SERENA HASHIMOTO*
SCOTT CAMPBELL**
HPU Honolulu, USA*
UMICH, Ann Arbor, USA**
shashimoto@hpu.edu, swcamp@umich.edu

The Life of Mobile Data: Traces of Self and Other

Abstract

This theoretical investigation explores how mobile data are born out of the negotiation of boundaries between self and other. Drawing from an interdisciplinary body of theory and research, we demonstrate how mobile data have emerged as an ontological entity at the same time that modifications are being made to the concrete positioning between self and other. We suggest that mobile data are composed of fantasies (concerning the other) coupled with the record of activities played out in reality. The two together leave a trace, a record of the self's fantasy of interacting with the other. This fantasy contains both the obliteration of the distinction between self and other as well as the reification of that split. The positions of literature and optical dominance in relating to the other are also shown to be shifting as a result of mobile communication practices. These ramifications and others are examined to illuminate the life of mobile data – their birth, use, and indications.

Keywords: Mobile telephony, mobile data, subject, thing, self, other

With subscriptions now over two billion worldwide (Wireless Intelligence, 2005), mobile telephony has become one of the most widely used communication technologies of modern times. The burgeoning adoption and use of mobile telephony has given rise to profound new social ramifications. Users of the technology are experiencing transformations in how they present themselves (Green 2003; Katz & Sugiyama, 2005; Lobet-Maris 2003; Skog 2002; Strocchi 2003), participate in social networks (Campbell & Russo 2003; Johnsen 2003; Licoppe 2003; Plant 2001; Taylor & Harper 2001), and coordinate everyday life activities (Ling, 2004; Ling & Yttri 1999, 2002). Even non-users are facing social change, as users commonly transform public space into private space during mobile communication in places such as grocery stores, restaurants, and movie theaters (Campbell 2005; Campbell & Russo 2003; Fortunati 2003; Paragas 2003; Ling 1996; Wei & Leung 1999).

All of the implications of mobile telephony discussed so far can easily been seen, quite literally, throughout our changing social landscape. One consequence of mobile communication practices that often lies beyond optical observance, but nonetheless is just as profound, is the rise of mobile data. As people negotiate the boundaries between self and other through mobile communication practices, traces of these activities are constructed, exchanged, and stored in this form of information, which can be used for interaction logs, special billing arrangements, emergencies services, user profiles, and numerous other applications. This paper aims to show how mobile telephony and its use make mobile data ontologically possible. That is, this paper offers a theoretical investigation of the 'life of mobile data' by exploring how identity traces are born out of mobile communication practices.

As we will demonstrate, mobile data have emerged as an ontological entity at the same time modifications are made to the concrete positioning between self and other. Throughout the analysis, we will provide definitions for each of these main concepts in use, but first we begin with a definition for the concept of mobile data itself. According to Grubb and Smith, "A mobile data service is any service on a mobile device other than voice calling."[1] The broad scope of this definition, coupled with the developing nature of the technology, makes the definition as problematic as it is useful. Therefore, we identify here some of the most common forms of mobile data, with the qualification that this list is far from exhaustive. Perhaps the most prominently used mobile data service is Short Message Service (SMS), also known as text messaging. Other popular mobile data services include access to the Internet through platforms such as Wireless Application Protocol (WAP), picture sharing through multimedia messaging (MMS), mobile games, service alerts, ring tones, and location detection through methods such as triangulation between the device and cellular antenna/tower, global positioning system (GPS), and Wireless Fidelity (WiFi) networks.

Mobile data are transmitted over wireless networks using modulated radio frequencies. Traditionally, they were transmitted as a continuous flow of encrypted data over a circuit. However, most carriers have moved away from circuit switch networks to packet networks that arrange data into encrypted packets, which are then transmitted and decrypted by the receiving handset. Although it may sound like a purely technological evolution, the move from circuit switch networks to packet networks is socially significant. Packet networks allow for increased broadband and higher speed transmissions than do circuit switch networks, tying up less network resources for the carrier and allowing consumers to pay for the amount of data they use rather than the time they spend on the network for those services. As a result, mobile data services are faster, cheaper, and more usable for the customer. These network improvements, along with growing consumer demand and product development, are transforming the mobile phone into a device that increasingly acts like a computer, personal stereo, camera, daily planner, and in some cases television set. In other words, these technological developments and, more importantly, their appropriation give rise to the life of mobile data.

[1] Grubb, J. and S. Smith (2004) *Location and Presence in Mobile Data Services.* URL (consulted December 2005): http://www.boxesandarrows.com/view/location_and_presence_in_mobile_data_services.

Our theoretical investigation of this phenomenon draws from empirical findings in the mobile communication literature to help illustrate the nuances surrounding mobile phone use and that of mobile data. Because the scope of this paper encompasses the status of being as such, it also draws from select ontological thinkers. In regards to the identity of the self and other, we demonstrate that use of the mobile phone intensifies the otherness of the other while at the same time works to remove it. This hyper-interaction between self and other is a 'destabilization' of these identities, but it may not be a new practice. The literature included in this study suggests from the inception of self and other, an already tenuous and somewhat fictive division, and efforts are made to both bridge and extend this gap. Through technological mediation what occurs is an exaggeration of an interaction already in place.

While other technologies merit investigation in this same light, we are delimiting our focus of study to the mobile telephone. Demonstrated is how mobile phone use affords the subject the ability to simultaneously seek to reify and dismantle the otherness of the other. The tendency of the subject to engage in this dual practice is a precedent seen previous to new technology, however, the mediation of the mobile phone engenders novel results, not the least of which is experiencing language in an alternate manner that may indicate previously un-chartered terrain. This destabilizing process begins with our most fundamental reference point, the other. Troubling the position of the other is a necessary starting point to the later discussion of subject and thing. The coming to being of the self and other is a priori to the distinction between subject and thing in that the relationship of the former reverberates to that of the latter.

Destabilizing the Identities of Self and Other

We employ a psychoanalytic framework for the purposes of investigating self and other. Lacan's (1977) account of the birth of subjectivity in the 'mirror stage' has been widely influential in both psychoanalytic and postmodern circles. Lacan described a scenario where the infant, between the ages of six to eighteen months, becomes captivated by its own image in the mirror. Previous to this recognition the infant has lacked a sense of totality, the body has been experienced as a series of parts. As Weber wrote, "The jubilant reaction of a child who has recognized its mirror-image is a sign not of the recognition of the subject's identity but of its constitution."[2]

However, the thrill of recognition is accompanied by feelings of aggressivity in that the child finds itself split—that is 'me,' but 'I' am over there. The infant's recognition of self is only possible as the self takes the guise of the other, a figure standing apart from and looking back at the self. The relationship the infant has with its own image is described by Lacan as the following;

> The mirror stage is a drama whose internal thrust is precipitated from insufficiency to anticipation—and which manufactures for the subject, caught up in the lure of spatial identification, the succession of phantasies that extend from a fragmented body-image to a form of its totality that I shall call orthopaedic—and, lastly, to the assumption of the armour of an alienating identity, which will mark with its rigid structure the subject's entire mental development.[3]

And so, the forming of subjectivity is dependent upon the infant internalizing its mirror image. This internalized image of a coherent body, or *imago*, aids in the emergence of the ego. The infant repetitively remembers the body as its mirror-image, simultaneously aiding in the maintenance of the ego and splitting it through its portrayal of the self as other. This generates the inherently ambivalent reaction the infant has to its image (and to the other), where it experiences joy at the portrayal of bodily coherence and displeasure that this coherence is displaced.

The ambivalent relationship that the infant has with its image of self *as* other is also indicative of the relationship between self *and* other. The self desires to overcome the otherness of the other, to achieve the abilities that the self as other displays. At the same time the self wants to maintain otherness, less its integrity of selfhood is lost. The infant, at the point of the 'mirror stage,' is beginning to conceptualize that it has discrete bodily boundaries and wishes to reinforce the difference between self and other. Self then, is being birthed in opposition to the other. Indeed, this is an imperative project in that a certain confusion could easily take place if the dichotomy is not insisted upon. As Ronell wrote, "… the relation to the other is 'older' than selfhood … If all reference take place by way of detour through an Other, the self to be itself is traversed, deposited in the Other, reappropriated to itself by some fundamental impurity."[4] Her description of the impurity associated with the birth of selfhood underscores the importance of keeping the two categories separate. Self, basically hybrid, must assert a fiction of autonomy in order to maintain its integrity. But in that this autonomous self is somewhat fictive, an element of it always seeks its own undoing (as in the death drive) in order to experience the jouissance that the Other represents.

A factor to more closely consider in the Lacanian account of the birth of subjectivity is the role that vision plays. As with other elements in this scenario, vision is distinctly ambivalent. Its ability to grant the child euphoria at the sight of a distinct self is coupled with the frustration of the dislocation of that sense of wholeness. Furthermore, the previous experience of the infant's fusion with the mother was aided by the child's inability to delineate between objects. This experience lies fresh in a nearby memory. The acquisition of a more matured ability to see incites the loss of the maternal body as undistinguished from the child's body. The child enters into the new arrangement of self and other at the price of a more intimate bodily experience. The child now sees its separation from the other, the seeing being a determining factor in the maintenance of the split. It is therefore a small step to assume

[2] Weber, S. (1990) *Return to Freud: Jacques Lacan's dislocation of psychoanalysis*. trans. Michael Levine. Cambridge: Cambridge University Press, pp. 12-13.
[3] Lacan, J. (1977) 'The mirror stage' *Ecritis*: *A selection*. trans. Alan Sheridan, New York: Norton, p.4.
[4] Ronell, A. (1989*) The Telephone Book*. Lincoln: University of Nebraska Press, p. 85.

that the loss of this 'seeing as delineation' would be equated with a return of a more intimate rapport with the other. With this framework in place, we now turn to theoretical insights on the role of mobile telephony in the negotiation of self and other.

John Peters (1999) has argued that since the late 19th century, the ideal of communication in Western civilization is that of *pure communication*, which refers to the interplay between self and other toward a merging of minds in order to achieve a perfect connection. According to Peters (1999) the ideal of pure communication became a driving force in the development of modern communication technologies, such as telephony. That is, communication technologies were developed in order to overcome the barriers that stand between self and other, such as time, space, and flesh. During the very first telephone call, Alexander Graham Bell said to Thomas Watson, 'Come here, I want you.' According to Peters, "this utterance is the symbol and type of all communication at a distance – an expression of desire for the presence of the absent other."[5] Like the thinkers discussed above, Peters regarded this model for a direct connection as fantasy, arguing that pure communication, as an ideal, is doomed for failure. He explained,

> Our sensations and feelings are, physiologically speaking, uniquely our own. My nerve endings terminate in my own brain, not yours. No central exchange exists where I can patch my sensory inputs into yours, nor is there any sort of 'wireless' contact through which to transmit my immediate experience of the world to you.[6]

Peters suggested that rather than approaching communication as the union of self and other, it is more pragmatic to regard it as recognition of and respect for otherness. Still, he sees the ideal of pure communication continuing on.

Peters' thoughts on the ideal of pure communication have been influential in recent theory building for explaining mobile communication practices. Namely, Katz and Aakhus (2002) incorporated the ideal of pure communication as a core assumption of their theoretical perspective of Apparatgeist, advanced to explain patterns in the adoption and use of personal communication technologies (PCTs), such as the mobile phone. Apparatgeist refers to "the spirit of the machine that influences both the designs of the technology as well as the initial and subsequent significance accorded by users, non-users, and anti-users."[7] This spirit is born out of the logic of perpetual contact or the human orientation toward social connection, which "underwrites how we judge, invent, and use communication technologies."[8] Katz and Aakhus argued that the logic of perpetual contact is fueled by the ideal of pure communication. The authors explained,

> The compelling image of perpetual contact is the image of pure communication, which, as Peters (1999) argued, is an idealization of communication committed to the prospect of sharing one's mind with another, like the talk of angels that occurs without the constraints of the body.[9]

In terms of self and other, the ideal of pure communication can be regarded as a disposition toward the removal of otherness in our social relations. The mobile phone offers an opportunity to both reinforce the sense of selfhood and dismantle the otherness of the other. Certain usage of the technology contribute to the destabilization of the relationship between self and other through the pursuit of pure communication, leaving behind identity traces in the form of mobile data. This 'image of pure communication' can especially be seen in socially expressive uses of the mobile phone.

Also known as 'hypercoordination' (Ling & Yttri 1999, 2002), expressive uses of the mobile phone include employing it for self expression and self presentation. Adolescents are particularly known for their expressive use of the technology in an effort to remove otherness through demonstration of social network membership (Johnsen 2003; Ling & Yttri 1999, 2002; Taylor & Harper 2001). For example, teens frequently send text messages that on the surface appear to be void of any meaning whatsoever, but in reality this exchange of mobile data carries important messages about social fellowship and, hence, social identity (Johnsen 2003; Licoppe 2003). In fact, teen peer groups have been known to develop their own special language and characters when text messaging – a practice that heightens the sense of belongingness to one's peer group (Taylor & Harper 2001), thereby reducing the gaps between self and other, while at the same time demarcating the boundaries that exclude network membership to others.

As Ronell suggested, such use of telephony destabilizes the identity of self and other. Self cannot exist without a fundamental reference to the other, yet according to Apparatgeist and the ideal of pure communication, certain uses of the technology are aimed at removing the otherness of the other. Here it is conjectured that this aim is driven in part by the memory of a more intimate postnatal/presubjective experience, an experience predicated on a lack of discerning vision.

Freud offered an analysis of childhood memory that is useful in analyzing mobile data as trace elements of the interaction between self and other. In 1899 Freud wrote a paper entitled 'Screen Memories' that hypothesized a type of memory found in certain childhood recollections. These memories delineate themselves from more normative memories in that they are particularly vivid but with no obvious meaning, such as Freud's recollection of a girl in a yellow dress. In this memory, the yellow of the dress stands out with an unusual vividness. Freud

---

[5] Peters, J. (1999) *Speaking into the Air: A History of the Idea of Communication.* Chicago: University of Chicago Press, p. 180.
[6] Ibid., p.4.
[7] Katz, J.E. and M.A. Aakhus (eds.). (2002) *Perpetual Contact: Mobile Communication, Private Talk, Public Performance.* Cambridge: Cambridge University Press, p. 305.
[8] Ibid., p.307.
[9] Ibid., p.307.

believed that these 'screen memories' contain in them all of the crucial information from childhood in a coded form. What is needed is a way to decode the information, to extract the data. He believed that 'screen memories' were compromised formations assembled from repressed and displaced fantasies as well as 'memory-traces.' The term 'memory-traces' is used to denote the portion of the recollection which holds with it a direct relation to material reality. Warner (1986) wrote that, "… the memory-trace (also) gives us access to a certain wealth: it insists with the specificity of its shape and tone so as to mark each person with memory; this chain of single marks of memory confers a sense of being oneself – of being this one self, and no other."[10] In this way, psychoanalysis sees memory as a chain of signifiers, or as Lacan put it, something is memorable only when it is registered in the signifying chain (Lacan 1977). Interesting in this account of memory is the concept of a compromise formation made up of trace elements (correlative to reality) and fantasies. In this way, the construction of the 'screen memory' is fixing into placement fantasies. Conjectured in this paper is that mobile data are also composed of fantasies (concerning the other) coupled with the record of activities played out in reality as such. Formed through this combination is a trace, a record of the self's fantasy of connection with the other. Contact information stored in one's handset, characters exchanged during text messaging, call records, and voice mail are all examples of the traces left behind in the pursuit of this fantasy, which involves both the obliteration of the distinction between self and other as well as the reification of that split.

Conclusion

Our paper has suggested that mobile data are resultant of the negotiation of boundaries between self and other. We see these attempts at removing otherness through hypercoordination as leaving behind electronic traces in the form of mobile data. Drawing on Freud's account of 'screen memories', mobile data are hypothesized as being composed of fantasies (concerning the other) coupled with the record of activities played out in reality as such. This combination leaves a trace, a record of the self's fantasy of interacting with the other. Contained in this fantasy is both the obliteration of the distinction between self and other as well as the reification of that split.

References

Campbell, S.W. (2005) 'Acceptable Mobile Phone Use in Public: The Effects of Location and Behavior,' manuscript submitted for publication.

Campbell, S.W. and T.C. Russo (2003) 'The Social Construction of Mobile Telephony: An Application of the Social Influence Model to Perceptions and Uses of Mobile Phones within Personal Communication Networks', *Communication Monographs* 70(4): 317-334.

Fortunati, L. (2002) 'Italy: Stereotypes, True and False', in J. Katz and M. Aakhus (eds.) *Perpetual Contact: Mobile Communication, Private Talk, Public Performance*, pp. 42-62. Cambridge: Cambridge University Press.

Freud, S. (1959) 'Screen Memories', *Collected Papers, vol 5*, trans. Joan Riviere, pp. 52-72. New York: Basic Books, Inc.

Gergen, K.J. (2002) 'The Challenge of Absent Presence', in J. Katz (ed.), *Machines that Become Us: The Social context of Communication Technology,* pp. 227-41. New Brunswick, NJ: Transaction Publishers.

Green, N. (2003) 'Outwardly Mobile: Young People and Mobile Technologies', in J. Katz (ed.), *Machines that Become Us: The Social Context of Communication Technology,* pp. 201-18. New Brunswick, NJ: Transaction Publishers.

Grubb, J. and S. Smith (2004) *Location and Presence in Mobile Data Services.* URL (consulted December 2005): http://www.boxesandarrows.com/view/location_and_presence_in_mobile_data_services.

Katz, J.E. (ed.) (2003) *Machines that Become Us: The Social Context of Personal Communication Technology.* New Brunswick, NJ: Transaction Publishers.

Katz, J.E. and M.A. Aakhus (eds.) (2002) *Perpetual Contact: Mobile Communication, Private Talk, Public Performance.* Cambridge: Cambridge University Press.

Katz, J. E. & Sugiyama, S. (2005). Mobile phones as fashion statements: The co-creation of mobile communication's public meaning. In R. Ling & P. Pedersen (Eds.), *Mobile communications: Re-negotiation of the social sphere* (pp. 63-81). London, UK: Springer.

Lacan, J. (1977) 'The mirror stage' *Ecritis*: *A selection*. trans. Alan Sheridan, pp. 1-7. New York: Norton.

Licoppe, C. (2003) 'Two Modes of Maintaining Interpersonal Relations through Telephone: From the Domestic to the Mobile Phone', in J. Katz (ed.), *Machines that Become Us: The Social Context of Communication Technology,* pp. 171-86. New Brunswick, NJ: Transaction Publishers.

Ling, R. (1996) 'One Can Talk about Common Manners!: The Use of Mobile Telephones in Inappropriate Situations', Research Report 32/1996. Kjeller, Norway: Telenor Research and Development.

Ling, R. (2004). *The Mobile Connection: The Cell Phone's Impact on Society.* San Francisco: Morgan Kaufman.

Ling, R. and B. Yttri (1999) 'Nobody Sits at Home and Waits for the Telephone to Ring: Micro and Hyper-coordination through the Use of the Mobile Phone', Research Report 30/99, Kjeller, Norway: Telenor Research and Development.

[10] Warner, W. (1986) *Chance and the Text of Experience: Freud, Nietzsche, and Shakespeare's Hamlet*. Ithaca and London: Cornell University Press, pp. 52-53.

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.

Lobet-Maris, C. (2003) 'Mobile Phone Tribes: Youth and Social Identity', in L. Fortunati, J. Katz and R. Riccini (eds.) *Mediating the Human Body: Technology, Communication, and Fashion,* pp. 87-92. Mahwah, NJ: Lawrence Erlbaum.

Love, S. and J. Kewley (2003) 'Does Personality Affect Peoples' Attitude Towards Mobile Phone Use in Public Places?', paper presented at the Front Stage/Back Stage: Mobile Communication and the Renegotiation of the Social Sphere Conference, Grimstad, 22-24 June.

Peters, J. (1999) *Speaking into the Air: A History of the Idea of Communication.* Chicago: University of Chicago Press.

Ronell, A. (1989*) The Telephone Book*. Lincoln: University of Nebraska Press.

Skog, B. (2002) 'Mobiles and the Norwegian Teen: Identity, Gender, and Class', in J. Katz and M. Aakhus (eds.) *Perpetual Contact: Mobile Communication, Private Talk, Public Performance,* pp. 255-73. Cambridge: Cambridge University Press.

Taylor, A.S. and R. Harper (2001) '*Talking "Activity": Young People and Mobile Phones',* paper presented at the CHI 2001 Workshop: Mobile communications: Understanding Users, Adoption, and Design, Seattle, 1-2 April.

Warner, W. (1986) *Chance and the Text of Experience: Freud, Nietzsche, and Shakespeare's Hamlet*. Ithaca and London: Cornell University Press.

Weber, S. (1990) *Return to Freud: Jacques Lacan's dislocation of psychoanalysis*. trans. Michael Levine. Cambridge: Cambridge University Press.

Wei, R. and L. Leung (1999) 'Blurring Public and Private Behaviors in Public Space: Policy Challenges in the Use and Improper Use of the Cell Phone', *Telematics and Informatics* 16: 11-26.

Wireless Intelligence. (2005). *Wireless intelligence: Market data and analysis on the global wireless industry.* Retrieved October 18, 2005 from https://www.wirelessintelligence.com/Index.aspx