

# New Media & Society

<http://nms.sagepub.com>

---

## **Community and social interaction in the wireless city: wi-fi use in public and semi-public spaces**

Keith N. Hampton and Neeti Gupta  
*New Media Society* 2008; 10; 831  
DOI: 10.1177/1461444808096247

The online version of this article can be found at:  
<http://nms.sagepub.com/cgi/content/abstract/10/6/831>

---

Published by:



<http://www.sagepublications.com>

**Additional services and information for *New Media & Society* can be found at:**

**Email Alerts:** <http://nms.sagepub.com/cgi/alerts>

**Subscriptions:** <http://nms.sagepub.com/subscriptions>

**Reprints:** <http://www.sagepub.com/journalsReprints.nav>

**Permissions:** <http://www.sagepub.co.uk/journalsPermissions.nav>

**Citations** <http://nms.sagepub.com/cgi/content/refs/10/6/831>



# Community and social interaction in the wireless city: wi-fi use in public and semi-public spaces

KEITH N. HAMPTON  
*University of Pennsylvania, USA*

NEETI GUPTA  
*Microsoft, USA*

## Abstract

A significant body of research has addressed whether fixed internet use increases, decreases or supplements the ways in which people engage in residential and workplace settings, but few studies have addressed how wireless internet use in public and semi-public spaces influences social life. Ubiquitous wi-fi adds a new dimension to the debate over how the internet may influence the structure of community. Will wireless internet use facilitate greater engagement with co-located others or encourage a form of ‘public privatism’? This article reports the findings of an exploratory ethnographic study of how wi-fi was used and influenced social interactions in four different settings: paid and free wi-fi cafes in Boston, MA and Seattle, WA. This study found contrasting uses for wireless internet and competing implications for community. Two types of practices, typified in the behaviors of ‘true mobiles’ and ‘placemakers’, offer divergent futures for how wireless internet use may influence social relationships.

## Key words

community network • cafes • coffee shops • network • mobile computing • Muni wi-fi • parochial realm • privatism • social networks • third places

## INTRODUCTION EMAILED

Recent years have seen rapid growth in the availability of wireless broadband internet access in public spaces. Providers and points of access take the form of municipal wi-fi networks (Muni wi-fi), such as those operating in Philadelphia and Toronto, community wireless networks, such as New York Wireless or *Île Sans Fil* in Montreal, advanced mobile phone networks (e.g. 3G), and wi-fi cafes, restaurants, bookstores and related spaces (hereafter abbreviated as 'wi-fi'). While there is a significant body of research addressing whether fixed internet use increases, decreases or supplements the ways in which people engage in residential (Hampton, 2007; Hampton and Wellman, 2003) and workplace settings (Quan-Haase and Wellman, 2006), few studies have addressed how the use of wireless broadband in public and semi-public spaces influences social life. Ubiquitous wi-fi adds a new dimension to the debate over how the internet may influence the structure of community – the network of supportive ties that exist between individuals. It is unclear whether wireless internet use in public spaces will facilitate greater engagement with people in public spaces or encourage a form of 'public privatism'. Will wi-fi use support public disengagement, with people withdrawing from the public realm in exchange for private spheres of influence, or will it facilitate new interactions and contribute to the development of a new public sphere?

This article reports the findings of an exploratory study which examined how wi-fi was used and influenced social interactions in a series of wi-fi coffee shops. Observations were drawn from four different settings: paid and free wi-fi cafes in Boston and Seattle. The goal of this article is to provide an initial framework for understanding how wi-fi influences the interactions and structure of personal networks in a wireless city.

### Privatism

In the past, the 'wired' nature of desktop computing limited the potential for internet use to blend into urban public spaces. With a few exceptions, such as libraries, internet cafes and community technology centers, internet use was confined to the home and workplace. The connection between internet use and home-centeredness generated concern that new media use was increasing privatism (Graham and Marvin, 1996). Indeed, personal networks increasingly have become privatised, consisting of densely-knit networks of interactions centered around the home, rather than diverse, loosely-coupled interactions in more public settings. For example, a study of the size and composition of people's core 'discussion networks' in 1985 and 2004 identified a shift from ties formed through voluntary associations, neighbors and interactions in the public realm, towards networks increasingly dominated by kin and based around the home (McPherson et al., 2006). While the authors of that study did not link internet use directly with changes in the structure of social

networks, it is notable that the time period observed by McPherson et al. (2006) corresponds with the rise of the 'network society' (Castells, 1996). Their findings are consistent with observations of other home-based media, including television and the telephone, which have been linked to increased privatism (Fischer, 1992; Putnam, 2000).

The concern with privatism is the sacrifice of 'bridging social capital' for 'bonding social capital' (Putnam, 2000). Bonding social capital is formed through the interaction of tightly-knit networks of similar others, often close friends and kin. Personal communities high in this form of social capital tend to provide generalized social support and to be high in reciprocity (Wellman and Wortley, 1990), but they can be repressive and tend to be racially, culturally, behaviorally and ideologically homogeneous (McPherson et al., 2001). Bridging social capital exists through access to diverse and relatively 'weak' social ties that provide specialized social support and access to novel information and resources (Burt, 1992; Granovetter, 1973). Individuals who have more bridging social capital, which can come only from participation in diverse social milieus, are more trusting, demonstrate greater social tolerance, cope with daily troubles and trauma more effectively, tend to be physically healthier (Cohen et al., 2000) and have access to more diverse information and resources, which has been shown to assist in search processes (such as finding a job; Granovetter, 1974).

The earliest evidence of the role that internet use plays in personal networks appeared to verify that the internet amplifies the existing trend toward privatism. The work of Kraut et al. (1998) and Nie et al. (2002) found that internet use contributed to a decrease in the size of people's social circles, a reduction in public participation and an increase in home-centeredness. However, later research has found that the internet does not significantly influence the allocation of day-to-day activities (Robinson et al., 2002), and supplements rather than replaces traditional modes of communication (Quan Haase et al., 2002). Those who use the internet to communicate with their closest and most significant social ties are also in frequent contact in person and through other media (Baym et al., 2004; Boase et al., 2006). Similarly, email users tend to have more social ties than non-users and email appears to be a particularly useful medium for maintaining contact with a larger number of relatively weak social ties (Boase et al., 2006; Zhao, 2006). Face-to-face and telephone contact remain the dominant modes of connectivity when people communicate with their closest ties (Boase et al., 2006). The general conclusion, that internet use increases overall communication and possibly leads to larger networks, suggests that it is a possible counter-force to privatism. However, the evidence on frequency of communication and network size alone does not address directly the underlying concern of privatism: that networks are increasingly home-centered and homogeneous as a result of new media.

In an attempt to examine more closely the circumstances under which the internet does or does not encourage privatism, a series of studies have examined the role that internet use plays in the formation and maintenance of neighborhood ties (Hampton, 2007; Hampton and Wellman, 2003). Early internet adopters were found to have smaller neighborhood networks, but experience using the internet was found to inoculate them from increased privatism. Over time, experienced internet users increased the number of ties that they had from the parochial realm. The neighborhood networks of non-internet users and those with less internet experience lost ties over time; they become increasingly privatized (Hampton, 2007). These studies also found that the introduction of a neighborhood email list increased the number of weak social ties at the local level and facilitated public participation (Hampton, 2007; Hampton and Wellman, 2003; Mesch and Levanon, 2003). The observation that internet use affords both global and local connectivity has been termed 'glocalization' (Hampton, 2001). While these studies provide some promising evidence that home-based internet use does not encourage privatism and may even help to reverse the trend, they are not conclusive, especially in light of the findings of McPherson et al. (2006). What is conclusive is that the internet has become integrated increasingly into everyday life (Haythornthwaite and Wellman, 2002).

### **The public**

With the launch of Muni wi-fi, for the first time it is possible to integrate intensive internet use with the use of urban public space. Public spaces and public life play a unique role in the formation of social networks, opinions and democracy. When referencing public space, urbanists typically refer to a 'city's street, its parks, its places of public accommodation' such that 'public space may be distinguished from private space in that access to the latter may be legally restricted' (Lofland, 1973: 19). Semi-public spaces – those spaces that are not completely 'a world of strangers' (Lofland, 1973) or domesticated – are recognized for the role that they play in public life (sometimes these spaces are termed the 'parochial realm'). Habermas (1989) noted the role of such places, in the form of London coffee houses and French salons, in the development of a public sphere for cultural and political debate. While Habermas (1989) argued that the growth of capitalism diminished the public sphere, Ray Oldenburg (1989) suggested that while such 'third places' (differentiated from work and home) have declined, they continued to play an important role in the social life of Americans well into the 20th century. Oldenburg (1989) noted that these semi-public spaces provide exposure to diverse social ties, they create a sense of place and community, and provide both serendipity and companionship.

As with the history of 'community' (Hampton and Wellman, 2003; Wellman, 1999), the 'public' has an extensive literature that documents its birth,

transformation, death and rebirth at the hands of societal (e.g. capitalism, industrialism, bureaucratization, etc.) and technological change (e.g. electricity, telephone, automobile, etc.) (Fischer, 1992; Habermas, 1989; Marvin, 1988; Sennett, 1977). The dominant interpretation of the relationship between public space and social interaction suggests that the modern urban environment is responsible for increasing social segregation, isolation and non-involvement. Public spaces are seen to afford bystander apathy (Latané and Darley, 1976), to generate stimulus overload (Milgram, 1970) and to be increasingly sanitized (Hannigan, 1998; Zukin, 1995). Yet a considerable literature exists to suggest that street life is far from anonymous: it is full of symbolic interaction (Goffman, 1959, 1963, 1971); contains planned and fleeting encounters (Berkowitz, 1971; Lofland, 1973; Whyte, 1980); is a source of serendipity (Merton and Barber, 2004); and is the setting for a range of informal interactions that contribute to social norms and public safety (Jacobs, 1961).

### Public privatism

It is unclear how wireless internet access, which penetrates public spaces as the internet already has penetrated private spaces, will influence the structure of people's networks and social interactions. If people use wi-fi in the same way as they use mobile phones, it is likely that wi-fi use will exasperate a trend toward 'public privatism'.

Mobile phones make community instantly accessible, social ties are reachable anywhere at any time; a form of community that Wellman et al. (2003) termed 'networked individualism'. Most people use mobile phones to call a small set of mostly strong ties (Ito and Okabe, 2006; Ling and Yttri, 2006). Email or Short Message Service (SMS, 'texting') is used when voice communication is perceived to be inappropriate (Ito and Okabe, 2006) and to keep in touch with a larger, more diverse set of contacts (Matsuda, 2005). Whether used for voice or SMS, mobile phones create a private sphere of interaction within public spaces. When people engage with their mobile phone, they create a private 'cocoon' that reduces the likelihood of serendipitous public encounters (Harris, 2003), contradicts common expectations of public behavior (Ling, 2004) and diverts attention away from co-present others (including existing social ties) (Humphries, 2005). The mobile phone has made it less necessary to rely on anyone other than those who are already highly familiar; 'those who have come into our sphere of friendship are always available' (Ling, 2000: 83). As argued by Goldberger (2003):

The great offense of the cellphone in public is not the intrusion of its ring, although that can be infuriating when it interrupts a tranquil moment. It is the fact that even when the phone does not ring at all and is being used quietly and discretely, it renders a public place less public. It turns the boulevardier into a figure of privacy. And suddenly the meaning of the street as a public place has been hugely diminished.

The 'public privatism' of interactions as a result of the mobile phone mirrors the findings from studies of how fixed internet access has been used in semi-public spaces: 'Private uses in Public Spaces' (Lee, 1999).

The trend of people socializing in small, intimate groups in private homes rather than with large, diverse groups in public spaces, might be augmented through the use of new mobile media by a tendency to socialize remotely with small, intimate groups in any space, at any time.

### **Ubiquitous wi-fi**

Public spaces play a unique role in shaping and maintaining personal networks. Unlike the close, homogeneous, densely-connected nature of social relationships that are likely to dominate private spaces (McPherson et al., 2006; Putnam, 2000), of which the private home is the best example, public and semi-public spaces are more likely to be the setting for diverse social interactions. It is unclear how the penetration of the wireless internet will influence interactions in these spaces or the broader structure of people's social networks. There may even be variation based on local culture, climate, the built environment and how wi-fi is deployed (e.g. free vs. paid). At the most basic level, the growth of wireless internet access suggests two competing, although not mutually exclusive, possibilities:

1. The ubiquitous availability of wireless internet access will encourage greater participation in public spaces, lead to increased public interaction and possibly diversify the composition of people's social networks; and
2. Public wi-fi use will consist of private cocoons of interaction that benefit existing close ties, distract from interactions with co-present others and ultimately reinforce the existing trend toward privatism.

In the absence of Muni wi-fi projects fully operational and active for any extended period at the time of this research, to uncover initial evidence of how wi-fi use will influence the structure of community interaction, this article relies on observations from those examples where wi-fi has already penetrated public and semi-public spaces: wi-fi coffee shops. The observations of wi-fi use are exploratory; this study did not attempt to test specific hypotheses in advance of the observations. Instead, based on what was observed of how wi-fi was used in coffee shops, this article provides a first in-depth view of public wi-fi use and sketches a theoretical framework for how interactions and networks may be augmented in the context of wi-fi.

## METHOD

### Selection of participants

The observations were limited to four wi-fi cafes in two cities, Seattle, WA and Boston, MA. One cafe in each city offered paid wi-fi, the other offered free access. The selection of cafes was not random: all four of the cafes were familiar to at least one of the authors in advance of the study. However, neither of the authors was a regular at these coffee houses. The cafes were selected to help control for variables that were exogenous to the influence of wi-fi. This included the potential for bias in the observations as a result of the culture of any one coffee house, the characteristics of surrounding neighborhoods and the social qualities of different cities. It was recognized that the contrast between paid and free wi-fi might be a source of variation in users' experiences. Given the dominance of the Starbucks coffee chain (more than 7200 stores in 30 countries), its early adoption of wi-fi service (starting in 2001) and a deal with T-Mobile (Deutsche Telekom) and AT&T to offer paid wi-fi in the majority of its cafes, Starbucks seemed to be a natural choice for the observations in order to maximize the ability to generalize the findings. Given that Starbucks provides paid wi-fi use, this necessitated that independent coffee houses were selected for the free wi-fi comparison.

Initially we had hoped to observe wi-fi use in diverse urban environments, central business districts and suburbs. However, after spending many hours in suburban coffee houses, these plans were abandoned after making very few observations of wi-fi use. Instead, the study limited itself to commercial areas in or near the downtown core and the areas bordering the University of Washington and Massachusetts Institute of Technology (MIT).

It was important to insure that the cafes selected were not unusual in a way that would raise questions as to whether the observations were as mundane as desired. For example, initially the plan was to make observations at Starbucks' first location, in Seattle's Pike Place Market, but it became obvious very quickly that its role as a tourist destination made it atypical. In the end, time was spent at eight different Seattle Starbucks locations before settling on the Starbucks at 6th and Union as a 'typical' Starbucks setting: steady foot traffic, a small number of large, stuffed, comfortable purple chairs and many less comfortable steel-framed chairs with matching small tables. After a similar process, a similarly pedestrian Starbucks located in Central Square (Cambridge/Greater Boston) between Harvard and MIT was selected.

It was surprisingly difficult to find completely free wi-fi cafes. Many had hidden price tags in the form of required purchases or time-limits on use. Others advertised wi-fi but in practice served up such unreliable service that



there were few takers. In Seattle the Chaco Canyon Cafe (near the University of Washington) was selected for observation. The owner was a local community activist. The cafe offered an extensive selection of raw foods, organic juices and fair trade coffees, and had an 'at-home feeling', with ample tables made from golden oak. Wi-fi access was installed and operated by the owner and his brother as an experiment to draw in new customers. In Boston, Trident Booksellers & Cafe (located on Newbury Street) was selected. Twenty years ago, Trident's owner was an early pioneer of the bookstore-cafe combination that is now a standard configuration for the big bookstore chains. The cafe has an open look with large windows that open out to a trendy commercial street. The store provides wi-fi as part of NewburyOpen.net, a free community wi-fi provider.

### **Data collection**

The methods of observation were primarily qualitative. A total of 120 hours were spent in the four cafes between December 2003 and March 2004. A total of 30 hours were spent on direct observations in each cafe. Observations were made in two-hour time blocks systematically distributed across hours of operation, roughly one-third of the observations were made on weekends, the rest on weekdays.

Observations consisted of extended visits to each cafe with laptop in hand. The time in each coffee house was spent making detailed notes of how patrons with mobile devices interacted with each other and cafe staff. Careful notes documented each interaction, including the gender and approximate age of those involved, how the exchange was initiated and the duration of the exchange. In addition to unobtrusive observations, a short web-based survey was created with questions on basic demographics, social networks, technology and prior experiences in wi-fi cafes. As the patrons left the cafe, every fifth person who had used a laptop was given the web address to our online survey and a letter explaining the study. However, a low response rate led us to abandon this survey. However, when patrons were approached with the survey, many spontaneously stopped to talk about their experiences. In total 20 unstructured exit interviews were completed, representing about eight percent of the total number of people observed using laptops. Most interviews were conducted on the spot; when necessary they were scheduled for a later time and on rare occasions they were completed through email correspondence.

### **RESULTS**

The selection of four field sites was intended as a source of differentiation with the expectation of observing variation based on city, individual location and free vs. paid wi-fi services. However, the observations did not support even this simple expectation. The most significant distinctions in social

interactions were observed, based on different practices of wi-fi use. The settings observed attracted users with two distinct activities. These practices are presented as a typology with two ideal types: 'true mobiles' and 'placemakers'. It is important to recognize that while these activities are presented as ideal types (Weber, 1946), there was some variation in the practices observed and such variation is noted where appropriate.

### True mobiles

For 'true mobiles', wi-fi coffee shops functioned as a backdrop for activities focused on the completion of 'work' (studying, paid work, etc.). True mobiles identified the cafe as a 'space of productivity'. They typically would suggest that the store offered a change of setting that helped them to focus or provided a source of creativity. One participant offered: 'It is nice to get out of the office, if I don't have a specific reason to be there. The change of pace seems to be good for my productivity.' Another noted that 'background noise helps me focus and I know other people who think so too.' The limited number of true mobiles that did not refer directly to the coffee shop as a productive space told us that the cafe provided an 'escape' that, in turn, would aid productivity when they returned to their place of work:

I do a lot more writing at home, actually, but sitting in a coffee house is a temporary break. At home, this usually means that I walk a mile down to town, work there a while and then walk back, so it's a matter of changing the dynamic. (Joey, male, 35, Boston Starbucks)

Early in the observations, the initial assumption was that semi-public spaces were not ideal for work productivity and that the participants were offering a cover to justify 'having no purpose' (Goffman, 1963: 58), possibly as an excuse for disengaging from a space which had a norm of social involvement, or as a reason for taking a break where there was a norm of work, possibly resulting from the presence of wi-fi. However, direct observations ultimately were inconsistent with that initial assumption: true mobiles were not providing a cover for disengagement, true mobiles were truly in the cafe with the sole purpose of work.

Whether a true mobile described their visit to the wi-fi cafe as an 'escape' or a 'space of productivity', there were no actual observable differences in their activities. All true mobiles spent their time almost completely engrossed in wi-fi and laptop use. The observations and interviews indicated that they were primarily engaged in sending email and surfing the web. Their laptops were not mere props, they were a means to a specific ends: productivity. Despite their own internal differentiation, there were no observable clues that those on an 'escape' were immediately more or less 'productive' in semi-public spaces than those specifically seeking efficiency.

True mobiles included all the 'mobile workers' that were observed (those who were currently traveling 'out of town' as part of their occupation), but did not specifically exclude those who did not travel or were not traveling currently for paid employment. True mobiles who were mobile workers often sought out wi-fi coffee shops to serve as primary, although temporary, locations for employment activities. This contrasted with the majority of true mobiles that were observed: most true mobiles lived or work within a short distance of the cafes studied. They tended to report a need to work from a fixed office location for most of their day, and used the cafe as a secondary, occasional extension of local workplaces. It was not uncommon for true mobiles to report that they scheduled a specific day each week to spend at the cafe: 'I work Monday to Thursday at the office and every Friday from Starbucks'.

Local-based true mobiles identified with the wi-fi cafe as a space of productivity, but they were likely to cite the coffee houses as the location for another type of 'escape': from the physical presence of their co-workers. This included home-based employees who by choice or other arrangement worked from home on specific days of the week, but sought out the wi-fi cafe as a refuge from distractions at home – escape from partners, children and television. When compared to true mobiles of the more local variety, mobile workers differed only in whether they designated the wi-fi coffee shop as their primary workplace, not in task; using wi-fi and their laptops to check email and surf the web.

As with most of the cafe customers that were observed, true mobiles participated in a minimal level of overt interaction with co-present others (both patrons and coffee shop employees). Much of their interaction was subtle and non-verbal. Their base level of engagement could be characterized by what Goffman called 'civil inattention':

One gives to another enough visual notice to demonstrate that one appreciates that the other is present (and admits openly to have seen him), while the next moment withdrawing one's attention from him so as to express that he does not constitute a target of special curiosity or design. (1963: 84)

The majority of true mobile's interactions were observed in the form of near-constant keyboard use and, when interviewed, the communication they reported in the form of email and instant messages with colleagues, friends and other existing members of their social network. The activities and interactions of the coffee shop were peripheral.

True mobiles both reported and were observed repeatedly avoiding the gaze of staff and other store inhabitants. Like the majority of other coffee shop patrons, true mobiles employed 'portable involvement shields' (Goffman, 1963). Goffman described portable shields as fans, masks and the use of people's hands to conceal facial expressions, used literally to shield oneself from others and to signal unavailability for more overt interactions. When

seated at a table, the technology ‘have nots’ used portable shields in the form of newspapers, magazines and books and the ‘haves’ – true mobiles – used laptops. Cellphones were too small to make for good shields, but they did play a unique role for cafe patrons of all types. After ordering coffee at the counter, but before being seated and before coffee was poured, there was a particularly strong tendency for those with cellphones to use their mobile phones as a ‘legitimate momentary diversion’ (Goffman, 1963: 59). Customers would take out their phone, stare at the screen, possibly move a dial or push a few buttons – presumably reviewing some content – but almost never initiated a new phone call. This was most frequent at our two Starbucks locations, where there was a norm that customers wait next to the counter for their coffee to be made before taking a seat.

In the use of involvement shields, what differentiated true mobiles from other patrons was their persistence in their use of shields as barriers to interaction. Activities related to ‘work’ were paramount; the extent that true mobiles could be distracted from these activities depended on the tempo and atmosphere in the cafe. When other patrons ignored the subtle (or not so subtle) signals of a shield and attempted to initiate verbal communication with a true mobile, they were unlikely to be met with eye contact and were more likely to be met with no response (completely ignoring the other) or an abrupt one to two-word retort, than when verbal contact was initiated with non-wi-fi users. For example, one wi-fi user approached a true mobile at a neighboring table, asking, ‘Do you know how to get this working on my machine?’ Without looking up, the true mobile replied ‘No’ and continued surfing the web. In another situation which was repeated often, where a customer would enter a cafe and ask, ‘Is this seat taken?’, true mobiles were unlikely to do more than shake their heads; other patrons would make at least fleeting eye contact and provide a verbal response. When we pressed true mobiles about these encounters, they offered an explanation consistent with their attempt to remain focused on activities associated with work. At the same time, the same true mobiles were interacting with online contacts through email and instant messaging, although it was unclear whether the exchanges were completely work-related. The few times that true mobiles were observed in more extended, unplanned, in-person interactions, were exchanges that involved meeting clients or other true mobiles. Usually, true mobiles who participated in extended co-present interactions were interacting with co-workers who arrived together, but on one occasion a true mobile was observed talking to another patron who had the same new model of laptop.

### Placemakers

In contrast with true mobiles, the primary activity of ‘placemakers’ was ‘not to engage in paid work’. They came to wi-fi coffee shops to ‘hang out’. The coffee house was not intended as a direct or indirect place of productivity.

For the placemaker, the cafe was center stage, not peripheral. They were drawn by what one subject described as the 'inherently casual sociability' of the physical setting. Placemakers used their laptops as a premise to enter and engage in the 'social hubbub' of the space. This could mean direct co-present participation with existing members of their social network, unplanned encounters or the pleasure that Lofland (1998) ascribes to 'public solitude' and 'people watching'. As with true mobiles, placemakers were observed regularly using wireless connectivity for email, web surfing and instant messaging. However, the laptop was never their primary focus; the availability or potential for co-present sociability was their primary activity.

While placemakers were more likely than true mobiles to engage in unplanned interactions, they were also more likely than true mobiles to enter a cafe alone. True mobiles occasionally arrived in pairs and settled in to complete some sort of 'business', such as meeting with a client, but placemakers almost never arrived in pairs or larger groups.

A typical placemaker arrived alone, bought a coffee and took a seat at a table for two next to a window. They would pull out their laptop, set it on the table and become masters of the 'momentary diversion' (Goffman, 1963). A great deal of time would be spent gazing out the window, looking around the cafe, adjusting personal belongings, slowly sipping coffee, searching for a power outlet, powering up and then casually surfing the web and checking email, with prolonged intermittent pauses to glance around and outside the cafe.

In stark contrast to true mobiles, placemakers did not actively avoid the gaze of other patrons within the shared space. While placemakers participated in the rituals of civil inattention, a casual glance from another customer was more likely to be met with a fleeting smile than a quick look away. Once mutual awareness had been established, there was a higher probability that additional encounters would take place with a placemaker than with a true mobile. As one placemaker described his experience over the previous week:

Met people face to face. Spoken to people several times. People ask me about laptops frequently and about wireless services. Helped several people learn what they need to buy. Also, while in line about to order, meet people sometimes. Religious people sometimes use [the cafe] to make connections and invite me to their church. (Nancy, female, 28, Seattle Chaco Canyon)

While placemakers resembled true mobiles in their use of laptops and other devices as portable interaction shields, with true mobiles these same props were also the most likely observable sources for new interactions. For example, it was common, if not routine, for coffee shop patrons to glance at wi-fi users' computer screens. True mobiles typically would ignore such a glance or reposition their device to indicate unavailability; this behavior contrasted with placemakers, who were less likely to signal unavailability.

With surprising regularity, glances towards placemakers developed into discussions based on shared interest. People were observed engaging over products on an auction website, a site devoted to a local art show and an online news site. This behavior also worked in reverse: wi-fi users were observed glancing at the books and activities of other patrons, they engaged when there was shared affinity and on occasion used their laptops to find and share information. Serendipitous interactions were observed that were as brief as a few seconds to those that extended more than 20 minutes. When interviewed, the placemakers described many encounters of this nature, as often with coffee shop employees as with customers.

Overall, the total number of observed conversations between previously unknown customers was small, in each hour maybe a couple of interactions that were more than the most fleeting: requesting a chair, moving a bag, passing a condiment. However, more serendipitous verbal interactions were recorded between placemakers and other patrons than between patrons in general. When interviewed, almost 50 percent of placemakers reported meeting someone new at a wi-fi cafe, very few true mobiles reported an unscheduled meeting. When true mobiles did report a serendipitous encounter, they tended to be instrumental (such as a commonly observed exchange associated with negotiating access to a power plug), and were more fleeting (such as a glance or small gesture exchanged with other 'wi-fi regulars' – which were observed most frequently with a group of true mobiles who shared a morning routine: Starbucks, email, a latte and a smile).

While placemakers almost always arrived alone and more often than not left alone, both placemakers and true mobiles experienced scheduled and unplanned encounters with existing social ties. About one-third of placemakers, but only a small fraction of true mobiles, would be met by an acquaintance at some point. In all the situations observed the arriving party would not engage in their own private wi-fi use. Instead, the laptop was likely to become a shared focus of attention. For example, one person would read off the screen to another, or two people would watch a video together.

Unlike true mobiles, it was unusual to find a placemaker who was not local. Placemakers were almost always regular customers at the same cafe and lived or worked in close proximity. Placemakers were more frequent visitors to wi-fi cafes than true mobiles. Most true mobiles reported one to two visits per week, whereas placemakers visited almost daily. All wi-fi users spent in excess of 30 minutes in the coffee shop on a single visit and three in 10 stayed more than four to five hours.

While the observations were of a continuum that ranged from true mobiles to placemakers, not an absolute dichotomy, for the most part the distinctions were obvious: users did not move back and forth between types within the same setting. Placemakers did not immerse themselves in shielded, private

cocoons of interaction with the goal of completing work. Placemakers were openly, if not actively interested, in communicating with co-located others: it was their primary activity.

## CONCLUSION

### The future of community

In the observations of the semi-public space offered by wi-fi cafes, contrasting uses were found for wireless internet and competing implications for community. Two types of practices, typified in the behaviors of true mobiles and placemakers, offer divergent futures for the way in which the deployment of ubiquitous wi-fi may influence the structure of social networks and social relationships in public spaces.

A shift in internet use away from the home and workplace and into the semi-public environment of a cafe is, by definition, a shift away from privatism. True mobiles advanced this trend in their use of wi-fi spaces as an 'escape', but in this case the substitution of private for public space did not address the underlying implications of privatism. While true mobiles escaped the confines of private space, they did not embrace new opportunities for public interaction, at least not unplanned, serendipitous encounters with co-present others. Instead, true mobiles actively resisted the public: they attempted to erect barriers, physically in the form of interaction shields, and sociologically through their avoidance of gaze and verbal contact. True mobiles used public space for very private activities, those they associated with the productivity of work and likely for computer-mediated maintenance of their existing social network. As with mobile phone users, true mobiles embraced wireless connectivity for 'public privatism'. True mobiles used wireless internet access to help them transform the network structure of work and community to enable connections to people in any place, rather than to people in place: 'networked individualism' (Wellman et al., 2003). In addition, the true mobiles who also spent part of their time doing paid work from home consciously used wi-fi-enabled spaces as an escape from home-based ties (partner and children). It is not clear if this escape from the nuclear family is a reaction to home-centric personal networks, an escape from the psychological overload of intensive kinship relations, or an additional trend toward individualism and social isolation which has the potential to narrow further the size and composition of social networks.

In contrast with true mobiles, placemakers embraced the wireless internet precisely for its ability to connect to the activities afforded by public space. The primary activity of placemakers was 'not work', rather, it was interactions with co-present social ties, serendipitous exchanges and availability for interactions with strangers. Placemakers used the public setting of wireless internet connectivity as a means for local, place-based interactions, what Hampton and Wellman (2003) have previously referred to as 'glocalization'.

This is not to say that placemakers did not use the environment of wi-fi cafes to maintain their existing networks, as with true mobiles many of their wi-fi enabled activities were likely to be computer-mediated exchanges with established social ties; but consistent with the traditional activities of coffee shops, placemakers also had many planned and unplanned face-to-face encounters. What fundamentally differentiated placemakers from true mobiles was their use of public space for interactions that were not private.

'Community' is not a normative concept. It is the structure of supportive relations that exists between individuals. Large-scale social change can affect how individuals structure their networks and in turn constrain behavior, influence how information is channeled and affect the allocation of resources. The underlying question that this article has attempted to address is whether or not the introduction of ubiquitous wireless internet connectivity into the urban environment will alter the prevailing trend in how personal networks are structured: the tendency toward privatism. The answer is that it is too early to tell, but there are signs leading in divergent directions.

Networked individualism and glocalization are parallel paths: each involves a transformation to the structure of community that is a result of the affordances of the internet. It is possible that the tendency toward networked individualism or glocalization will vary by individual, and possibly vary for that individual at different stages in the life cycle (Hampton, 2007), but it is not only a matter of personal choice. In a situation where the activities of 'public privatism' dominate within even a marginal segment of public spaces, a 'neighborhood' or 'contextual' effect may be the result. Typically, contextual effects are used to explain the role of community-level characteristics in social tie formation in the context of neighborhood communities (Sampson et al., 2008). Specifically, individuals who are highly motivated to form social ties, but who live in a neighborhood where few others are available or interested in forming relationships, are structurally disadvantaged relative to similarly motivated (or even lesser motivated) persons in a neighborhood where people are open to tie formation. The network constraints are very different. The same effect applies to the likelihood of serendipity and other encounters in public spaces; it takes at least two for interaction, and if no one else is interested or available, ultimately you will remain alone. The higher the number of people engrossed in public privatism within any space, the less opportunity for new tie formation.

### **The future of wireless internet in urban public spaces**

The deployment of wireless internet access in public spaces will initiate a path dependence that ultimately will lead to the domination of either a new public privatism or increased public participation which will help to counter the existing trend of privatism. However, wi-fi is not in and of itself deterministic, but decisions related to the deployment of the technology



afford different types of social interactions. Although it has not been stated in this article until now, it is true that more true mobiles were found in the paid wi-fi Starbucks locations and a greater number of placemakers where free wi-fi could be found. However, a simple one-to-one relationship, where the presence of free wi-fi simply created public interactions, was not observed. The environment of paid wi-fi was simply more conducive to the activities of true mobiles and less so to placemakers. As one participant described:

[People] go to Starbucks because people don't want to experiment with their coffee. They usually like to get coffee they like and Starbucks promises them exactly that. Similarly, people who are looking for wi-fi connections will go to places where they know they will get a good connection and where they can sit for some time and work. (Sandy, male, 35, Seattle Chaco Canyon Cafe)

Even in those environments that were more favorable to placemakers, coffee houses often adjusted their environment to limit their presence. Free wi-fi cafes employed strategies to discourage people from gathering or feeling overly welcome: for example, the Trident Cafe's management removed all power outlets from customer areas. While visiting other free cafes, this was found to be a common practice, along with actively limiting wi-fi access during peak hours, reducing table space and established rules controlling access to toilet facilities. Employees would use the guise of customer service to ask patrons if they needed anything, but many admitted that it was a strategy to encourage 'wireless squatters' to buy something or leave. The perception of free wi-fi providers was that their customers had a tendency to loiter and stay around socializing for long periods of time, taking space away from 'legitimate' customers. Even in situations where wi-fi cafes had the potential to afford the broad community interactions of a 'third place' (Oldenburg, 1989), private control over semi-public spaces actively worked to reduce the potential for wireless internet to afford social interactions.

As Muni wi-fi blossoms, it is reasonable to assume that the strategies employed by the owners of semi-public spaces to limit the activities of true mobiles will be carried over by governments and private organizations (such as business improvement districts and internet service providers) in their attempt to regulate public spaces to make them most welcoming to paying consumers. Yet, commercial interests that drive away placemakers may find themselves driving away the majority of public wi-fi uses. Even true mobiles are drawn to public wi-fi by the social characteristics of the setting: as William H. Whyte (1980) noted in *The Social Life of Small Urban Spaces*, what attracts people the most is other people. As cities plan for the deployment of Muni wi-fi – whether purely public initiatives, partnerships with private service providers or driven solely by private investment – if public spaces are to support diverse opportunities for social interaction and the benefits to democracy and public safety that such

interactions afford, local governments must re-evaluate existing policy on the access and design of public space. Conventional considerations related to the design of public space to maximize for social uses (Whyte, 1980) must be reconsidered in light of the unique requirements of new media use, such as the provision of power outlets, flat surfaces for laptops and shade to view digital displays. It is also important to encourage additional research on wi-fi use, in public settings such as parks and plazas (eg Forlano, 2008; Hampton et al., 2008; Powell, 2008). Observations of these spaces will help us to understand how the built environment can be used to help wi-fi users balance privacy, mutual surveillance, public safety, the opportunity for serendipitous encounters and other social behaviors. In addition, observation of wi-fi use must be coupled with longitudinal studies of wireless users to clarify what ethnographic studies are unlikely to be able to examine: that is, the extent to which the networks of placemakers and true mobiles are otherwise home-centered, the overall diversity of their social ties and whether they are actually exchanging time that otherwise would have been spent in the sanctity of the private sphere for a new public life.

### Acknowledgements

We would like to thank the Department of Urban Studies and Planning and the Comparative Media Studies Program at MIT. This manuscript benefited from the comments of Pablo Boczkowski, Henry Jenkins, Marc Smith, Barry Wellman and the editors and anonymous reviewers of *New Media & Society*. We would also like to thank the anonymous reviewers of the 2007 International Conference on Communities and Technologies, where a preliminary version of this article was presented.

### References

- Baym, N., Y.B. Zhang and M.-C. Lin (2004) 'Social Interactions across Media: Interpersonal Communication on the Internet, Telephone and Face-to-Face', *New Media & Society* 6(3): 299–318.
- Berkowitz, S.D. (1971) 'A Cross-national Comparison of Some Social Patterns of Urban Pedestrians', *Journal of Cross-cultural Psychology* 2(2): 129–44.
- Boase, J., J. Horrigan, B. Wellman and L. Rainie (2006) *The Strength of Internet Ties*. Washington, DC: Pew Internet & American Life Project.
- Burt, R. (1992) *Structural Holes*. Chicago, IL: University of Chicago Press.
- Castells, M. (1996) *The Rise of the Network Society*. Oxford: Blackwell.
- Cohen, S., I. Brissette, W. Doyle and D. Skoner (2000) 'Social Integration and Health: The Case of the Common Cold', *Journal of Social Structure* 1(3): 1–7.
- Fischer, C. (1992) *America Calling: A Social History of the Telephone to 1940*. Berkeley, CA: University of California Press.
- Forlano, L. (2008) 'Anytime? Anywhere? Reframing Debates Around Municipal Wireless Networking', *The Journal of Community Informatics* 4(1) URL (consulted 16 September 2008): <http://ci-journal.net/index.php/ciej/article/view/438/401>
- Goffman, E. (1959) *The Presentation of Self in Everyday Life*. London: Penguin.
- Goffman, E. (1963) *Behavior in Public Places: Notes on the Social Order of Gatherings*. New York: Free Press.

- Goffman, E. (1971) *Relations in Public: Micro-studies of the Public Order*. New York: Basic Books.
- Goldberger, P. (2003) 'Disconnected Urbanism: The Cellphone Has Changed Our Sense of Place More Than Faxes, Computers and E-Mail', *Metropolis Magazine*, November, URL (consulted 27 March 2007): <http://www.metropolismag.com/cda/story.php?artid=254>
- Graham, S. and S. Marvin (1996) *Telecommunications and the City: Electronic Spaces, Urban Places*. London: Routledge.
- Granovetter, M. (1973) 'The Strength of Weak Ties', *American Journal of Sociology* 78(6): 1360–80.
- Granovetter, M. (1974) *Getting a Job*. Cambridge, MA: Harvard University Press.
- Habermas, J. (1989) *The Structural Transformation of the Public Sphere*. Cambridge, MA: MIT Press.
- Hampton, K. (2001) 'Living the Wired Life in the Wired Suburb: Netville, Glocalization and Civic Society', PhD thesis, Department of Sociology, University of Toronto.
- Hampton, K. (2007) 'Neighborhoods in the Network Society: The e-Neighbors Study', *Information, Communication and Society* 10(5): 714–48.
- Hampton, K., O. Livio and C. Trachtenberg (2008) 'Is WiFi Use Compatible with Public Space? Wireless Internet Use, Sociability, and Social Networks', presented at the annual meeting of the International Communication Association, Montreal.
- Hampton, K. and Wellman, B. (2003) 'Neighboring in Netville: How the Internet Supports Community and Social Capital in a Wired Suburb', *City and Community* 2(3): 277–311.
- Hannigan, J. (1998) *Fantasy City: Pleasure and Profit in the Postmodern Metropolis*. New York: Routledge.
- Harris, K. (2003) 'Keep Your Distance: Remote Connection', *Journal of Community Work and Development* 4(4): 6–28.
- Haythornthwaite, C. and B. Wellman (2002) 'The Internet in Everyday Life: An Introduction', in B. Wellman and C. Haythornthwaite (eds) *The Internet in Everyday Life*, pp. 3–44. Oxford: Blackwell.
- Humphries, L. (2005) 'Cellphones in Public: Social Interactions in a Wireless Era', *New Media & Society* 7(6): 810–33.
- Ito, M. and D. Okabe (2006) 'Intimate Connections', in R. Kraut, M. Brynin and S. Kiesler (eds) *Computers, Phones and the Internet: Domesticating Information Technology*, pp. 235–47. New York: Oxford University Press.
- Jacobs, J. (1961) *The Death and Life of Great American Cities*. New York: Random House.
- Kraut, R., M. Patterson, V. Lundmark, S. Kiesler, T. Mukhopadhyay and W. Scherlis (1998) 'Internet Paradox: A Social Technology that Reduces Social Involvement and Psychological Well-being?', *American Psychologist* 53(9): 1017–31.
- Latané, B. and J. Darley (1976) *Help in a Crisis: Bystander Response to an Emergency*. Morristown, NJ: General Learning Press.
- Lee, S. (1999) 'Private Uses in Public Spaces: A Study of Internet Cafes', *New Media & Society* 1(3): 331–50.
- Ling, R. (2000) 'Direct and Mediated Interaction in the Maintenance of Social Relationships', in A. Sloane and F. van Rijn (eds) *Home Informatics and Telematics: Information, Technology and Society*, pp. 61–86. Boston, MA: Kluwer.
- Ling, R. (2004) *The Mobile Connection*. San Francisco, CA: Morgan Kaufmann.
- Ling, R. and B. Yttri (2006) 'Control, Emancipation and Status', in R. Kraut, M. Brynin and S. Kiesler (eds) *Computers, Phones and the Internet: Domesticating Information Technology*, pp. 219–34. New York: Oxford University Press.
- Lofland, L. (1973) *A World of Strangers*. New York: Basic Books.

- Lofland, L.H. (1998) *The Public Realm: Exploring the City's Quintessential Social Territory*. New York: Aldine de Gruyter.
- McPherson, M., L. Smith-Lovin and M.E. Brashears (2006) 'Social Isolation in America: Changes in Core Discussion Networks over Two decades', *American Sociological Review* 71(3): 353–75.
- McPherson, M., L. Smith-Lovin and J.M. Cook (2001) 'Birds of a Feather: Homophily in Social Networks', *Annual Review of Sociology* 27: 415–44.
- Marvin, C. (1988) *When Old Technologies Were New: Thinking about Electric Communication in the Late Nineteenth Century*. New York: Oxford University Press.
- Matsuda, M. (2005) 'Mobile Communications and Selective Sociality', in M. Ito, M. Okabe and M. Matsuda (eds) *Personal, Portable, Pedestrian: Mobile Phones in Japanese Life*, pp. 123–42. Cambridge, MA: MIT Press.
- Merton, R.K. and E. Barber (2004) *The Travels and Adventures of Serendipity: A Study in Sociological Semantics and the Sociology of Science*. Princeton, NJ: Princeton University Press.
- Mesch, G.S. and Y. Levanon (2003) 'Community Networking and Locally-based Social Ties in Two Suburban Localities', *City & Community* 2(4): 335–51.
- Milgram, S. (1970) 'The Experience of Living in Cities', *Science* 167(3924): 1461–8.
- Nie, N., S. Hillygus and L. Erbring (2002) 'Internet Use, Interpersonal Relations and Sociability: A Time Diary Study', in B. Wellman and C. Haythornthwaite (eds) *The Internet in Everyday Life*, pp. 215–43. Oxford: Blackwell.
- Oldenburg, R. (1989) *The Great Good Place: Cafes, Coffee Shops, Community Centers, Beauty Parlors, General Stores, Bars, Hangout and How They Get You Through the Day*. New York: Paragon House.
- Powell, A. (2008) 'Co-productions of Technology, Culture and Policy in North America's Community Wireless Networking Movement', PhD thesis, Communication Studies, Concordia University.
- Putnam, R. (2000) *Bowling Alone*. New York: Simon & Schuster.
- Quan-Haase, A. and B. Wellman (2006) 'Hyperconnected Net Work', in C. Heckscher, and P. Adler (eds) *The Firm as a Collaborative Community: Reconstructing Trust in the Knowledge Economy*, pp. 281–333. New York: Oxford University Press.
- Quan Haase, A., B. Wellman, K. Hampton and J. Witte (2002) 'Internet, Social Capital and Information Seeking', in B. Wellman and C. Haythornthwaite (eds) *The Internet in Everyday Life*, pp. 291–324. Oxford: Blackwell.
- Robinson, J.P., M. Kestnbaum, A. Neustadl and A. Alvarez (2002) 'The Internet and Other Uses of Time', in B. Wellman and C. Haythornthwaite (eds) *The Internet in Everyday Life*, pp. 244–62. Oxford: Blackwell.
- Sampson, R., J. Morenoff and T. Gannon-Rowley, (2002) 'Assessing "Neighborhood Effects": Social Processes and New Directions in Research', *Annual Review of Sociology* 28: 443–78.
- Sennett, R. (1977) *The Fall of Public Man*. New York: Knopf.
- Weber, M. (1946) *From Max Weber: Essays in Sociology*. New York: Oxford University Press.
- Wellman, B. (1999) 'The Network Community: An Introduction', in B. Wellman (ed.) *Networks in the Global Village*, pp. 1–47. Boulder, CO: Westview Press.
- Wellman, B. and S. Wortley (1990) 'Different Strokes from Different Folks: Community Ties and Social Support', *American Journal of Sociology* 96: 558–88.
- Wellman, B., A. Quan-Haase, J. Boase, W. Chen, K. Hampton, I.I. de Diaz and K. Miyata (2003) 'The Social Affordances of the Internet for Networked Individualism', *Journal of Computer-Mediated Communication* 8(3), URL (consulted 2 April 2007): <http://jcmc.indiana.edu/vol8/issue3/wellman.html>

- Whyte, W.H. (1980) *The Social Life of Small Urban Spaces*. Washington, DC: Conservation Foundation.
- Zhao, S. (2006) 'Do Internet Users Have More Social Ties? A Call for Differentiated Analyses of Internet Use', *Journal of Computer-Mediated Communication*, 11(3), URL (consulted 2 April 2007): <http://jcmc.indiana.edu/vol11/issue3/zhao.html>
- Zukin, S. (1995) *The Cultures of Cities*. Cambridge, MA: Blackwell.
- 

KEITH N. HAMPTON is an assistant professor at the Annenberg School for Communication, University of Pennsylvania. His research interests focus on the relationship between new information and communication technologies, social networks, and the urban environment (for papers related to this work, see <http://www.mysocialnetwork.net>).

*Address:* Annenberg School for Communication, University of Pennsylvania, 3620 Walnut Street, Philadelphia, PA 19104, USA. [email: [khampton@asc.upenn.edu](mailto:khampton@asc.upenn.edu)]

---

NEETI GUPTA is a product manager for the Unified Communications Group at Microsoft. Her research and professional work has allowed her to straddle the worlds of technology and culture, production and consumption, design and user experience and exploring experience design in online and offline community.

---