

Pervasive Image Capture and Sharing: New Social Practices and Implications for Technology

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ABSTRACT

The portable digital cameras enable prolific photo capturing in a variety of settings and inspire digital photo sharing via an extensive repertoire of mechanisms and modalities, including exchange of physical prints, sharing of digital copies via email, web pages and blogs, or simply showing images on the imaging devices during face-to-face encounters. More recently, camera phones have expanded both image capture and sharing through MMS (multimedia messaging), email from phones, and transfer via IR or Bluetooth between phones. These new functions, embedded in a device that is always close at hand, has led to the emergence of *pervasive image capture and sharing*.

The workshop will bring together a multi-disciplinary group of researchers and practitioners for a discussion around this emerging phenomena. The goal is to examine up-to-date technology developments and current social practices, and to understand implications for further research, including design and development of new devices, applications and services.

THEME

The time-honored practice of image capture, sharing, and archiving has gotten a new twist with the advent of digital imaging technology. The portable digital camera captures images at zero marginal cost with the ability to instantly

view and delete images. The result is more prolific photo capturing in a variety of formal and informal settings. Digital images enable photo sharing via an expanded repertoire of mechanisms and modalities, including exchange of physical prints, sharing of digital copies via email, posting images on web pages and blogs, or simply showing images on the imaging devices during face-to-face encounters.

More recently, camera phones have expanded both image capture and sharing even further [2]. New ways of sharing now include MMS (multimedia messaging) between phones, sending images via email from the phone, posting images to blogs and webpages directly from the phone, transferring images via IR or Bluetooth between phones, and showing others images on a handheld screen. These new functions, embedded in a device that is always close at hand, has led to the emergence of *pervasive image capture and sharing* [3,4,5,8,9,10,12].

These ubiquitous devices enhance many social activities. They make it possible to share experiences with remote people during a particular event or soon thereafter, or to accomplish a task through the use of images. As a result, we see emergence of new social practices, where image capture and sharing is much more fluid and spontaneous and frequently focused on new kinds of photographic

subjects. These rich imaging interactions are getting interwoven into the regular communicational context, thus becoming a part of everyday life.

GOALS

In this workshop we aim to bring together a multi-disciplinary group of researchers and practitioners for a free exchange and discussion around the emerging phenomena of pervasive image capture and sharing. Our goal is to examine up-to-date technology developments and current social practices, and to understand implications for further research, including design and development of new devices, applications and services. In recognition of the differences in camera phone and other mobile device technology and practices in different regions and among different cultures, our organizing committee represents a range of perspectives; we will strive to attract an equally diverse set of participants.

TOPICS

In this workshop we will address the following broad questions:

- What happens when image capture and sharing becomes an integral part of everyday life?
- What social practices exist today and what new practices are likely to develop?
- What are the implications for technology?
- What are the possible implications for social relationships and for practical activity?

Possible topics to be discussed among the workshop participants include (but are not limited to):

- How and why do people capture and share images and what do they value? Are new purposes for image capture and sharing emerging with cameraphone use?
- What are the current social barriers in image capture sharing? What are the technical obstacles? How do cameraphones overcome these barriers? Violate boundaries and norms? How is image capture and sharing being regulated?
- What context factors affect image sharing? What are the implications for design?
- Which are the preferred mechanisms for image sharing? What factors influence users' choices of mechanisms?
- What's the relationship between different modalities of image sharing – e.g., desktop versus cameraphone?
- What is the state of the current UI for image capture and sharing?

- How does pervasive image capture and sharing articulate with desktop photo archiving and sharing applications and services?
- How does pervasive image capture and sharing relate to new models of social interaction and communication? What are the privacy implications of these new practices?
- How are camera phones being adopted and used differently based on national context and factors such as age and gender? What are the current differences across cultures in the use of cameraphones and in image sharing? What factors influence these differences? What cautions are necessary when we consider what we can learn about possible adoption in countries like the U.S. that lag behind countries like Japan?
- What are the current issues for research and design for camera phones and other mobile imaging devices?
- What are the current issues for social research on the uses and implications of camera phones and other mobile imaging devices?

PROCESS AND PARTICIPANTS

The number of participants will be limited to 20 people, selected based on their submission and reviewed by the organizers. Participants are asked to submit a position paper describing their interest and experience in this field (about 2-3 pages in the SIGCHI conference publication format). The organizing committee will select participants based on these extended abstracts.

Deadline for submission.....June 7, 2005

Announcement of acceptance.....July 15, 2005

FORMAT AND PRELIMINARY SCHEDULE

The workshop will be highly interactive and built around small group discussions. The overall process will follow the Open Space workshop design tool [1,11] for facilitating discussions of groups which include a diverse set of participants who deal with complex and potentially conflicting issues in innovative and productive ways. This methodology encourages participants to set the agenda early in the day and self organize into smaller groups to discuss particular issues. The participants are free to move and participate in various groups. Also, a special area is set up for informal discussions and exchange of ideas (typically in a corner of the room which has refreshments).

This methodology has been proven as an effective tool for relatively small groups, such as the one we anticipate to have at the workshop, as well as for large groups having several hundred participants.

The concluding portion of the workshop will bring all participants together for a discussion of future directions.

The preliminary timetable:

09:00-09:15	Welcome, setting the context and introduction into the open space process
09:15-10:00	Circle, defining the agenda
10:00-11:00	First set of discussions
11:00-11:15	Break
11:15-12:15	Second set of discussions
12:15-14:00	Lunch break
14:00-15:00	Third set of discussions
15:00-15:15	Break
15:15-16:15	Fourth set of discussion
16:15-17:00	Open discussion on future directions
17:00-17:15	Wrap-up

WORKSHOP OUTCOME

The workshop proceedings will be put together from all position papers, workshop posters and notes and discussion summaries, as they are recorded by participants. The workshop proceedings will be published as a technical report and made available via the web. In addition, a report of the workshop may be published in a major journal.

ACTIVITIES BEFORE THE WORKSHOP

The call for participations will be distributed via the Ubicomp 2005 publicity channels. Additionally, the call will be announced in newsgroups and mailing lists related to the subject. The position papers selected from participants will be published on the workshop website.

In addition, all participants will receive the background materials on the Open Space process prior to the workshop.

ORGANIZERS

Mirjana Spasojevic is a Senior Research Scientist at the Mobile and Media Systems Lab of Hewlett Packard Labs, focusing on design and deployments of mobile and ubiquitous computing technologies. She has recently conducted an ethnographic study of the US camera phone use as part of the US/UK investigation into emerging behaviors of camera phone users.
http://www.hpl.hp.com/personal/Mirjana_Spasojevic/

Mizuko Ito is a cultural anthropologist of technology use, focusing on children and youth's changing relationships to media and communications and is a Research Scientist at the Annenberg Center for Communication at the University

of Southern California. She is co-editor of, *Personal, Portable, Pedestrian: Mobile Phones in Japanese Life*, <http://www.itofisher.com/mito>.

Nancy Van House is Professor in the School of Information Management and Systems at the University of California, Berkeley. Her research relates to the use of information and information artifacts. She is currently studying the social uses of personal photography with an emphasis on understanding the emerging uses of cameraphones and digital image sharing.

Ilpo Koskinen is a sociologist who works as a professor of industrial design in Helsinki. One of his research interests is the use and design of mobile technology and mobile multimedia. His book *Mobile Image* (Helsinki: IT Press, 2002), written with Esko Kurvinen and Turo-Kimmo Lehtonen, focused on taking and sending photographs with mobile phones. He has continued to work on pervasive image capture and sharing since then, typically focusing on design.

Fumitoshi Kato is an associate professor at the Faculty of Environmental Information, Keio University, Japan. His research interests include: communication theory, socio-cultural impacts of new technologies, qualitative research methods, and experiential learning theory and practice. He is a faculty member of "Keitai (a mobile phone, in Japanese) Laboratory" at Keio University, where interdisciplinary studies and research programs on socio-cultural impacts of mobile phones are conducted. He is especially interested in the use of camera functions on mobile phones in the context of our day-to-day communication. Recently, he co-edited a book, "Gaming, simulations, and society: Research scope and perspective" (Springer-Verlag, 2004).

Daisuke Okabe is a cognitive psychologist with a particular interest in situated learning theory. His focus is interactional studies of learning and education in relation to new media technologies. He works as a Research Associate at Keio University Shonan Fujisawa Campus. He is co-editor of *Personal, Portable, Pedestrian: Mobile Phones in Japanese Life*.

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