix peering point), and then all the way back along that same route to my phone.

These examples – the labour conditions of the digital age, the materialities of devices, and the materiality of digital infrastructure – expose the flaws of 'the death of geography' as touted by commercials like MCI's Anthem. Instead of the material conditions of everyday life being overcome by digital media, the material conditions become a vital element of what it means to live in a digital age. A key component of this is to understand that a person's location affects their experience of the internet. The place where a person is (locationally, culturally, and interpersonally) will shift how they experience the internet. We can thus explore the ways that our devices are dependent on the material conditions of our surroundings and allow us to expand the context of those spaces. Here, we can intervene in the production of space using these devices. If there's an intimate relationship between materiality, space, and digital media, then the ways that those technologies and spaces get produced offer modes of intervention. We are neither passive in how space is produced nor in how technology plays a vital role in such spatial productions.

As the study of mobile technologies – especially locative media – continue to be an important topic of study for the field of media studies, it is essential that these studies continue to highlight the cultural and material contexts of these media. Here, the field of mobile communication studies needs to continue to move beyond the interface to instead situate the interface around its particular geographies, around the materialities that are foundational for these media, and among the cultural specificities of a location to deeply inform what it means to use something like a mobile device in a particular locale.

In setting up this context around the geographies and materialities of digital media, my hope is to highlight why I think the topic of storytelling with mobile and locative media is of significance. Mobile story projects allow us to trace the meaningful connection between spatial production, communities, and technology. These projects also serve as strong examples of my theorisations of embodiment in a digital age and pervasive computing. In what follows, I draw on four storytelling projects as my case studies that will expand outward into broad theorisations of embodiment. In this article, the micro scale of standing in a particular location and engaging a mobile storytelling app at a particular moment in time helps concretise the macro level of what such an example has to offer for broad theorisation of bodies in the digital age.

Embodiment between the virtual and the material

Deviating away from the logic of the MCI Anthem commercial, my first theorisation about embodiment in a digital age is that the body is produced through the *interplay between the virtual and the material*. Rather than existing as separate realms that the body must work between, the virtual and the material are instead collaborative spaces that produce embodiment. Understanding the body as produced at the nexus of the virtual and the material (rather than as something that must move between the distinct spheres understood as the binary of virtual and material) was something that was emphasised for me when I was experiencing a mobile story project called *On This Spot* (Farman, 2014).

This project, which was commissioned by the Electronic Literature Organization (ELO) for their 2012 conference, was a fictionalised historical narrative set in Morgantown, West Virginia. The author of the piece, Jeff Knowlton, is perhaps most well known for being one of the creators of the first locative narrative projects, *34 North 118 West*. Knowlton handed me a paper map at the ELO conference for me to explore *On This Spot*. The map displayed several placemarkers signifying locations where the story could be found. I walked out to the trail along the Monongahela River and hunted for one of the spots. I eventually came across a QR code for the project and scanned it (Figure 1). This loaded an audio clip of an actor playing a Civil War-era businessman reading a love letter to a woman named Caroline. Riffing off of the documentary style of Ken Burns (especially his famous 1990 film series, *The Civil War*), Knowlton's piece plays into the expectations of this genre only to flip these expectations on their head. The letters that are read offer a satirical commentary of the sentimentality that characterises Ken Burns' style. In this audio clip, the businessman discusses how he is eager to use the famous clay that is

Figure 1. One of the signs for the mobile storytelling project *On This Spot*, posted along the Monongahela River in Morgantown, West Virginia. When the QR code is scanned, it unlocks the audio of the fictionalised love letter (and response) that serves as a satire of the Ken Burns style of historical nostalgia. Photo ©2012 Jason Farman.

in abundance in Morgantown to start a pottery and fine tableware shop. For him, such a pursuit is an important part of establishing the American landscape: 'What civilizing power a proper set of cups, saucers, and teapots can have on the men and women of our towns and settlements. I must bring such refinements to them.' He notes that he is building up his fortune so that he may ask Caroline's father for her hand in marriage, since 'all that I could dream of is here but you, Caroline … I hear your voice call my name in the rustling of the trees. I see your smile in the ripples breaking upon the banks of the river.' In response to this letter, Caroline writes (as read by another actor):

> Tullahoma, Tennessee. 7 June 1851. Dear Abner, I have never known a man so energetic, so industrious, so inventive in his capacity to lie as I have known in you. You have, no doubt, said these same words to the common women of ill repute in Pittsburgh. For two bits, they may engage you in congress, but I would rather drink my own bathwater than offer my hand in marriage to you. Most sincerely, Caroline Davenport.

To truly understand the experience of this story, to understand what it was like to stand 'on this spot' and listen to these satirical narratives, it is necessary to keep in mind that the QR codes of the mobile story project existed among an ecology of mediated narratives about the American Civil War. Along the river trail, there are plaques, statues, kiosks, historical markers, and city signs about Morgantown and its meaning. The meaning of standing in any particular location along the river has significance as elaborated by any one of the hosts of mediated narratives located here. *On This Spot* is, in part, a commentary on the ecology of narratives in Morgantown.

Some of the narratives in this mediated ecology are durable. Next to one of the story sites for *On This Spot* is a historical marker about how the citizens of Morgantown, which was a Unionist stronghold during the Civil War, engaged in tactics to ensure that the Confederate Army would not loot the goods of the town. Some kinds of narratives are ephemeral, such as the various forms of graffiti, stickers, and banners around the river trail (McCullough, 2008). Within this media ecology, 'medium specificity' is important when we consider the narratives conveyed (Hayles, 2004). What kind of story can a particular medium tell? What are the medium's affordances or constraints for telling stories? For a historical marker, a plaque, or an inscription on the side of a building, the constraints include the amount of space available to tell a story. What tend to emerge, due to such limitations (coupled with the costs involved in telling narratives with durable media) is that the 'grand narratives' of a space get told. These are the stories of those in power, those with the wealth to set up durable media, or the agreed-upon story by the people in positions of authority. The ephemeral narratives stand in contrast to these durable stories; they are the stories of the moment, often told by those on the margins with little ability to tell their story with durable media. Ephemeral media insinuate themselves into the grand narratives of a space.

Mobile media echo the motivations of ephemeral media: they operate as tactics of spatial storytelling to tell stories that often go untold. The medium specificity of a mobile phone allows multiple stories – which can often tell conflicting narratives about what a space means – to be layered onto a single spot. *On This Spot*, as it relates to the ecology of mediated narratives that surround it, demonstrates that the body's relationship to a space (and the stories of that space) is engaged through practices of layering. Embodiment in such sites is produced through engaging the multiplicity of narratives communicated.

Such layering is emblematic of 'the virtual'. Drawing from the uses of the word from throughout history (the first written appearance of the word in the English language was in

1398), virtual has signified in a wide range of ways. Notably, many of the uses – especially those attached to religious experiences – deeply link the virtual to the material. As one example, for those in the Catholic Church taking the sacrament, they understood the materiality of the act of consuming the bread and the wine as something that linked them to the 'virtual' or non-physical aspects of religion. According to the *Oxford English Dictionary*, they employed this terminology from the 1400s through the mid-1600s to describe this intimate link ('Virtual, adj. and n.,', 2013). Here, the doubleness and multiplicity of experience is key to understand what makes the virtual powerful. It is not a simulation of the real, nor is it a replacement for the physical; instead, it is an augmentation of the physical by offering experiences of the non-tangible elements that are often fundamental to life in the material world. As Friedberg (1993) describes,

> The concept of the *virtual* provides a crucial ontological distinction here; from the Latin *virtus*, for strength or virtue, virtual is defined as 'of, relating to, or possessing a power of acting without the agency of matter; being functionally or effectively but not formally of its kind. (p. 204)

Friedberg goes on to use the virtual in a way that aligns well with my arguments here:

> I've chosen the word virtual here and not simulation to avoid the Baudrillardian connotations of a simulacrum unhinged from its referent. Henri Bergson uses the term virtual in *Matter and memory* (1896) to distinguish between perception and the 'virtual sensation' of memory. Gilles Deleuze takes up the term to describe the two sides ('actual' and 'virtual') of what he deems the cinema's 'crystal-image. (p. 204)

The virtual is thus not a simulation, but is something that exists in an important dialogic relationship with the material world.

Mobile stories like *On This Spot* demonstrate that embodiment in digital culture is produced through a dynamic interplay between virtuality and materiality. The pleasure of digital content, especially as seen in site-specific and locative projects, is that data and the material world inform each other with a deeply intertwined layering effect (Kitchin & Dodge, 2011). As mobile culture continues to take computing out into the physical spaces of everyday life, projects that highlight this experience of multiplicity are the ones that connect with what it means to be embodied in this era of digital culture. Mobile media are less about producing digital simulations that replace the material world and are instead more interested in producing ways that the virtual and the material interact in meaningful, embodied ways. In pervasive computing culture, embodiment is not based upon how well a technology can produce simulations or create illusions of reality, but instead how digital media create sensory experiences of layering. What makes projects like *On This Spot* powerful, interesting, and even worth exploring is not that they exist in isolation as a user stares at his or her phone screen, but that it exists beyond the screen to interact in meaningful ways with the spaces and media that surround the user and his or her mobile device.

Embodiment between the visible and invisible

As I was experiencing the story of *On This Spot* throughout Morgantown, there was a moment of technological breakdown that led to my second theorisation about embodiment in the digital age: the body is produced through the *interplay between the visible and invisible*. While I was at the final location in *On This Spot*, I attempted to scan the QR code and realised that I had no cellular signal in this part of Morgantown. I was unable to access the

mobile internet and the URL that the QR code was pointing my phone toward (and the audio file found there). This kind of technological breakdown is what Heidegger (1962) calls the move from ready-to-hand to present-at-hand. When something breaks, that's when you notice it. This is especially true of technologies that weave themselves into the fabric of everyday life. When it breaks or stops working, it pulls the technology out of the realm of habitual practice to instead be something that a user takes note of in a new way. For speculative realists like Harman (2002), this is the essence of Heidegger's phenomenology. Harman calls this 'tool-being', noting that the various levels of function or malfunction that a tool might have affect its visibility or invisibility as it gets integrated into everyday life.[2]

When mobile media stop working – when cell reception disappears, when batteries die, when the device falls and breaks on the ground – there is a move from the invisibility of everyday usage to the visibility of how much the device had embedded itself into routine practices. As Ling (2012) notes,

> As technologies become more engrained in society, we do not pay them heed. It is only when systemic disruptions occur that we understand their role. Up to that point, however, we do not focus much attention on well-embedded social mediation technologies. Until it breaks down, the telephone system, for example, is in some ways invisible. However, it gains a glaring visibility when it breaks down and we are faced with the need to communicate through alternative systems. (p. 34)

This move from the commonsense of 'taken-for-grantedness' (as Ling terms it) to the 'glaring visibility' of infrastructures and embeddedness fits within Heidegger's shift from ready-to-hand to present-at-hand. This move demonstrates that much of what constitutes embodiment in our mobile media age is dependent on many of the systems of everyday life to recede into the background of perception. Infrastructures, in their most common implementation, are not meant to be seen. They are designed to recede into the background, simply making particular actions possible without drawing attention to themselves. Parks' (2012) scholarship develops this across many examples of media infrastructures. Her sophisticated exploration of media infrastructures begins by noting, 'Most people are socialised to know very little about the infrastructures that surround them in everyday life, whether electrical systems, sewer pipes or broadcast networks' (p. 64). She goes to argue,

> Not only are people socialised to be unaware of such systems; infrastructures are often designed purposefully to be invisible or transparent, integrated with the built environment, whether submerged underground, covered by ceilings and walls, or camouflaged as 'nature'. Further since infrastructures often extend across vast territories they are often impossible to grasp in their entirety and are difficult to describe. (p. 64)

Thus, it seems that at the core of how they exist as beings in the world, infrastructures are designed to recede from view. We don't think about our cell reception until it's bad; we don't think about a typeface in a book unless it makes it difficult to read. Much of our embodied relationship to the world operates as such: we don't notice much of what makes everyday life function until it calls attention to itself. Human attention requires as much in order to function. For human focus (in the realm of the cognitive attention) to work, most of the things in the world recede into the background (into the realm of the cognitive unconscious) (Kihlstrom, 1987).

Extending the work of Parks and other scholars who call for an 'infrastructural literacy' (Parks, 2009) and visibility of the systems of everyday life, I argue that such

visibilities and invisibilities are the pivot point for the politics of storytelling. For the grand narratives of a space to work well, they typically function in the realm of the cognitive unconscious. Grand narratives work well when they are taken for granted, when they are commonsense. This is how hegemony works best, when coercion is voluntary rather than forced, because it is never questioned. As scholars such as Antonio Gramsci and Stuart Hall have argued, the most dangerous and powerful things that exist in the world are the ones that are so embedded in the logic of commonsense that they go unnoticed and unquestioned. The spatial stories of those in positions of power (e.g. the dominant group in a place rather than those on the margins such as refugees, immigrants, or other minority groups) are narrative infrastructures of dominance that are typically invisible.

Such invisibilities are particularly important for the politics of a space when the stories are attached to buildings or other sites that are far too easily demolished and replaced. As buildings or other sites are removed from the landscape, the stories attached to those places often get removed as well. The visible object in the environment can serve as a reminder of the link between a story and the landscape; once that visible link is removed, the story is in jeopardy of being similarly removed from the place as it gets forgotten.

For example, the site-specific mobile storytelling project, *[murmur]*, sets up ear-shaped signs around several cities worldwide with a phone number and access code for passers-by to call (Farman, 2012, pp. 116–121). Once the caller dials in the code, a curated story plays about the site where the listener is located. In San Jose, California, for example, one of these signs is attached to a lamppost on the corner of Carlysle Street and North Almaden Boulevard. The story begins to play, told by Sam Liccardo in 2006, about the building called the Notre Dame Market. He describes the place:

> I'm standing here on North Almaden Boulevard near Carlysle Street. We're facing east right now. We're looking at the side of an abandoned building and the building reads 'Notre Dame Market,' with the 't' painted over.... I'm looking at a sign on the side of this building that represented a place where my grandfather ran a market for about 55 years in the late-1940s and the early-1950s. I only discovered this sign for the first time last year after the building that stood in this lot at the corner of Carlysle and North Almaden was torn down and exposed the side of this building. And I can remember for many, many years hearing stories from my grandfather about the grocery store he ran downtown. I always knew vaguely where it was, but it wasn't until we saw the sign that we were able to pinpoint it once and for all ... The building is going to be destroyed shortly. We're going to see it go the way of many old lots and infill here in downtown. We anticipate it's going to be high-rise housing with some parking as well. The lot right adjacent to it is also currently under construction for high-rise housing. So, as we see it here in 2006 the whole city is being transformed – the skyscape, as well as the ground floor – and the Notre Dame Market sign may not be visible for much longer. (Liccardo, 2006)

What strikes me about this story is the relationship the story has to time in a particular location. Recorded in 2006 about a place that had significance for the storyteller's family in the 1940s and 1950s, as a listener would stand in front of the building nearly a decade after the story was recorded, the landscape would look entirely different. The last line has resonance for me: 'the Notre Dame Market sign may not be visible for much longer'. Participants/listeners/readers of this story would feel such layering – the virtuality of the story – by standing at this location and, as

Liccardo begins the story, 'We're looking at the side of an abandoned building…' the listener would compare his or her landscape to the one described, noting their difference. Interestingly, as of early 2015, the Notre Dame Market still stands abandoned, windows boarded up. This extends, and even compounds, the time signature created by the audio story. The story is 'time stamped' by the narrator as being told in 2006 and, as listeners, we wonder what has saved this abandoned building in downtown San Jose; why hasn't it been replaced with high-rise housing? The story then comes into relationship with the 2008 economic collapse, which deeply affected the California economy, putting many construction projects on hold. Yet, years later as the economy begins its upward swing, how much longer will the Notre Dame Market stand? So, while the site of the story visibly links with the narrative told in 2006, the passage of time emphasises the potential change that is constantly pushing in on these sites. As the built environment is in constant change, the stories that are linked with these sites are in constant jeopardy. Mobile storytelling projects like *[murmur]* explore ways of making these stories visible, especially when the built environment that functions as the foundation of the story is removed and made invisible. The story can still be represented even if the site is no longer a part of how the landscape is represented.

Mobile storytelling projects thus offer an intervention into the politics of site-specific storytelling by making visible the invisible stories, both those that are the commonsense grand narratives that function through their invisibility or those stories on the margins that have been made invisible by the dominant narratives of a place. Embodiment at the sites of these stories is produced through the layering of time and levels of visibility/cognitive awareness. The ability for these stories to shift the participant's awareness about how spatial narratives are told (and which stories are told) has significant impact for how bodies produce the spaces around them. Offering people the 'infrastructural literacy' to begin seeing these narrative infrastructures around them has a deep impact on the visibility of grand narratives and can move them from the realm of unquestioned commonsense to a place where multiple – even competing – stories can begin to define a site.

Embodiment through practices of inscription and being inscribed

Mobile media and mobile story projects orient our bodies in space. They engage us in a sensory experience of being situated among the stories of a space, among the communities that tell those stories, and as being included or excluded from these narratives. Upon being oriented in space in these ways, we simultaneously respond by orienting ourselves toward these spaces and narratives. Embodiment in these mobile stories is thus produced also through a 'twofold orientation'; *through practices of inscription and experiences of being inscribed*. As Ahmed (2006) writes, drawing on Martin Heidegger's theorisation of the 'twofold orientation', 'First, I am directed toward an object (I face it), and then I take a direction toward it (for instance, I might or might not admire it)' (p. 24). She continues,

> [A]n object tends toward some bodies more than others…. So it is not simply that some bodies and tools *happen* to generate specific actions. Objects, as well as spaces, are made for some kinds of bodies more than others. (p. 51)

The body's relationship to a space is not simply produced by entering a space and experiencing it; instead, it is a practice that involves the body's negotiation of the ways

that objects situate it as *a particular body*. Our bodies simultaneously situate (i.e. take an orientation toward) those spaces and the objects within those spaces.

Such a notion aligns wells with what I have termed in my previous research as the 'sensory-inscribed body' (Farman, 2012, pp. 31–4). The sensory-inscribed body simultaneously takes account of a phenomenological engagement with the world (and how the senses are extended and augmented through mobile technologies) alongside the ways that bodies are sites of cultural inscription. We sense the world as biological beings but we are simultaneously readers of the world, interpreters and inscribers of the various cultural codes we use to make sense of the world. The sensory-inscribed body is inscribed by other bodies, technologies, and objects, and is also an inscriber of cultural categories such as gender, race, class, sexuality, insider/outsider, citizen/terrorist, and visible/invisible.

Many of the spatial stories we encounter are inscribed onto a space (and thus inscribed onto the bodies in that space) by dominant bodies; yet, how do the stories of those on the margins get inscribed? Beginning with this as a research question, I worked alongside four graduate students and one undergraduate to design a story-telling app, called *Approach*, that would tell the often-untold stories of a space. We began with our campus at the University of Maryland, interviewing many people to find out their stories and what had gone untold. We then curated these stories into walking pathways, intermingling sets of stories that were relevant to particular sites on campus. The first pathway we created began with a story told by one of the professors of American Studies discussing the campus's contentious relationship with slavery:

> [We're here at] Turner Lab. Historically, it's tremendously important. The slave cabins were probably in where the parking lot is now. The first buildings of the University were built by slaves. It's been very controversial about how (or whether) to recognize them. I feel very strongly, as did the Black Student Union at the time, that it is important to recognize them because that's why I deserve a place at the table. That if I don't have outsider syndrome, it's because if my people built these buildings then I get to be here.[3]

This is not a narrative that is brought up about the University of Maryland; this is not part of the 'grand narrative' of the space. It does not fit well with the image the University puts out to the public, yet it is a vital part of the history of this place. It is a history that mostly goes untold and people typically spend many years as students on campus (or many decades as faculty on campus) without ever encountering this narrative.

Coupled with this story, we interlaced the narrative of a student in a wheelchair discussing what it's like to navigate our incredibly inaccessible campus. He recites a poem he wrote about the space, with the sounds of his wheelchair clattering against the grooves in the sidewalk as he guides us between the buildings called H. J. Patterson and Francis Scott Key. He says,

> I am small man on campus
> I claim this land in the name of the broken-shelled turtle.
> I demand you answer me, H.J. Patterson!
> What makes you deserving of great Greek columns and sprawling steps?
> What right do you have to overlook this procession?
> And where in the hell is your handicapped entrance?
> At least I know who Francis Scott Key was.
> He wrote the National Anthem!

Linking this back to Ahmed's quote that spaces and objects tend 'toward some bodies more than others' and that '[o]bjects, as well as spaces, are made for some kinds of bodies more than others', this project attempts to get privileged bodies to experience the familiar site of the campus through a different lens of experience. How do you get an able-bodied person to see that they are addressed by the space in ways that fit with the 'commonsense' of the campus, while some bodies are addressed as outsiders? This is an especially important question for stories told with mobile technologies: these media are often designed for particular bodies, bodies that are able to move freely through space. Here, our project attempted to show that something as simple as walking between two buildings on campus is rife with inscription, addressing certain bodies as included in the design of the campus and others as needing to fit their bodies into this design in order to live everyday life.

Embodiment produced between individual interfaces and public performance

The three storytelling projects I've discussed so far – *On This Spot, [murmur]*, and *Approach* – prioritise a single participant engaging the story on his or her mobile device. This last project I focus on points to a different mode of engagement and highlights my final theory of embodiment in this article: embodiment is produced between the *interplay of individual interfaces and public performance*. Part of sensory-inscription in the mobile phone era is about how people are read/inscribed as they use their mobile devices while walking through a space. So, while a participant of one of the projects discussed here might be walking through a space and engaging the community stories of the space, they usually do so alone. It is not a collaborative experience of receiving the story. Here, the story is received by an individual on an interface that is designed for individual consumption.

When someone is inscribed in a space while they are engaging one of these mobile narratives, they are usually inscribed as distracted from the space rather than engaging deeply with the layered meanings of that space. They fit into the category of 'phone zombie'. They are wandering bodies in a space. A recent meme tapped into this feeling about those who aimlessly wander, the disconnected mobile phone user, showing an image of eight college-aged students walking down a sidewalk, each staring at his or her phone. Above them read the caption, 'Here's Your Zombie Apocalypse'. The notion that someone who is staring at their mobile phone is 'disconnected' emerges, in part, because these are devices designed for an individual (not designed for collaboration on a single screen) and thus prioritise the single person's experience over the collective experience.

The final story project I will look at confronts this mode of inscription and the assumptions about how a mobile phone gets used. *TXTual Healing* takes the intimate medium of the text message and transforms it into a public reading experience. The project, which is an ongoing piece designed by Paul Notzold, projects speech bubbles onto the side of a building (Figure 2); beneath the bubbles is a phone number where participants can send a text message that then fills one of the speech bubbles (Farman, 2012, pp. 115–116). It thus shifts the expectations about mobile phone communication in many ways. First, it transforms this individual medium into a public performance. Such a transformation demonstrates that digital reading practices, especially in the mobile media age, are 'tending toward multiple rather than single screens, live performance rather than private consumption, and crowds rather than the single reader', as Raley (2009, p. 4) notes. Secondly, it shifts the experiential time of the

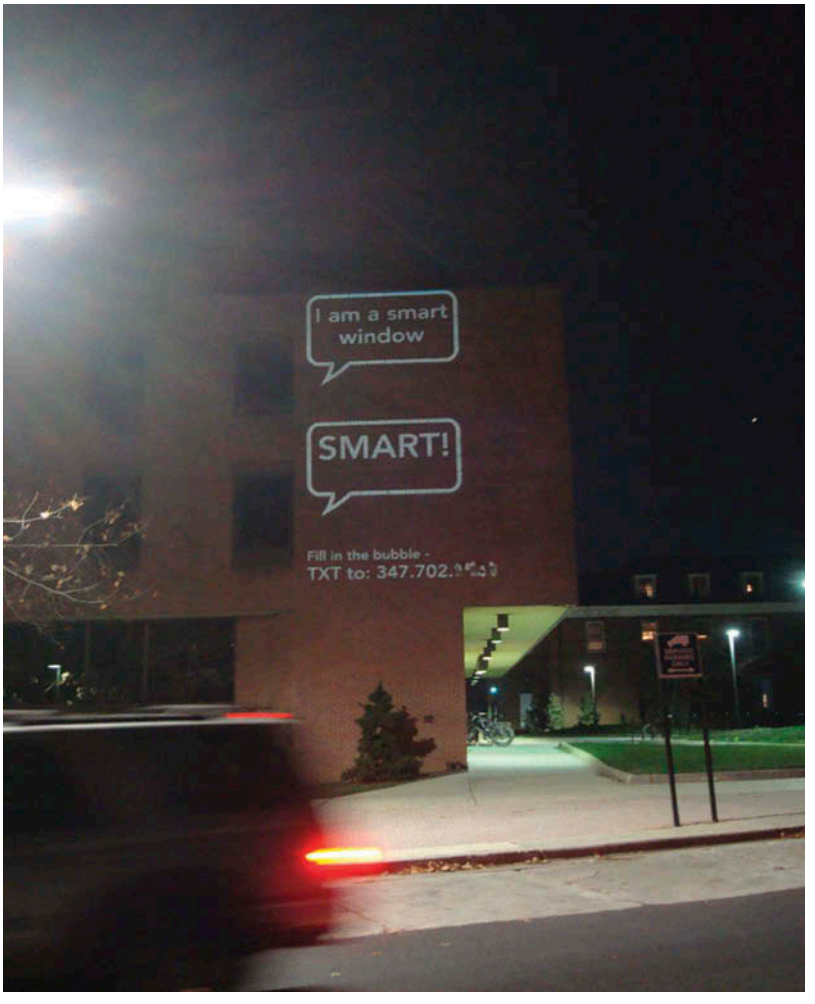

Figure 2. Paul Notzold's text message art project, *TXTual Healing*, projected onto the side of a building on the University of Maryland, College Park campus in November, 2011.

text message. Mobile media, by and large, prioritise asynchronous time since they are media that allow people to connect at a distance and respond when able. *TXTual Healing*, on the other hand, is experienced in synchronous time, as participants gather around a site to experience the liveness of the event. In doing so, this project evokes the tension between the categories of 'live' and 'mediatized' (Auslander, 1999). Lastly, this project shifts the expectations around the scale of such messages. Moving from the small screen of the mobile device to being projected on the side of buildings with words often six feet tall or larger, pulls the content out of its original context and gets participants interrogating the role of the medium in these messages. How does the screen differ from the side of a building as a meaningful surface where messages are communicated? What happens when the space of the building that is often associated with advertisements like billboards becomes a place where a message can be inscribed by anyone with a mobile device?

This mode of storytelling takes the intimate interface of the mobile phone and pulls it out of its everyday use; it is instead transformed into a medium for public performance and thus subverts the intentions and expectations of this medium. Each of the story projects discussed in this article demonstrates the transformative power of mobile technologies. These projects get participants to use a very familiar device in a way that pulls it out of routine and shifts expectations. They are media that give polyvocality to a site, to allow many voices to be heard rather than a single 'grand narrative' of a space. They also transform how people think about how such spaces and technologies are co-produced through large networks of forces. The meanings of these spaces and of these technologies are produced through the intersection of communities, media, cultures, histories, and materialities of many kinds. As such, these stories also point to the participant's role in how the stories are told, re-told, or made invisible in a place; the bodies in a space produce that space, and the stories that make the site meaningful are no exception. We are agents in the ways a space takes on meaning through story, and mobile media are offering transformative ways to tell a wider range of narratives.

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Notes

1. I say 'seemingly dismissed' priorities such as proximity and location because, though these categories did not cleanly fit into the paradigm of connection in the personal computing era, proximity and location still had massive impacts on the ways that computing was practised in this era. For a fascinating example, see Fiedler, Haruvyb, and Xin Lic (2011) on how geographic proximity affected players of an online game.
2. For Harman (2002, p.1), when a tool functions, it 'withdraw[s] from human view into a dark subterranean reality that never becomes present to practical action any more than it does to theoretical awareness' and thus the tool-being never presents itself to us. We only see objects when they stop working (and are thus something other than the ready-to-hand object).
3. Audio samples from the project can be accessed at http://approachapp.org. Approach was funded through a seed grant provided by the Future of Information Alliance and Deutsch Foundation at the University of Maryland. The app was produced in partnership with WAMU 88.5, National Public Radio (NPR).

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