Mobile social media: Future challenges and opportunities

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Abstract
This article explores the future research opportunities and challenges of mobile social media. First, I problematize what constitutes the boundaries of mobile social media. Distinctions between location-based mobile social networks and non-location-based mobile social networks are established to suggest that the mobility of social media is in fact much broader than location alone. Second, several key theoretical questions are identified for future exploration, including micro, meso, and macro-level theories. Lastly, methodological challenges and opportunities are reflected upon and culminate in the call for multi-disciplinary programs of research to fully understand the role of mobile social media in the world today.

Keywords
Methodology, mobile social media, mobile social networks, social media, theory

To understand mobile social media, we need to look back before we can look forward. One of the first mobile social media commercially developed was the Lovegety in Japan (Iwatani, 1998; Reuters, 1998). The Lovegety was a stand-alone device that would fit in the palm of the hand and beep when it was within 5 meters of another device. There were “pink girl” devices and “blue boy” devices each with three settings: “let’s chat,” “let’s karaoke,” or “get2.” The devices beeped and flashed green when two co-located devices were on the same setting (e.g., both devices were set to “let’s chat”). The devices would beep and flash red when they were on different settings. According to one account, users would turn down the volumes, hide the devices, and pretend they did not have a device if they did not like the looks of the other Lovegety user (Iwatani, 1998).

There were two kinds of information exchanged using the Lovegety. First, it exchanged information regarding the identification of people who were interested in using a mobile device to meet other people; second, it exchanged information regarding what kind of social interaction each person was looking for. The information exchanged was rather
simplistic, but it allowed people to have interactions with strangers in public spaces mediated by mobile devices without divulging personal identifying information, such as mobile phone numbers or even names.

The example of the Lovegety highlights several important points about contemporary mobile social media. First, the fact that was an independent device seems odd in today’s mobile phone and app-centric environment. The smartness of mobile phones may vary, but the centrality of the device itself in the contemporary media landscape has shifted dramatically from the time of the Lovegety in the late 1990s. The mobile phone is the medium of choice, globally outpacing PC use more than three to one (ITU, 2011).

Second, the Lovegety was not GPS-based, nor even network-based. Its connectivity was based on proximity, not locality. Today some mobile social networks are location-based, but some are not. Nevertheless, the locality in which media is consumed can be a factor in where and how people use mobile social media. Indeed even if the term “mobile” disappears from our descriptions of mobile media usage, the mobility of media production and consumption may indeed still impact practices and flows of communication.

Lastly, the Lovegety was primarily meant to introduce new people; however, it was not always used to do so. While some mobile social media introduce new people, this is often a secondary purpose (Frith, 2012; Humphreys, 2007; Lindqvist, Cranshaw, Wiese, Hong, & Zimmerman, 2011). Some of the most interesting and suggestive moments in research about mobile social media are those seemingly at the edges of use. For example, Halegoua, Leavitt, and Gray (2012) explore the practice of Foursquare jumping where Indonesian users check in to locations where they have actually never been.

**Redrawing boundaries of mobile social media**

Mobile social media can loosely be considered software, applications, or services accessed through mobile devices that allow users to connect with other people and to share information, news, and content. The challenges of drawing boundaries of mobile social media are twofold. First, what is and is not social media is blurring as social media tools are increasingly integrated into various aspects of mediated communication (Lüders, 2008). Second, what is considered mobile communication technology is also changing. As we move from mobile phones to smartphones to tablets to netbooks to laptops, we are changing both mobility and computing power not categorically, but in terms of degrees. Thus strict definitions are not always helpful because new advancements will often change what is considered inside or outside of these boundaries. Nevertheless, we can begin to identify different kinds of services such as (micro) blogs like Twitter, social network sites like Facebook, wikis like Wikipedia, video or photo sharing services like YouTube and Flickr, recommendation services like Yelp, and location-sharing services like Foursquare, which all might be categorized as falling under the umbrella of mobile social media.

While five years ago there were clearer distinctions between mobile and online social media, increasingly we’re seeing these blurring. Early mobile social media were primarily designed for a mobile device and emphasized the presumed mobility of users in the design, often through location-based services: that is, services where information presented to users is based on their physical locality (Sutko & de Souza e Silva, 2011;
Wang & Canny, 2006). Dodgeball (Humphreys, 2007), Foursquare (Frith, 2012; Lindqvist et al., 2011; Schwartz, forthcoming), Loopt, and Brightkite (de Souza e Silva & Frith, 2010; Sutko & de Souza e Silva, 2011) are examples of such location-based mobile social networks. Location-based systems that help users find services in the geographical landscape (e.g., Yelp) can also involve social networking components. However, mobile social media do not have to be location-based. Cross-platform social media, like Twitter and Facebook, raise the question about what exactly is and isn’t mobile media. When does mobility matter and when does it not? Both Facebook and Twitter have specific location-based functionalities (check-ins and locating Tweets), but that does not define their mobile presence. Indeed according to Facebook (Protalinski, 2012), of the 901 million active monthly users, 488 million of them used Facebook through a mobile device – either a phone or a tablet. Increasingly people are accessing social media on mobile devices. These are not necessarily location-aware services, nevertheless accessing such media on mobile devices may involve the mobility of users and services in various ways. Much of the research on mobile social networks has centered on the location-based mobile social networks (e.g., de Souza e Silva & Frith, 2010; Erickson, 2009; Frith, 2012; Humphreys, 2007, 2010, 2011; Lindqvist et al., 2011).

Non-location-based mobile social media have not been widely examined. There are also mobile location-based services that would not necessarily be considered mobile social media, such as Google Maps or logistical systems for large-scale transportation services. Just as we need to study non-location-based social media, we also need to understand location-based communication systems beyond the scope of social media. It is my hope that this journal will become a home for exploring the boundaries and practices regarding many different kinds of mobile media and communication.

**Little devices, big questions**

Several important theoretical questions arise regarding the changing nature of mobile social media. First, how do mobile social media reflect and refract the culture that produces and consumes such a technology? Second, reoccurring questions about power and equality need to be directed at mobile social networks. How do offline power structures become re-produced in mobile social media? How are gender, class, and religious difference re-produced in mobile social media? What are the institutions that shape the economic, technological, and social structures of mobile social media? On a micro level, how do we see social identity performed through mobile social media? What is the changing nature of social interactions through and around mobile social media? To answer these questions, we could draw on a variety of theoretical frameworks. To varying degrees, they all assume a social shaping of technology approach (MacKenzie & Wajcman, 1999), which suggests that a variety of technical, social, economic, cultural, and political factors influence the role and impact of mobile social media.

For many in the developed world, our internet use started out on a computer and moved to a mobile phone; however, globally, more people will be accessing the internet through a mobile device than through a desktop or laptop computer. When people access the internet with their phones, unsurprisingly, they often use social media (Donner & Gitau, 2009). This may fundamentally change the way to think about what
the internet is and what it can do. Much of the adoption and appropriation research about mobile social media is based on people who started out on a computer and moved to a mobile phone (e.g., Frith, 2012; Humphreys, 2007, 2010). In the next five years, many people will be coming online for the first time through their mobile devices and chances are they will be using social media. Questions regarding social identity, communication patterns and flows, economic and social development, political and civic participation, privacy and surveillance, and processes of cultural production should be carefully explored.

Affordance theory (Graver, 1991; Norman, 2002) might suggest that one of the reasons why mobile social media is so compelling is because the means of media production, distribution, and consumption are on the same device. People can take a photo or video with their phone and send it out to their friends, who can then get it on their phones. Through mobile social media like Facebook, Twitter, or YouTube, it can spread faster than just texting a message to contacts. In places like South Africa, it’s cheaper to send a message via mobile social media, like MXit, than it is to send an SMS (Donner & Gitau, 2009). From a video of a baby taking her first steps to one capturing political abuses or illicit polling practices, the fact that cameraphones are increasingly accessible means that we can capture and share these small and large momentous events quickly and easily. As such, mobile social media can both accelerate the rate of exchange and broaden the potential audience of such messages.

**Empirical challenges and opportunities**

One of the challenges of studying mobile social media is access to users and content. Despite the prevalence of mobile devices in the world, recruitment of mobile social media users can be difficult. Privacy concerns may lead many users to close off public access to their mobile social media use. As such, recruitment can be challenging. Additionally, we know little about the content produced and consumed through mobile social media. Research from Pew’s Project for Excellence in Journalism (Mitchell, Rosenstiel, & Christian, 2012) suggests that people are increasingly accessing news through mobile social media. As Boase (2013, in this issue) points out, how we collect this data and define the analytical tools for studying mobile social media content are not yet readily determined.

These same challenges, however, may also present methodological opportunities. Increasingly, mobile phones are multi-media devices that allow for various kinds of data to be captured. From an empirical perspective, if we could gain access to all of the communication exchanged on a mobile phone, from voice to text to email to social media, we could begin to reveal larger patterns and flows across the various modes of communication. This could reveal important insights into communicative practices more broadly. Log data from mobile phones are beginning to be analyzed by social scientists (e.g., Boase & Ling, 2011), but this is a relatively new arena of research. While mobile social media may generate interesting data, we need to be cautious. Even if we can collect lots of data, we must continually ask ourselves what is missing when interpreting our findings. As boyd and Crawford (2011) and Boase (2013, this issue) suggest, just because we can collect the data does not mean it is the ethical thing to do. We need to think carefully
about what our data represent as well as what kinds of claims and inferences we can make from them.

Mobile social media also lend themselves to mixed method studies as well, particularly those that combine social network analysis or log data with interpretive work. While mixed methods are not always possible within studies, it can be helpful to think about mixed methods research programs more broadly. Hopefully this journal becomes a home for qualitative and quantitative studies of mobile social networks. In addition to empirical studies, we must draw on historical, discursive, and critical approaches to studying mobile social media in order to situate its role more broadly in society. It is my hope that this journal becomes an intellectual home for careful scholarship of a variety of paradigmatic approaches and methodologies in order to deepen our collective understanding of the role and impact of mobile social media globally.

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**References**


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Lee Humphreys (PhD, Annenberg School for Communication at the University of Pennsylvania) is an Assistant Professor in the Department of Communication at Cornell University. She studies the social uses and perceived effects of communication technology. Her research has explored mobile phone use in public spaces, emerging norms on mobile social networks, and the privacy and surveillance implications of location-based services. Her recent scholarship tries to historicize social media into a broader context of communication practices. Often using qualitative field methods, she focuses on how people integrate communication technology in their everyday lives in order to facilitate identity management and social interaction.