8-2015

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Space and Culture
2016, Vol. 19(1) 43–55

DOI: 10.1177/1206331215595730
sac.sagepub.com
SAGE

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Abstract

This article examines how location-based mobile media technologies are affecting the ways individuals experience the relationship between memory and place. We argue that location-based mobile applications that allow people to check in to places or record their routes represent new practices of place-based digital memory. Many individuals are using mobile media to mobilize place and memory together to create new forms of digital network memory from which they may begin to remember their pasts and to write their histories—a kind of rhetorical and poetic memory making. To help illuminate these practices, we analyze applications such as Foursquare and My Tracks and draw on research in mobilities studies, new media studies, and memory studies to introduce and advance concepts such as personal digital archiving and digital network memory. These practices of place-based digital memory have consequences for understanding the interrelationships between mobility, place, memory, and mobile media.

Keywords

mobile media, location-aware media, place, memory, archive

> I don't mean to suggest that I loved you the best,
> I can't keep track of each fallen robin.
> I remember you well in the Chelsea Hotel,
> That's all, I don't even think of you that often.
>
> —Leonard Cohen

Leonard Cohen's *Chelsea Hotel No. 2* recounts the memories of a faded love affair. Not surprisingly given the song's title, Cohen's memories of this unnamed woman, whom he later identified as Janis Joplin, are enabled by and embedded in the physical place—the Chelsea Hotel—where the affair occurred. There is a sense throughout the song that without the hotel and its hallways,

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unmade beds, and limousines, Cohen would not remember her at all, or at least, would not remember her the way he does. By making their encounter possible, by gathering these two musicians in one place, the Chelsea Hotel becomes the ground for his memories—the very place from which he remembers this affair.

The relationship between place and memory Cohen hints at has a rich history in multiple disciplines, including critical geography, cultural studies, memory studies, sociology, and rhetorical studies. The majority of memory studies literature that focuses on the importance of place has examined traditional media—such as monuments, memorials, and museums—as places of memory (Blair, 1999; Dickinson, Blair, & Ott, 2010; Huyssen, 1995; Jones & Garde-Hansen, 2012; Nora, 1989; Olick, 2007; Sturken, 2007). Studies of memory places show how place can become integral to understanding how memories are evoked for and experienced by their visitors. In contrast to previous studies that link place to collective and public memory, we are interested in extending research on the links between place and individual memory (Ozkul, 2013; Sheringham, 2009). We specifically focus on how and to what extent new media of memory, specifically location-aware mobile applications, transform how individuals experience and practice the relationship between memory and place.

Location-aware mobile media, in particular Internet-enabled mobile phones (smartphones), use global positioning system (GPS), cellular-tower triangulation, and Wi-Fi signals to locate themselves in physical space. The widespread adoption of smartphones has popularized location-based services—applications like Foursquare, Yelp, and Google Maps—that enable users to navigate, explore, and learn about their immediate surroundings by accessing place-specific information. Research has examined how location-based services may affect navigation practices (de Souza e Silva & Frith, 2010; Frith, 2013), understandings of place (de Souza e Silva, 2006; Farman, 2012; Frith, 2015), and public sociability (de Souza e Silva & Frith, 2012; Gordon & de Souza e Silva, 2011); and we build on this research by examining how location-based services may alter or transform memory practices. We argue that location-based services, applications like Foursquare and My Tracks that allow people to check in to places or record the routes they take, represent new practices of digital memory that have consequences for our understanding of the interrelationships among mobility, place, memory, and mobile media.

The practice of archiving place through mobile media is part of the broader trend toward personal digital archiving. As digital storage became cheaper and cloud computing matured, people began archiving many aspects of their lives, including personal photographs on platforms like Instagram, the minutiae of status updates on Facebook, the automatic archiving of e-mails on Gmail, and the data recording and data mining of the "quantified self" movement. We are particularly interested in the archiving practices of people who use location-based mobile media. We argue that many individuals are using mobile media to mobilize place and memory together to create new forms of digital network memory from which they may begin, like Cohen, to remember their pasts and to write their histories—a kind of rhetorical and poetic memory making. Put differently, these practices of place-based digital memory help form the ground on which users walk—figuratively and often literally—through their pasts to construct their ongoing present sense of identity.

To help understand new practices of place-based digital memory, we focus on how individual users have come to use location-based services to interface with memory in everyday life. As Farman (2012) argues "Locative media have made the process of navigating everyday space that is informed by digital media a seamless, day-to-day activity for many mobile technology users. This is the new interface of everyday life" (p. 87). Therefore, to extend current research on mobile media as the interface of the everyday, we are interested in day-to-day activities of mobile media users, those activities that fit within the rhythms and habits of everyday life and that become practices of digital memory. We choose to analyze everyday practices rather than more specialized locative media art projects like Urban Tapestries (2005) and Rider Spoke (Blast Theory, 2013)

because, as Pink (2012) claims, the everyday remains "where we make our world and where our worlds make us" (p. 5). As such, we focus on the personal memory practices of location-based applications, including Foursquare and My Tracks, to understand place-based digital memory from an individual rather than collective perspective. Doing so allows us to suggest how location-based applications help mobilize place and memory as practices in everyday life.

In the next section, we establish the importance of mobility in the conceptualization of place. We begin with this brief introduction to foreground our primary perspective on both mobility and place, and importantly, to suggest how mobile media technologies will continue to affect our understandings of both. The next section then moves to our primary discussion by introducing examples of location-based services, specifically mobile applications that allow users to archive their location history. Here, we identify two primary practices of place-based digital memory—route tracking and checking in. As more digital information is organized around physical place and more people begin archiving spatial memories and mobility, scholars should continue to add complexity to current concepts of place and memory and to develop new concepts that sensitize us to the cultural consequences of place-based digital memory practices.

Mobilizing Place as Meaningful Practice

Place is a word used frequently in conversation but rarely defined. As Cresswell (2004) writes, "Place is clearly a complicated concept" (p. 50). So what is place? What makes something meaningful enough to become a place in our individual or collective memory? One of the most influential responses to this question has been Tuan's (1977) argument that "place is pause; each pause in movement makes it possible for location to be transformed into place" (p. 6). Tuan (1977) thus opposes the concepts of space and place. Space refers to "that which allows movement" (p. 6); in contrast, place is where we cease movement and pause to construct meaning. For Tuan, as well as other scholars (Casey, 2009; Relph, 1976), place is a location made meaningful through intentional interaction. Place is space with meaning, wherein meaning is the affective interaction of place and person(s). We adopt this definition of place as intentional and meaningful affective behavior when we discuss the practices of route tracking and checking in. At the same time, we extend this definition and complicate practices of place-based digital memory by drawing on the growing field of mobilities research.

For many thinkers, the concept of place has been opposed to movement (Hannam, Sheller, & Urry, 2006). We can see that tendency in Tuan's (1977) opposition of space and place. By viewing place as "pause," many definitions ignore the role mobility plays in constructing the meaning of place as a dynamic and relational process. However, the field of mobilities has argued that movement is central to how people experience and understand place (Sheller & Urry, 2006). Massey (1994, 2005), for example, focuses on the relationship between mobility and place and conceptualized place as the intersection of multiple mobile trajectories. Her concept of a "progressive sense of place" moves away from place as pause. Instead, what gives a place meaning are the types of information, goods, and people that flow through it. As mobility practices change, so do the understandings of specific places. Cresswell (2006) similarly argues that mobility is always practiced as an ongoing embodied experience with place. The idea of place as a practice of dynamic mobilities is important for understanding how the location-based applications we discuss later allow people to archive and remember their various spatial trajectories.

Although we adopt place as a form of practiced, meaningful space, we turn to the "new mobilities paradigm" (Sheller & Urry, 2006) to understand how the memory practices we analyze show the links between mobility and place. As scholars such as Jensen (2009) and Urry (2007) argue, to understand people's experience of place, we must analyze both fixed locations and the movement between locations. Mobilities studies thus sheds light on how different types of movement enabled by spaces can often come to define how people experience place as a dynamic entity or

process. In this way, mobilities research attends to the different ways people manage their experience of movement, thus becoming an important theoretical foundation for mobile media scholars who have shown multiple ways in which people who use mobile media engage with and experience place differently (Bull, 2000; de Souza e Silva & Frith, 2012; Humphreys, 2005). We extend this research by discussing how location-based applications afford new practices of place-based digital memory, whereby users archive their mobility and location-aware activities. Practices of place-based digital memory mobilize both memory and place, offering users new ways to remember and to give meaning to their location history as an active force in their everyday life.

Mobilizing Practices of Place-Based Digital Memory

As we noted in the introduction, practices of place-based digital memory fit within a broader trend of personal archiving practices facilitated by digital media. Brouwer and Mulder (2003), for example, suggest that "we do not live in a society that uses digital archives, we live in an information society that *is* a digital archive" (p. 6). Emails are automatically archived; digital photographs are stored to cloud-computing services; Facebook records and displays most, if not all, of the user's activities in her timeline. Gane and Beer (2008) refer to this assemblage of practices as "archives of the everyday," whereby "the mundane and routine find their way into the digitalized archives as people record and share their day-to-day lives" (p. 77). As a result, this assemblage of user-generated digital archives and accompanying sociotechnical practices affects practices of memory, what Gane and Beer (2008) refer to as the "denaturalizing" of the connection between human memory and the archive: "It might even be argued that life today is increasingly being played out *through* the archive rather than simply stored within it" (p. 82). To understand how location-aware mobile media users are beginning to live *through* the archive, thus altering the structure of personal memories and identities, we turn to two sociotechnical practices—route tracking and checking in—that help create personal digital archives and foreground "digital network memory" (Hoskins, 2009a) that connects places to memories.

Route Tracking as Place-Based Digital Memory

A significant number of mobile applications, including RunKeeper Pro and Ghost Race, enable individuals to visually archive their mobility through route tracking. These applications typically focus on fitness and use GPS and the mobile Internet to track runs, hikes, bike rides, and other mobility practices. My Tracks—one popular route tracking application that has been installed on over 10 million Android smartphones—uses a combination of individual mobility, the mobile Internet, and GPS to create a map that represents a visual digital archive of the user's movement through space (see Figure 1).

Here, the ability to track physical mobility becomes a sociotechnical practice of place-based digital memory: The mobile interface becomes a technique for individuals to remember their movement through physical space. My Tracks and similar applications store all the routes users record, creating a personal digital archive of a user's mobility that becomes the anchor for retracing and remembering previous hikes, runs, or bike rides. In doing so, the use of these mobile applications helps create what Farman (2012) refers to as "embodied engagement," the user's embodied connection to how place and memory become augmented by digital information. Consequently, these mobile applications continue to shift our understanding of both place as practiced space and digital memory as an active temporal practice of inhabiting place. Put differently, neither places nor memories are storage containers; rather, both places and memories mobilize and are mobilized through ongoing temporal engagements with personal digital archives. Mobility and place, archive and memory, intermingle to create the experience of the route itself. Hui (2013) notes that "practices also unfold through mobilities and are inseparable

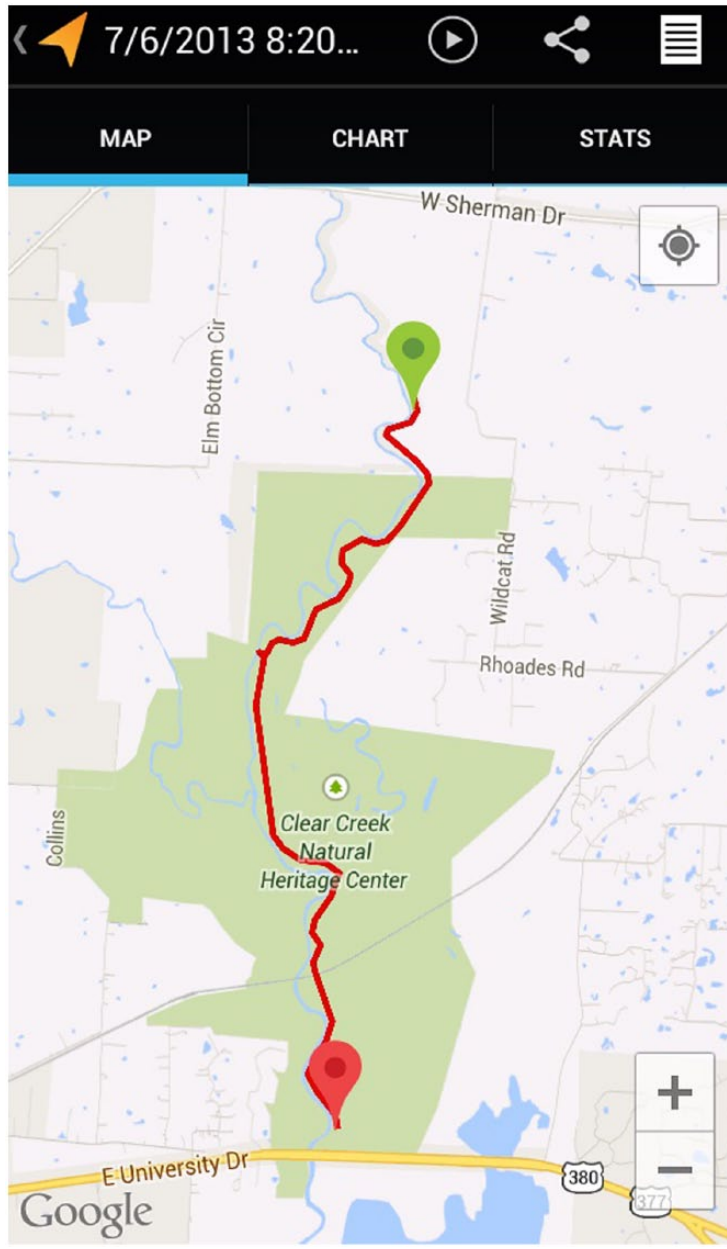

Figure 1. A map of a hike in Denton, TX, 2014, screenshot.
Source. Jordan Frith.

from travel because it has a strategic importance for their performance" (p. 892). To be a mobile media user, especially one that archives routes through various location-based applications, is to simultaneously travel through and perform place and memory.

Another example of this traveling performance of place and memory can be found in the iPhone application, Fog of World. When opening the application, users see a map covered in fog. As they travel to new locations, the app records their movements and the fog laid over that part

of the map dissipates. The application thus keeps an archive of the user's mobility and displays that archive as a map of ongoing exploration. Fog of World also incorporates gaming elements so that users can score points by uncovering new areas of their map, and, as research on other location-based mobile games such as Geocaching and Mogi suggests, game players may take different routes through their own city to interact with gaming elements and archive new places (Licoppe & Inada, 2006; O'Hara, 2008). Here, we glimpse how users may begin to live *through* the archive—not only using the map of places as a cue for remembering but also choosing to travel through their daily lives differently to create new places of memory. As the app removes the fog floating on the user's map, it also removes the fog of memory by showing where the user has been and still needs to go. The personal digital archive—memory of places and places of memory—becomes an active force for future exploration.

My Tracks, Fog of World, and similar applications play with the rich connections between mobility, place, and memory. As personal digital archives recording physical mobility, these mobile applications and their maps become a mnemonic presentation of one's movement through space, helping turn those spaces into practiced places and meaningful encounters. As much research on mobilities suggests (de Souza e Silva & Frith, 2010; Frith, 2015; Wilken, 2010), mobile technologies affect the ways users engage with the places through which they move. Similarly, research on location-based mobile games has shown that people using mobile-gaming applications will change their paths through the city to achieve gaming goals (Frith, 2013; Licoppe & Inada, 2006). Fog of World, as with other mobile games and applications, does so by turning the physical world into ludic space and turning movement into a game (de Souza e Silva & Hjorth, 2009). With Fog of World, the game primarily revolves around expanding one's spatial exploration, which becomes both an addition to one's personal digital archive and an ongoing practice of place-based digital memory. That is, when people choose to take a new route to uncover a new part of the map, they alter their movement through physical space as a response to the archive which, in turn, acts as a continual mnemonic technique. Like other mobile gaming and geocaching activities (O'Hara, 2008), Fog of World can turn place into something to be "collected." However, unlike other mobile games that ask users to collect objects or "fight" other players, Fog of World specifically transforms the user's experience of the physical world by turning personal mobility into something memorable, that is, something worthy of being collected, archived, and remembered to spur present and future mobility.

Route tracking and similar mobile applications that archive place-based memories fit within what media scholars, Garde-Hansen, Hoskins, and Reading (2009), label a "new memory ecology." Hoskins (2009b) argues that memory is currently undergoing a process of "mediatization," whereby memory has become embedded in digital media technologies and their accompanying sociotechnical practices. Or, as Gane and Beer (2008) suggest, we are living *through* personal digital archives of the everyday that are restructuring and remediating our memories and identities. Because memory has become thoroughly imbricated within this "new media ecology," a corresponding "new memory ecology" takes on the values associated with our new media technologies, such as immediacy, instantaneity, aggregation, connectivity, and importantly, mobility. And we see these values expressed in mobile applications like My Tracks and Fog of World. Both applications provide an instantaneous archive through location-aware activities: To explore is to archive. Experiencing and archiving collapse into each other. And as the digital archive continues to "denaturalize" memory—as memory is "mediatized"—remembering becomes enabled by and embedded in the archive and its ability to connect places to memories, thereby lifting the fog that might otherwise obscure these spatial memories. Put differently, the personal digital archive connects memories to places and places to memories so that a user may begin to remember "where I was when" or "who I was when." Rather than a passive form of storage, the archive becomes an active practice of place-based digital memory.

To account for the practices within this "new memory ecology," Hoskins (2009a) offers the concept of "digital network memory" to emphasize instantaneity and connectivity, thus referring to "the dynamics of mediated memory as something created when needed, driven by the connectivities of digital technologies and media, and inextricably forged through and constitutive of digital social networks" (p. 92). Digital network memory emerges through "on-the-fly" constructions that establish "the relationship between the now and the most recently connected moment" (p. 94). My Tracks and Fog of World construct the archive itself on-the-fly by connecting users to their past and present mobility. They do so through a combination of social factors—the need to record and remember experiences with place—and technical capabilities—the growth of the "always on" mobile Internet and the increasing prevalence of various forms of location awareness. As users explore the world around them, new places are connected in their mobile archives, an assemblage of digital–physical memory making.

Most pertinent to our discussion, dynamic social media platforms such as My Tracks and Fog of World "add to, alter, and erase, a kind of living archival memory" (Hoskins, 2009a, p. 92). Digital network memory temporally connects moment so moments, memories to memories, or what Hoskins (2009a) calls "another next first time," which he defines as "a recognizable and sequentially located new moment, a patterned new moment that can be understood because of its similarity to previous moments and because of its place in the joint unfolding of biography and history" (p. 95). Understood in relation to the process of "denaturalization" and "mediatization," digital network memory helps produce both the personal digital archive and the act of remembering. As part of the production of digital network memory, place-based archival practices, such as route tracking and checking in (discussed in the next section), actively connect "another next first time" in the ongoing, discontinuous unfolding of mobility. Put differently, mobile applications contribute to users' embodied sociotechnical practices embedded within digital networks that allow users to propagate their personal digital archives with places of memory, memory of places.

Checking in as Place-Based Digital Memory

To illustrate further the intermingling of mobility, place, and digital network memory, we turn to another sociotechnical practice—the check-in. While mobile applications like My Tracks and Fog of World focus on route tracking, other applications have struck on the check-in as a practice that similarly mobilizes place and memory. The potential for this practice of place-based digital memory was identified by Facebook Vice President Chris Cox, when he claimed that Facebook's check-in services would allow users to pin memories to a "physical location so that maybe one day in 20 years our children will go to Ocean Beach in San Francisco, and their little magical thing will start to vibrate and say, 'This is where your parents first kissed'" (McCarthy, 2010). Cox's forecast hints at the potential of mobile applications to provide an immediate and instantaneous digital network memory and a personal digital archive through which users may live. Writing about social network sites, boyd (2008) argues that one of their defining characteristics is that they are persistent and searchable. That persistence and searchability now extends to mobility, place, and memory.

The check-in as a sociotechnical practice has proliferated across social media platforms and mobile applications, including Facebook, Foursquare, Google+, and Yelp. Foursquare (check-ins have now been moved to the Swarm application), in particular, popularized the practice. Foursquare is a location-based social network that encourages people to build social networks, go to locations, and then check in to share their locations with friends. Like Fog of World, Foursquare includes gaming elements that award users with points for check-ins and lets them collect mayorships and badges, and the application has over 40 million users who have checked in over 4.5 billion times (About Foursquare, 2013).

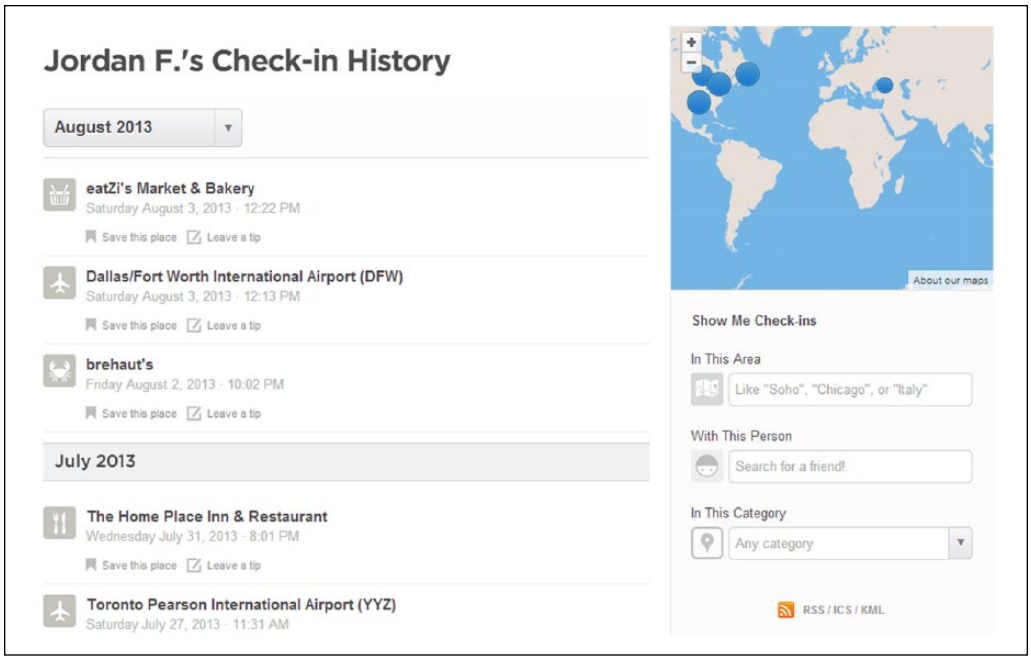

Figure 2. A screenshot of Foursquare's history page with the various filters on the right-side of the image. 2014.
Source. Jordan Frith.

Most of the initial hype surrounding Foursquare focused on its potential for social networking, mobile gaming, and identity construction, and most of the existing research on the application does as well (Cramer, Rost, & Holmquist, 2011; de Souza e Silva & Frith, 2012; Frith, 2013). Although early versions of Foursquare only allowed users to check in to locations, these locations were archived and accessible on Foursquare's website. As more people began using Foursquare as a personal digital archive, Foursquare's developers responded to user appropriation by incorporating additional metadata that facilitate more archival connections, thus remediating the associated memory activity. For example, if Foursquare users check in to a movie theater, they can now check in to a specific movie. The same applies to music venues and performances and conference halls and presentations.

Additional mnemonic metadata demonstrated that Foursquare's developers recognized that people had begun using the application as a personal digital archive of the everyday. In May 2012, Foursquare's developers also redesigned the history page, changing it from a rather unusable linear archive of check-ins to a searchable database of past mobility that could be filtered using various criteria (see Figure 2). For example, users can choose to map their check-in data as a way to visualize the places they have been. They can also choose to arrange this visual mapping differently by including search filters to display only check-ins in a certain month, city, category (e.g., Thai restaurants or airports), or places they went with another Foursquare friend who also checked in to the same place.

This form of archival and spatial filtering enables individuals to organize and arrange memories around places. They can go back and see where they were on a certain date; they can display a list of every bar they have checked in to; they can search for places they checked in to with a friend. This archive becomes part of one's past, and, by encouraging users to remember previous check-ins, it produces a digital network memory that connects the past to the present, thus

inventing new possibilities for action and behavior. The check-in becomes a central practice of place-based digital memory. Indeed, the connection between place and memory has become fundamental to Foursquare's design. A recent version of the application encourages the user to "Check in to *remember* [italics added] and share the places you visit." Whereas early versions of the application barely mentioned remembering, recent versions that include the extensive archive of previous check-ins emphasize how Foursquare's developers have observed users' desire to appropriate the application as a personal digital archive and how users have used this archive as a way of remembering the places they have visited.

The check-in, as a sociotechnical practice of place-based digital memory, focuses on the archiving and remembering of specific places. Indeed, the check-in offers a parallel to Tuan's notion of place as pause. To check in requires a pause in movement, a user's conscious choice to make this particular place meaningful for whatever reason—for a badge, a mayorship, a special occasion, or as part of the embodied practice of everyday life. Nevertheless, the check-in also points to a movement beyond place as pause, given the fact that the different Foursquare search options show how the archiving of place may also be the archiving of mobility. de Souza e Silva and Frith (2012) argue that people who check in to multiple places within a given timeframe construct a trajectory, a certain path from place to place that "actively creates the links among these locations" (p. 179).

Archived and searchable check-ins afford the possibility of a digital network memory—an on-the-fly remembering that connects places to memories—that recreates or mobilizes place as mobility, as movement through space. For example, users may sort their location history according to specific dates so they can see where they went within a given timeframe as well as the order of locations visited. This visualization performs a digital network memory, a place-based digital memory that may contribute to meaningful, relational associations for people remembering through their Foursquare archive. The check-in thus becomes an integral resource in reconsidering mobility as something that occurs before, during, and after actual movement. Hui (2013), for example, notes how travel experiences are often not about miles but rather moments: "the percolating temporality of travel—the sporadic, gradual, and yet persistent unfolding of diverse mobilities" (p. 895). Check-ins, and especially one's personal archive of check-ins, become a "percolating temporality of travel," a digital network memory that connects places to moments of memory.

The check-in also provides opportunities for understanding how individuals use place to remember and construct identity. In his interviews with Foursquare users, Frith (2012) found that users put conscious thought into which places were worth archiving through the check-in. In fact, for some users, the primary reason they checked in was to add to their spatial archive, and they often avoided checking in to certain places because they were not worth remembering as part of their past. Frith (2012) argues that the decision to either remember or forget through check-ins represents a form of identity construction he calls the "presentation of the present self to the future self" (p. 143). Just as some people may choose to only share certain locations with friends as a way to shape their social identity, they also choose to only record certain locations as a way to actively shape the information in their personal digital archive. By actively cultivating the routes they track or the places they record, people show how identity can be shaped through the accumulation of certain memories of place and mobility.

The practices of place-based memory examined in this section demonstrate how the experience of memory is a performance in and of place. Mobile media users may use location-based applications like Foursquare and Fog of World to explore their cities. In so doing, these mobile media users are writing, place by place, the histories of their experience of the city, as well as the memories of their lives and their identities. de Certeau (1984) discusses how walkers spatialize the city, thus creating memorable places for themselves and others. For de Certeau, the mobility of walkers mobilizes memory, and when memory is mobile, it becomes an "interventionary force" (p. 86).

Walkers bring places to life by writing stories and memories onto the place: "*That's* where old lady Dupuis used to live," and "You *see*, here there used to be" (de Certeau, 1984, p. 108). Walking, as a mobile media itself, opens up relations between a past and present embedded in physical places. In turn, mobile applications like Foursquare and Fog of World become practices of place-based digital memory when they encourage users to walk differently, to experience their places of memory so that they may ask "Who am I where?" and respond with "Here, I used to be." The personal digital archive becomes an active force in mobilizing place-based digital memory, allowing users to walk through their past mobility and to live their lives differently in the present.

Lest We Forget: Returning to Places of Memory

Connerton (2009) argues that

> a major source of forgetting . . . is associated with processes that separate social life from locality and from human dimensions: superhuman speed, megacities that are so enormous as to be unmemorable . . . the disappearance of walkable cities. (p. 5)

Connerton's sources of forgetting share much with Augé's (1995) "nonplaces," which are often sites of hyperkinetic mobility of goods and people. Augé specifically points to international airports as exemplars of nonplaces. However, many of the most popular locations on Foursquare are these supposed nonplaces of transportation. Hartsfield–Jackson Atlanta International Airport, Chicago O'Hare International Airport, and Los Angeles International Airport have been checked in to over one million times, making them among the most popular locations on Foursquare. Both Augé and Connerton might say that these transportation hubs lack meaning and memory, that they are the very sources of forgetting in modernity. And they may be. But Foursquare users, by checking in, are embedding these sites with meaning and memory. Airports, for example, might be a mnemonic device, a shorthand for remembering an entire trip; they might be a way to archive and remember the differential rhythms of life—from the mundane check-in for the business traveler to the special check-in for the first-time international flyer. Thus, the popularity of airports suggests they hold meaning for many Foursquare users and can become prominent additions to one's sense of place and memory. Put differently, practices of place-based digital memory return to mobility what Connerton (2009) calls "the human-scale-ness of life, the experience of living and working in a world of social relationships that are known" (p. 5). Route tracking and checking in may return a sense of stability and human scale to mobility and emplacement. Whereas the speed of mobility may destabilize a sense of place (Augé, 1995; Relph, 1976), location-based mobile applications can possibly reintroduce a stable system of places, a personal and social place-based digital archive. Mobility becomes interwoven into one's memory, identity, and life history. In so doing, practices of place-based digital memory become a mode of being in the world, of emplacing oneself in the world by finding places from which to perform oneself. Farman (2012) notes that pauses may be understood as a particular type of movement. Checking in introduces a pause, or at least, a momentary slowness—the places of memory—within mobility itself. Simultaneously, route tracking and checking in, when understood in relation to digital network memory, show how every emplacement is an expansion: The past draws forth the present; the present draws on the past. These practices of place-based digital memory are not the static storage of memory in digital form; rather, they retemporalize memory and mobility as ongoing events that bring human scale back to social life. Farman (2012) writes,

> As we produce the social spaces around us, both materially and across digital networks, we are engaging in the production of space through movement. How we conceive of this movement determines how we will practice and live in the spaces we create. (p. 141)

Route tracking and checking in conceive of movement differently—as momentary stillness within mobility, and in so doing, users are discovering new ways of "dwelling" in the world.

The use of media to remember has often focused on introducing stillness to experiences of mobility, whether that mobility is virtual or physical. Connerton (2009) notes that the "invention of photography formed a cultural counter-weight to the invention of railways; the latter produced speed, the former created stillness; the latter unsettled remembering, the former gave it a new sedimentation" (p. 138). Mobile media technologies often help produce speed, for example, by displaying to users the most efficient route from place to place. At the same time, they provide new forms of sedimentation by affording personal digital archives of the everyday. Subsequently, users continue to appropriate mobile applications by incorporating—physically and digitally—sociotechnical practices like route tracking and checking in to the rhythms of everyday life. The examples we discussed—My Tracks, Fog of World, and Foursquare—offer a glimpse into this simultaneous speeding up and slowing down of contemporary mobility. Similarly, the concepts we introduced to explain these practices of place-based digital memory—the personal digital archive and digital network memory—help illuminate how we are coming to live *through* our daily digital archives by creating places from which to remember our emplaced lives.

The contemporary cultural trend in personal digital archiving that influences mobile media technologies suggests that we are increasingly living our lives not only through the archive but also through practices of place-based digital memory. Derrida (1998) argues that the archive is both commencement and commandment; that is, the archive both calls forth archivable content and determines what is included in the archive. With new media technologies, including mobile media, more and more of our lives are becoming fit for personal digital archives, from e-mails to files to daily blood pressure recordings to route tracking and check-ins. As personal digital archiving and place-based digital memory become incorporated into everyday life, they become a fundamental part of our embodied experience. Thus, we must remember that places and memories are not static storage containers of experience, but rather dynamic practices that are constitutive of experience. When and where does the mundane become memorable? Where and when does eating a ham sandwich for lunch become interesting enough as a place of (digital) memory? As with photographs (Sontag, 2001) and Facebook (Good, 2013), Foursquare and other mobile applications are becoming personal and social platforms to curate an idealized image or identity for oneself (Frith, 2012). However, as mobile media technologies and their corresponding sociotechnical practices become part of our technological unconscious (Thrift, 2004), we may increasingly find ourselves not bothering to ask the simple question: "Should I remember this place?" Rather, checking in or recording a route could become the default. Derrida (1998) notes that the archive is always a promise to the future. Research from across disciplines should continue to investigate the promises we are currently making through personal digital archives and through practices of place-based digital memory. What places would we like to remember or forget, and when?

Acknowledgments

We would like to thank the editors and the reviewers for their kind words and useful feedback.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

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