



Mobile social networks and urban public space

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Abstract

The development and proliferation of mobile social networks have the potential to transform ways that people come together and interact in public space. These services allow new kinds of information to flow into public spaces and, as such, can rearrange social and spatial practices. Dodgeball is used as a case study of mobile social networks. Based on a year-long qualitative field study, this article explores how Dodgeball was used to facilitate social congregation in public spaces and begins to expand our understanding of traditional notions of space and social interaction. Drawing on the concept of parochial space, this article examines how ideas of mobile communication and public space are negotiated in the everyday practice and use of mobile social networks.

Key words

mobile phones, mobile social networks, parochial space, public space, social interaction

It would be easy to believe that communication technology has always allowed people to overcome barriers of time and space. People have used the telegraph, telephone, television, computers and the internet to share information and interact across temporal and geographical boundaries. In some cases communication technologies have even encouraged the shift and acceleration of information flows. With the rise of electronic and networked technology, scholars have suggested that social interaction has become increasingly disembodied from the particulars of time and space (Giddens, 1991; Meyrowitz, 1985). People can use the internet and mobile technology to connect with friends and family from all over the world.

While telecommunications allow people to connect with those far away, it would be an oversimplification to suggest that these technologies make local connections and relations unimportant. In fact, there is a growing movement to help people use telecommunications to connect with other locals. Services such as Craigslist.com, MeetUp.com and Plazes.com harness the power of the internet to facilitate connections between people based on

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geographic proximity. More recently, services that connect local people have moved beyond the internet to the mobile or cell phone. The accessibility and mobility of this device suggest that people can use these services to connect with local people in real time as they move through cities.

People increasingly use mobile social networks to transform the ways they come together and interact in public space. Almost 50 million people worldwide engage in mobile social networking (Shannon, 2008). These services allow members to access networks of friends or potential friends through their mobile phones. Much like social network sites on the internet (boyd and Ellison, 2007; Ellison et al., 2007), new mobile social networks can be used to build and reinforce social ties (Humphreys, 2007). These mobile social networks can facilitate the flow of new kinds of information into public spaces and as such can rearrange social and spatial practices. This article begins to explore how these new mobile services can be used to facilitate social interaction in public spaces. I discuss the nature of the interactions that occur when using mobile social networks and examine how people connect via mobile phones with other people in their city.

The article begins by discussing the literature related to urban public spaces and social interaction. By addressing the historical role of telecommunications in the city, I attempt to contextualize the use of mobile social networks not as entirely radical and new, but as a next step in the intricate interdependency between communication technology and urban living. I next outline the mobile social network case study, Dodgeball, and discuss the data collection and analysis procedures. Then I introduce the concept of parochialization as a means of capturing the sense of commonality that emerges among participating co-inhabitants of the social space. I explain how Dodgeball informants used the service to socially coordinate and congregate with others in urban public spaces. I conclude by arguing that spatial factors are very relevant in mediated communication and suggest how this research might be extended to other social media.

Urban public space and social interaction

Public space plays an important role in urban environments and can be a refuge from the hustle and bustle of city life. When I use the term public space, I am referring to non-domestic physical sites that are distinguished by their relative accessibility such as dance clubs, parks, restaurants, bars, cafes, the street, etc. (Lofland, 1998; McCarthy, 2001). While some would delimit public spaces to non-commercial physical sites of congregation like parks or plazas (Carr et al., 1992), I am including more semi-public sites of consumption like cafes and bars because these semi-public spaces often serve the same social function as a site of sociality and recreation. As Zukin (1995) argues, there is an increasing commodification of public spaces in urban centers; thus using a broader definition of public space, which includes semi-public sites of consumption, more accurately reflecting the everyday practice of urban life away from home and work.

Public spaces also serve as an important site of social interaction. According to Carr et al. (1992: 45): 'Public places afford casual encounters in the course of daily life that can bind people together and give their lives meaning and power.' Public spaces allow people to gather and socialize away from home and work. Oldenburg (1991) calls some of these sites of social congregation, 'third places'. These are places where people can

gather for casual but important sociality without excessive social or personal obligations. This kind of public interaction can alleviate stresses from work by offering relaxing and entertaining social contact (Carr et al., 1992; Oldenburg, 1991).

Cities are typically characterized by diversity along nearly almost every social axis: race, class, religion, sexuality, education, political ideology and even temperament. Thus sociality in urban public spaces can occur between people of very different backgrounds. However, there can be social inhibitors to striking up conversations in public (Goffman, 1963, 1971). People with commonalities are easier to engage with than are people with whom one has nothing in common (Carr et al., 1992).

Mobile social networks seek to alleviate some of the challenges of interacting with others in public. These services use mobile technology to facilitate the exchange of social or locational information among users to encourage face-to-face interaction. One mobile social network, Dodgeball, was specifically designed to facilitate sociality in public spaces. This article examines the spatial practices associated with this service. Spatial practices refer to the everyday lived experience of and movement through social and physical space (Certeau, 1984). By investigating the common practices associated with mobile social network use, one can begin to understand the meanings and perceived effects of the technology's adoption and identify social implications for users.

Researchers have begun writing about the specific role of mobile and ubiquitous technology in the city. Townsend (2000) suggests that mobile technology changes the urban metabolism by accelerating the exchange of information to the point that it can bring about a 'real-time' city. This study aims to ground discussions of the 'city of the future' in the everyday experiences of Dodgeball users and as such explore the lived complexity of using mobile social networks in the city.

Case study: Dodgeball

Dodgeball was a service, owned by Google and based in New York City, that allowed users to let personal networks of friends know when they were at their local bars and restaurants via their mobile phones. This service required its members to join a social network system and was free to use. Members set up a Dodgeball social network by inviting people to be their friends and then they could also see their friends' friends, similar to Facebook and MySpace (boyd and Ellison, 2007). Rather than separately calling or text messaging each individual in one's Dodgeball network, users sent one text message (called a 'check-in' message) to Dodgeball, which then broadcasted the message to their friend networks alerting them where they were and that they were interested in meeting up. For example, a friend might receive a message saying, 'Your friend, Lee, is at the Irish Pub (19th & Walnut St). Why not stop by and say hello or check in to let her know where you are.' Dodgeball was primarily used to facilitate meeting up with one's social network of friends in local public spaces.

Dodgeball also integrated Google Maps into their service so that users could see a map of their check-in locations as well as their friends' check-ins. Using the maps, users could get a visual representation of their social outings. These maps were available primarily on the Dodgeball website, but they could also be accessed if the Dodgeball member had a smart phone with mobile internet capabilities.

Within the first year of existence, Dodgeball registered about 15,000 users (Terdiman, 2005). This was the last reported number of users because Google acquired the company in mid-2005. While the number of users grew substantially as social media and mobile technology proliferated over the next few years, Google has not released any user data to the public.

Dodgeball was officially shut down in January 2009, but Google launched Google Latitude which allows users to 'see where your friends are right now' on a Google Map.¹ Like Dodgeball, Google Latitude offers users the ability to share their locations with friends via their mobile phones or their computers. Google Latitude is more technologically advanced than was Dodgeball. As a mobile service, Dodgeball relied on text messaging to send location information to and from users. Google Latitude depends on mobile smart phone technology so that users will only see a Google Map of their friends' locations via their phone rather than receiving text messages with their friends' locations. The location-sharing function of Dodgeball and Google Latitude is fundamental to each service and very similar.

Data collection and analysis

Becker (1998) and Lofland et al. (2006) recommend the use of naturalistic and open-ended methods to study social interactions because it allows people to use their own language to describe the social practices embedded in their everyday lives. In this vein, I conducted qualitative fieldwork of Dodgeball as a mobile social network. Dodgeball was originally chosen as a case study because it was one of the earliest mobile social networks available in the USA (Terdiman, 2005). The investment by Google had also suggested a long-term viability of the service (Benner, 2005). Dodgeball was also only available in major cities within the US and thus became a useful lens through which to explore the relationship between *urban* spatial practices and mobile social networks.

The data collection began in November 2005 and concluded in November 2006. Twenty-one in-depth interviews were conducted with Dodgeball users from seven cities throughout the USA. Because the Dodgeball system does not allow users to easily send messages to people who are not 'Dodgeball friends', I initiated contact with Dodgeball's founder, Dennis Crowley, to ask if he would help recruit participants. Crowley sent recruitment emails to top users in several cities. In addition, I used snowball sampling based upon those interviews. In total, I interviewed 13 users through an introduction from Crowley and eight users with a snowball sample from the original 13. These participants were among the more active Dodgeball users in the USA and thus are not necessarily representative of all Dodgeball users. In addition to interviews, I analyzed messages sent among a group of Dodgeball users during a week-long period in October 2006 in order to explore trends in timing, language and proximity. I also interviewed Crowley to understand the background and context of Dodgeball as a mobile social network.

I interviewed nine women and 12 men, ranging in age from 23 to 30. Geographically, they lived in Chicago (n = 1), Los Angeles (n = 2), Minneapolis (n = 4), New York City (n = 9), Philadelphia (n = 3), San Francisco (n = 1) and Seattle (n = 1). I conducted fieldwork in Philadelphia, New York City and Minneapolis and therefore was able to interview more

users in these cities. Other interviews were conducted over the phone. I recorded all of the interviews and transcribed them myself in order to ensure the accuracy of the content.

My observational fieldwork in New York City and Minneapolis involved meeting up with study participants in the evening and observing how they used Dodgeball to coordinate meeting up with others in semi-public spaces like bars and lounges. In total, I observed six Dodgeball users in New York City and three users in Minneapolis. I also conducted participant observation where I was an active member of Dodgeball in Philadelphia for about a year. I invited friends to use Dodgeball and used the service to coordinate some of my own socializing in the city throughout the year. My participant observation was primarily a means of becoming more familiar with the various technological aspects of the service.

Throughout the project I drew on grounded theory (Glaser and Strauss, 1967). Rather than linearly collecting data and then subsequently analyzing it after data collection is completed, I used a constant comparative method to iteratively collect and analyze field notes and interview transcripts to identify themes and categories throughout the process. The initial themes that emerged included concepts related to space such as public, parochial, private and neighborhood. Once these initial themes were identified, I used QSR's N6 to help organize and systematize the coding of the transcripts and field notes. I continued collecting and analyzing data until I reached theoretical saturation, when all newly collected data could be understood and accounted for through the categorization and theoretical framework established from previous data collection and analyses (Glaser and Strauss, 1967).

Maxwell (1996) suggests that member checks can be an important tool to help minimize threats to validity in qualitative research. Therefore I sent different parts of the analysis and write-up to the founder of Dodgeball and four other participants in order to solicit feedback on the interpretations and conclusions I had drawn. None of the member checks led to any suggested changes in the findings.

A final note about my data collection concerns the multiple points of communication, interaction and observation of users. The communication exchanges I had with informants about the mobile social networks were both direct and indirect. I was able to directly gather data about these systems through observing user behavior (e.g. what people put in their profiles or where I observed them using the services). Most of the data about usage, however, were collected indirectly through people's formal self-reports during interviews. While I have little reason to believe participants lied to me about their usage, I cannot necessarily verify their responses. Keenly aware that they were being interviewed, some participants may have performed a particular role of 'mobile social networker'. This performance, however, is just as important to understanding cultural norms. Even performances convey expectations, attitudes and beliefs about how mobile social networks are supposed to work.²

Glaser and Strauss (1967: 68) recommend collecting various 'slices of data' in order to strengthen the conclusions. My slices of data included in-depth and informal interviews with both users and the founder of Dodgeball, field observations, participant observations, analyses of a sample of Dodgeball text messages and an analysis of industry press about Dodgeball. Taken together, these various data sources can triangulate the

findings, reduce threats to validity (Maxwell, 1996) and provide a richer, fuller picture of the spatial practices associated with Dodgeball as a mobile social network.

Parochialization

When beginning to explore the kinds of interactions that occur around the use of mobile social networks, it is helpful to contextualize them within categories of urban social spaces more broadly. Lofland (1998) identifies three kinds of urban social space: public, parochial and private. Public spaces are territories characterized by strangers, while private spaces are territories characterized by intimates and personal networks. Lofland suggests a third kind of urban space exists which is somewhere between the public and private spaces, namely, the parochial. Parochial spaces are territories characterized by 'a sense of commonality among acquaintances and neighbors who are involved in interpersonal networks that are located within communities' (Lofland, 1998: 10). Neighborhoods are examples of parochial spaces. There is nothing inherent in the features of physical space to make it parochial or public. Lofland uses the term *realm* rather than space to describe how such characteristics are socially defined. In addition, parochial realms can be highly contextual. One person's parochial realm may be another's public realm. For example, sometimes people can sense when they have entered a parochial realm where those around them seem to know each other but the newcomer is clearly not part of the community.

Mobile social networks and the parochialization of space

Mobile social networks can help to turn public realms into parochial realms through parochialization. *Parochialization* can be defined as the process of creating, sharing and exchanging information, social and locational, to contribute to a sense of commonality among a group of people in public space. Sharing information through mobile social networks can help to contribute to a sense of familiarity among users in urban public spaces.

Creating familiarity Dodgeball members shared information about themselves when they sent check-in messages about where they were in the city. Dodgeball distributed information about and within networks of people in highly dense urban centers that can offer hundreds of public venues within a mile radius. The chances of running into friends in a neighborhood venue is not likely when there are 10 venues within a three block area, a scenario typical of the Lower East Side in New York City. People used Dodgeball to broadcast and receive information about themselves and friends, which can parochialize the public realms which they inhabit. By knowing where people in one's Dodgeball network were, users could know the social relations they would have if they went to the venue from which their friends had checked-in:

[Dodgeball] is a very passive way to kind of find out where your friends are. I mean, you can sort of sit back and have a sense of where people are at. . . . It's also helpful walking into a place and just having a sense of who's around. (Taylor, New York City)³

Taylor used Dodgeball to find out where his friends were so that when he arrived at a place, he was already familiar with which Dodgeball friends would be there. Taylor, like other Dodgeball informants, used the service to survey the local social scene before joining it. By exchanging sociolocal information via Dodgeball, a former public realm could be transformed into a parochial realm where one had a sense of familiarity with those inhabiting the space.

Abby, another participant from New York City, suggested Dodgeball was particularly useful when she had a friend visiting from out of town. Using Dodgeball, she could choose a place to take her where she would know people. Abby mentioned that this not only made her seem very popular (especially if her out-of-town friend was not a Dodgeball user), but also ensured there were many new people for her friend to meet. Dodgeball helped Abby to have a sense of familiarity with Dodgeball members in various places in the city before leaving her apartment.

Parochialization involves sharing information so that people have a sense of commonality with others in public space. By sharing their locations through Dodgeball, groups of friends could coordinate congregation. Coordinating a group to meet up in a city is generally more complex than coordinating just two individuals. Dodgeball facilitated this process by *broadcasting* location information among networks of friends and friends of friends. Members could use Dodgeball check-ins to create a social map of where their friends were in the city. As people exchanged messages through Dodgeball, users began to piece together the social landscape around them. When Dodgeball members congregated in public spaces, they could experience such places as parochial realms instead of public realms because of their familiar social relations therein.

Parochialization and spatial practice

One way that Dodgeball informants were able to coordinate congregation is through a process of redirection. Redirection relates to people's ability to act on information obtained through their mobile phone to change trips already in progress (Ling and Yttri, 2002). Mobile technologies allow for synchronous mediated communication while in transit, something that was not easily accomplished previously. Groups of friends could use Dodgeball to act on this communication immediately and alter their planned route as a result. Two informants suggested that redirection seemed to work better in New York City than in Los Angeles or Minneapolis. Dodgeball founder, Dennis Crowley, explains why:

Everyone walks [in New York City], so the paths we take are so fluid. It doesn't matter if I go up this block and over this block. Or two blocks over and then up this way. So it's kind of like we can change the way they experience a city, if only in a small way. So it's like I usually take this path, but I take this path instead. So I can't tell you how many times I've had the experience where it's an average Tuesday and I get out of the subway and my phone starts to get some signal and I'm walking home and someone is a block north so I walk that way instead of walking this way. You know, little things like that. But if it's helping me meet up with people I normally wouldn't meet, then like if I'm just going home and looking for something else to do, then it works really good for those times. (Dennis Crowley, New York City)

Crowley suggests that though people may have routinized paths through the city, these paths are fluid and may change depending on social and locational information available through Dodgeball. Redirection is part of the spatial practice of mobile social network use in the city.

Three general factors contributed to whether members used Dodgeball messages to coordinate congregation in public spaces around the city: timing, spatial proximity and travel time. Sometimes the *timing* of receiving a check-in message was not conducive to redirection. For example, a group of people may just have arrived at a bar, ordered a drink and were ready to stay when they received someone else's check-in. Another common timing hurdle was that informants would receive a message just when they arrived home in the evening. Several of my informants mentioned that once they get home for the day they were not as likely to meet up with friends as they would be if they had received the check-in message while still at work. *Distance* from the person who sent the check-in message also inhibited redirection. This was especially true for the Dodgeball participants I spoke with in geographically dispersed cities like Los Angeles and the San Francisco Bay Area.

In some instances, it was not necessarily distance but *traveling time* that deterred someone from redirecting their route. For example, one informant, Nick, lives in Brooklyn Heights, while several of his friends live in Williamsburg (another neighborhood in Brooklyn). It's not easy to get from Brooklyn Heights to Williamsburg by subway:

I have a couple close friends in different parts of Brooklyn, but again, if someone lives in Williamsburg, they may as well live in Jersey for all I care. I'm not goin' there. (Nick, New York City)

Because of the public transportation system, it would be easier for Nick to meet up with people in parts of Manhattan than in parts of Brooklyn. Thus distance and ease of travel together contributed to whether or not members redirected their route as a result of using Dodgeball.

When the timing, distance and traveling time all work out, however, informants indicated they did use Dodgeball to redirect their route to congregate with others. For example, Livingston described a night where those factors contributing to congregation came together:

I think the most vivid time I remember using Dodgeball was, I had gotten into a fight with my girlfriend and I was real pissed off. You know, I was on the verge of breaking up, and I was just like, you know, I didn't want to go home to my apartment. It was a dark, dreary place. And I was literally almost on the subway, and I got a Dodgeball, and it was Sima. And I found out he was right around the corner, and I think this was like one of the few times I actually hung out with Sima on his own and became really good friends at the time, you know, which was all because how that actually completely changed my night. Where I could have just gone home and done nothing, I went out and I then I ended up, you know, meeting more of Sima's friends and became really good friends. (Livingston, New York City)

For Livingston, neither the timing, distance, nor travel time was a hurdle for him to meet up with Sima. In some circumstances, one of these factors may be a hurdle, but the social context was such that redirection and congregation were worthwhile. For example, Leonard describes a night when he was already home, but decided to meet up with friends at a club:

When I started using Dodgeball, I met this girl, just a friend, and she checked in really near my apartment. And I sent her a text message, saying, 'Oh my goodness, I live two blocks from there.' And she said, 'Well, come out and dance!' And so I ended up meeting up with this girl and her friends at this bar that happened to be a few blocks from my apartment. And since then I've gotten to know a lot of the other people. I don't hang out a lot with that girl that much anymore. But I've sort of met all her friends and become friends with them. (Leonard, Los Angeles)

Even though Leonard was already home, the social context coupled with the proximity of the check-in contributed to his redirection. The point that Leonard made about meeting the other women that night is also part of parochializing the public.

When informants used Dodgeball, they could also meet friends of friends. Though the system itself purports to offer friend-of-a-friend text notification, it usually would not work or people would turn it off. Nevertheless, informants described meeting friends of friends once they got to a bar. This did not occur because the Dodgeball system told them about a new person, but because their friend merely introduced them. People used Dodgeball to facilitate meeting up and would then continue to share information face-to-face so as to become more familiar with the people around them. For example, Nick discusses how Dodgeball indirectly facilitated social connectivity:

It's hard to say whether I've met them through Dodgeball cuz that sort of implies that I met them on the site or they showed up as friends-of-friends and I started talking to them. . . . Because of the 'Dodgeball Effect', I have ended up with groups of people who have brought their friends and I meet them too. So in a way, yes, I've met them through it because Dodgeball creates that atmosphere where people can serendipitously meet up with whom they're with. (Nick, New York City)

Nick met people indirectly through Dodgeball by meeting up with another Dodgeball member who had brought other friends with him or her. While Nick may not have become close friends with these new people, he gained a greater sense of who was around him through these casual introductions and serendipitous meetings. In both indirect and direct ways, Dodgeball informants exchanged social and locational information to encourage a familiarity and parochialize public realms. This kind of casual meeting also suggests a potential bridging social capital function of Dodgeball similar to that found on social network sites (Ellison et al., 2007).

Neighborhood Neighborhoods are important parochial realms within cities. There were several ways that neighborhoods were relevant to Dodgeball informants. First, rather than checking in from a specific venue in the city, 15 of the 21 Dodgeball informants also checked in from neighborhoods more generally. Sometimes these users sent

a message about going out in a particular neighborhood in order to let people know ahead of time where they would be going out that evening:

Another way I use [Dodgeball], is to say, 'Hey tonight a bunch of us will be in Belltown or in Capital Hill.' Sort of checking into neighborhoods instead of venues, 'We're gonna be in this area.' Just to prime people. To be like, 'If you want to hang with us tonight, make your way in this general direction', and then from there we can use Dodgeball to actually meet up. (Kirk, Seattle)

Kirk sometimes used Dodgeball to let people know ahead of time where he would be later that night to make it easier to meet up.

Rather than explicitly messaging about neighborhoods, sometimes a user actually checked in from a particular location with the purpose of letting friends know that he or she was in the neighborhood but not to meet up at his or her current location. For example, Livingston describes a conversation he had with a friend who did not understand why he would check in from a store rather than someplace where they could actually socialize:

I had checked in at the Apple Store, and he goes, 'Why are you checking in at the Apple Store? Like I care you're in the Apple Store!' I go, 'Well the idea was that I was checking into something that was near, so in case anyone else in that area, we could hang out or meet up or something like that.' (Livingston, New York City)

Livingston sometimes would check in from a place not because he wanted to meet up with others there, but because he wanted to see if he had any friends in the neighborhood. In this way, he used Dodgeball to see if this area of the city might become a parochial realm in which he would have a sense of social familiarity with other co-located Dodgeball users.

Another way that notions of neighborhood were reinforced when using Dodgeball was when members were in their friends' neighborhoods. Several Dodgeball informants mentioned that sometimes they would check into a particular neighborhood because they knew their friends' lived there:

Sometimes, I'll purposefully check in from a certain neighborhood when I'm there and I'll know that I'll see that person cuz they live right there. (Deirdre, Minneapolis)

I'm definitely aware when I'm nearby people. You know like, when you walk by someone's apartment, and you're like, 'God, I feel like I should buzz or call them.' But in NY, we don't. We don't just stop by. This is like our sort of our way of stopping by. Like if I just need to like sit down somewhere, I sit down and have a coffee or something. I'll check in if I'm near someone's apartment to see if they're there. (Nick, New York City)

Nick's comment explicitly identifies the social norms of city life for his friends. Generally speaking, even if one is in a friend's neighborhood, one would not stop by their apartment. But with Dodgeball, users could nonchalantly alert friends that they were near their home without the social awkwardness of stopping by. Even though Nick was in his friend's parochial realm, by meeting up with his friend he could harness the familiarity

of the neighborhood for his own socialization. Rather than intruding into a friend's private realm, members could use Dodgeball to alert a friend they were in his or her neighborhood or parochial realm.

Traveling People also used Dodgeball to parochialize the public space when traveling with a group of people. For example, several New York participants mentioned using Dodgeball at South by Southwest, an annual music/film/hi-tech festival in Austin, Texas. A large group of colleagues and friends were at the festival and used Dodgeball to ensure meeting up with familiar people in an unfamiliar city:

I was at South by Southwest actually. It was, like, the densest Dodgeball activity ever. I'd check in to a place and there'd be like 40 Dodgeball users there. (Enid, New York City)

I did use [Dodgeball] a little in Austin when I was there for South by Southwest. But then again the people who were down there were all my friends from New York or they were tech people, even though I wasn't there for the tech. So people were using it, but it was people I knew from New York City. (Elicia, New York City)

Even though some of these informants had never been to Austin before, because they used Dodgeball, they had a sense of who and what was around them. Lofland (1998) argues that one's experience of a space is based upon one's social relations within it. Because there were so many Dodgeballers in Austin for the festival, these informants experienced some of the Austin bars as familiar.

The use of Dodgeball contributed to a sense of social familiarity in unfamiliar locations by allowing groups of friends to coordinate congregation while traveling. Despite not knowing the venues or city as well as they knew their home city, an unfamiliar place could become a parochial realm by sharing locational and social information through Dodgeball. Users may never have been to a specific bar before, but because they had coordinated with friends to meet using Dodgeball, there was a sense of familiarity upon entering based on the social relations characterizing the realm.

Parochialization without congregation

Social interaction and coordination among groups of friends can sometimes be a complex social dance. Not all of the information exchanged through Dodgeball facilitated congregation of people in public space; in fact, sometimes it facilitated the avoidance of people in public space. By sharing information through Dodgeball, members could become familiar with where people in their network were. As Kirk describes below, sometimes people used this information to coordinate congregation and other times people used this information to actively avoid congregation:

Kirk (Seattle): You may be the kind of person that wants to know where [your Dodgeball friends] are because you want to join them or because you want to *not* join them. You know so often it's interesting that the ambiguity of it allows you to use it in a couple different ways.

- Interviewer:* Like if you know someone's out at a particular bar, you'll avoid that place?
- Kirk:* Yeah. I mean, it sounds a little mean but it's a small city. I don't really use it that way, but there's a couple people I know that do use it that way. And even if you're not direct friends, it can be used like if you're out with somebody that knows somebody, they can let you know, 'Oh yeah, your ex-boyfriend is over at Twist so we shouldn't go there.'

Social interaction is a complex negotiation. The same information exchanged through Dodgeball could be used to facilitate meeting up as much as it could be used to avoid a particular person.

Sometimes Dodgeball informants were not avoiding a particular person, but still using Dodgeball to eliminate potential places to socialize. For example, Enid suggests that sometimes she used Dodgeball to avoid a particular social scene:

Sometimes you get a text message that everybody's someplace and maybe you're getting tired and don't have enough energy to deal with it. So you're like, 'Maybe we'll go somewhere else.' Like it's too much and you just want to be in a mellow place. (Enid, New York City)

When Enid was tired, she wanted a place to relax with a friend rather than going to a loud bar. Using Dodgeball, she could tell ahead of time what the scene at a particular venue may be like based upon the check-in messages that she received. In this case, being familiar with the social scene at a particular place led to avoidance rather than congregation. As these examples indicate, the spatial practice associated with Dodgeball use was highly contextualized and dynamic. Based on the situation, the familiarity with various urban spaces could lead to very different social decisions and movement through the city.

Discussion

Sheller (2004) argues that there is great value in exploring the complexity and messiness of the interconnections between physical space, mobile communication and people. Therefore despite examining the use of a mobile social network, I have tried to maneuver around understanding Dodgeball as network per se. By focusing on the everyday spatial practices of Dodgeball members, I have tried to show how the same technology can be used to both facilitate and avoid sociality in urban public spaces. While some have suggested that mobile communication technologies contribute to blurring the boundaries between public and private (Hoflich, 2006; Puro, 2002; Sheller, 2004; Sheller and Urry, 2003), Lofland's (1998) concept of 'parochial' becomes an alternative lens through which to understand the complexity of privacy and publicness as it relates to urban communication and spatial practices.

One of the goals of this project was to explore the role of spatial practice in mobile social networks and in doing so introduce a discussion of space into social network site

research as well as into computer-mediated communication research. Despite a 25-year history of computer-mediated communication research, the role of physical and social spatial practice has been relatively neglected in the field.⁴ Much of the excitement about computer-mediated communication was with its ability to overcome time and space (Castells, 2000; Poster, 1990; Wellman et al., 2003); however, temporal and spatial issues certainly still influence communication and interaction. New communication technologies may have changed the spatial and temporal boundaries, but mediated communication is still shaped by locational and sociospatial factors. Wilken (2008: 47) argues for the need to examine ‘the way that mobile media influence and shape places and place experience, and the way that mobile phone use is integrated into the flows of everyday life’. This study was an attempt to begin to answer such questions.

In this article, I have suggested that Dodgeball allows for the exchange of social and locational information to encourage a shift from public to parochial realms by facilitating familiarity and commonality among members in public space. Since realms are socially defined, there is nothing inherent in the physical (or virtual) spaces that makes them public or parochial. Dodgeball informants exchanged information so that they could triangulate social maps of their friend networks, whereupon they would know some of the social relations within a particular urban place before they arrived. The process of parochialization could be used in alternative ways as well. Information exchanged through Dodgeball was used to avoid particular locations or people. The complexity of social interaction and spatial practice is highlighted through the study of the everyday use of mobile social networks.

The parochialization of public realms through mobile social networks is an important development because, as Lofland (1998) suggests, many technologies have contributed to a ‘privatism’ of urban space. Technological developments such as phones, sewage, water and heating systems, improved mail delivery, vehicles, etc., have ‘made the withdrawal from participation in the public realm a genuine option’ (Lofland, 1998: 144). Mobile social networks like Dodgeball can *encourage* a participation in the public realm by relying on and simultaneously showcasing the aesthetic pleasures of the public realm including public sociality, unexpectedness and crowding (Lofland, 1998). Mobile social networks are not fundamentally changing who is interacting with whom in public spaces, but the process of parochialization suggests subtle and important changes in the ways that mobile social network users may be experiencing and engaging in and with urban space.

Perhaps then one of the roles of mobile social media is to make the urban environment seem less cold and anonymous. Rather than mobile social networks helping people to find the love of their lives or their new best friend, a more plausible and realistic role for this technology may be just to make the public social life of the city more familiar. That said, it is important to note that the use of mobile social media is only among a relatively small group of elite early adopters. Mobile social networks will not entirely change the urban environment for all people. But for those who do use it, they may experience the city in new ways.

The role of Dodgeball and other mobile social networks in facilitating social connectivity, however, raises important questions about the potential social insularity that may

also arise from using these systems. Both Thom-Santelli (2007) and Crawford (2008) warn that mobile social software can lead to homophilous tendencies rather than extending and bridging social circles. Parochialization occurred among groups of Dodgeball users, not among all inhabitants of the particular public spaces. While I found that Dodgeball informants did meet new people when using the service, the kinds of people they met were friends of friends and tended to be similar to themselves in terms of demographics such as age and education. Dodgeball has been found to encourage social molecularization (Humphreys, 2007), whereby users move about the city in collective groups. Future research should empirically examine whether this insularity is endemic to Dodgeball, mobile social networks, or social media more broadly.

This study suggests several other research trajectories. Since this study began, other mobile social networks such as Loopt and Google Latitude have emerged and it would be important to examine if parochialization occurs on these other networks. In light of the continued growth of social network sites (boyd and Ellison, 2007), future research might also examine if parochialization extends to the mobile applications of these sites and explore whether these services encourage the exchange of information to provide a sense of familiarity for users in urban spaces.

The concept of social realms (Lofland, 1998) may be extended to examine social media more broadly. Rather than understanding public and parochial realms as physical territories in cities that are characterized by their social relations, one might broaden realms to include online spaces. Thus, much like third places (Oldenburg, 1991) have been extended to online games (Steinkuehler and Williams, 2006), one might argue that the allure of some online spaces may be understood through the concept of parochial realms. For example, perhaps Facebook can be understood as a parochial realm, that is, a site of familiarity and comfort because of the social relations found therein. Future research should continue to explore how socio-spatial metaphors can extend understandings of new media.

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Notes

- 1 URL (consulted 27 March 2009): <http://www.google.com/latitude/intro.html>
- 2 A comparison of the text messages collected with the self-reported usage from the same study participants conveyed similar usage patterns, indicating that at least these users did not misrepresent their Dodgeball usage in the interviews.
- 3 All names, excluding Dennis Crowley's, have been changed to protect the confidentiality of the study participants.
- 4 A noted exception to this is the discussion of cyberspace as a spatial concept (e.g. Barbatsis et al., 1999; Mitra and Schwartz, 2001); however, these discussions are not grounded in the spatial practice of everyday users.

References

- Barbatsis, G., M. Fegan and K. Hansen (1999) 'The Performance of Cyberspace: An Exploration into Computer-mediated Reality', *Journal of Computer-mediated Communication* 5(1), URL (consulted Oct. 2008): <http://www3.interscience.wiley.com/cgi-bin/fulltext/12083777/HTMLSTART>
- Becker, H. (1998) *Tricks of the Trade: How to Think about Your Research While You're Doing it*. Chicago, IL: University of Chicago Press.
- Benner, K. (2005) 'Google Plays Dodgeball: Search Giant Acquires Text Message-based Social Network Service as it Moves to Compete with Yahoo!', 12 May, URL (consulted Mar. 2009): http://money.cnn.com/2005/05/12/technology/google_dodgeball/
- boyd, d.m. and N.B. Ellison (2007) 'Social Network Sites: Definition, History, and Scholarship', *Journal of Computer-mediated Communication* 13(1), URL (consulted Mar. 2009): <http://www3.interscience.wiley.com/cgi-bin/fulltext/117979376/HTMLSTART>
- Carr, S., M. Francis, L.G. Rivlin and A.M. Stone (1992) *Public Spaces*. Cambridge: Cambridge University Press.
- Castells, M. (2000). *The Rise of the Network Society* (2nd edn). Malden, MA: Blackwell.
- Certeau, M. de (1984) *The Practice of Everyday Life*, trans. S. Rendall. Berkeley: University of California Press.
- Crawford, A. (2008) 'Taking Social Software to the Streets: Mobile Cocooning and the (An)Erotic City', *Journal of Urban Technology* 15(3): 79–97.
- Ellison, N., C. Steinfield and C. Lampe (2007) 'The Benefits of Facebook "Friends": Exploring the Relationship between College Students' Use of Online Social Networks and Social Capital', *Journal of Computer-mediated Communication* 12(4), URL (consulted Mar. 2009): <http://www3.interscience.wiley.com/cgi-bin/fulltext/117979349/HTMLSTART>
- Giddens, A. (1991) *Modernity and Self-identity: Self and Society in the Late Modern Age*. Stanford, CA: Stanford University Press.
- Glaser, B.G. and A.L. Strauss (1967) *The Discovery of Grounded Theory: Strategies for Qualitative Research*. New York: Aldine de Gruyter.
- Goffman, E. (1963) *Behaviors in Public Places: Notes on the Social Organization of Gatherings*. New York: Free Press.
- Goffman, E. (1971) *Relations in Public: Microstudies of the Public Order*. New York: Harper and Row.
- Hoflich, J. (2006) 'The Mobile Phone and the Dynamic between Private and Public Communication: Results of an International Exploratory Study', *Knowledge, Technology and Policy* 19(2): 58–68.
- Humphreys, L. (2007) 'Mobile Social Networks and Social Practice: A Case Study of Dodgeball', *Journal of Computer-mediated Communication* 12(1), URL: <http://jcmc.indiana.edu/vol13/issue1/humphreys.html>
- Ling, R. and B. Yttri (2002) 'Hyper-coordination Via Mobile Phones in Norway', in J. Katz and M. Aakhus (eds) *Perpetual Contact: Mobile Communication, Private Talk, Public Performance*, pp. 139–69. Cambridge: Cambridge University Press.
- Lofland, L.H. (1998) *The Public Realm: Exploring the City's Quintessential Social Territory*. New York: Aldine de Gruyter.
- Lofland, J., D. Snow, L. Anderson and L.H. Lofland (2006) *Analyzing Social Settings: A Guide to Qualitative Observation and Analysis* (4th edn). Belmont, CA: Wadsworth Publishing.
- McCarthy, A. (2001) *Ambient Television: Visual Culture and Public Space*. Durham, NC: Duke University Press.

- Maxwell, J.A. (1996) *Qualitative Research Design: Interactive Approach*. Thousand Oaks, CA: Sage.
- Meyrowitz, J. (1985) *No Sense of Place: The Impact of Electronic Media on Social Behavior*. New York: Oxford University Press.
- Mitra, A. and R.L. Schwartz (2001) 'From Cyber Space to Cybernetic Space: Rethinking the Relationship between Real and Virtual Spaces', *Journal of Computer-mediated Communication* 7(1), URL (consulted Oct. 2008): <http://www3.interscience.wiley.com/cgi-bin/fulltext/120837831/HTMLSTART>
- Oldenburg, R. (1991) *The Great Good Place: Cafes, Coffee Shops, Community Centers, Beauty Parlors, General Stores, Bars, Hangouts and How They Get You Through the Day*. New York: Paragon House.
- Poster, M. (1990) *The Mode of Information: Poststructuralism and Social Construct*. Chicago, IL: University of Chicago Press.
- Puro, J.P. (2002) 'Finland: A Mobile Culture', in J.E. Katz and M. Aakhus (eds) *Perpetual Contact: Mobile Communication, Private Talk, Public Performance*, pp. 19–29. Cambridge: Cambridge University Press.
- Shannon, V. (2008) 'Mobile War Over Social Networking', *International Herald Tribune.com*, 6 March, URL (consulted Oct. 2008): <http://www.ihf.com/articles/2008/03/05/technology/wireless.php>
- Sheller, M. (2004) 'Mobile Publics: Beyond the Network Perspective', *Environment and Planning D: Society and Space* 22(1): 39–52.
- Sheller, M. and J. Urry (2003) 'Mobile Transformations of "Public" and "Private" Life', *Theory, Culture & Society* 20(3): 107–25.
- Steinkuehler, C. and D. Williams (2006) 'Where Everybody Knows Your (Screen) Name: Online Games as Third Places', *Journal of Computer Mediated Communication* 11(4), URL (consulted Mar. 2009): <http://www3.interscience.wiley.com/cgi-bin/fulltext/118554174/HTMLSTART>
- Terdiman, D. (2005) 'MoSoSos Not So So-So', *Wired* 3 March, URL (consulted Oct. 2008): <http://www.wired.com/culture/lifestyle/news/2005/03/66813>
- Thom-Santelli, J. (2007) 'Mobile Social Software: Facilitating Serendipity or Encouraging Homogeneity?', *IEEE Pervasive Computing* 6(3): 46–51.
- Townsend, A. (2000) 'Life in the Real-time City: Mobile Telephones and Urban Metabolism', *Journal of Urban Technology* 7(2): 85–104.
- Wellman, B., A. Quan-Haase, J. Boase, W. Chen, K. Hampton and I. Isla del Diaz (2003) 'The Social Affordances of the Internet for Networked Individualism', *Journal of Computer Mediated Communication* 8(3), URL (consulted Sep. 2008): <http://jcmc.indiana.edu/vol8/issue3/wellman.html>
- Wilken, R. (2008) 'Mobilizing Place: Mobile Media, Peripatetics, and the Renegotiation of Urban Places', *Journal of Urban Technology* 15(3): 39–55.
- Zukin, S. (1995) *The Cultures of Cities*. Cambridge, MA: Blackwell Press.

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