Mobile social network platforms (MSNPs) are social network sites (SNSs) (boyd & Ellison, 2007) that are accessed predominantly on mobile devices and gain new meaning through locative and mobile features. As of March 2013 more than half (751 million) of Facebook’s overall users (1.11 billion) access the service on a mobile device each month (Espinosa, 2013). MSNPs are the second most popular use of a smartphone, following requests for directions (Zickuhr, 2012). MSNPs have arisen from a convergence of SNSs, the Internet and mobile devices, or what Lee Rainie and Barry Wellman call the “triple revolution” (2012). The technology used to access MSNPs on mobile devices varies (Humphreys, 2013). Generally they are accessed through a mobile phone using a web browser or a specialty “app” (mobile software application). In the case of the “Facebook for Every Phone” effort, Facebook is accessed on feature phones, which are inexpensive cell phones that provide basic functionality for dialing numbers, playing games and storing contacts but lack the storage capacity, speed and features of “smart phones” such as the iPhone. The mobility and constant contact connectedness of MSNPs presents a significant shift from SNSs as “web-based services” used for presenting one’s identity and traversing social connections (boyd & Ellison, 2007, p. 211). The current chapter summarizes the
developments leading to current mobile social network platforms and addresses how these platforms represent a fundamental shift from desktop-based paradigms. Following this discussion, three particular characteristics of mobile social network platforms are considered: constant contact, the importance of place, and locational privacy. I will address particular issues of societal concern that emerge from devices being embedded into existing routines and habits, and will offer directions for future research. Mobile social network platforms (MSNPs) emerged from the convergence of social network sites (SNSs) and location-based social networks (LMSNs). SNSs are desktop-based websites that started in the late 90s and allow individuals to “construct a public or semi-public profile… articulate a list of other users… and view and traverse their list of connections” (boyd & Ellison, 2007, p. 211). LMSNs peaked in popularity in the late-2000s and are mobile applications that are composed of networks, are formed through mobile usage, and leverage location to provide functionality not possible on desktop computers (de Souza e Silva & Frith, 2010, p. 487). The LMSN Foursquare, for example, structures activities around “check ins” to locations, enabling users to see people and places around them on a map. While LMSNs presented a range of unique functions, they failed to gain a sufficient user base and advertising revenue, and most failed or were acquired by 2011 (Goggin, 2011). The companies behind SNSs were better financially and technically situated to gradually introduce mobile-specific features to a larger user base and take advantage of a gradual shift towards mobile devices. Thus, many of the features of LMSNs – geo-tagging, mobile image uploads, and “check-ins” – are now available on apps for MSNPs.

MSNPs such as Facebook and Twitter present a meaningful shift from desktop-based versions in several ways. First, they have shifted functionality from a focus on
“profiles” as online identity on SNSs (Hinduja & Patchin, 2008; Jones, Millermaier, Goya-Martinez, & Schuler, 2008; Magnuson, 2008; Thelwall, 2008) to a constantly changing stream of information in the form of status updates and messages (Marwick, 2013). These features often mimic functionality of previous online media. Friends can reply to status updates leading to conversations springing up around particular topics similar to message boards. Facebook messaging is an anytime-anywhere tool that can be employed synchronously or asynchronously, similar to instant messaging services or SMS “texting.” Mobile social media are adopted on a mass scope and serve various “post mass media functions” of communication between individuals, communities and groups (Lemos, 2010).

Second, these functions of MSNPs connect individuals constantly with ego-centric social networks – depending on the platform, either based in shared history (friend and family) or shared interests – that are constantly in motion. While not all individuals who are on MSNPs are logged in on mobile devices, the switch to a mobile device is seamless. The default location for anyone logged into an SNS used to be at a confined set of locations: home, work, school, and perhaps at a coffee shop. The role of MSNPs in maintaining relationships likely has both positive and negative effects on psychosocial well-being based on changing contexts and locations. Communication on desktop-based SNSs helps to maintain relationships (Steijn & Schouten, 2013) and provide social support (Vitak & Ellison, 2012). It seems likely that a shift towards mobile versions enables a wider variety of social and instrumental support, such as asking for advice during a doctor’s visit or posting pictures of friends immediately during a gathering. More on the negative end, the notion of “fear of missing out” describes the persistent feeling by
individuals that when they put down their mobile social media they are neglecting vital
opportunities to socialize.

Third, the mobile nature of MSNPs introduces new types of habits among this
larger social network. Mobile media are frequently used for coordinating activities (Ling &
Yttri, 2002; Ling, 2004) and congregating in particular locations (Humphreys, 2010;
Rheingold, 2002), activities which were not possible with desktop computers. Locative and
mobile social networks (LMSNs) (de Souza e Silva & Frith, 2010, 2012; Hjorth, 2012)
such as Foursquare encourage the creative re-use of public space. In these ways MSNPs
disrupt easy compartmentalization of “online” and “offline” (Jurgenson, 2012;
Papacharissi, 2005). In retrospect, “cyberspace” may have been the wrong metaphor for
online sociality, as we are not transported to a different plane of existence when we use
technology. Rather, time is fractured and we use mobile media across various devices and
services throughout the day for just long enough to do what we want. For example, we are
now acclimated to use our mobile devices for five minutes while standing in line at the
grocery store. The frame of interaction shifts to one of networked individualism (Wellman,
1998, 2002) where people are constantly communicating with their networks through an
always-on connection (Licoppe, 2004).

Given that mobile social network platforms are a convergence of social networks
accessed on mobile devices, the current literature on SNSs and locative and mobile social
networks (LMSNs) are examined to consider the role MSNPs play in relationship
formation and maintenance. In the following sections I will draw from three academic
lineages: computer-mediated communication (Walther, 2011), micro-social studies in
mobile communication (Smith, 2013), and social-psychological research on social network
sites (boyd & Ellison, 2007). These three interdisciplinary clusters help illuminate areas of current academic interest as well as potential areas for problematic interactions in domains involving mobile social networking.

Social Network Sites

Social network sites (SNSs) are “web-services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system” (boyd & Ellison, 2007, p. 211). MSNPs go beyond “web-based services” with features that are accessed on mobile (smartphones, tablets), semi-mobile (laptops). As previously mentioned, mobile media also extend the reach of services from relatively immobile (desktops) computing devices. The constructing of a profile has been significantly downplayed in favor of communication that can be used synchronously or asynchronously, such as messages and status updates on a news feed. Finally, traversing a list of connections has become not as important as the content that comes through those connections.

MSNPs have become general-purpose socialization portals more closely linked in various ways with offline life. By late 2009 the number of SNS users had risen to 47% of American adults and 73% of online teens (Lenhart, Purcell, Smith, & Zickuhr, 2010), signaling a shift in usage towards the mainstream. Facebook, in comparison to competitors such as MySpace, emphasized features built around user’s ego-centric network of known friends and family rather than “strangers” not met offline (Hampton, Goulet, Rainie, & Purcell, 2011). By early 2010 Facebook had edged out MySpace, which focused on media experiences such as television and music, and increasingly leveraged networked data sets to
increase user interactions and advertising revenue. A wealth of SNSs in other countries exist, such as RenRen in China (Zhao & Jiang, 2011) and Orkut, which is popular in Brazil and India. However, their evolution to MSNPs in non-western contexts remains understudied. Moreover, social networking is increasingly integrated into various platforms. Tumblr, for example, maintains a stripped-down interface and focuses on multimedia blogging on top of a social networking back-end where members can follow each other and repost media.

Social-psychological research on SNSs can generally be grouped into antecedents/effects of usage (Anderson, Fagan, Woodnutt, & Chamorro-Premuzic, 2012), parental relationships (Rosen, Cheever, & Carrier, 2008), gender (Magnuson, 2008; Thelwall, 2008), and identity formation (Hinduja & Patchin, 2008; Jones et al., 2008; Magnuson, 2008; Sauter, 2013). Sociology has focused on the creation, maintenance, and dissolution of social relationships through social capital (Steinfeld, Ellison, & Lampe, 2008; Wellman, Haase, Witte, & Hampton, 2007), and online communities (Reich, 2010). Sociological researchers often employed social network analysis on unobtrusive datasets retrieved from application programming interfaces (APIs) or “crawled” in a manner similar to search engines (Lewis, Kaufman, Gonzalez, Wimmer, & Christakis, 2008).

Blanket conclusions about the antecedents and effects of SNSs are difficult due to near ubiquitous usage (Espinosa, 2013), varying cultural contexts, and multiple types of SNSs. However, some basic practices can be noted. SNSs are important for instrumental purposes and for providing and receiving social support (Steijn & Schouten, 2013; Vitak & Ellison, 2012). They exist as an important site of social contact and sharing (Livingstone, 2008). While increased self-disclosure has been observed on SNSs, it is impacted by audience
size, diversity, and user privacy concerns (Vitak, 2012). Although SNSs were popular among youth early on (boyd & Ellison, 2007), they have gained mainstream acceptance. The most feared types of online-offline relationships (e.g. kidnapping, solicitation) early on were found to be extremely rare (for a summary see Schrock & Boyd, 2009). Less sensational but still troubling activities exist, many of which currently show conflicting results. For example, early findings show that use leads to increased psychological well-being (Ellison, Steinfield, & Lampe, 2007), but more recently concerns have emerged that they users engage in comparisons with others leading to decreased happiness (Haferkamp & Kramer, 2011; Sueur et al., 2013). Communication on SNSs can be considered as a kind of paradox (Kraut et al., 1998; Kraut & Crawford, 2002) that requires further longitudinal research to connect individual psychologies and activities to societal ills and pro-social benefits.

**Locative and Mobile Social Networks**

Locative and mobile social networks (LMSNs) leverage location and social networks to deliver location-specific experiences such as making visible services and social contacts around users. Interest in mobile social media began in earnest when GPS signals, previously limited in accuracy due to security concerns, were made more accurate by the Clinton administration in 2002. The first wave of locative media came from artists and hobbyists such as geocachers and artists (Farman, 2012; Willis, 2010; Zeffiro, 2006). Cell phone based games such as Sweden's *Botfighters* used GPS location as a variable for virtual battles in urban space. Generally these early uses were more performative and experimental than functional and service-based. More overt focus on local networks began over the time period of 2005-2009, driven by Google's focus on geolocative services and
the rise of smartphones (Wilken, 2012). Locative and mobile social networks (LMSNs) emerged during this time starting with services such as Dodgeball, where users would text their location and receive a message in response about local venues and people around them. It was also the first service to offer “check-ins” to specific locations. Dodgeball was founded in 2000, acquired by Google in 2005, and dissolved in 2009. Many similar LMSNs were founded between 2007 and 2010, including Gowalla and Whrrl but few survived to the current day. The two Dodgeball founders—Dennis Crowley and Alex Rainert—left Google in 2007 and went on to create Foursquare, which is now the dominant LMSN with 45 million registered users.

The introduction of the “smartphone,” particularly Apple’s iPhone in 2007 (Burgess, 2012) and an app development environment shortly after, signaled the interest of businesses in social experiences in urban spaces. The industry terms for LMSN is social, locative and mobile (SoLoMo). Both terms capture the underlying connectivity (social network), movement (mobile), and encounters within space (locative). The important technological shift driving both is location – coordinates that can be collected from satellites and used to connect local users to everything from retail establishments to individuals seeking romantic encounters (Crooks, 2013).

Visualizations of space figure prominently into the history of LMSNs. Location-based social networks “map social networks on physical space” (Sutko & de Souza e Silva, 2011, p. 4) and are also described as a kind of “hybrid space” (de Souza e Silva, 2006) where digital information intersects with the physical. Mobile communication scholarship has focused on bridging behaviors, often through map visualizations, that lead to new social relationships, particularly in urban spaces. LMSNs thus are generally thought to
assist in the reinforcing of relationships and the forming of new ones (Campbell & Kwak, 2010; Humphreys, 2010; Luke, 2005; Wilken, 2010). Someone walking by a bar may use an app that displays a map of potential friends inside and decide to join them, for example.

In this regard, mobile scholars are interested in urban communication that arises from a combination of communication and proximity in a pluralistic society (Park, 1915; Wirth, 1938).

New practices that have emerged on LMSNs include coordination (Humphreys, 2012), congregation (de Souza e Silva & Frith, 2012; Humphreys, 2011; Rheingold, 2002), and “geo-tagged” posting of media (Gordon & de Souza e Silva, 2011; Humphreys & Liao, 2011). However, initial interest in locative and mobile social networks may have overstated the degree to which location drives industry monetization strategies and user practices with mobile applications and services. Location by itself has not proven to be a powerful driver of social services, and MSNP have eclipsed both user adoption and practices. For example, although 74% of smartphone owners used their phone to get real-time location-based information in 2012, only 10% had used a service such as FourSquare. In response to pressures to monetize, Foursquare moved its focus away from “gameified” check-ins and toward relationships with local vendors. Locative tagging proved easy to integrate with existing platforms such as Facebook and Twitter, reducing the uniqueness of LMSNs as specialty services. Individuals still have privacy fears, particularly of others being able to see their location (Humphreys, 2011). Locative media also implicitly assumed that there was a feature that, when combined with location, led to a kind of flâneurism (Luke, 2005). In this vision, individuals stroll the streets simply for the thrill of being seen and socializing with others. While LMSNs will continue to occupy a niche in the mobile marketplace, on
the whole, users have not found these services particularly fun or useful. As will be
described below, larger ego-centric networks cultivated by Facebook and other SNSs
present a host of different practices that align better with users.

Mobile Social Network Platforms

Mobile social network platforms (MSNPs) combine the accessibility and mobility
of LMSNs with the networked interactions possible on SNSs. They are multifunctional,
ubiquitous, and serve to reinforce or create relationships. While much research has been
conducted on LMSNs and SNSs separately, their convergence is understudied (Humphreys,
2013). This is a surprising omission, given the fascination among mobile communication
scholars with the rise of services on the mobile Internet (Goggin, 2011). I use the term
platform (Gillespie, 2010) to more productively focus on the combination of mobile media
and social networks—social affordances (Wellman et al., 2006)—rather than overstating
the importance of one device or other. For example, a MSNP may be accessed through a
smartphone-based software application (or “app”), mobile website, or even feature phone.

A move to MSNPs opens up questions about other ways larger ego-centric social
networks are integrated into everyday interactions on the mobile Internet. First, individuals
can better provide social support at a distance because they are more connected to a
diversity of contexts. A computer would be impractical to use while on a bus, while waiting
at a hospital, or while walking down a street. Second, proximity, the main attraction of
LMSNs, still likely plays a central role in MSNPs, even as location is downplayed. LMSNs
used maps of individuals’ locations as a central feature, but this triggered fears of privacy
or were tied to features that people did not care for (such as check-ins). Other modes of
users signaling proximity include implicit cues (“I’m home”) or micro-coordination that
results from reporting of small movements (“Let’s meet in the food court instead”) while in persistent contact, leading to physical assembly (Rich Ling & Yttri, 2002; Ling, 2004). Third, MSNPs are not separate from everyday life, but layered on top of it (de Souza e Silva, 2006). This may be a fun experience, as when friends share a particularly spicy status update while sitting together, or it can be quite dangerous, in the case of switching attention to and from a device while driving (Bayer & Campbell, 2012). Finally, media creation and viewing on mobile devices allows media (pictures, movies and audio) to flow seamlessly to and from networked services.

Facebook’s struggles in negotiating mobile experiences provides a lens through which to view the transition from SNSs to MSNPs as part of a mainstream mobile society. Facebook started to produce a mobile app starting with Blackberry “smartphones” and grew to 63 million mobile users by 2009. While Facebook is guarded about publishing official statistics on growth of specific mobile platforms, a loophole allowed growth to be estimated between December, 2011 and November, 2012. Android apps increased from 66 to 193 million monthly average users while iPhone apps went from 91 to 147 monthly average users during the same period (Constine, 2013). As of June 2013, 819 million people, or well over half the 1.15 billion user base, access Facebook through a mobile device. Facebook’s interest in mobile advertising revenue (Wilken & Sinclair, 2009a, 2009b), has considerably helped its valuation. Facebook accessed on a mobile device is, unlike “geo-locative” services such as FourSquare, not only defined by location. That is, you are not more likely to see posts by a neighbor just because she is closer by. Experiments with Facebook features such as “find friends nearby” resulted in objections among users, particularly due to privacy concerns (Lunden, 2012). Locative tagging is
treated as one of many features rather than the only one. Humphreys (2013) recently observed that the scholarly focus on location as the central inroad to mobile communication meant that “non-location-based mobile social media have not been widely examined” (p. 22). While location may be employed through “check-ins” on MSNPs, this may primarily be popular among a minority of early adopters. Location can also be collected in other ways, such as detecting coordinates from image file headers and mentions of approximate location (at the city level) in status updates.

Emergent Issues on Mobile Social Network Platforms

Mobile social network platforms present a number of emergent issues. More than simply leading to more usage, mobile presents opportunities for fundamentally different experiences.

Constant Contact

The roots of constant social contact during everyday life can be traced to early work on Keitai in Japan among early adopters of the mobile Internet. Matsuda (2005) described how youth exhibited “selective sociality” with peer groups over mobile devices resulting in a “sense of being in psychological contact twenty-four hours a day” (p. 30). Mobile media provide a constant “connected presence” (Licoppe, 2004) where “copresent interactions and mediated distant exchanges seem woven into a single, seamless web” (p. 135). In other words, mediated and face-to-face interactions comprise relationships. Although mobile media is increasingly popular, Facebook users have met more than 89% of friends offline more than once (Hampton, Goulet, Rainie, & Purcell, 2011). Licoppe (2004) suggests stylistic differences as well, as maintaining mediated relationships at a distance requires “frequent small gestures” (p. 150) that tend to be more phatic (Malinowski, 1923) than
informational. Mobile media fit into a continuous conversation in which each mediated interaction “reactivates, reaffirms, and reconfigures the relationship” (p. 138). Connected presence was successively used to describe negotiations of proximity (Licoppe, 2009), pragmatics of intimate relationships (Arminen & Weilenmann, 2009) and communication patterns of family members (Christensen, 2009). This symbolic interactionist and constructivist perspective differs from prevailing psychological notions of presence (Schroder, 2006) or automaticity (Bayer & Campbell, 2012).

MSNPs appear to be used for multiple types of activities related to maintaining relationships. Mobile devices are particularly embedded in everyday life from the moment of waking up to going to sleep at night. If the metaphor of the “social network site” in 2007 was the profile, the current one is the status update broadcast across news feeds (Marwick, 2013).

Importance of Place

History is littered with predictions of the negative effects of electronic media on place. According to many scholars, electronic media lead to time-space compression (Harvey, 1990) and even onerous “non-places” such as airports (Augé, 2008). Joshua Meyrowitz promoted the idea that we lose our “sense of place” with electronic media, referring to loss of contexts for interaction (Goffman, 1959). Danah boyd, in a similarly neo-Goffmanian argument, described “context collapse” on SNSs—the combining of multiple groups for interaction into a single audience. Further, boyd notes how the online environment exacerbates problems of privacy and identity, as “in mediated spaces, there are no structures to limit the audience” (boyd & Ellison, 2007, p. 132). Context collapse generally stipulates that information being seen by unintended parties results in negative
psychological effects and the attenuation of one’s self. However it has been criticized for assuming a dichotomy between online and offline, and a deterministic perspective on the impact of technical features (Beer, 2008). Communication research describes how online and offline are not separate entities (Baym, 2009; Papacharissi, 2005), and practices – rather than social affordances of platforms alone – impact subsequent effects.

Research from mobile communication describes how the complexity of mobile practices and social affordances of devices can have both positive and negative effects. On the positive side, practices with mobile media can imbue places with meaning and add a layer of sociality to physical spaces. Places can have emotional meaning to individuals (Canter, 1977; Gustafson, 2001; Manzo, 2005). Geo-tagging, a method of attaching location to particular media, can “allow users to create place-based narratives and engage in identity management” (Humphreys & Liao, 2011, p. 407). Ample interest in LMSNs clusters around proximity, or the ability to perceive those around you, resulting in interpersonal congregation (Rheingold, 2002) and creation of publics (de Souza e Silva & Frith, 2012; Sheller, 2004; Sheller & Urry, 2003). More negatively, scholars have long observed how mobile devices such as iPods encourage privatization, as they can be used to isolate one’s self from others in public spaces (Bull, 2011). MSNPs exist alongside in-person interactions and can even compete with them, as “the social life of public space now competes with media technology that shifts interaction inward” (Kleinman, 2007, p. 19).

In retrospect, Meyrowitz’s conclusions were too general (Kubey, 1992) and too deterministic (Williams, 2003). Place matters quite a bit for actions on mobile social networks that rely on proximity and mapping. Acknowledging a spatial dimension to online social networks provokes further questions about public and private life (Sheller & Urry,
2003) that are less about visibility of messages and more about the strategic use of mobile media to negotiate and augment interactions. For example, individuals carefully use mobile devices to separate work from home life, but are more forgiving in using them during family time (Wajcman, 2008). Foursquare users hold normative beliefs about how much cheating on check-ins is acceptable (Germaine, Leavitt, & Gray, 2013). Contrary to predictions, place has not been obliterated and has become increasingly important for negotiating online social relationships.

Locational Privacy

Solove (2008) described privacy as a pluralistic concept best considered within a framework of four general types that outline the current problem areas: information collection, information processing, information dissemination and invasion. Other perspectives include behavioral (Margulis, 2003) and related to law or policy (e.g. Brandeis’ assertion that privacy is a right). From an individual perspective, people constantly negotiate privacy as a dynamic and dialectical process (Palen & Dourish, 2003). Beliefs about privacy are also linked to culture (Hall, 1966), behavioral norms, age group and cohort. A completely private or public life is impossible, so privacy is a kind of “balancing act” or negotiation between self and other (Altman, 1975). A challenge of considering privacy in online social networks is that normative beliefs about proper conduct are often not visible until that they are violated (boyd, 2008). The paradox here is that individuals easily consent to giving information away, but are frequently surprised when it is used in ways they would not endorse (Barnes, 2006). These combinations of factors make it difficult to predict what will be an unsettling experience for a particular person (Nippert-Eng, 2010; Nissenbaum, 2011). Moreover, existing “notice-and-consent”
models of obtaining permission to collect and store user data are poorly understood and arguably ineffective (Nissenbaum, 2011). The use of these data for targeted advertisements is even more confusing, involving vast advertising networks, tracking mechanisms, and industries (Turow, 2011). Helen Nissenbaum’s notion of contextual privacy (2010, 2011) focuses on contexts of violations, as defined by specific roles, activities, norms and values. Using this framework we can observe that individuals have quite different activities on mobile media and expectations about how reachable they are during these activities.

Privacy on LMSNs has been interpreted by users primarily as interpersonal rather than institutional (Humphreys, 2011; Marwick, 2012). In other words, they are mostly concerned with who can see their location and rarely understand the larger scope of data reuse and surveillance by corporations (Trottier, 2012). Most mobile users are surprised to hear about the way their locational data are collected and used by companies, and frequently object to the practice when asked (Fox, 2008). Users organize in response to over-reaches (boyd, 2008; Fernback, 2012) and change privacy settings to varying degrees (boyd & hargittai, 2010). While the number of privacy violations on mobile social network platforms is unknown, several high-profile cases can be pointed to. Significant violations, such as the unlawful gaming of the mobile web browser Safari to track users that resulted in a $22.5 million fine against Google (Albanesius, 2012), show how companies can often outpace legal regulation. Privacy controls tend to be rudimentary, while other applications appear to collect information without their users’ knowledge, such as by accessing contact information on address books.

Locational privacy, then, refers to how location is a special variable of concern on mobile devices (de Souza e Silva & Frith, 2012) related to fears of being seen or even
stalked by unknown others. The ability to sense and view (and be sensed and viewed) is no longer circumscribed by the built environment, and mobile devices can be used in a variety of situations. Simply put, it is not currently known how often users post their location on MSNPs, although many are reluctant to share location information. Location slowly made its way back into mobile Facebook through the “Nearby” feature, which was eventually reduced to being a resource for local retail establishments similar to Yelp.

Discussion

MSNPs such as Facebook have received scant attention in the literature, yet they signal the first major shift in online social networks: a move from social networks being confined to the desktop to ubiquitous mobile presence. I have drawn on the concept of a platform (Gillespie, 2010) to refer to a relatively consistent experience and feature set across multiple devices that engenders constant contact (Katz & Aakhus, 2002; Licoppe, 2004), blurring of place (Cresswell, 2006; Dourish, 2006; Wellman, 2001), and issues of locational privacy (de Souza e Silva & Frith, 2012; Humphreys, 2011). Overall concerns for this shift have been organized for researchers and society at large.

Research Implications

Future research agendas on antecedents of and effects from socialization through online communication should account for mobile practices and platforms. MSNPs have arisen from a combination of the massive connectedness of SNSs, mobility of mobile devices, and locative functionality of LMSNs. They are entering a phase of mainstream adoption (Rogers, 1995) and are embedded in everyday habits (Richard Ling, 2012) among average Americans. A simple online-offline dichotomy (Papacharissi, 2005) is no longer the most accurate perspective for researching social media.
Mobile communication scholars have generally relied on qualitative methodologies (Büscher, Urry, & Witchger, 2011), illuminating the multifarious ways individuals strategically use mobile devices. They focus on descriptive research and outline various cultures and situations. However, few comparative studies exist that synthesize and test claims. In other words, mobile scholars “are not as engaged in systematically examining ways to probe, test, replicate, represent and generalize knowledge about mobility” (D'Andrea, Ciolfi, & Gray, 2011, p. 156). This dearth stands in contrast to rigorous work in computer-mediated communication (CMC) on interpersonal topics such as intimacy, self-disclosure, and trust (Walther, 2011) that is in-depth but tends to neglect mobility. Micro to macro linkages (Collins, 1983), whether theoretical or empirical, remain scarce. That is, mobile communication research has illuminated both individual habits and societal problems, but little to connect the two.

New developments in instrumentation provide inroads to address the above theoretical issues and suggest synergies with psychology and communication. Unobtrusive techniques based on mobile apps promise more accurate and granular data collection (Boase, 2013; Boase & Ling, 2013) than typical survey items such as user estimates of use (Anderson et al., 2012). Twitter’s public API provides access to communications that can be retrieved and analyzed. These do not substitute for all self-reported data, such as relational satisfaction. However, they can enable more accurate predictions about relational outcomes. The scope of interactions on MSNPs and conflicting predictions regarding mobile communication also suggests a need for longitudinal data collection. For example, early proclamations of the Internet being related to negative effects related to social
involvement and psychological well-being dissipated over three years (Kraut et al., 1998; Kraut & Crawford, 2002).

**Societal Implications**

The shift toward mobile and social media relate to the most pressing questions of society’s integration of technology into the fabric of everyday life. MSNPs are the first significant shift in SNSs in the last decade. Scholars should be sensitive to these shifts without succumbing to the allure of the new (Marvin, 1988) or resorting to familiar tropes (Pool, 1982). Ample predictions exist on the emancipatory potential of SNSs and mobile devices (Benkler, 2007), as well as how they can distance us emotionally and physically from each other (Turkle, 2011). The combination of social media and mobile devices provokes a deeper consideration of the complex interplay between location, individual psychology, device affordances, networked interactions, and cultural context. This final section delves into specific debates around the impact of MSNPs for problematic uses.

**Tele-Cocooning.** Social networks (Christakis & Fowler, 2007) and how we attend to them (Hogan, 2009) have emerged as powerful predictors of behavior. One troubling prediction about MSNPs is that they will encourage “tele-cocooning” (Ito et al., 2005) or an over-reliance on an existing social networks in urban space. If we carry our networks with us everywhere, we may rely on them rather than interact with new locations and individuals. This also encourages further homogeneity in network composition, because “urban space becomes … a comfy echo-chamber of our own (commodified) profiles and those of our familiars” (Crawford, 2008, p. 81). This is particularly worrisome to mobile communication scholars that are interested in chance meetings that arise from the urban environment (see de Souza e Silva & Frith, 2012; Humphreys & Liao, 2011; Wilken,
2010). One result of tele-cocooning may be “fear of missing out” (FOMO)—the consumption of overly positive statements made through MSNPs resulting in a persistent feeling that others are enjoying life more than you. While it is currently unclear whether FOMO is a new trend, as a social phenomenon it speaks to the pervasiveness of MSNPs in everyday life. MSNPs are not just nice to have, but negative responses to their removal signal a dependency on them, because “the use of mobile phones by a critical mass of people facilitates the smooth functioning of everyday life” (Ling, 2012, p. 3).

**Behavior in Public Space.** Norms of behavior with mobile social media in offline social situations are still emergent (Srivastava, 2005). Behavior in public spaces initially followed a displacement narrative. Rheingold (2002) noted a shift from voice to more data-dependent uses in how Tokyo residents were “staring at their mobile phones instead of talking to them” (Rheingold, 2002, p. xi). Push notifications can demand our attention, literally coming between in-person relations (Ling, 2008). However, successive research revealed further complexities. Mobile devices can also be shared locally and media observed together. Brown, Green and Harper (2002) noted two forms of sharing: minimal sharing of content, and hands-on sharing where the phone was passed among youth. Acceptance of sharing phones relates to contextual privacy concerns, such as who is asking and type of application (Karlson, Brush, & Schechter, 2009). SMS texting follows similar “turn taking” as do conversations (Relieu, 2009).

**Problematic Usage of MSNPs**

Research on online harassment among youth has focused on distinctions between “schoolyard” bullying and the home environment (Beran & Li, 2007; Burgess-Proctor, Patchin, & Hinduja, 2009; Kowalski, Limber, & Agatston, 2007; Li, 2007; Patchin &
Hinduja, 2006). MSNPs contribute to a blurring of place, making these distinctions permeable boundaries where parties are not always in the same place or communicating synchronously. Literature on “Internet addiction” has generally focused on online services (Byun et al., 2009; Ng & Wiemer-Hastings, 2005; Young, 1996), while problematic use of mobile phones has proceeded separately focusing on mobile devices (Billieux, 2012; Billieux, Van der Linden, & Rochat, 2008; Park, 2005). MSNPs combine device and service in increasingly powerful mobile devices that facilitate access to internet services, provoking the need for a synthesis of which factors contribute to problematic overuse.

Conclusion

MSNPs are a meaningful shift in social media that combine the ego-centric networks of SNSs, mobility of devices, and locative features of LMSNs. Constant contact, place, and privacy gain new dimensionalities as individuals employ mobile media for a range of activities that complicate earlier practices. Additionally, from a business perspective, mobile media has emerged as a central factor in platform monetization. Mainstream adoption of MNSPs has shown that early predictions about mobile media were exaggerated. For example, users on the whole do not take part in more creative types of consumption (flâneurism) or relish interactions with new parties (“strangers”) in urban space. In fact, quite the opposite can be observed: the egocentric networks and controllable locative disclosure of MSNPs are a primary reason they were adopted over LMSNs, which were focused on locative functionality (such as check-ins) and triggered privacy concerns among users. These services will likely still continue but remain of niche interest. Future research on online social media should focus on mobility as a default for many users and be innovative with their methodologies and application of theory to capture flows of data.
Particular care should be paid to the more onerous possibilities, such as mobile cocooning, as MSNPs are adopted across cultures and geographic boundaries.

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