

**Location-Based Moblogging as Method:  
New Views into the Use and Practice of Personal, Social, and Mobile Technologies**

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**Introduction**

Much of the public discourse and research on mobile media has focused on how they disrupt the integrity of locations such as restaurants, movies, and public transportation, or are an unwanted presence during times when people are physically co-present. In addressing these issues, research has tended to focus on a specific device—the mobile phone—as the central player in new practices of communicating and accessing information while on the go. Our prior work was also focused on mobile phone based communications (Ito and Okabe 2005; Okabe and Ito 2005; Okabe 2004), but here we take a somewhat different view of mobility and urban experience. We examine not just the mobile phone, but the whole range of portable objects that people use to interface with people and environments.

This paper reports on a recently completed study in Tokyo where we tracked young professionals' use of portable objects. By examining devices such as music players, credit cards, transit cards, keys, and ID cards in addition to mobile phones, this study seeks to understand how portable devices construct and support an individual's identity and activities, mediating relationships with people, places, and institutions. In this, our approach is person and activity centered rather than device centered. What kinds of social and informational activities does an individual engage in when moving about different urban environments and between home and work? How are these activities supported and enabled by portable objects?

This study is part of a broader research agenda that queries the role of portable technologies in constructing “technosocial” settings and activities (Ito and Okabe 2005). Portable ICTs are attractive to users because they are personalized and always at hand. The growing reliance on portable ICTs is related to a shift away from stable and pre-defined social groupings of family, community, and workplace towards more distributed and flexible structures of person-centered relationship management. Barry Wellman (1997) has discussed this shift in terms a rise of “networked individualism,” and Misa Matsuda (2005) has similarly theorized the growth of “selective sociality” with the advent of mobile communications. Mobile voice and text have been important factors in “personalizing” people's relationships with urban space, providing telecocoon (Habuchi 2005) and “full-time intimate communities” (Nakajima et al. 1999). What has received less attention are the more instrumental urban relationships that are being managed by portable devices. Young urbanites now carry a wide range of object with them: the mobile phone that tethers them to friends and family; keys and ID cards that provide access to workplaces and services; point and stamp cards that document specific transactional identities; and prepaid cards for microtransactions. As more and more functionality becomes embedded in handheld ICTs, these devices are likely to support

this broader range of social articulation work now being managed by cards, keys, and coupons.

After first introducing our study, this paper discusses our research findings in terms of different types of activities that are mediated by portable objects: access, transactions, cocooning, relationship management, and identity management and display.

## **Our Study**

The study reported on here is part of a broader research project that includes similar studies conducted in London and Los Angeles. In this paper, we discuss on the Tokyo findings, where we used a GPS moblogging system, in contrast to London, where we used a paper diary, and Los Angeles, where we used an audio diary system. In all of these settings, we targeted young professionals, aged 21-30 and the objects they carried with them as they engaged in activities outside of the home and workplace. The Tokyo study involved six subjects with an even gender split: five corporate employees (aged 23-24), one graduate student engaged in freelance work (aged 24). The gender split was equal. The data collection was conducted in November 2004.

The study centers on a diary-based methodology, adapted from the “communication diary” studies we have used to study mobile communication and camphone use (Grinter and Eldridge 2001; Ito and Okabe 2005; Okabe 2004). To start, we conducted a pre-interview where the subject showed us and explained all the items in their mobile kit while we photographed the items. We also instructed them on the moblog system and provided them with GPS enabled video/camera phones. Then, for two days, the participants were asked to record each time that they used any item in their mobile kit, by creating an entry in web-based form. They could choose to take a photograph, record a movie, or make a text entry about that instance of use. They were also asked to provide contextual information about who they were with and what object they were using in what way. GPS coordinates, date, and time were automatically attached to the entry on upload. The entries became part of a time-based blog based on Moveable Type software that was viewable by the subject and the research team (Figure 1).

On one of the two days, one or two members of the research team shadowed the subject while they were engaged in an activity outside of home and work. Shopping was the most common activity. The shadowing provided an opportunity for us to observe the broader context of activity and photograph the subject in action. Finally, after the two-days of monitoring, we conducted an in-depth interview using the moblog as a reference point to discuss the details of portable object use.



Discription:

Who:

友人

Item:

Credit Card

Location:

+35.27.03.64

Figure1: Sample entry in our moblog diary system

## **Findings**

We summarize our findings based on different kinds of activities, describing the social roles of the portable objects. Our focus here is on objects that involve interfacing with urban places and service personnel. This paper is meant as a complement to our earlier work on interpersonal mobile communication. Because of our focus on urban interfacing, some categories of objects, such as planners, business cards, cosmetics, food and drink, and writing materials are not taken up here, though they were common elements of people's mobile kits. The objects we focus on are those that in the process of being integrated into portable ICTs and ubiquitous computing systems, (such as the current integration of digital cash micropayments into smartphones).

## Access

Objects used for access comprised a small but crucial component of the mobile kit. These are objects that mediate between public and private space, enabling an individual to access to a location, vehicle or service. Among our six subjects this included keys (for home, office, office locker/cabinet/desk, car, bike) corporate ID cards, an ID card to a university lab and a membership card for a bar. Access, rather than a specific transaction, is the goal of the mediation. Once authenticated, there is no further need for a mediating object and relationships within the accessed space are generally with known others (family and colleagues). Membership bars, video rental shop membership, and hospital/clinic membership are cases of restricted access, but to places frequented by unknown others. Membership cards to these locations include membership/access as well as transactional and relational (see below) dimensions. These objects are often carried in their own container attached to the body, such as in the case of access card worn around the neck or a key chain carried in the pocket (in the case of men).

## Transactions

The most important contents of subjects' wallets were related to financial transactions. These included cash, credit cards, ATM cards, receipts, and prepaid cards for payphones, coffee shops, and public transportation. The number of different cards subjects carried at all times for financial transactions is striking. A typical array of cards would include two credit cards, three ATM cards, a telephone card, two current transit cards, 2-4 old transit cards with only a few yen on them, and a bundle of receipts. Two of our subjects had a Starbucks prepaid card, and another had prepaid drink tickets for a bar. One subject was able to use her corporate ID card at vending machines and shops within her office.

Prepaid cards represented an interesting and growing niche in the toolkit of mobile objects. For small transactions, subjects tended to prefer prepaid cards. This was particularly true in the case of transportation, where the prepaid cards would save the subject a trip to a ticket machine or window. In the case of Suica cards, the technology allows for "hands-free" operation where the card doesn't even need to be taken out of the wallet. This year, Suica cards were integrated with mobile phone handsets in the "mobile Suica" system, but these are not in general use yet. One problem with the earlier generation of prepaid cards (still used for Passnet train cards and telephone cards) is that it is very difficult to use the card down to the last yen. Half the subjects had several old transit cards with just a few yen on them, (Figure 2) that they would have to consolidate at a ticket window in order to purchase a train ticket.



Figure 2: Ten old transportation prepaid cards with only a few yen remaining

Subjects often made choices about the transactional technologies they would use based on ease of use (as with the transit cards) as well as for social and record keeping reasons. One subject described how she tried to use credit cards for larger transactions because then she would have an itemized record of her spending. Most subjects saved the receipts of their credit card transactions so they could check them with their statements. Conversely, another subject described how he almost always carried cash so that it is easy to split the bill for dinner or drinks. This subject and one other described how they would like to have some mechanism for tracking their cash expenditures. The range of options that people have for managing financial transaction is increasingly varied.

### Cocooning

A small number of objects were used to create a private territory within the confines of urban space. These included mobile phones, music players (CD, MP3 players, and ipods), as well as books, newspapers and magazines. Reading material was used in environments such as cafés and public transportation that was not too crowded. Music players could be used in environments that were very crowded. As one subject notes, that “without my MP3 player, crowded trains would be unbearable.” All of the subjects carried some reading material with them and four of them carried a music player.

### Relationship Management

While transactional cards and cash were considered the most crucial components of a wallet, the most voluminous tend to be cards that manage relationships with stores and restaurants (Figure 3). While subject would typically carry about ten transactional cards, they could easily be carrying twice that number of point cards, stamp cards, and coupons. Women tended to carry more of these cards than men. It is difficult now to go to any kind of store and most restaurants without being offered a point or a stamp card.

These types of cards represented an effort to individuate and personalize a relationship with a particular urban location or service, but without the interpersonal overhead of developing a personal relationship with a shopkeeper or bar tender. In many ways, the proliferation of these reward schemes represents a depersonalization and rationalization of the relationship between customers and vendors. The consumer can still

benefit from being a “regular” at a particular store even though they may not be personally recognized by an increasingly interchangeable set of service staff.



Figure 3: Point Cards of the famous electric appliance shops

### Identity Management and Display

As people move about the urban environment, choices of what kinds of transportation to take, where to take their coffee breaks, and what objects they carry are all reflections of particular tastes and identities. The choice of portable objects is one way of embodying these choices, an emblem of “I belong here.” Many, if not most of the objects people carry with them perform a dual function, fulfilling one of the instrumental goals listed above, as well as functioning as a fashion or identity display. Women tended to be more self-conscious than men as to their selection of items such as bags, wallets, and key cases, though one of the men in our study was very conscious of the design of the objects he carried. Although we do not have the space in this paper to describe this dimension of portable objects, we would like to flag its significance. These type of general identity displays a way of broadcasting personal taste and identity to anonymous others in urban space in ways that are not restricted to specific transactions and relationships.

### **Conclusion**

All the above activities entail a relationship between person and object as a way of developing an individuated or personalized relationship to open-ended urban spaces. With the expansion of “smart” and informational portable objects we seem to move towards greater personalization and privatization in interfacing with urban space. The content of our wallets is proliferating, and there is a much more complicated object management task as we displace our interpersonal management onto technologies and objects.

If we consider the trend in the past two decades towards credit cards, phone cards, transit cards, point cards, and stamp cards, we seem to be witness a growing reliance on objects and cards to mediate our relationships to people and places outside of home and work. While mobile communications enable ongoing contact with intimate others, contact with non-intimates is mediated by objects which enable a tailored relationship without the overhead of interpersonal relationships. The portable objects of young

professionals evidences this displacement of social articulation work onto informational portable objects.

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