Emergent Social Practices, Situations and Relations
through Everyday Camera Phone Use

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Introduction

A friend you have not seen for a while, a pet's endearing gaze, Tokyo Tower, a funny-looking stuffed panda, gorgeous parfait at a new café, a classmate who has just fallen into a puddle, a child opening wide for a spooned-in mouthful, or a miniature milk package on an airline tray -- the camera phone makes it possible to take and share pictures of the stream of people, places, pets and objects in the flow of everyday life. Around town, and particularly at tourist spots, the sounds of the camera phone's shutter have become an unremarkable part of the setting.   Although the camera phone has only recently become a fixture in everyday life in Japan, already it feels like a familiar presence.

This paper reports on an ethnographic study of camera phone usage in Tokyo, based on a diary study of usage patterns. First, I briefly describe the current state of camera phone adoption in Japan, and introduce our methodology and conceptual framework for this study.   The body of the paper describes emergent practices of camera phone use in Japan, providing concrete examples from the ethnographic material.

Camera Phone Adoption in Japan

Built-in camera functions are now a popular and accepted add-on to the mobile phone.   The camera phone is part of an overall trend towards non-voice functions in the mobile.   Recent years have seen a shift to email as the dominant modality for mobile communication, now exchanged more frequently than calls in Japan (see e.g., Matsuda, 2005; Okada, 2005). More recently,

this email exchange is coming to include photos and moving images. In October 2000, J-Phone (now Vodafone) launched its first camera-phone handset, the J-SH04, to a skeptical population. In particular, the introduction of a terminal with the "Sha-mail"(photo mail) function by J-Phone in November 2000 changed mobile phone practice, making it possible to send each other photographs with the mobile phone. According to estimates by the Telecommunication Carriers Association (TCA), camera phones comprise over 60% of all mobile phones in use in Japan.　The trend is towards camera phones becoming a standard feature of mobile phones and it is clear that they are here to stay.

Camera phone development has advanced dramatically in a number of areas, particularly in the resolution of images. High-end terminals can reach 2-mega-pixel level, and they might include features such as auto focus, optical zoom, and removable memory card (Kato et al., 2005).　Although research on camera phone usage is still limited, some survey work is indicating certain patterns of usage.　In a multiple-choice survey by japan.internet.com (July 16, 2003), when asked how they used photos taken by their camera phones, almost 90% of respondents answered that they "view them on their handset," followed by "use them as wallpaper for their mobile phone" at almost 60%, with "email them to friends and family" at over 50%, and "upload them to a PC" trailing at 35%.　In a survey of 300 Internet users (men and women between the ages of ten and fifty), japan.internet.com (June 2, 2003), found that 65% reported using a camera phone.　In response to the question, "In what kinds of settings and for what purposes to you actually use the camera function?" the most common answer (75%) was "recording and commemorating moments with family, friends, acquaintances," followed by "recording and commemorating interesting or unusual things in everyday life" (69%) and "travel photos such as of scenery" (39%).

Research Framework

Method

Our own research on camera phone usage is an effort to provide the qualitative and experiential contexts to how these new capabilities are being used.   Our study of camera phones is part of ongoing research on mobile phone use centered at Keio Shonan Fujisawa Campus near Tokyo, by Okabe and Mizuko Ito.   The central body of data behind this paper is a set of "camera phone diaries" and interviews collected between August-September 2003.   This method is an extension of the "communication diary" studies, which are diary-based studies of mobile phone use described in Ito and Okabe (2003) and Grinter and Eldridge (2001).   In our study, the participants noted the time of usage, who they were in contact with, whether they received or initiated the contact, where they were, what kind of communication type was used, why they chose that form of communication, who was in the vicinity at the time, if there were any problems associated with the usage, and the content of the communication for every instance of mobile phone uses, including voice, short messages, email, and web use. In addition to these diary recordings, participants were asked to keep records of photos taken, received, and shared off their mobile phone.   After completion of the camera phone diaries, we conducted in-depth interviews to understand more detailed information about the context of camera phone use.

Our study involved two high school students (aged 17-18), eight college students (aged 19-23), two housewives with teenage children (in their forties), and three professionals (aged 29-34).   Every participant was asked to submit their latest 10 pictures.   All participants resided in the Tokyo Kanto region.

Conceptual Framework

My research on camera phone usage is part of our ongoing investigation into the ways in which mobile media is growing out of existing social practices and in turn, transforming them.   In the case of mobile texting and voice calls, we are currently seeing relatively stable social patterns and norms for social exchange (Ito and Okabe, 2005; Okabe and Ito, 2005).   Camera phone use is still very much an emergent practice, though we are already beginning to see some usage patterns stabilizing. There are indicators of practices of

picture taking and sharing that differ both from the uses of the stand-alone camera and the kinds of social sharing that happened via mobile phone communication (see Kato et al, 2005, Okabe and Ito, 2003).

This paper builds on the conceptual framework developed in our earlier studies, where we have examined new kinds of "technosocial situations" that are emerging through mobile phone usage, where users assemble social situations as a hybrid of virtual and physically co-present relations and encounters (Ito and Okabe, 2005). For example, one key technosocial situation we have identified is "ambient virtual co-presence," where users use text messaging to inscribe a space of shared awareness of one another, sending messages that are primarily designed to keep in touch, rather than to communicate specific bits of information. This paper takes some steps towards extending this framework to the use of camera phones. In the case of visual information, these trends towards social co-presence are stronger in one sense, since people can traffic in more ambient information rather than the more explicit communicative modality of text. On the other hand, we are finding that users tend not to email messages to one another, and prefer to share images by showing pictures of a handset screen.

Although still in flux, I have arrived at some sketches of current kinds of patterns I have observed in camphone usage. These are personal archiving, intimate sharing, peer-to-peer news and sharing. The first might be considered a kind of personal self-authoring practice that is unique to the visual medium of photography. The second two are extensions of the kinds of technosocial situations we have observed in prior forms of mobile media exchange, revolving around the sharing of information among close friends and families. Overall, these uses conform to a more general pattern we have observed in our research towards personal, portable, and pedestrian forms of technology use through the use of handheld devices (Ito, Okabe & Matsuda, 2005). Mobile phones are enabling forms of communication and information access that are closely tied to the everyday, personal, and street-level visions of its users.

Camera Phone Usage Patterns

Personal Archiving

Compared to mobile email, camera phones have a personal collection and archiving function.   Most photos taken by the camera phone are not sent or shown to others, but are captured more as a personal visual archive. Camera phones enable personal visual archiving and authoring, a street level everyday visual viewpoint.

One type of visual capture for personal use is visual note taking.   For example, we saw one user (age 23, female college student) snapping a photo of a job advertisement poster and another taking a picture of the titles of some books she intended to track down in the library (Figure 1).

Figure 1: Recording book titles and publisher information

Okabe: Is this at a bookstore?

Interviewee: Um, it is at a used book district.   Each copy was really expensive, about ¥4000.   I thought "These I will borrow from the library," so this photo is really a memo to myself.   Lately I take photos of things I want to buy.   Like, I want to buy this book.

Okabe: Did you really do that?

Interviewee: Yes, I did look for the book in the library.

This kind of visual note taking is relatively infrequent among the cases we recorded.   When they are no longer needed, these kinds of photos tend to get erased from memory.   A more common practice is to spontaneously take a photo of some scene or viewpoint on everyday life. For example, one 20-

year-old female college student snaps several pictures a day with her camera phone: a really large shell that she found on a beach; a photo of an interesting view from an escalator at a station that she frequents (Figure 2). Dog pictures (Figure 3) were taken by 16-year-old female high school student. She often takes photos of her family pet dog, when it acts cute.

Figure 2: A picture of a large shell (left), and an escalator in the station (right)

Figure 3: Pictures of a cute pet

These photos of mundane scenes are indicative of an emergent practice of visually archiving an individual's everyday life.   These photos are not posed or staged, or particularly well-framed our thought out. Rather, they are snapped casually, with the intention of possibly looking at them a little later, recording a momentary slice of a viewpoint on everyday life.   The following photo (Figure 4) and interview is indicative of this kind of casual attitude towards photo taking (female college student, aged 21).

Figure 4: A photo of a view of Yokohama Bay taken when out with a friend

Okabe: This is the ocean, or rather the bay?

Interviewee: Yes

Okabe: Were you out with a friend, just hanging out and it was like "okay, I'll just snap a photo"?

Interviewee: Yeah, I think we were just hanging out.

Okabe: How casual was the photo?

Interviewee: I was just walking along and thought, oh, this looks nice.

Okabe: And you got your mobile out.

Interviewee: I thought if I snapped it I might remember it just a little later.

Most of the photos that people take are not intended be sent to others. One example we gathered was particularly indicative of this sense of personal visual collecting. In the following interview, a female college student, aged 23, describes a photo she took as an *omamori* (good luck amulet). In Japan, people often carry *omamori* simply to have a trusted spirit close by. This student sees her photo as a similar kind of presence.

Iinterviewee: …There are seven students at that farewell party. I took the photo of my professor's profile while he was talking.

Okabe: Did you send or use this picture?

Informant: No, this photo is just an *omamori.*

Within the broader ecology of personal record-keeping and archiving technologies, camera phones occupy a unique niche. One participant says, "The camera phone is my eye. The personal viewpoint is the most important thing." These are not random photos, but rather are highly personal viewpoints on everyday life that are archived on the small screen. Most of our informants described a unique pleasure in building this personal viewpoint archive. Most of these photos only have meaning to the individual who took them, a quality that makes them even more valuable as a resource for personal identity construction.

Intimate Sharing

The photos described thus far were saved on an individual's handset and were not shared with others. In contrast to personal uses, photo sharing provides a window into the organization of social relations through these new technologies. We are finding that the sharing of photos is related but interestingly different from some of the patterns we have seen with mobile email exchange.

Many noted that sharing photos feels more "intrusive" than email, and tend to feel more narcissistic. This is particularly true for photo mail as a "push" modality that gets sent uninvited. Most of the sharing we saw of photos was off the handset screens. People would show their friends the photos they had in their phone on occasions that they got together.   We have found that photos are generally only emailed to intimates such as a lover, spouse, or very close friend.   In the case of mobile email, we found that most people had regular exchanges with 2-5 others, but not more than 10 people (Ito and Okabe 2005).   With photo mail, the circle for exchange tends to be even smaller and the content more selective.

I would first like to describe some examples of people sharing photos off of their handset screens.   In the following interview, a collect female college student, aged 21, describes how she went out to Yokohama with a childhood friend, and later showed the photos to his mother.

Okabe: So your friend from sixth grade in Yokohama, you still get together?

Interviewee: Yes, I we still get together.

Okabe: This is from when you two went out?

Interviewee: Yes.

….

Interviewee: This is a picture I took with my friend.

Okabe: Why did you take it?

Interviewee: I took it thinking I would show my mom.   My friend's appearance really changed compared to elementary school.

Okabe: Oh, so you were meeting with your friend occasionally even after elementary school, but you mom had not seen her.

Interviewee: That's right.

Sharing photos with close friends by showing them the mobile phone screen is a common practice.   There are technical and economic reasons why people don't email photos to each other very frequently.   Generally photos cannot be sent between people subscribed to different carriers, and the packet fees for sending photos are expensive.   But there are also interesting

social reasons that limit people's emailing of photos.   Apparently, in comparison to sending text messages, sending photos is perceived as "intrusive," and "narcissistic."   The following photo (Figure 5) and interview excerpt indicate this view.   One female college student, age 20, send a photo of herself with a new hairstyle to her boyfriend, with the comment, "How does this look?"

Figure 5: Taking a photo of a new hairstyle and emailing it to her boyfriend

Interviewee: I might take a quick photo of my hairstyle and check if it looks okay.   This is at home.   I'd take 2 or 3 and pick one that looks good and send it out asking if it looks okay.
Okabe: To who?
Interviewee: I guess to my boyfriend.   I had plans to see him the next day… If my boyfriend had a camphone I would send it, saying "What do you think?"   But he doesn't have one now.   I could never send a picture like that to a friend. They'd think I was an idiot.   What point is it to look at friend's face like that?

In this interview, she describes how she would send a photo of a new hairstyle to a boyfriend but not to a girlfriend.   Decisions of whether to send a photo or what kind of photo to send are made based on social relationships. This same college student made a different kind of decision with respect to a photo of some steamed sweet bean buns that she made (Figure 6).   After she made them, she sent this photo out to several of her friends with the caption "Look, look what I have cooked!"   Unlike the photo of herself, she felt that this was something she could share with friends.   It seems the reason

for this was that it was less narcissistic than a picture of herself, and it was a more "newsworthy" even than a new hairstyle.

Figure 6: Home-made steamed sweet bean buns, sent to close friends

The following photograph was received by a female professor, age 34, while she was away on a business trip overseas. Her husband emaled her a camera phone photo of their son riding a two-wheeler for the first time (Figure 7). Figure 8, like the picture of the steamed buns, was a picture shared between friends. In the interview (one 22-year-old male college student), our research subject says how he feels that if it is between very close friends he feels that picture sharing is appropriate, and he might share a picture in exchange for one received.

Figure 7: A photo of a child riding a bike, sent between parents

Figure 8: A photo of home-made hamburger steak

> Interviewee: This is a picture of some hamburger steak I made.
>
> Okabe: Can you tell me the context for this photo?
>
> Interviewee: This one—a professor that I am close to sent me an amazing photo of a flying frisbee.   I felt like I needed to send some kind of image in return.   I happened to be making hamburger steak, so I thought I would just send this off to him.
>
> Interviewee: When that first frisbee photo arrived, you didn't think it was annoying?
>
> Inteviewee: Not at all. I thought it was really fun and it made me happy.
>
> Okabe: When you sent the photo of the hamburger steaks you made, did you attach some text?
>
> Interviewee: Yes, I did, I wrote, "Aren't I an independent guy?"

These examples demonstrate how the sharing of photos is tied to a sense of "distributed co-presence" that we have found people constructing through the exchange of texts messaging (ito and Okabe 2005).   In the case of text messaging, people will often email intimates with information about their current status, such as "I'm walking up the hill now," or "just watched a great TV show."   The visual information shared between intimates also represents a similar social practice, of sharing ambient awareness with close friends, family and loved ones who are not physically co-present.   As in the case of the prior mediums of text and voice, these communications are part of the construction of "full-time intimate communities" (Nakajima, Himeno, and Yoshii, 1999; Matsuda 2005), or what Ichiyo Habuchi has called a "tele-cocoon."   These perspectives are based on a growing body of work on

mobile phone use in Japan is showing that people generally exchange the bulk of their mobile communication with a relatively small and intimate social group of 2-5 others. The exchange of communication with this group, in turn, becomes a relexive process of self-authoring and viewpoint construction.

Peer-to-Peer News and Reporting

In addition to the ongoing mundane sharing of visual information between intimates who are in close touch, camphones are also being used to capture and share what people consider more noteworthy events that others might be interested in. In Japanese, "material" for news and stories is called "neta." The term has strong journalistic associations, but also gets used to describe material that can become the topic of conversation among friends or family: a new store seen on the way to work; a cousin who just dropped out of high school; a funny story heard on the radio. The following photos represent this kind of *neta* photo taken by young people and shared between peers; left photo was taken by a college male student, age 23; center was taken by a male professor, age 29; and right was taken by a college female student, age 21.

Figure 9:
Neta photos of a matrix-style move (left), a student who passed out drunk and got vandalized by friends (center), and an odd statue sited in town (right)

Camera phones provide a new tool for making these everyday *neta* not just verbally but also visually shareable. These moments might have been talked

about between friends, but now are captured visually and enter the stream of conversation and exchange. Figure 10 shows embarrassing moments caught on film by a male professor, age 29. One student just fell into a puddle, another student got drunk and wrapped toilet paper around his waist and stuck on a "beginner driver" sticker at a lab party.

Figure 10: A student who fell into a puddle (left), a drunk student who wrapped toilet paper around his waist and stuck on a "beginner driver" sticker at a party (right)

The following photo (Figure 11) also represents an image in this vein. In the interview about this photo, the college male student who took the photo (age 23), describes how he captured the image intending it to share with others in the near future.

Figure 11: A can of beer stuck to a forehead without the use of adhesives

Interviewee: This one—when I was fooling around with a friend a can got stuck to his forehead [laugh].
Okabe: What happened to this photo? Did you send it to someone?

Interviewee: I did.   This is kind of interesting so I held on to it.   It's an interesting image.

Okabe: Did you show it to anyone?

Interviewee: Yes, I did. I showed it to some friends.

My last example (Figure 12), taken by one 23-years female college student, is directed toward a somewhat different kind of audience than the family and friends that are generally the recipients of camphone images.   This research subject has an online photo journal site that she sends her camphone photos to.   The site is public, so could be viewed by anybody.

Figure 12: A panda ride at an amusement area on the roof of a department store

Interviewee: This next one is of a really scary panda ride. It is a panda with sunken eyes at an amusement park at the top of a department store.   This one was on its way to [the photo journal site] yapeus.   It was really scary.

Okabe: Were you thinking of yapeus when you took the photo?

Interviewee: Yes.

…

Okabe: Is this more like *neta* than just a regular everyday photo? When you send a photo are you selecting things that some anonymous viewers might think is interesting?

Interviewee: Yeah.   I think of if people will get it, things that I want to say "Look!   Look!"

Okabe: Is your own personal viewpoint important?

Interviewee: Yes, that is the key thing.

Through the capture and sharing of small but significant visual events in people's lives, camera phones are contributing to a kind of everyday photojournalism, where people are attentive to images and events that might be interesting or newsworthy events. Some of these photos might make it onto a photo journal site or into the news if the photographer happens to capture an event newsworthy to a general public. But most of these photos are trafficked among peers, and are newsworthy only among friends and families. I would argue that the transformation of "news" in the hands of these amateur photographers a less spectacular, but perhaps more significant shift in behavior and visual awareness than the photos that might grab the latest headline on a news site.

Conclusion

The practices I have described of capturing and sharing visual information are inseparable from social relations and contexts, and grow out of the patterns of mobile phone use that have been established through voice and text exchange as well as practices of amateur photography. This includes the authoring of personal life stories through photographs, the construction of distributed co-presence through mobile media exchange, and peer-based sharing of news and stories. In conclusion, I would like to comment on some of the unique social practices that are being constructed through the merging of the mobile phone and the digital camera into a single device.

The social function of the camera phone differs from the social function of the camera and the phone in some important ways. In comparison to the traditional camera, most of photos taken by camera phone are short-lived and ephemeral images. The camera phone is a more ubiquitous and lightweight presence, and is used for more personal, less objectified viewpoint and sharing among intimates. Traditionally, the camera would get trotted out for special excursions and events -- noteworthy moments bracketed off from the mundane. By contrast, camera phones capture the more fleeting and unexpected moments of surprise, beauty and adoration in the everyday. The

everyday is now the site of potential news and visual archiving as a user might snap a scene from a familiar train station or a friend who just fell into a puddle. By embodying the characteristics of the mobile phone as a "personal, portable, pedestrian" device (Ito, Okabe & Matsuda 2005), the function the camera has shifted.

One consequence of this more personal and pervasive viewpoint is that the camera is more strongly associated with an individual viewpoint.   The traditional camera tended to take on more of the role of a third party, photographing a group photo or a scene that is framed in a more distanced way.   The camera phone tends to be used more frequently as a kind of archive of a personal trajectory or viewpoint on the world, a collection of fragments of everyday life.   This kind of archiving is unique to the visual medium, in the sense that photos are often taken for purely personal consumption, where as text messages are generally created with the intent to share with others.

Sharing of visual information, by contrast is a more selective and intimate enterprise than sharing of text.   Users are still working out the social protocols for appropriate visual sharing, but seem to take pleasure in the adding visual information to the stream of friendly and intimate exchange of opinions, and news. Camera phones enable an expanded field for chronicling and displaying self and viewpoint to others in a new kind of everyday visual storytelling. Camera phones makes ubiquitous visual access to others possible. In other words, the gaze of others is always present as a potentiality, leading to a heightened sense of visual awareness and a growing centrality of images in the ongoing social exchanges of everyday life.

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