MIKKO VILLI

Visual mobile communication

Camera phone photo messages as ritual communication and mediated presence

Mikko Villi's background is in communication studies. He has worked as a researcher at the University of Art and Design Helsinki, University of Tampere and University of Helsinki, where he has also held the position of university lecturer. Currently, he works as coordinator of educational operations at Aalto University. Villi has both researched and taught subjects related to mobile communication, visual communication, social media, multi-channel publishing and media convergence.

Visual mobile communication

MIKKO VILLI

Visual mobile communication

Camera phone photo messages as ritual communication and mediated presence

Aalto University
School of Art and Design
Publication series A 103
www.taik.fi/bookshop

© Mikko Villi
Graphic design: Laura Villi

Original cover photo: Ville Karppanen

ISBN 978-952-60-0006-0
ISSN 0782-1832

Cover board: Ensocoat 250, g/m²
Paper: Munken Lynx 1.13, 120 g/m²
Typography: Chronicle Text G1
and Chronicle Text G2

Printed at WS Bookwell Ltd.
Finland, Jyväskylä, 2010

Contents

Acknowledgements

It is a pleasure to thank those who made this thesis possible. Most importantly, my supervisors Merja Salo and Ilpo Koskinen have offered me vital guidance and encouragement and advised me to channel my broad interests into a more coherent study. I am glad that they were tough on me. I also want to thank the pre-examiners Janne Seppänen and Larissa Hjorth for their authoritative statements on how to improve certain elements of my study.

Heli Rantavuo, Janne Matikainen, Harri Pälviranta and Asko Lehmuskallio provided useful comments to my manuscript. Of great help were also the sessions in the TaiK School of Visual Culture doctoral studies seminar. I had the privilege of discussing my thesis with Ronald Rice, Geoffrey Batchen, Liz Wells and Herta Wolf. In addition, I want to express my appreciation to Ilkka Niiniluoto, who acted as my supervisor in the early phase of the study. Sami Rouhento consulted with the English language, and Reija Nieminen and Sanna Tyyri-Pohjonen enabled the publication of the thesis by TaiK Publications.

The empirical case study owes much to programme director Matteo Stocchetti from the Arcada University of Applied Sciences. The incentive for the study came from discussions with Matteo, and he also helped with the practical arrangements at Arcada and gave suggestions when I was devising the empirical study. And naturally, I want to express my gratitude to the participants from Arcada who spent their time answering the questionnaire or being interviewed.

I was able to advance my thesis greatly while working in the research project *The Communicative Practices of Photographic Art* funded by

the Academy of Finland. I have also received support for my work from the University of Art and Design, Finnish Cultural Foundation, Ella and Georg Ehrnrooth Foundation and C. V. Åkerlund Foundation.

★★★

During the thesis journey, I have been a member of two academic work communities. At the University of Art and Design Helsinki, I shared the ups and downs of a researcher's life with my colleagues in the Gallery corridor: Iina Kohonen, Marko Karo, Harri Pälviranta, Johanna Pentikäinen and Mika Elo. I am also grateful for the assistance and support I received from Susann Vihma, Kristoffer Albrecht, Pia Sivenius, Ossi Naukkarinen and Tuovi Hippeläinen. During the past year, the members of the Media Factory office staff – Maria Suokannas, Markku Nousiainen and Anna Berg – have offered me inspiring collegiality.

The Department of Communication at the University of Helsinki is my alma mater. It was enjoyable to work there as a university lecturer, in particular with Janne Matikainen, Pekka Aula and the rest of the Wermu team. Memorable are the discussions of academics' daily life over numerous lunches with Liina Puustinen, Anna Mäkelä, Nando Malmelin, Karoliina Malmelin, Juha Herkman and others.

My parents Risto and Riitta have provided me with assistance with my thesis and, importantly, set an example for an academic life. I am thankful to my brother Ilkka and so many other friends and relatives for asking "How's the thesis?" over the years. At times, the question was a bit frustrating to answer, but a true pleasure during the final years of my work.

Laura, thank you for your loving support and the graphic design. Ilona and Lumi, thanks for your patience when dad just stared at the computer screen or hid behind a book.

Maunula, Helsinki, 15 April 2010

Mikko Villi

1 Introduction

The mobile phone is no longer just a telephone. Or more accurately, it is not a device oriented solely, and in many cases not even primarily, toward voice communication. The mobile phone as a communication device is not limited to transmitting voice over distances, as a *tele-phone*[1] would do. Rather, a modern mobile phone is a small computer capable of enabling a multitude of communicative activities, as well as offering non-communicative functions (flashlight, alarm clock, compass).

Interpersonal communication is a fundamental feature of telephone communication, which, for long, was about connecting people, mostly two at a time. Lately, the development of mobile phone communication has been characterized by a progress to broader media consumption and content production. In addition, a part of the use of the mobile phone (such as listening to music) occurs *within* the phone, without involving any communication with other people.

However, the mobile phone is still much utilized for interpersonal communication, such as texting or voice calls, rather than one-way receiving. As a consequence, in this study I will not focus on the mobile phone as a device used to access the web or to watch television, but on the interpersonal forms of mobile phone use familiar from traditional telephone communication.

My approach is to concentrate especially on *visual mobile communication*. In the context of my study, I situate visual mobile communication specifically with camera phone photography and the communication of photographs – photographic communication – from the camera phone.

1 The word telephone is derived from the Greek language. *Tele* stands for "far" and *phone* for "voice".

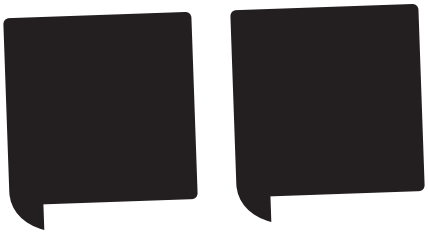
Visual mobile communication is a new phenomenon, as mobile phone communication has been visual only since the turn of the millennium. This transition is evident in the screens of mobile phones, which have transformed from small black-and-white displays portraying numbers or names into big, phone-sized, colourful, high-resolution displays. This is in striking contrast to the fact that only a few decades ago a telephone did not include a screen of any kind.

In parallel to introducing visual communication to the realm of telephone communication, the camera phone has incorporated interpersonal communication more firmly into the conventions of photography. Photographs have commonly been shared interpersonally, but the camera in itself has not been a medium for interpersonal communication, as it is devoid of any means to directly communicate with other people.

There exists a terminological division in describing digital photographs taken with a camera phone and sent interpersonally to other people, mostly to their mobile phones. Terms in use are photo message, picture message, multimedia message and mobile visual message. In this study I use the term *photo message*, as I focus solely on the mobile communication of photographs.

At the time of the study, MMS (multimedia messaging service) was still the prominent technology for photo messaging. MMS is a standard based on SMS messaging (text messaging), where a user can send a message from the mobile phone to one or several recipients. MMS-enabled mobile phones allow users to compose and send messages with one or more multimedia components (text, image, audio, video, animation). Lately, photo messaging has also been increasingly realized by e-mail, IM (instant messaging) and other Internet-based media.

However, as I am more interested in the communicative characteristics of photo messaging than the various technologies involved, I do not limit the concept to any certain technology, service or application. Photo messaging represents the whole phenomenon of communicating photographs interpersonally and directly from a photographic apparatus that is – importantly – connected to a telecommunication network.



2 Frame of research

The study can be described as a qualitative literature review and assessment, elaborated with an empirical case study. I assess the available literature on photo messaging, as well as relevant studies on camera phone photography and mobile communication, and situate them in a framework consisting of two themes: *ritual communication* and *mediated presence*. There is a need for such a focused framework, as the different studies on photo messaging have not yet been affiliated by using a common theoretical framework. Constructing this framework and assessing previous research in its context constitute the main outcome of my study.

The logic of a qualitative literature review builds on the analysis of previously published research and a synthesis arising from this. A mere record of available literature would not qualify as a qualitative literature review. (Kallio 2006) My research strategy consists of assessing and integrating previous research, re-examining an existing body of knowledge in the light of a new theoretical context, and thereby developing the study of photo messaging by showing connections and patterns that have not been produced previously (see Hart 1998, 8, 110).

The empirical case study focuses on the photo messaging practices of a group of media students and staff members at the Arcada University of Applied Science in Helsinki, Finland. It consists of a questionnaire with 54 students and 37 staff members augmented by eight individual interviews. I utilize primarily the results from the interviews in my argumentation.

The academic background of the dissertation is in communication studies. Photography can be effectively studied in conjunction with mobile communication when regarding it pre-eminently as commu-

nication, although at the same time leaving many aspects of photography outside the scope.

The intellectual puzzle which instigated and initiated the study is: *what kind of communicative practices can build up from the convergence of a telephone and a camera*? The disparity as well as the interaction between the phone and the camera in the camera phone leads to the main question of my study:

How are the conventions and practices of mobile phone communication manifested in interpersonal photographic communication when using camera phones?

2.1 Theoretical framework

My hypothesis is that the theoretical framework consisting of ritual communication and mediated presence is focal in assessing the dominant communicative practices and conventions of photo messaging. In the following section, I introduce ritual communication and mediated presence, and later, in chapters six and seven, I present my argumentation regarding the relevance of the framework.

2.1.1 Ritual communication

In conjoining the study of mobile communication and photography by means of communication theory I will apply the model of communication formulated by communication theorist James W. Carey in 1975 in his essay *A Cultural Approach to Communication* (republished in Carey 1989), in which he distinguishes the ritual and the transmission view of communication. Carey derives the foundation of his framework from the remarks on communication by John Dewey, as well as religious origins (Carey 1989, 13–14). The general background of his thinking is in pragmatism and cultural studies (Mörä 2004, 119).

According to Carey (1989), in the ritual view, communication is typified by such concepts as *sharing, participation and fellowship*. The ritual view exploits the mutual roots of the terms commonness, communion, community, and communication.[2] It is close to the phatic mode of communication, which has its origins in the work of Roman Jacobson and Bronislaw Malinowski. The phatic function serves in maintaining a contact between communicators without necessarily exchanging meaningful information.

By contrast, in the transmission view, communication is perceived as one-way transfer of messages, and defined by terms such as *sending, transmitting or giving information to others* (Carey 1989). Communication is conceived as a quite technical process of transmission of information or messages from the sender to the receiver. Communication fails if the message distorts for some reason or other, if the informational content of the message is altered when communicated from the sender to the receiver.

The transmission view is closely related to the mass communication research (MCR) tradition of communication research. It has been influenced by the classic formula of Harold Lasswell, describ-

2 The original word in Latin, *communicare*, can be translated "to make common".

ing communication in terms of "who says what to whom in which channel with what effect". The *what* (content), the *who* (control) and the *whom* (audience) matter equally. (Briggs & Burke 2002, 5)

According to Carey (1989, 42) communication studies, especially in the United States, are grounded in the transmission view of communication. Also Denis McQuail (1987, 42–43) notes how the linear process of transfer from the sender to the receiver has been the predominant model or image of communication. Other areas as well, such as CMC (computer mediated communication) research, have been criticized for the bias on transmission (e.g., concentrating on measuring the level and efficiency of information exchange), instead of trying to understand how computers are used as tools for connection and community (see Matikainen 2006, 180–181; Jones 1995, 12). Yet, for example, the idea of social media and the conventions of social networking are connected firmly with the ritual view of communication – communication is notably about interaction, connection and communality.

It is important to note that the ritual and the transmission views are not mutually exclusive: ritual communication transmits information, and transmissive communication has a ritualistic dimension. Carey's approach could actually be considered as a call for a particular intellectual attitude of the communication discipline toward itself and society. (Kadmon Sella 2007, 104–107) The ritual and the transmission view of communication are in fact *views*, conceptual constructions for studying communication. A fully developed understanding of communication involves both the ritual view and the transmission view (Adam 2008, xvii). Carey (1989, 21–22) states that the ritual view "contends that one cannot understand these processes [of information transmission] aright except insofar as they are cast within an essentially ritualistic view of communication and social order".

In my study, I utilize Carey's model in its very basic form, as a simplifying dichotomy. It is a useful framework that enjoys universal applicability (Kadmon Sella 2007, 104) and serves as a basic model for understanding communication. In fact, if the distinction between transmissive communication and ritual communication were neglected, the distinctive value of photo messaging as photographic communication would remain hidden (Villi & Stocchetti 2010).

Zohar Kadmon Sella (2007) offers a review of the most significant developments in the idea of ritual communication in the past 35

years.[3] According to Kadmon Sella (ibid.), the "journey" of ritual communication began with its introduction by James Carey in 1975 as a metaphor for cultural commonality and social solidarity, then narrowed down to televised ceremonial ritual media events, was expanded by Eric W. Rothenbuhler (1998) to all forms of socially significant symbolic behaviour, and revealed its potential for the performance of institutional cruelty in the rituals of excommunication (Carey 1998).

While ritual communication has traditionally been perceived as uniting communities by reflecting and establishing shared meanings, the concept has been enriched with notions of power, authority and control. Importantly, alongside its integrative potentialities, ritual communication is acknowledged as a tool for undemocratic manipulation and as a socially divisive mechanism. (Kadmon Sella 2007, 103) In his essay *Political ritual on television: episodes in the history of shame, degradation and excommunication*, Carey (1998, 42) presents such ritual acts that are designed to bring on a psychological state of shame and a personal sense of unworthiness.

In order to further explicate ritual communication, in his book *Ritual Communication: From Everyday Conversation to Mediated Ceremony*, Rothenbuhler (1998, 4–5) makes a division between the use of the ritual as a noun and an adjective. On the one side are rituals, rites and ceremonies as distinct events, and on the other, the ritual aspects of otherwise ordinary and ongoing activities. This allows the study of *communication rituals*, as well as *communication as a ritual*, the everyday interpersonal communication through which relationships are conducted. (ibid.)

My own focus is precisely on *communication as a ritual*; instead of studying media rituals or media events – large-scale public, broadcasted events (Couldry 2003, 60) – my centre of attention is strictly on the ritual aspects of communication in the context of everyday interpersonal communication.

2.1.2 Mediated presence

Another theme by which I conjoin the study on mobile communication and photography is mediated presence. *Presence* is a key concept in the context of mobile communication studies in general.[4]

3 See also Rothenbuhler 1998 for a useful review on how ritual has been applied in communication studies.

4 It is important to note that *presence* has been used in mobile communication stud-

Kenneth J. Gergen (2002, 227) uses the term *absent presence* to describe the state where one is physically present, yet at the same time absorbed by a technologically mediated world elsewhere. Rich Ling (2004, 192) describes as *remote presence* the situation that arises when, with the aid of a mobile phone, a person has an ongoing sense of another person's location. The antithesis of these mobile spaces or states can be described as *full presence*, the state of being absorbed and constituted by the immediacy of concrete, face-to-face relationships (Gergen 2002, 227). Presence in mobile communication is thus about being in contact with one another over physical distance – being socially present although being physically absent.

Modern telecommunication technology is increasingly exploited in creating a sense of presence between physically separated communicators. Christian Licoppe (2004, 135) states that communication technologies are used in mediated relationships to substitute or compensate for the rarity of face-to-face interactions, the absence of our close ones. Actually, the aspect of *tele* in communication can be equated with *absence*. "The essence of tele-presence is that it is anti-presence" (Manovich 1995c).

Presence as a theme has also been applied in studies on photography, although often not by linking it to any theoretical context or contemplating it deeply as a concept. A photograph embodies the possibility of the object or person in the photograph being present for the viewer, offering mediated presence. It conveys the presence of the absent one, the object or person captured in the photograph. Thus, photography exemplifies the epistemological dialectic of presence and absence (Lister 2007, 353). Actually, as Göran Sonesson (1989, 73) writes, "the whole point of photography is to offer us vicarious perceptual experience, that is, the illusion of having seen something without having been present at the scene". In the presence mediated by a photograph, of great importance is the indexical[5] relation between the photograph and the object photographed.

ies largely in isolation from the other research on the concept of presence, completed for example in studies on virtual environments, advanced broadcast and cinematic displays and teleoperation systems (IJsselsteijn & Riva 2003), as well as telemedicine, entertainment and education (Mokka & Välkkynen 2002, 15).

5 An index is a sign which refers to its object on the basis of having been actually connected to the object. The indexicality of the photograph has two parallel roots: the *indexical sign* (Charles Sanders Peirce) and *objectivity* (André Bazin). According to Peirce, photographs belong to the class of indexical signs characterized by a physical contact. (Laakso 2001, 21, 88)

French philosopher Jean-Luc Nancy (2005, 66) illustrates well the relationship between photography and presence:

> The image gives presence. (...) But what is 'giving presence'? Isn't it giving what cannot be given: what is or is not? You are present or you are not. Nothing will give you presence except your arrival, which is no one or is yourself. (...) The image gives a presence that it lacks – since it has no other presence than the unreal one of its thin, film-like surface – and it gives it to something that, being absent, cannot receive it. (ibid.)

The presence in relation to both mobile communication and photography needs to be defined more accurately as *mediated presence*. This presence is not direct physical co-presence, but instead communicated through a medium, mediated. Users of mobile communication technology are not present in other places by any physical means, but merely connected to one another using a communication device. They are present in the space of the communicative connection. Mediated presence rather represents an "as if" presence: people can be connected to a remote location *as if* they were there themselves, they can talk on the phone *as if* they were sitting next to the other person (Huhtamo 1995, 95). Mediated presence merely emulates the experience of actually being in a remote place or with a remote other. This mediated presence is enabled especially by the various tele-technologies – television, radio, telephone and the Internet.

2.2 Motivation and contribution of the study

An extremely valuable concept in understanding how people will adapt and take use of new converged media appliances is *cultural form* (Williams 1975/1990). Every medium (newspaper, television, telephone) has advanced and developed to answer certain communicational needs and uses. The cultural form of a medium has evolved in the actual use over decades, even centuries. The broad idea is that technological innovations and new applications and devices in the field of communication media do not enter a cultural and communicational void. Linked to this is also the concept of *remediation* (Bolter & Grusin 2000), which exemplifies the utilization of the conventions, contents or aesthetics of one medium by another.

As the majority of new mobile phones include a camera, it is worthwhile to study the communicative functions of the camera in the phone. *The camera is not just placed in an arbitrary communication device, but a device that is intrinsic to the history of personal telecommunication – the telephone.* Although the inherent value of camera phone photography does not necessarily lie in the sending of images, I want to concentrate on this aspect of camera phone use.

Due to the novelty of camera phones and photo messaging, research in the field is in its early stages. The role of my doctoral thesis is important in further developing the concept of photo messaging, particularly in the context of communication studies. The thesis also makes a contribution by providing a review of the studies made on photo messaging during the last decade, offering new conceptual tools for studying visual mobile communication and elaborating the themes that have been introduced in previous studies.

This work is motivated by several marginal areas of study in communication studies: telephone communication, mobile phone communication, and personal photography. To begin with, the telephone is a quite universal telecommunication medium, but one that has been studied exiguously in communication studies, when compared, for instance, to the abundant amount of research on the television or the newspaper as media. No communication technology has been less studied in proportion to its significance than the telephone (Katz 2006, 115; see also Rice 1999, 25).

Dimmick et al. (1994, 643–644) search for an explanation of this neglect in that the telephone represents mediated interpersonal communication. The telephone has not interested scholars of interper-

sonal communication, who have focused on face-to-face interaction; neither has the telephone interested communication researchers who have been more interested on mass communication than interpersonal communication (see Katz & Aakhus 2002, 10; Lüders 2007, 179).

Of significance is also that the telephone is used mainly in situations of quotidian bilateral interaction, the mundane life (Dimmick et al. 1994, 643–644; Geser 2005, 23). The telephone is, in a sense, invisible as a social object (Goggin 2006, 4). Telephone conversations have not been habitually recorded (except by intelligence agencies and the like) and therefore not easily studied afterwards by scholarly means.

The mobile phone, as well, has received to date minor attention in communication studies, and humanities and social sciences in general (Goggin 2008, 353), compared to its huge popularity and ubiquitous nature. Already more than half of the global population uses a mobile phone for communication. In a sense, the mobile phone seems to have inherited from the landline telephone a lack of interest by social scientists (Lasén 2002, 31). The neglect on the study of the mobile phone in communication studies is especially clear when compared to the number of studies made on Internet communication. The mobile phone might, then, gather more interest when it is connected to the global information networks, such as the Internet, and goes from being a technology of interpersonal communication to being used more in mass communication.

The mobile phone culture is very much regarded as low, vulgar culture of the masses (Goggin 2006, 205), and therefore overlooked in research. In the same sense, study on personal photography has been marginal when compared to, for instance, art photography. There exists a relatively extensive discussion of professional photographic practices but relatively few accounts of personal photography (Price & Wells 1997, 17). The ordinary photographs captured by everyday folk have been excluded from photography's history, and most studies have focused on the artistic ambitions of the medium (Batchen 2001, 57). Also in Finland, the majority of studies on photography have concentrated on art photography (Pienimäki 2007, 48).

Importantly, the history of photography focuses more on photographs as objects, reified for their aesthetic qualities, and not so much on photographic communication (Wells 1997, 201). This has led to leaving the uses of photography as a part of people's everyday life

and personal communication to a great extent out of consideration in the main corpus of studies on photography. This is surprising, given the scale of vernacular photography. The great majority of photographs are taken and shared by ordinary people, yet they are much neglected as objects of study. A notable exception to this is the tradition in the study of photography that has been influential in Britain since the 1970s (Seppänen 2001b, 19).

One more motivation for my study is that the emphasis in communication studies has been on verbal communication at the expense of visual communication (Becker 2004, 149–150; Döring et al. 2006, 197). Communication scholars consider the use of language as the paradigm case of communication (Jacobs 2002, 213). In my view, it is critical to study visual communication especially in the context of interpersonal communication.

2.3 Mobile communication as a field of research

Mobile communication is manifested as mobile access to communication means and, increasingly, as perpetual connection to others. According to Castells et al. (2007, 92, 248), it is the permanent and ubiquitous form of connectivity that is the key feature in mobile communication, rather than motion or mobility. The mobile phone is no longer solidly a substitute for the landline phone in situations when people are on the move, but offers rather the capacity to access the communication network from any place at any time (ibid.). The mobile phone is then predominantly about providing means for personal telecommunication.

During the last decade the mobile phone has gradually turned into a portable, small computer. Actually, the personal computer (PC) can soon be seen as an adjunct of the mobile phone, rather than vice versa (Levinson 2004, 28–29; Agar 2003, 97). The mobile phone serves increasingly as a device that connects the user to the World Wide Web and other communication and information services and platforms enabled by the Internet; it is more a connection with the world than just a connection to another person.

These views illustrate how mobile communication is a rather diverse and extensive field of study. [6] In order to limit the scope of my thesis to a reasonable scale, I will not discuss the different societal domains – technology, politics, economy, legislation, globalization – related to the growing importance of mobility in communication, and in society in general, but rather focus exclusively on the uses of mobile phone in the context of interpersonal and intimate relations. Neither will I explicitly discuss the influence of the cultural context, gender or age in mobile communication. Yet, it has to be taken into account that many of the observations on mobile communication and photo messaging expressed in this study are possibly related to the age, gender or cultural background of the communicators.[7]

The literature on mobile communication that I utilize in my study has its scholarly context for the most part in social sciences. The

6 Valuable reviews of research on mobile communication can be found in Castells et al. 2007 and Goggin 2008, and on mobile technology in Hagen et al. 2005.

7 For a study on mobile phone use in developing countries, see e.g. Donner 2005; Horst & Miller 2006; Sooryamoorthy et al. 2008; Donner 2008; Overå 2008; Portus 2008. For discussion on the significance of gender in mobile communication see e.g. Ling 2004; Lee 2005; Hjorth 2005a; Hjorth 2007.

focus in the studies is predominantly on the use of mobile phones in developed countries. Another characteristic is that many studies focus on young people. One explanation for this trend is that adolescents and young adults are among the most assiduous consumers of mobile technology and are quite willing to cooperate in studies (Fortunati & Cianchi 2006, 204).

In my study, I refer to several articles published in edited volumes concentrating on diverse aspects of mobile communication. These include *Perpetual Contact: Mobile Communication, Private Talk, Public Performance* (Katz & Aakhus 2002); *Machines That Become Us: The Social Context of Personal Communication Technology* (Katz 2003); *Mobile Communications: Re-negotiation of the Social Sphere* (Ling & Pedersen 2005); *Thumb Culture: The Meaning of Mobile Phones for Society* (Glotz et al. 2005); *Personal, Portable, Pedestrian: Mobile Phones in Japanese Life* (Ito et al. 2005); *Mobile Communications in Everyday Life: Ethnographic Views, Observations and Reflections* (Höflich & Hartmann 2006); *Mobile Media 2007* (Goggin & Hjorth 2007); and *Handbook of Mobile communication studies* (Katz 2008).

The series of publications edited by Kristóf Nyíri, including *A Sense of Place: The Global and the Local in Mobile Communication* (Nyíri 2005); *Mobile Understanding: The Epistemology of Ubiquitous Communication* (Nyíri 2006); and *Integration and Ubiquity: Towards a Philosophy of Telecommunications Convergence* (Nyíri 2008) offer a variety of thematic viewpoints on mobile communication. Of these, the most valuable contributions for my study can be found in the volume *A Sense of Place: The Global and the Local in Mobile Communication* (Nyíri 2005), as it contains several valuable articles on multimedia messaging (Ling & Julsrud 2005; Koskinen 2005a; Oksman 2005; Scifo 2005).

As a form of mobile communication, text messaging is an indispensable point of comparison for photo messaging. It is hard to find a pronouncedly theoretical analysis of the concept of *text message*, at least in the context of communication studies. Mostly, text messaging is defined by the technological platform: it is explained simply as "using a mobile phone to send a message" (Grinter & Eldridge 2001; 2003) and often linked axiomatically to SMS technology.[8]

8 Several articles in edited books such as Katz & Aakhus 2002a; Harper et al. 2005; Nyíri 2005, and other texts such as Grinter & Eldridge 2003; Kasesniemi 2003; Kopomaa 2005 focus on the uses and typologies of text messaging.

As my interest is on the use of mobile phones in intimate and interpersonal communicative situations – the micro-interactions of daily life – the work by Rich Ling (2004; 2007; 2008a) has been of great importance, in particular his book *New Tech, New Ties: How Mobile Communication is Reshaping Social Cohesion* (2008a). The writings of Christian Licoppe (2003; 2004) and Gerard Goggin (2006) have also provided valuable insights into the modalities of mobile phone use.

Ling (2008a, 163–169) offers an extensive review of the dominance of intimate relations in mobile communication. Observations from other studies also confirm that mobile phone users are in contact mostly with their intimate ones, people who they already have a relation to. A salient characteristic of the mobile phone as an interpersonal communication device is that it facilitates an insular life in the intimate sphere, interaction within small, familiar, intimate groups (Ling 2004, 111, 192; Ling 2007; Fortunati 2002, 515; Habuchi 2005, 178; Höflich 2005, 128; Matsuda 2005b, 139; Wei & Lo 2006, 68). Also in developing countries – such as Rwanda – where mobile phone communication is in its early stages, the majority of calls are with family or friends, rather than with business contacts (Donner 2005, 41–42; see also Castells et al. 2007, 219).

2.4 Literature on photo messaging

The first mobile phone with a built-in digital camera was introduced in Japan in July 1999 (Okada 2005, 56). The first MMS messages were sent in 2001. However, as early as November 2000, J-Phone in Japan offered the Sha-mail (photo mail) service, making it possible to send photographs from the mobile phone (Okabe & Ito 2006, 80). In Finland, the sending of MMS messages was introduced to the public in 2002.

Even though I do not limit photo messaging to MMS messaging, MMS as a technological platform is still in the core of the study. Many relevant studies on photo messaging have concentrated on MMS messaging, as in the first part of the 00s Internet and mobile communication had not fully began to converge, and hence MMS messaging via mobile phone networks was practically the only available means for photo messaging.

During the course of the study, I implemented a systematic and wide-ranging exploration and collection of studies on photo messaging, encompassing research conducted between 1997 and 2008. I began by reviewing studies available via the ACM digital library[9]. I continued the search by carefully inspecting the references to other research relating to photo messaging. I began to note certain studies surfacing repeatedly. I terminated the systematic search for new studies on photo messaging in autumn 2008.

I reviewed the available research[10] on photo messaging especially from a non-technological perspective, that is, focusing on studies that discuss social behaviour related to photo messaging, rather than its technological aspects. The main corpus of literature includes texts written by social scientists that have been published as chapters or articles in edited books on mobile communication (e.g. Scifo 2005; Oksman 2005; Rivière 2005; Döring et al. 2006), a few monographs (Koskinen et al. 2002; Koskinen 2007), and articles in journals or papers published in conference proceedings (e.g. Mäkelä et al. 2000; Kindberg et al. 2005a). The reasonably small number of empirical studies on photo messaging means that I have not needed

9 ACM (Association for Computing Machinery) provides a large selection of journals and proceedings papers on new communication technology, www.acm.org.

10 Possibly a significant part of the research on photo messaging has been done in an industry setting, and has thus been out of my reach for reasons related to corporate confidentiality.

to knowingly exclude any research on the communicative aspects of photo messaging from the study.

In the following, I will review the studies on photo messaging and sharing of camera phone photographs most utilized in my argumentation when discussing the conventions and practices of photo messaging. In all, Finland has been on the forefront of research in the field. The first research projects on photo messaging were implemented even before MMS messaging was introduced. The pioneering study project, *Maypole,* in 1997–1999 was conducted in Finland and Austria by Anu Mäkelä, Verena Giller, Manfred Tscheligi and Reinhard Sefelin. The four-week field trial included a group of four 12-year-old Finnish boys and a family in Vienna with four children and a grandmother. The main user group was therefore children. (Mäkelä et al. 2000, 548–550)

The focus in the Maypole field trial was on communication with digital images over a wireless network and the cultural and personal meanings of using images as a communicational resource. A prototype device was developed consisting of a camera, an interface module, and a laptop in a rucksack. The functions of the prototype were limited to communicating pictures. According to the researchers, the possibility to use text or audio would have biased the results. The main finding was that images were mainly used for joking, expressing emotions and creating art. (Mäkelä et al. 2000) According to Koskinen et al. (2002), the hard-edged focus on visual communication had an effect on these results.

The other pioneering study on photo messaging is the *Mobile Image* study done by two sociologists and an industrial designer – Ilpo Koskinen, Turo-Kimmo Lehtonen and Esko Kurvinen (Koskinen et al. 2002) – in Finland in 1999–2000. The subjects in the study could send photographs via e-mail, using a mobile phone and a digital camera connected with an infrared link. The study included four user groups with five members in each, studied for approximately 2–3 months. The analysis focused on two groups, one consisting of men and the other of women. Those groups sent altogether 371 messages containing 1 to 16 photographs each. The focus in the study was on the messages themselves – how people construct them, and how messages interact with other messages. The images communicated during the study were also automatically sent to one of the researchers. The data was complemented with two rounds of interviews. (ibid.)

Mobile Image is an ethnomethodologically oriented study. The focus was on interaction, on how messages are constructed and responded to; each message is shaped by the context in which it takes place, while it simultaneously reshapes that context. The researchers state quite clearly the importance of interaction in mobile multimedia: "MMS is not just a technology for interaction; interaction is an essential phenomenon to be studied if we want to understand mobile multimedia." (Koskinen 2005b; Koskinen & Kurvinen 2005a; see also Koskinen 2007, 105; Kurvinen 2007)

Both Maypole and Mobile Image can be called design studies – studies of technology that does not yet exist on the marketplace. Design studies offer a unique opportunity to combine technology, design and behavioural issues to inform technology and service development. (Koskinen 2005b)

Another ethnomethodologically oriented study made in Finland on photo messaging is the *Radiolinja* study, conducted in 2002 by Ilpo Koskinen, Katja Battarbee and Esko Kurvinen. The users were given MMS-enabled phones. In the study, three mixed-gender groups (7, 7, and 11 members) were followed for five weeks. Overall, users sent over 4,000 messages, of which over 2,000 were unique, the rest being duplicates in group messages or recycled messages. (Koskinen 2003, 645; Koskinen 2005a, 342–343; Koskinen 2005b) The Radiolinja study, too, stressed the significance of interaction. For example, an analysis of a random sample of 100 messages from the Radiolinja data showed that 32 percent of MMS messages referred explicitly to a previous message (Koskinen 2003, 646–647).

A research group at the University of Tampere in Finland (reported by Virpi Oksman 2005; 2006) began to chart developments in the usage of mobile communication in 1997. They utilized two different types of ethnographic research design: field experiments and longitudinal follow-up study of the phenomenon through thematic interviews and observation. They analyzed the cultural attitudes that users of various age groups have in relation to mobile media, data communication and value-added services. They also carried out field experiments with key informants using 3G phones, detailing the usage situations of daily life. (Oksman 2006, 103–104)

After 2002, the study of MMS communication became an important aspect of the Tampere research (Oksman 2005, 349). The study concentrated on early adopters who had independently acquired an MMS-enabled phone. The focus was on the free-time oriented use of

mobile media. Thematic interviews were conducted with some 300 people. Other methods included the observation of the use of mobile media in various situations, as well as analysis of the material produced by the study subjects. (ibid.)

Oksman (2005, 360–361) concludes their research on MMS messaging by stating that, at that time, the perceived identity of the camera in the camera phone was primarily that of a ubiquitous digital camera or a miniature photo album, and not a visual communication medium. Real interactivity and image sociability could not yet be detected in MMS communication.

Other Finnish studies that have focused on communicating camera phone photographs, although not explicitly on photo messaging, are *MobShare* (Sarvas et al. 2004; Sarvas et al. 2005), the study reported by Vihavainen et al. (2007), and the study by Heli Rantavuo (2007; 2008; 2009), completed at the University of Art and Design Helsinki. Rantavuo carried out an empirical study for her doctoral research in 2006 with sixteen Finnish camera phone photographers. She utilized interviews, photographs and diaries. Based on the interviews, she concluded that camera phone photographs gain their meaning through connections to media and communication beyond mobile technologies. (Rantavuo 2009)

In their study, Vihavainen et al. (2007) interviewed ten people on their photographic practices, use of information technology, and social networks. Importantly, the researchers also implemented a web-based questionnaire that was distributed through three Finnish websites and had 12,532 respondents (ibid.). The study on MobShare (Sarvas et al. 2004) – a mobile picture sharing, archiving and managing application – focused on the sharing of camera phone photographs on the web within a circle of acquaintances.

On the international level, a widely cited study relating partly to photo messaging has been the research project guided by Tim Kindberg at Hewlett-Packard and Microsoft (Kindberg et al. 2004; Kindberg et al. 2005a; Kindberg et al. 2005b; Spasojevic 2005). The study was conducted in 2004 with 34 subjects (9 youths and 10 adults in the UK and 4 youths and 11 adults in the US). It revolved around the collection and examination of actual images captured or received by camera phone users, combined with two rounds of in-depth interviews. Subjects were asked to bring their camera phones to both interviews, and a random selection of the images was chosen for closer examination. The researchers discussed together with the partici-

pants the contents of the images, the intentions behind taking them, and their uses. The researchers collected data on altogether 303 photographs. (Kindberg et al. 2004) It has to be noted that the majority of the images were not shared remotely but used rather for co-present sharing or strictly personal use.

The primary interest in the study was in finding out motives for capturing and sharing images. The researchers distinguished two motives for taking mobile photographs: affective and functional reasons. *Affective* is used for images which have been captured for some sentimental or emotional reason. By contrast, *functional* images are those taken to support a particular, more pragmatic or practical task. The results show that the affective reasons for image capture clearly outweigh functional reasons: 84 percent against 19 percent of the images.[11] The researchers also divided the corpus of captured images between such dimensions as social versus individual intentions, as well as sharing with people who were co-present at the time of image capture versus sharing with people who were not physically present. (Kindberg et al. 2004)

Insights into photo messaging have also been offered by Larissa Hjorth (2005a; 2005b; 2007) and Bo Gai (2007). Hjorth (2005a; 2005b) conducted a survey in Australia in 2004 with 20 respondents – students, administrators and staff from the University of Melbourne, with ages ranging from 20 to 50. She followed these up with in-depth interviews with six users, her interest being in the role of the mobile phone in their everyday rituals. Notably, the great majority of the 20 subjects were still non-camera phone users at the time. In another study, Hjorth (2007) carried out an ethnographic, four-month-long study with 34 South Korean university students, asking them to analyze and comment on their own mobile phone practices. Instead of using MMS, the subjects preferred to share their camera phone photographs via a community-based online network.

Gai (2007) conducted in-depth interviews with 16 camera phone users in Beijing, combined with the collection and examination of photographs saved by the informants. The focus in the study was on how the camera phone influences users' personal and social experiences. In the analysis, photo taking was categorized into functional and non-functional use, and photo sharing into distant transmission and co-present sharing.

11 The total of 103 percent is a consequence of three percent of the images having been captured with both an affective and functional intention.

Studies that focus more deliberately on photo messaging include the research project directed by Fausto Colombo and Barbara Scifo, carried out by a workgroup of the Osservatorio sulla Comunicazione at Università Cattolica in Milan, Italy (Scifo 2005). It involved 70 male and female participants ranging in age from teenagers to young adults. The fieldwork was conducted in June–July and September–October 2003. The study utilized five focus groups and in-depth and non-directional interviews, added with a socio-linguistic analysis of a sample of photographs taken and sent with camera phones. The results demonstrate that the camera phone has significance on two different levels of experience: on the level of socialization, it represents a new communication resource that can be invested in one's peer group and in one's relationships, while on an individual level, the camera phone represents a new form of extension of one's experience and memory. (ibid.)

Researchers lead by Nicola Döring (Döring et al. 2006) at the Institute of Media and Communication Science at the Ilmenau University of Technology studied MMS messages and e-mails focusing on a large collective of German-speaking respondents (112 persons, aged 14 to 51). By using a protocol questionnaire, the respondents supplied detailed information concerning 603 e-mails with image attachments and 342 MMS messages. The data included the precise text and image content, information concerning the communicational framework, and a subjective interpretation of the messages. The messages were categorized on the basis of a content analysis taken from previous research on MMS messaging. Utilizing the categories introduced in Kindberg et al. (2004), Döring et al. (2006, 197) show that MMS messages primarily fulfil an affective function within close social relationships. The authors relate affective messages to the exchange of feelings, strengthening social relationships and enhancing the sense of belonging (ibid., 202).

Carole Rivière (2005) bases her views on a study carried out in Japan as part of a larger study by France Telecom. A series of semi-structured interviews lasting approximately two hours were held with 41 people in 2002. The interviews focused on the motives for using mobile phones and the situations in which people use them. Based on the results Rivière stresses photography's new social function, the feeling of an "image of being together". She considers the possibilities brought about by camera phones as something focal: "Combining a mobile telephone with a camera significantly transforms pho-

tography's social function by integrating the possibility of producing and exchanging photographs with an interpersonal communication medium." (ibid., 171) Rivière's study shares many themes with my own work, such as the intimate role of the image in interpersonal relationships. However, one notable difference is her emphasis on the role of the image in the development of the self and the identification process.

Rich Ling and Tom Julsrud (2005) organized a field trial on MMS use in Norway among three different groups of users: mobile salespeople for a soft-drink company, real-estate salespeople and a team of carpenters. The selection of these groups was based on the idea that they need to communicate visual information. They were given a camera phone and free access to MMS for a period of six months. Data was collected in group interviews, individual interviews and via observations. In addition, MMS messages were collected to allow an insight into the actual types of use. Ling and Julsrud identify five different genres of MMS: documentation of work-related objects, visualization of details, snapshots, postcards and greetings, and chain-messages. (ibid.)

The other studies on visual mobile communication have largely focused on communicating photographs to the web, instead of communicating photographs from phone to phone. The MMM *(Mobile Media Metadata)* studies guided by Nancy Van House at the School of Information at UC Berkeley (Van House et al. 2005; Van House & Davis 2005; Wilhelm et al. 2004; Davis et al. 2005) represent an experiment on web-based photo sharing from a camera phone. In 2003, the research group introduced the first system, the MMM1, to 55 people for a four-month trial. The system enabled image annotation at the point of capture. Based on findings from MMM1, it was learned that, in addition to capture, sharing is a key point in the mobile media lifecycle. (Wilhelm et al. 2004)

The follow-up MMM2 study consisted of a six-month trial with 60 users. Some used the system for as long as 10 months. There was a remarkable increase in camera phone use between MMM1 and MMM2, for which there appears to be a variety of contributing factors: better image quality of the photographs, increased familiarity with camera phones, automatic background uploading of photographs to the web and the availability of a better sharing system for images. (Van House & Davis 2005) The major significance of the MMM2 study is the large amount of visual data gathered, as during the study the

users captured and uploaded more than 24,000 images. Both MMM studies benefit from the length of the study, and the number of users involved. They pay serious attention to sociability as a driving force in mobile multimedia (Koskinen 2005b).

Studies on camera phones made in Japan by Mizuko Ito and Daisuke Okabe also prove useful for research on photo messaging. One of their studies (Okabe 2004; 2005) involved two high school students, eight college students, two housewives, and three professionals in their early thirties. Oriented by ethnography, Okabe and Ito used interviews and camera phone diaries (diary-based studies of mobile phone use included with a record of photographs captured, received and shared). Every participant was asked to submit his or her latest ten pictures. The researchers highlight personal archiving, intimate sharing, and peer-to-peer news and sharing as patterns of camera phone use (Okabe 2004).

In the other study by Ito and Okabe (Ito 2005b), a field trial was conducted where five college students were provided with handsets with which they could capture and upload photos to a private moblog.[12] The trial ran for two weeks. The outcome of the study was that, by using mobile technology, the couples had an ambient, shared visual context of which they were jointly aware, even when they were physically apart. (ibid.)

The only extensive volumes concentrating on photo messaging (or more generally on mobile multimedia) are the book based on the Mobile Image study (Koskinen et al. 2002) and *Mobile Multimedia in Action* by Ilpo Koskinen (2007). By mobile multimedia, Koskinen (ibid.) refers to a set of technologies that enable people to capture, send and receive photographs, sounds and video. *Mobile Multimedia in Action* is based on the Mobile Image and Radiolinja studies.

In the following, I aim to evaluate the studies that offer the key findings for the research on photo messaging. I introduce a hierarchy based on the amount of data collected, the number of participants included and the length of the study. I classify the studies in a ranked order, rounding off with the studies I consider to provide the most substantial data.

12 The publishing of camera phone photographs on the web has been labelled as *moblogging*. The main difference between moblogs and weblogs is that moblogs are uploaded and maintained from mobile devices and consist mainly of mobile phone photographs (see e.g. Döring & Gundolf 2005, 212; Jacucci et al. 2005).

Maypole is significant for being the first study made on photo messaging and for breaking new ground, but in terms of data gathered, it is minor. The same is true for the studies by Okabe and Ito, especially in relation to the number of respondents.

The study by Rivière presents information collected from a reasonably large number of subjects. It consists of only one round of interviews, and thus its orientation is not in a longitudinal follow-up. The study reported by Scifo also involves a considerable number of respondents but does not concentrate on gathering a large sample of photographs. The study by Ling and Julsrud has a long time span but a rather small number of subjects. The research by the group lead by Döring offers detailed information on almost 1,000 photo messages. The study relies only on a questionnaire and does not utilize interviews in order to augment the data.

The Mobile Image and Radiolinja studies lasted from five weeks to several months and had both over 20 respondents. The researchers were able to utilize a large number of photographs. The value of the Mobile Image study also lies in the fact that Koskinen and his colleagues elaborate their results in a full monograph based on the study, instead of producing only shorter scientific articles.

The study by Kindberg and his research group focuses on roughly the same number of subjects as the Mobile Image study, but presents fewer photographs acquired from them. Its merit is that the researchers discussed all of the over 300 photographs with the respondents.

The strength of the study reported by Oksman is in its large number of respondents. However, research on photo messaging is only one aspect of the study, and its offering is more oriented toward the study of mobile communication and camera phones in general.

The most data was produced in the MMM studies. The studies lasted for a reasonably long time and the number of images gathered was large in comparison to the other studies I have reviewed. However, the focus was not explicitly on photo messaging; the participants shared photographs through a web-based photo-sharing system, which did not represent strictly interpersonal, one-to-one photo sharing. Yet, the data presented by the research group at UC Berkeley on the sharing of camera phone photographs is solid.

What is common for studies on photo messaging is that they have not used statistics on large segments of camera phone users. In general, the studies can be characterized as interpretive: the overall aim has been to describe and understand rather than explain or predict

the practices and conventions (Koskinen 2005b). The researchers have explored actual users through interviews, by discussing messages they have taken, and sometimes by observing them (ibid.).

Many of the studies share an ethnomethodological or ethnographic orientation. From an ethnomethodological standpoint, the social world's facticity is accomplished by way of members' constitutive interactional work. In a manner of speaking, ethnomethodologists focus on how members actually *do* social life. (Holstein & Gubrium 2005, 486) Ethnomethodology encourages looking at people's everyday ways of producing orderly social interaction. It is the documentary method of interpretation. (Silverman 2001, 3–4)

Ethnography is based on observational work in particular settings (Silverman 2000, 37). The ethnographic methods utilized in certain studies on photo messaging do not represent the anthropological tradition, in which ethnographic fieldwork usually means living with and living like the people studied. However, as Oksman (2006, 105) well points out, when examining the use of the mobile phone in contemporary society, researchers are already living amidst the studied phenomenon.

The study at hand shares the interpretive approach. My contribution to the research on photo messaging is to present new qualitative data and, importantly, to offer a consistent reading and a unifying framework in which to assess the results and insights presented in previous studies. For this task, I apply the ritual view of communication and the concept of mediated presence.

In relation to research on photography, my goal is to superimpose canonized works and theories of photography on the new conventions of photography affected by telecommunication technology. Although Roland Barthes and the others studied an analogue, material photograph, it is feasible to apply their insights on the new immaterial and networked forms of photography and photographic communication.

2.5 The Arcada study

I refer to my empirical case study as the *Arcada study*, as it was carried out with students and staff members at the Arcada University of Applied Science in Helsinki, Finland. The Arcada University offers education in the fields of sport, health care, social services, business administration, media and technology.[13]

The function of the Arcada study is to link the theoretical insights to actual practices of photo messaging among a selected group of subjects (see Eskola & Suoranta 2003, 178–179). The role of the Arcada study is not inductive, as the main themes and concepts evolved during the earlier stages of the research, before I began to work on the empirical study.

The Arcada study consists of quantitative and qualitative parts: a questionnaire and a set of study interviews. The qualitative part plays a much greater role in the study, as the quantitative data obtained by the questionnaire was used primarily to provide background information on the study group and to assist in sampling the interviewees.

Altogether 91 respondents took the questionnaire and eight subjects participated in the interviews. The language of both the questionnaire and the interviews was English, because I wanted to obtain material which would not require translating into English. In addition, the two classes at Arcada from which I acquired the student respondents were held in English. The interviewees had a good command of English, and only one interviewee wished to do the interview in Finnish. Most of the Arcada participants spoke Swedish as their mother tongue, thus representing a language minority in Finland.

The student and the staff groups were both presented with the questionnaire first. The students answered the questionnaire during lectures on 27th November 2006 and 7th December 2006. The Arcada staff answered the questionnaire online in May 2007. All students attending class on those days took the questionnaire. With the Arcada staff, the questionnaire was directed at the whole staff, a part of whom answered. In this sense, I did not explicitly choose 91 persons to fill out the questionnaire. Neither did I explore for diversity in gender or geography when electing the study subjects.

13 http://www.arcada.fi/en/about-arcada

The student group consisted of first and second year media students attending the course *Critical Media Analysis* at Arcada. Their average age was 23 (age range 19–41). Of the students 33 were male and 21 female. The professions of the Arcada staff members were related to teaching, research and administrative duties. Their average age was 44 (age range 22–62). The staff group included 37 persons of whom 17 were male and 20 female.

Although I collected data from two age groups, I did not process them separately. A strict sorting would have made sense only if the practices or experiences of photo messaging had been radically different from one group to the other. However, the results from the questionnaire did not show evidence of this.

In the questionnaire the participants described their skills as users of new communication technology as being between *skilful* and *average*. The students had been using a mobile phone on average for eight years, the staff members for twelve years (there were some truly early adopters who had used a mobile phone for the first time in the 1980s). There were no radical differences between the two groups in regard to the functions of the mobile phone they use, although playing games on the mobile phone was clearly more popular with the students, while the share of mobile web and e-mail use was higher among the staff members. Surprisingly, only 15 people (17 percent of the respondents) reported using the mobile phone for accessing the web and just four (4.4%) used mobile e-mail. Four respondents were (still) using WAP. 21 respondents (12 students and 9 staff members) reported using their mobile phones only for calling or sending text messages. Half (53%) of the respondents owned a mobile phone with a camera. However, many of the camera phone owners had not sent photo messages, as only 32 percent of all the respondents acknowledged having used MMS.

The questionnaire is attached as appendix 1. During analysis, I collated the data under the headings *mobile phone use, camera use, camera phone use, sharing photographs, sending and receiving MMS messages, contents of MMS messages* and *storage of MMS messages*.[14]

Based on the results from the questionnaire, I decided to interview eight people, four students and four staff members, five of whom were male and three female. All of them were Finnish citizens. The age

14 In 2006–2007, mobile Internet use was still rare in Finland and, consequently, sending camera phone photographs via e-mail or IM was uncommon. Therefore, the questionnaire concentrated solely on the use of MMS in photo messaging.

range was between 21 and 59. The only qualitative information I obtained from the eight subjects was through the interviews, as I did not utilize any autodocumentary contents or recording of their activities. I refer to the interviewees by using pseudonyms.

The sampling procedure for the interviewees was purposive (Silverman 2000, 104). It consisted of searching the questionnaire data for good informants – people who have actually sent MMS messages, and especially people who have sent at least a few messages per year. The main objective was to find actual users of photo messaging, so that their views would not be only hypothetical but arise from authentic conventions. I did not aspire to representativeness with regard to some larger population or even to the Arcada group consisting of 91 respondents.

The first of the student interviewees, *Kasper* (aged 21), was specializing in digital multimedia at Arcada. He described having a close relationship with photography: he had previously worked as a photographer at a local newspaper and also taken promotional pictures for music bands. *Lotta* (aged 21) was specializing in digital multimedia as well. She had begun photographing only when she entered Arcada and had captured photographs just for personal pleasure. She was a habitual photographer, describing her habits as "taking pictures for fun, from parties and different occasions". Like Kasper and Lotta, *Joakim* (aged 23) was specializing in digital multimedia. For him, photography was a hobby, and he usually carried both a normal camera and a camera phone with him. He mentioned having photographed for a friend, who is a fashion designer. *Mikael* (aged 21) was a student of media culture. He had studied some photography but had not published photographs. He might take several hundred photographs in a day, and then nothing for a long time. He preferred better digital cameras to mobile phones.

Anja (aged 55) worked at Arcada as director of a study programme. She used to take pictures of family and nature, as well travel photographs. She did not have any experience in professional photography. *Kjell* (aged 52) was a programme director at Arcada. He photographed regularly, on several days a week, and had also developed photographs by himself. Thus, he explained his photographic habits as being more than just snapshot photography. However, he had not published photographs. The youngest of the Arcada staff members was *Ulla* (aged 35), a teacher in the media technology department. She stated photographing all that she sees. She also had a cus-

tom of building pictorial archives; she had archived plants, and at the time of the interview she used to archive VW Kleinbuses. *Bengt* (59) worked at Arcada as research coordinator. He used to photograph every second week. He took a lot of pictures on travels but also photographed his grandchildren when he met them.

Despite the purposive sampling, the views of the interviewees were not based on vast experience or a habit of photo messaging. None of the interviewees was a heavy user or extremely enthusiastic about photo messaging. Based on the estimates given in the questionnaire, of the eight interviewees only two (Kasper and Bengt) usually sent more than 10 MMS messages per month. The rest sent only a few messages monthly or might spend months without sending any messages. By contrast, many of the interviewees were interested in photography, probably more so than the average camera phone user.

The student interviews were conducted in February 2007, and the staff members were interviewed between June and August 2007. The interviews were conducted one-to-one. At the beginning of every interview, I asked for consent to use the interview material in my study.

I utilized a semi-structured model for the interviews. In advance, I prepared a form with a set of questions divided into themes, which I then presented to all of the interviewees. The main themes in the interviews were *time and distance, interpersonal communication, ritual and transmission, photography* and *communication*.[15]

The dialogue during the interviews was staged according to a thematic, topic-centred structure (Mason 2002, 62–63). All the interviews followed the same structure and the themes were discussed in the same order. I wanted the interviewees to continue their thoughts along new lines as well, and asked them to elaborate on certain themes that seemed interesting, and to express reflective and critical views. They were also free to introduce new topics into the conversation, but this rarely happened. My main interest was in the perceptions and interpretations of the interviewees (Silverman 2001, 83; Mason 2002, 56).

After collecting the interview material, I transcribed the interviews and analyzed the material thematically. I did not use any specific software for qualitative analysis. I classified the interview material thematically under the headings *sharing, interpersonal com-*

15 For the whole interview framework see appendix 2.

munication, visual communication, camera vs. phone, mediated presence, ritual, transmission, connection, immediacy, transience, intimacy, mundane and *personal communication*. These thematic headings were based on the five main themes in the interview framework and derived from the study of previous literature.

In the text, I report the most "telling extracts" from the data: the most articulate and apt expressions related to each theme I discuss, and those views that were pronouncedly expressed by the interviewees, yet providing also the deviant cases, the examples that do not fit my suppositions (Silverman 2001, 83). Although I did not utilize any particular method of analysis, the thematically oriented accumulation of the empirical data and its thematic analysis were systematic and based on a firm theoretical foundation.

I do not treat or study the interviewees as individual cases, but rather disperse the quotes from the interviews along the study, according to the related themes. Generally, I place the material from the Arcada interviews at the end of each section.

I asked the interviewees for permission to include their camera phone photographs in the study, especially those brought up by the interviewees themselves, either during the thematic interviews or when looking together at their photographs at the end of the interview. Six of the eight interviewees agreed to show their camera phone photographs either from the screen of their mobile phone or from the screen of a laptop (in the case of photographs that had been transferred from the phone to the computer). I received altogether 14 photographs from five interviewees (Kasper, Lotta, Joakim, Anja and Ulla). Exceptionally, Mikael transferred as many as 154 camera phone photographs to my computer. However, only a small minority of them had been sent forward as photo messages.

I present in total 15 photographs, seven of which are from Mikael and five from Ulla. I have obtained a written consent via e-mail to publish the photographs. Based on the interviewees' descriptions, I explain how each photograph was used in communication. I also make brief readings of their contents.

Neither the qualitative or quantitative data is aimed to provide an empirical generalization about a wider population of camera phone users, due to the small scale and purposive sampling. However, I do consider that my observations, explanations and arguments based on the Arcada material can assist in generating wider theoretical resonance.

2.6 Outline of the study

The conventions of both mobile communication and personal photography, conjoined by the perspective of communication studies, determine the main themes of the study. These themes are *interpersonal communication*, *intimacy*, *immediacy*, *transience*, *ritual communication* and *mediated presence*. I consider these themes to be elemental when aiming to elucidate photo messaging as a form of visual mobile communication.

All of the themes derive from the practices of mobile communication, in particular mobile messaging. Messages are predominantly communicated from the mobile phone directly to another familiar person, in an immediate manner, they are not customarily saved for extended periods, they are used to create as sense of togetherness between the communicators in a ritual manner, and they can mediate the presence of the sender. Two of the themes – intimacy and mediated presence – overlap with both mobile communication and personal photography: personal photography is about communication of and with intimate others, and photographs serve a vital role in mediating presence.

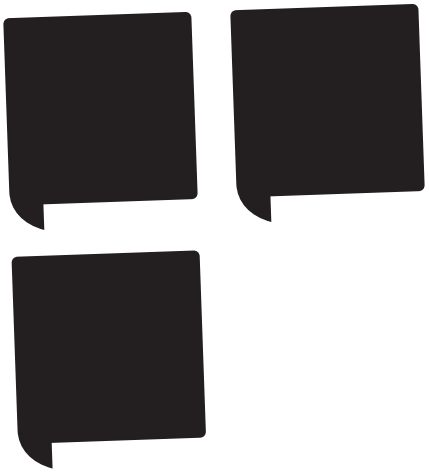
The main themes of my study are strongly interconnected. Immediacy of communication is essential in relation to mediating contemporaneous presence. Interpersonal communication and intimate communication are significant when considering ritual communication. In addition, ritual communication and presence are interlinked, as mediated presence is an important factor in creating a feeling of togetherness and participation.

The structure of the study consists of a thematic continuum leading to the discussion of my main arguments. Each of the core chapters covers one or two components relating to photo messaging.

In chapters three to five, I lay the foundation for my framework by reviewing camera phone photography, interpersonal communication, intimacy in communication, immediacy and transience. First, in chapter three (*Camera phone photography*), I discuss how the convergence of the phone and the camera is perceived, and what the relation of camera phone photography to digital photography and snapshot photography is. I situate camera phone photography and communication in the context of networked communication and discuss photo messaging in relation to the notion of post-photography. Next, in chapter four (*Interpersonal and intimate photograph-*

ic communication), I examine photo messaging as a form of interpersonal and intimate photographic communication. I consider interpersonal communication and communication between close acquaintances (family, friends) to be relevant aspects that photo messaging shares with the practices of mobile phone communication. In chapter five (*Near-time photographic communication*), I study how the time-related conventions of mobile communication – immediacy and transience – influence personal photography and visual mobile communication, and how photo messaging diverges from conventional photography, especially in relation to its temporal aspects.

I discuss the most important themes of my study – ritual communication and mediated presence – in the latter part of the work, in chapters six and seven. In chapter six (*Ritual visual communication*), I examine the practices of photo messaging by utilizing the model that distinguishes the ritual view and the transmission view of communication. In chapter seven (*Mediated presence*), the focus is on mediated presence. I link the concept of presence to photographic theory and demonstrate how photo messages are used to establish a sense of presence over distance. Chapter eight concludes the study by summing up the focal aspects of photo messaging in the context of mobile communication and photography.



3 Camera phone photography

The camera phone is characterized by media convergence as a technological process that joins different and previously divergent media functions into one device. Media convergence also entails the integration, or unification, of media systems and media forms. The force behind the advancement in media convergence in the last decades has been mainly digital technology, and the basic form in which almost all media content can be converted to: the bit (one or zero) can mediate text, images or audio. Digitalization makes the signals equal, regardless of the content they communicate. (Villi 2006, 101–102)

The camera phone is a product of the digital age, as it would have been technically and practically quite unfeasible to combine an analogue film camera and a landline telephone into one device. The analogue camera phone would have required a Polaroid camera with an attached fax machine to communicate the photographs and, in addition, would have allowed photographic communication only within a short distance from a telephone socket.

In general, the convergence of the camera and the phone introduces a promise of novel forms of photographic communication, such as the capacity for ubiquitous, perpetual visual contact between remote others. Potentially it is the most radical development in photography since the advent of the film camera, which made personal photography possible (Van House et al. 2005).

The camera phone is used at times as a *pure* phone, and at other times as a *pure* camera, but despite the technological potential, not as often as a *camera-phone*, which would combine simultaneously the two different modes of communication offered by the converged device: photography and telecommunication. The communicative link between the camera and the phone is seemingly trivial, although

they both reside in the same device. The camera phone is like a Swiss army knife (Satyanarayanan 2005; see also Liestøl 2007, 169–170), which allows the use of the knife, the scissors or the corkscrew, but does not enable the simultaneous use of the corkscrew and the scissors. It is a converged device, but not a *corkscrew-scissors* device.

The camera, along with many other functions, is often neglected in this Swiss army media device, and the conventional use of the phone for verbal communication is still seen as the primary feature of the mobile phone. Put in a sarcastic tone: it can be as easy to forget the existence of the camera in a mobile phone as it is easy to forget the existence of a toothpick in a Swiss army knife.

This chapter examines the characteristics of the camera phone, especially in relation to photography. I will begin by discussing the relationship between the camera phone and the stand-alone camera, and the link between the camera and the phone in the camera phone. Then, I will focus on networked photography – the use of the camera phone as a networked communication device instead of a tool for memory. I will end the chapter with a review of camera phone photography and photo messaging in the context of post-photography, which is concerned with the fate of the photograph in the age of digital image manufacturing and manipulation.

3.1 The real camera and the spare camera

Until this millennium the camera was a device with just one purpose: to take photographs. Communication of photographs was left for other media (paper, envelope, facsimile and lately the computer) to accomplish. There was an apparent difference between the device that took the photograph and the medium that communicated it.

The affiliation between camera phones and stand-alone cameras can be compared to the evolution of the PC. Russell Beale (2005, 35) notes how PCs were initially used for content creation and information storage, and it was only when connected to the Internet that they became strong "communication tools". According to this logic, it is possible to talk of cameras as communication tools only when they are attached to a network, e.g. when a camera is incorporated into a mobile phone. Otherwise cameras are just devices for content creation and information storage. Mobile phones, by contrast, are, and always have been, predominantly communication tools.

In the Arcada interviews, the subjects had varying notions on the convergence of the camera and the phone. In general, the camera in the mobile phone was not regarded as an indispensable communicative accessory, but rather a "nice addition". Anja mentioned that she does not always even remember that there is a camera in her camera phone.

Kasper presented a rather cynical view toward the camera phone: "The phone is the one that matters (...) I could easily live with a phone without the camera (...) the camera [in the phone] is just a gadget that comes along during technology evolution."

Mikael described the discrepancy between the stand-alone camera and the camera phone as follows: "Camera phone photos are very simple, they can be only one thing you want to say or express", and with a standard camera it is possible to "say more". The camera phone can be used to take snapshots, whereas the camera is used for more artistic photography, when there is a "purpose to take photographs". This is emphasized by the fact that Mikael did not own a stand-alone camera, so he had to borrow one when he had a specific need or purpose to photograph.

Anja described using the stand-alone camera to photograph – actually to document – family Christmases, "to place the photographs with other memories (...) that's how we looked like then (...) the napkins were of that colour". By contrast, her camera phone photographs

did not serve the same documentary use, and they were tied more to the moment.

Kjell had been experimentally using his camera phone for "proper photography", when he documented a sailing trip with just the camera phone, although later on he did not accept the quality. Despite this negative experience, he planned on using his new camera phone the next summer "to document everything I do", mainly in order to test the quality of the camera phone.

Lotta described the genre of camera phone photography as being "situational photography", intended for moments when it "pops up in your head that I could take a picture". Kasper, too, asserted using the camera phone mainly to capture "more spontaneous reactions".

Ulla portrayed her mobile phone photography as "impulsive" and tended to take more pictures with the camera phone than with a conventional camera. The mobile phone is a quick device to photograph with: "It's those Kodak moments, oh, this I have to get" and "things that you just have to capture, and you are not prepared to capture".

For Bengt, as well, the camera phone was most valuable in unanticipated situations: "If I don't have a camera with me and I see something that is worth taking a picture (...) when I have not thought of taking pictures but if the occasion is there, so then I could use it." He did not have the habit of using the camera phone for planned photography, mainly because of the technical shortcomings (picture quality, no possibility of zooming, no wide angle lens).[16] Kasper commented that "it's just a small picture [camera phone photo] anyway, so you don't rarely get to express some great artistic sense".

A common use for camera phones is thus photographing *emergency shots*, photographs that would not be taken if not for the ubiquitous mobile phone. For Joakim, the value of the camera phone was in "tough spots", situations when it is not convenient to search for the camera from the backpack, for instance. The "camera phone photographs are more random things that you don't really need". By contrast, he used the standard camera "for some kind of purpose".

Ulla offered an example of using her camera phone for an emergency shot when she took a photograph (Image 1, see page 198) of a Volkswagen Kleinbus that arrived to a Kleinbus convention at a mo-

16 Also for Ulla and Lotta, it was the low picture quality that made the phone pictures secondary. In relation to this, it has to be reminded that the four students interviewed were students in media studies, and three out of the four interviewed members of the Arcada staff were interested in photography. Thus, quality factors were important to them.

ment when she did not have the stand-alone camera with her. She had already documented the other Kleinbuses with that camera. The emergency of photographing the latecomer Kleinbus is evident, as in the picture it is driving away. It is not a deliberate shot of a Kleinbus *posing*.

In the Arcada study, the question of the phone becoming a medium of visual communication was, in general, not a very interesting or inspiring one for the interviewees. Generally, their answers concerning the convergence of the camera and the phone were quite neutral and declaratory. Ulla represented well the views of the interviewees when commenting that the importance of the camera in the phone was not that it has been placed in a communication device but that the camera resides in a ubiquitous device. Of importance is the fact that the camera is always with her: "It [the camera] could be in my home keys", and not necessarily in a phone.

The camera phone was mainly conceived of as a "spare camera", maybe even just a toy, which cannot be used to take "real" photographs, intended for dedicated photography. As Anja described, photographing a wedding with a camera phone might still be considered an "insult" towards the married couple, signifying that the event is not considered worthy to be documented with a "real camera".[17]

Based on these outlooks the camera phone is not a new type of camera, not even a *phone-camera*. It is just a camera, whose special characteristic is, for the most part, its ubiquitous nature, largely disregarding the telecommunicative abilities made possible by the inclusion of the camera in a phone.

Despite these insights, the camera phone entails the potential to be *real* as a photographic communication device. The quality of camera phone photographs can be adequate for interpersonal photographic communication, the sharing of transient photographs of transient moments; photographs intended to be enjoyed only in the moment, but not necessarily in the distant future.

Koskinen (2007, 11) concludes the divide between the potential conceptions of the camera phone as follows: if the users draw on their experience from mobile communication (especially text messaging), camera phones and photo messaging can be applied as instruments for interaction; if they rely on photography, they use their devices mainly for documenting ordinary things they want to remember later.

17 See also Rantavuo 2009 for a discussion on the relationship between camera phones and "proper" cameras.

3.2 Networked photography

Digital technology has changed photographic practices considerably. Digital cameras enable the capture of photographs without any additional expense. People can snap as much as they like with no effect other than the diminishing of the space left in the memory card, without having to think about the costs of developing the film. In my view, the main influence of digital technology on photography is the increasing immateriality of photographs.

Personal photography, such as family photography, depended until the emergence of digital photography and photographic telecommunication largely on prints as the format to present and communicate photographs. However, as Lowry et al. (2003, 10) note, the printed photographic still-image is no longer the archetypal form of the photograph; rather it is only one of many possible realizations of the photographic image. Many photographs are manifested and presented as a part of some other medium (phone, computer, MP3 player), visible on the screen of the device. When this feature is appended with a digital telecommunication network, new forms of photographic communication are enabled. Snapshot photography is shifting from a print-oriented mode to a transmission-oriented, screen-based mode (Rubinstein & Sluis 2008, 9).

The screen-based photograph can then act pronouncedly as a medium of communication, rather than as a precious object in itself. The switch of the photograph from an object-image to a screen-image affects the photograph as a memory-object that can be kept and handled (Rivière 2005, 175). Even more than before, the photograph is fleeting; photography has become a medium whose main task is communicating the pictorial content (Albrecht 2008, 4).

Peter Weibel (1996, 338–339) has divided the development of machine-aided image generation and transfer into an eight-stage model. The first stage is the invention of photography in 1839. The second stage is the machine-aided transmission of images over long distances via scanning. The seventh stage introduces interactive telecommunication technology to the model. Lister et al. (2003, 46–47) comment that all the advances listed by Weibel concern the increasing dematerialization of images. It is the story of the growing separation of images from any permanent physical vehicle that carries them.

The camera phone is the first telecommunicative camera that is within reach for ordinary customers. Earlier, the advantage of immediate visual telecommunication was afforded only to professional photojournalists and the like, who could use satellite links to send their visual material back to the editorial office. It is probable that in the future stand-alone cameras will also be increasingly equipped with telecommunication capabilities, seamlessly linking them to networked communication. Consumers are increasingly offered *connected cameras*.

The connected and networked aspect of photography is an important reason for photographs being increasingly directed towards communicating the present instead of preserving the past. As part of networked communication, the individual snapshot is "stripped of the fragile aura of the photographic object as it becomes absorbed into a stream of visual data" (Rubinstein & Sluis 2008, 23). Similar communicative behaviour is evident in the microblogging applications that have emerged on the web (such as Twitter and, in many ways, Facebook) that are constructed on the idea of communicating short messages about the whereabouts and thoughts of people.

Personal photography is, to a certain extent, evolving from snapshots to *snap-communication*. Dutch media theorist José van Dijck (2007) writes how in the analogue age, personal photography was foremost a means for autobiographical remembering, and photographs usually ended up as keepsakes in the photo album. Photography as a means for communication was rated secondary to its purpose as documentary of lived times. Now, by the integration of digital cameras with communication devices, such as mobile phones, photography bodes a preference for networked distribution, turning toward the transient and ephemeral. The camera is shifting from a memory tool to a communication device. (ibid., 98–99, 112, 116, 121; see also Rivière 2005, 175)

The corporations in the photography industry have also begun to see the change in the practices of photography. In a panel discussion at the 2007 International Consumer Electronics Show (CES), Kodak vice president of consumer imaging stated that instead of taking pictures "to remember something", photography, especially in the youth market, is increasingly about "visual communication" (Pasini 2007).

3.2.1 Photo messaging as one of the photographies

Peter Osborne (2003, 69-70) writes how the simple question of "*where* 'the photograph' is", is famously difficult to answer. It can be explored and possibly found in the print, the negative or the memory card. Osborne comes to the conclusion that "where is the photograph" is the wrong question. Rather than an artefact that can be identified in spatial terms, the photograph is an ideal unity. It is held together by the idea of the capture of a moment of time. (ibid.)[18]

However, it is possible to argue that the concept of photography is not axiomatic and to talk of different *photographies*, instead of one distinct and singular *photography*. One might also prefer to use the more generic *photographic image*, in place of the *photograph*.

One view is that the uses and genres of photography largely determine its essence. Geoffrey Batchen (1999, 5–6) states that photography has no coherent or unified history of its own other than as a "selective documentation of its various uses and effects". The identity of an individual photograph is thereby not equated with its inherent photographic qualities, but with what the photograph actually does in the society. (ibid.) Photography is a set of practices with different purposes (Lister 1995, 14; for similar views see also Sontag 1977, 148; Tagg 1988, 63, 118–119; Sturken & Cartwright 2001, 109; Osborne 2003, 65).

Based on this scenario, Batchen (1999, 12, 20, 176) divides the discussion on photography into two sides or views: to those who believe that photography has no singular identity, because photographs are always dependent on the context and the cultural practices (the postmodern view); and to those who dare to define and isolate the photograph's most essential and inherent attributes (the formalist view).

Janne Seppänen (2001b, 69–70) criticizes Batchen for building a strong binary polarity between the postmodernist and the formalist view. Seppänen argues that a photograph is never fully dependent on the societal conventions, but rather has its own *might*, although this might takes its form in cultural meanings. Instead, by adapting the thoughts of Lawrence Grossberg to photography, Seppänen (ibid.; 2005) presents the division between the essentialist and the anti-essentialist view of photography: the former sees a photograph as having an independent essence and identity, the latter emphasizes that

18 Photography, as a technique but primarily as an idea, is covered in Batchen 1999; see also Ivins 1953/1980; Sontag 1977; Tagg 1988; Crary 1990; Mirzoeff 1999; Sturken & Cartwright 2001; Kriebel 2007.

the identity of the photograph is constructed in the context of its use. According to Seppänen (2001b, 70), the anti-essentialist view differs from the postmodern view in underlining that the identity of a photograph is *temporary* and culturally conditional, whereas the postmodern view reduces the whole essence of the photograph to the context and culture. However, for my discussion, the evaluation between the two views is not critical, as they both bring fore the importance of the societal and cultural practices surrounding photography.

A photo message is in a formalist or essentialist sense *a photograph*. Yet, at the same time, it is a photograph used in a communicatively novel way, it is shaped very much by its communicative uses, and thus it is in the postmodern or anti-essentialist sense dependent on specific cultural practices. My argument is that the only transformation or paradigmatic change that photo messaging represents is *not in the ontology of the photograph itself, the photographic, but in photographic communication*. In the following, I will argue for this by contrasting photo messaging with the discussion on post-photography.

3.2.2 Communicative post-photography

Digitally produced imagery severs the ontological tie between the photograph and its referent, the object photographed (Osborne 2003, 63; for similar views on digital photographs as in some way non-indexical photographs see also Lacey 1998, 223; Bignell 2000, 142; Sturken & Cartwright 2001, 141; Laakso 2003, 101, 112–113, 173). The threat to the referential nature of photography has been marked as *post-photography*, even as the *death of photography*. Batchen (2001, 109) explains the situation as being a moment after, but not yet beyond photography: "[P]hotography as a separate entity might well be on the verge of disappearing forever, even as the photographic as a rich vocabulary of conventions and references lives on in ever-expanding splendour".

The concept of post-photography is connected primarily to the dilemma of the indexicality of the photograph, more specifically the digital manufacturing and manipulation of photographs. Many writers, like Sonesson (1999), use the concept of post-photography to describe those means for *creating* pictures which have come into being after photography and which are more or less connected to the computer.

Actually, the whole discussion on post-photography was fuelled by the emergence of means for digital manipulation and fabrication of

photographs by using a computer. For instance, William J. Mitchell (1992, 195–196, 225) underscores the possibility of digital technology to fabricate pseudo-photographs that have no external reference, that create illusions of existence. Andy Grundberg (1990, 221) proclaimed in the dawn of the digital era that "if photography survives into the next century, it will be as something more overtly fabricated, manipulative, artifactual, and self-conscious than the photography we have come to know".

Now, 20 years after those words, we know that the actuality in digital photography is very different; digital image fabrication, constructing *fake* photographs, makes up only a small sub-class of digital photography. Already in the mid-nineties Lev Manovich (1995b) criticized Mitchell for focusing solely on the abstract principles of digital imaging and the physical differences between analogue and digital photography. If one considers concrete digital technologies and their uses, the difference disappears: "digital photography simply does not exist" (ibid.). The disappearance of the negative and the substitution of the film with a memory card do not mean that photography represents some form of post-photography. Digital imaging, at least in the context of personal photography and camera phone photography, very rarely represents digital manipulation of photographs or the fabrication of synthetic photographs. Interestingly, family photography and other forms of personal photography have largely been omitted from the discussion on post-photography.

Family photography belongs mainly to the tradition of *straight photography*. The term refers to photography in which construction and manipulation are avoided as a matter of principle (Lister 1997, 283). It is common to regard the truth of a snapshot photograph with confidence, irrespective of whether it was taken with an analogue or digital camera; often, the viewer does not even know what kind of camera was used to take the printed photograph. Images for the family photo album are extremely rarely synthetic or even heavily manipulated, aside from cropping or adjusting the colours. Don Slater (1995, 145) observes felicitously how "Baudrillard may believe that the Gulf War happened mainly on TV, but the wedding damned well took place and here's the photo (and video) to prove it".

In this context a much more significant consequence of the digitalization of photography than image manipulation is that the photograph enters completely new areas, such as telephone communication. Therein also lies the change in photography that photo messag-

ing is all about. The increase in the number of camera phones does not lead to the death of photography, rather the opposite, as there is not much to do with the camera phone, other than to just point and shoot.[19] The probable presupposition is, when receiving an MMS message, that it has been sent directly from the phone, without having first been worked on with a computer.

Another aspect of photo messaging accentuating the trust in the authenticity of photographs is their mundane character. Green and Lowry (2003, 58–58) write how the amateur snapshots, the badly focused and ill-composed images, declare the bodily presence of the photographer, and thus "in their casual prolificness, do not so much represent the world as declare it to exist". The mundane photograph links itself to the everyday and ordinary, by style, technical imperfection and contents, which seem to verify its truthfulness and authenticity (see Elo 2005, 55–56).

The non-manipulative character of photo messages is also emphasized by the salience of real-time communication; the expected immediacy of communication does not allow many possibilities for image revision. The phone – instead of a full-fledged computer – and the aspect of real-time communication dramatize the presumed authenticity of photo messages.

To sum up, as long as the discourse of post-photography is mainly linked to the lack of an external reference for the image, photo messaging marks a distinction to other photographies only in the communicative sense, thereby representing *communicative post-photography*.

19 There are a growing number of applications available for smart phones which enable the editing of the photographs taken with the phone. However, most camera phones at present (early 2010) do not offer this possibility.

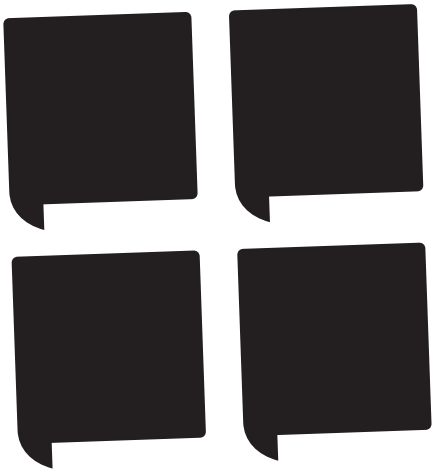
3.3 Conclusion

The camera phone epitomizes in a pivotal manner the convergence of photography and telecommunication, especially in the context of personal communication. Due to the emergence of camera phones, photography is now an organic part of telecommunication. Because of the direct link with a communication network, networked photography and snap-communication can partly replace (or augment) photographic practices oriented toward saving and archiving photographic memories.

People often carry with them a camera phone, but not necessarily a stand-alone camera. The camera phone might eventually become a universal camera, the camera that is used for all photographic situations and needs, especially if the technical quality of cameras in phones continues to improve. Photography and camera phone photography would then not exist as strictly separate practices, at least in the realm of personal photography. In every case, the cultural form of the camera phone is still in the making, be it in mobile interaction or conventional snapshot photography.

Results from the Arcada study show how the camera phone is mostly regarded as a spare camera for use when there is no "real" camera available. It is used mainly for taking unplanned snapshots, emergency shots. Of importance is that the camera is placed in a ubiquitous device; that it is planted in a telecommunication device is less relevant. As Ulla noted in a witty manner: "The camera could be in my home keys."

Photo messaging, while being part of digital photography, does not have much in common with the issues brought up in the discussion on post-photography, aroused by the emergence of digital technology into the practices of photography. In the context of photo messaging, digitality is just one, although necessary, component. The direct integration of photography with telecommunication technology is the feature that most characterizes photo messaging, and thus must be in the centre of a treatise on photo messaging.



4 Interpersonal and intimate photographic communication

> Because I like to send MMS messages to people I know, or I know that they are going to probably be interested in what I have to send. That's probably the reason why I don't send MMS to more random people.

The quote from Joakim sums up well the contents of this chapter. Photo messages are not functional or adequate in every social relationship. The connection between the communicators needs to be deep enough, intimate, for the receiver to really care about the personal and possibly mundane image and to appreciate the interpersonal contact established by a photo message. This intimate feature of photo messaging is common to mobile communication (see section 2.3), where most of the communication time is spent in the presence of "those who matter" (Gergen 2002, 238). Mobile messages in particular, such as text messages, are communicated in a rather narrow circle of friends and family members.

Intimacy – communication with close acquaintances – is an essential context when studying telephone communication in general. The landline phone was also used primarily to serve as an extension of face-to-face relations (Gergen 2002, 236), to contribute to strengthening the ties among people familiar with each other, with less emphasis on more extensive social networking (Geser 2004, 10; 2005, 31; see also de Gournay & Smoreda 2003, 58).

The other theme of this chapter is interpersonal communication. To a degree, the use of modern mobile phones, the so-called smart phones in particular, has diverged from interpersonal communica-

tion into the direction of using the device for such tasks as information retrieval, gaming or navigation. However, I argue that the use of the mobile phone is still, for the major part, concentrated on interpersonal communication, be it verbal or visual.

Although photo messaging now also involves other technologies and applications than MMS, I derive the emphasis on interpersonal communication very directly from MMS messaging. MMS can be conceived of as a visually enhanced form of text messaging, and in many ways photo messaging represents the convergence of text messaging and photography. The general idea behind text messaging is the rapid, immediate communication of texts created on a mobile phone and most often sent between two mobile phones. In this chapter, as in my study at large, I do not focus on the broadcasting or narrowcasting of photographic contents from the phone, but rather communicating photographs directly to certain individuals.

4.1 Mobile intimacy

The mobile phone involves the scaling down of the relational network (de Gournay 2002, 203; see also Koskinen & Kurvinen 2005) and supports tendencies towards closure rather than the opening up to new acquaintances (Geser 2005, 25). People move through the day largely disengaged from those around them, and instead focus on micro-relationships; with the mobile phone, the nuclear circle can be perpetually sustained (Gergen 2002, 237). People on the move remain embedded in their personal social networks, despite the varying distance.

Japanese studies show that most mobile phone communication is done with a small circle of close friends and family, generally 2–5 others but no more than 10 (Ito 2004). A study (Boberg 2008, 135) on the mobile phone use of Finnish and French youth showed similarly that the use of the mobile phone focused mainly on friends and family matters.

The intimate traits of mobile communication can be well illustrated by the concept *telecocoon*, by which Ichiyo Habuchi (2005) refers to a sphere of intimacy that is free of geographical and temporal restraints. People who form telecocoons can be characterized as being constantly attentive to their group of friends. People experience a sense of a persistent social space, a shared virtual space that is generally available between a few friends or with a loved one (Ito & Okabe 2005b, 264).

Another illustrative concept is *full-time intimate community*; it consists of frequent contacts with a select few, a round-the-clock set of relationships with an exclusive group of friends that see each other on an everyday basis. For example, upon returning home, youths will make calls with the same friends whom they just saw at school. (Matsuda 2005a, 30; see also Ishii 2006, 361) Many intimate communities continue their daily lives in the web environment, when, for instance, groups of school friends carry on their mutual communication after the school day in blogs, on Facebook or in other social networking environments on the web.[20] *Buddy space* is yet another

20 There are a growing number of studies available on the use of new media in intimate communication, especially on devices that enhance intimacy. Kaye and Goulding (2004, 341) coin the term intimate objects for technological devices that enable the maintenance of intimacy at a distance. Examples of these intimate objects are Hug Over a Distance – an air-inflatable vest that can be remotely triggered to create a sensation resembling a hug (Mueller et al. 2005, 1673) and the Sensing Bed –

term being used to describe the intimate private world that mobile phone users inhabit (Vincent 2005a, 225; Vincent 2005b, 119).

A pessimistic aspect of these tightly bound mobile spaces characterized by an always-on intimate connection is that, if people move through the day engaged primarily in small communication clusters, civic or societal concerns might be left in a marginal status (for a discussion on this, see e.g. Ling 2008a, 175–187).

The growing share of mobile e-mail use introduces an interesting aspect relating to intimate mobile messaging. Kim et al. (2007) have compared communication relationships among Koreans between face-to-face, e-mail, IM (instant messaging), mobile phone and SMS. Their conclusion was that mobile phones tend to be used in very much the same network as face-to-face communication. By contrast, IM and e-mail (i.e. Internet-based communication) are used more in relationships with weak ties. (ibid.; see also Villi & Matikainen 2008)

It remains unclear how this situation will be affected by the mobilization of IM and e-mail use. According to a study by Miyata et al. (2005, 434–444), the use of the platform affects greatly the way e-mail is used; via mobile phones, it tends to be used with people who are physically nearby, whereas via PCs, e-mail is exchanged with people further away. Mobile phones are used to send short, quick mails to close friends and family, allowing them to keep emotionally connected or to arrange everyday activities. By contrast, PC-based e-mail messages are not as connected to face-to-face relations. (ibid.; for similar results, see also Habuchi 2005, 178; Ishii 2006, 360)

Based on this, it can be suggested that the intimate and selective attribute of the mobile phone seems to be constant, even when using the phone to engage in Internet-based messaging. Like SMS, mobile e-mail or IM can provide the communicator with a perpetual connection to the insular life.

However, it should be taken into consideration that mobile phones are also used for *outside* communication, for example when contacting offices or other official sources or agents, and especially when used for work purposes. In particular, if the mobile phone is the only telephone people use (having replaced the landline phone), the scope of mobile communication inevitably widens from the intimate sphere.

a bed that senses the body position of one person and transmits warmth to congruent parts of the lover's bed (Vetere et al. 2005, 471-472). These examples are, however, very closely connected to physicality in that they mediate touch. The intimate communication I am interested in is not based on intimate objects but, rather, visually mediated intimate communication and connection.

4.2 Visual interpersonal communication

Interpersonal communication is specifically communication in a small group of people, often restricted to two persons (Knapp et al. 2002, 9). The most typical form of interpersonal communication is dyadic communication, communication between two participants. In this sense, interpersonal communication is more limited as a concept than interaction, as interaction is based on two-way communication in general, also, for instance, between humans and computers.

Visual interpersonal communication is a quite rare line of study, as the research on interpersonal communication has mainly focused on verbal communication. Knapp et al. (2002, 10) note how "interpersonal communication scholars still do not agree on whether it is important to examine nonverbal as well as verbal behaviour or whether both parties to the interaction have to speak". In fact, it is hard to find any theory of visual interpersonal communication. *Non-verbal interpersonal communication* often refers to gestures, body movements and facial expressions – body language – (Burgoon & Hoobler 2002, 243) in face-to-face communication situations, but not the use of photographs or other images in communication.

The need for research on visual interpersonal communication is also emphasized by the fact that the studies on visual communication, especially photography, have not much focused on interpersonal communication. One obvious reason for this omission is that the camera as a communication device has not been able to provide a direct interpersonal link between two individuals. If interpersonal communication has occurred around photographs, it has been mostly verbal commentary. Images have been more a subject than a medium of interpersonal communication. But now, as a result of camera phones and cameras attached to information networks, interpersonal communication has the potential to become an organic form, motive and function of photography.

One obvious example of interpersonal photographic communication is the sending of postcards or *postcarding*. Both postcarding and photo messaging can be seen as communicative acts or processes where the communication of images is in the core. Postcarding consists of choosing, writing, sending and receiving a postcard. In this process, a photograph printed on cardboard transforms into a postcard. In order to act as a postcard, a photograph requires the addition of text and a stamp, or some other proof that it has gone through

the postal system. (Laakso et al. 1999, 125–126; Östman & Laakso 2001, 13)

The relationship between photo messaging and postcarding has been discussed in previous research. According to Hjorth (2005a) the postcard provides a precursor to the communicative role of an MMS message. Lehtonen et al. (2003, 72), too, maintain that visual mobile communication has, as its most important point of reference, the cultural form of the postcard. The photo message incorporates postcards to the mobile phone culture, in which speed and real time interaction are important (ibid., 92–93). Ling et al. (2005, 80, 91–92) state that we can go from simply sending an MMS to sending an MMS postcard. Even in the visions of the users at the dawn of MMS messaging, a prominent view was that multimedia messages could well function as *live postcards* (Kasesniemi et al. 2003, 65). This mobile postcard is a fusion of personal photography, mobile telecommunication and the conventions of postal communication.

4.2.1 Publishing and messaging camera phone photographs

In 2004, when I began my study on photo messaging, mobile phones were not easily and widely used for sharing photographs via the Internet. Instead, sharing was limited to MMS messaging, showing the image on the phone screen, using infrared or Bluetooth to send the photograph to a mobile phone in the close vicinity, or transferring the photograph to a computer. Today photographs can be shared from a mobile phone by using the same services as when using a PC. Therefore, the practices for remote sharing of camera phone photographs can be divided into two domains: *interpersonal messaging* and *publishing*. Users can send the photographs in an interpersonal manner or, alternatively, upload them to photo sharing sites or Facebook, for instance, for larger audiences to view. In general, the publishing aspect is new to telephone communication.

Many of the social media applications on the web represent mass sharing of photographs, or personal image broadcasting and narrowcasting. In a way, this resembles the act of placing the photo album on a pedestal in a crowded room, entailing characteristics of both sharing and exhibition. The viewers may or may not view the photographs, and if they do view them, not necessarily immediately. However, the social media web services offer good possibilities for reciprocity, and in that sense publishing does not resemble traditional forms of

broadcasting, where the traffic is one-way, separating strictly the content creators from the audience.

The Internet as a communicative platform also enables the sharing of photographs by messaging. The photographs communicated via e-mail or IM are not shared with an anonymous audience, but rather with one person or a limited group of familiar people. The *pull* modality of image viewing on the web differs from the *push* modality in messaging; the photo messages are pushed directly to a specific recipient, and not placed in the open media space of the web for possibly interested persons to pull them for viewing.

An interesting study on the public and intimate traits of photo sharing has been made by comparing Flickr with other Internet-based methods of sharing photographs (Miller & Edwards 2007).[21] The study introduces a new socialization style, the *Snapr* culture, describing the sharing of personal photographs with strangers. The Snaprs – members of a Flickr group – took photographs primarily to share with unfamiliar people. Their audience was actually "the world". (ibid.) The Snapr photo sharing practices do not represent interpersonal communication but rather mass communication to a large and undefined group of people.

By contrast, the participants in the study representing the traditional, *Kodak Culture* photography (see Chalfen 1987) [22] shared photographs primarily within an existing social group. Both the persons in the photographs and the people they are shared with belonged to the same intimate circle. Their drive was to augment the existing relationships through photo sharing, not to supplant them. (Miller & Edwards 2007, 347–355)

For the Kodak Culture photographers, privacy was a primary concern. In relevance to photo messaging, they used e-mail attachments as their primary method of photo sharing. By contrast, the Snaprs would share everything as a general rule and were open to the possibility that strangers could view their photographs. (Miller & Edwards 2007, 353–354)

21 The researchers conducted a set of semi-structured interviews with 10 people in 2006. They interviewed people who had fully converted to digital photography. (Miller and Edwards 2007, 348)

22 In order to describe the cultural dimensions of personal photography, Richard Chalfen (1987) has formulated the concept of Kodak Culture. It refers to the culture of participating in the home mode of pictorial communication (see chapter 4.3). The viewers are familiar with each other and the people in the photographs. (ibid.)

In the Arcada questionnaire, I enquired the ways the respondents share their camera phone photographs by asking "How do you like to share you mobile photographs (from the screen of your mobile phone, by sending them as MMS messages, sending them to the web etc.)?" I got answers from 37 people, 30 of whom acknowledged that they share their mobile photographs in some way. The most preferred way was phone-to-phone messaging using MMS (14 replies). 10 respondents mentioned sharing photographs from the screen of the mobile phone. Four respondents shared (or transferred) photographs locally using a Bluetooth connection, either from phone to phone or phone to computer. Only six indicated that they also share their mobile photographs on the web, either in their blog, on Flickr, or in some other web photo gallery. Thus, among the Arcada respondents, Kodak Culture sharing of mobile phone photographs was much more common than the wider distribution of the photographs in the Snapr style.

4.2.2 Pictorial conversation

The theme of photographic messaging can be followed up by discussing the idea of *pictorial conversation*. This can be defined as a dialogue with photographs, where people use their mobile phones to send photo messages back and forth to each other, commenting pictorially on the photographs they receive (see Koskinen et al., 2002). It is conversation *with* photographs, instead of conversation *about* photographs. Pictorial conversation is a new phenomenon in personal photography, as photographs have not extensively been responded to with other photographs. In the art world and advertising, photographs are often visual commentary but rarely direct interpersonal responses to individual photographs.

The Mobile Image study by Koskinen et al. (2002) demonstrates that the exchange of photo messages, especially responding to photographs with other photographs, is a significant aspect of photo messaging. In the study, the most typical response to a mobile image was a photograph on a similar topic. This *theming*, and the contentual reciprocity related to it, emerged strongly in visual mobile communication. (ibid., 43, 67) This type of pictorial conversation is reminiscent of the YouTube *tributes*: playfully commenting on an earlier video by somebody else (see de Lange 2007). The studies by Kasesniemi et al. (2003, 29) and Rantavuo (2008, 13) also provide examples of responding to a photograph with another image, a counter-

image. However, immediate photographic responses were not very common (Rantavuo 2009, 88).

The Arcada interview material shows some evidence of pictorial interaction. Kasper commented that his friends respond with an MMS "quite often actually"; one example was sending a "bad hair day" picture and receiving a similar picture of a hairdo an hour later. Joakim, too, mentioned having responded with an MMS message if he had something "that fits the image". Accordingly, Ulla would respond to an MMS with another photo message "if I would have something that could work as a response".

Anja offered an example: when an old neighbour sent her pictures of their old house, with the yard full of renovation companies' trucks, Anja responded later with a picture of a cherry tree in the garden of her new house that the friend had seen in the winter, visually communicating that "now the cherry tree looks like this".

Bengt remembered replying to an MMS message with another photograph once: he received an MMS from his lady friend who was visiting the pyramids in Egypt, then "flew there" with a flight simulator on his computer, took a photograph of the pyramids on the computer screen and sent that back to her.

Despite these examples, no major evidence surfaced in the Arcada interviews of an axiomatic form of responding to an image with another image. It seems that this happens only in special cases. My conclusion is that a photo message is most often responded to with text or left totally without response, representing rather unidirectional visual interaction, a visual monologue instead of a dialogue. Yet photo messaging entails the possibility and potential motivation for a photograph to be captured in order to function as an interpersonal commentary to another photograph.

Either way, it is the aspect of forthright interpersonality, which most clearly differentiates photo messaging from other modes of photo sharing – both face-to-face and mediated. As Koskinen and Kurvinen (2005) state, photo messages are always compiled for particular viewers. They are mainly, though not always, one-to-one communication, whereas photographs in an album or on the wall are intended for a more general audience consisting of friends, relatives, and so on.

4.3 Personal photography

As my focus in this study is on interpersonal and intimate communication, I will examine photography primarily from the viewpoint of personal photography. Terms describing personal photography are family photography, vernacular photography, private photography, snapshot photography, consumer photography, domestic photography, candid photography and popular photography.

A good way to specify personal photography is to tie it to the *home mode of communication* formulated by Richard Chalfen (1987). Snapshots and home movies are forms of the home mode of communication, which is described as a pattern of interpersonal and small group communication. Photographers usually know the people in their pictures, and viewers usually know the photographer and, most of the time, either know or can identify the subjects of the pictures.

Camera phone photography is closely affiliated with personal photography and especially snapshot photography. Snapshot photography has been defined using several aspects. First, it has been linked with simple and small cameras. The Kodak slogan *You press the button, we do the rest*, dating back to the late 19th century, has in many ways formed the basis for the discourse of snapshot photography. According to Paul Strand (1974, 46–47), the snapshot is more or less synonymous with the hand camera. A small camera allows the photographer to work fast and take photographs in a relatively brief time. The snapshot camera reduces the process of photography to *point and press* (Slater 1991, 53).

The camera phone is a very simple camera that does not offer possibilities for such versatile and sophisticated photography as more advanced cameras would. In many cases, it is the simplest camera available, offering very scarce possibilities for controlling the camera, due to the lack of zoom, autofocus and other controls, or possibilities for preparation and adjusting, like setting the camera on a tripod. Camera phone photography is quick photography, true snapshooting.

Another common way of classifying snapshot photography is by the amount of effort put into taking the photograph. John Kouvenhowen (1974, 106) writes that snapshots are predominantly photographs taken quickly with a minimum of deliberate posing and selectivity; they are “easy”. As a photograph, the snapshot “isn’t thought out” (Model 1974, 7). Snapshots rarely aspire to technical or artistic

merit (Holland 1991, 4), or entail conscious construction, thus appearing naive and innocent (Dewdney & Lister 1988, 68). It has to be noted that the hurried style, lack of artistic deliberation, or the composition, can also be emulated, for example, in commercial photos.

Chalfen (1987, 72-73) expands on these views by specifying that there might be a lack of artistic deliberation in the snapshot photograph, but not of social deliberation: it is often carefully arranged who gets into the photograph (or is kept out), who stands next to whom, and where the photograph is taken (ibid.). Thus, in a way, it is the people and the situation that is communicated, not the beauty or the form of the photograph.

Snapshots serve the purposes of private visual communication (Chalfen 1987, 71), and the intended viewers are typically the photographer's close associates (Smith 2001). The emphasis in snapshot photography is on loved ones and family members, not on general spectacles (Williams 1991, 186–187; see also Burgin 1982b, 144; Briggs & Burke 2002, 166).

Steven Halpern (1974, 66) sums up all the aspects of snapshot photography by stating that "[f]rom its beginnings the snapshot has had two basic characteristics: a constant focus on family life, and an informal, casual style that was consistent with the new freedom within the family and derived from the mobility of the hand-held camera".

Camera phone photographs are often even more personal than other snapshots. What contributes to the personal character of camera phone photography, in particular, is that, instead of many members of a family sharing one camera, they can now all photograph with their individual mobile phones. As a consequence, the camera phone is not necessarily used to create a collective memory, but rather to record the course of quite personal situations, constructing something of a visual diary. The camera phone can act as a *personal flipbook of images* (Kindberg et al., 2005b), or a *photographic memory*, a mobile archive of memories always within easy reach, something to look at again and again (Scifo 2005, 365).

Photographs in the memory of the camera phone do not then form a family album, but a very personal photo album. Lisa Gye (2007, 284) notes that camera phone photographs reinforce the user's individuality rather than her ties to other groups. She brings forth Daniel Palmer's (2005; ref. Gye 2007, 284) argument that the *Nokia moment* is far more intimate than the *Kodak moment*.

Heidi Rae Cooley (2005), too, proposes that photography using a

camera phone is informed by an autobiographical and self-documentary impulse. She argues that mobile imaging is invested in the accumulation associated with a database logic, instead of the narrative logic: camera phone photographs do not necessarily intend to provide a coherent narrative, but rather a continuous awareness of the photographer's surroundings. Camera phone photographs perform a tracking function, a self-record of one's life. (ibid.)

This personal character of camera phone communication is apparent in a comment from the Arcada study interviews. According to Joakim, a camera phone, in comparison to a stand-alone camera, is "a little bit more personal, more 'you' (...) it's from your perspective at that moment, because phones have become synonymous with people nowadays".

Camera phones, like digital cameras in general, can also be applied to archiving or recording information for later reference. It is possible to use camera phones as scanners or copy machines, or even as handheld barcode readers. There are examples of *digital shoplifting,* where people use camera phones to photograph pages from magazines instead of buying the printed product. The zero cost of taking photographs has created a new genre in snapshot photography that has nothing to do with interpersonal communication. In this sense, the camera phone is Janus-faced: *it entails exceptional possibilities for direct interpersonal communication, yet it is often influenced by ultra-personal photographic motives.*

4.4 "They have to be really good friends to whom you send the message"

Photo messaging bonds the intimate practices of personal photography with the intimate practices of mobile messaging. This insight about the prominence of intimacy in visual mobile communication can be supported by available research on photo messaging.

For instance, Scifo (2005, 367–368) sees photo messaging as reasserting the mobile phone's cultural identity as a medium, which intensifies communication with proximate relations. Kato et al. (2005, 306) maintain that couples and close groups of friends have the highest volume of remote image sharing. In less intimate relationships, images are rarely transmitted, although they may be shared from the handset when people are physically co-present (ibid.). Photo messages support closeness between friends and family members and function to maintain and enforce social bonds (Oksman 2006, 103; see also Demumieux & Habbouche 2004; Döring et al. 2006, 207; Gai 2007, 205–205; Koskinen 2007, 135).

In addition to the general conventions familiar from mobile messaging, a reason for the careful and constricted intimacy in photo messaging is that people are selective about sending visual information of themselves (Ito 2005b; Okabe & Ito 2006, 91–93). Sharing of images is an even more selective and intimate enterprise than sharing of text (Okabe 2005; see also Sarvas et al. 2004; Nathwani & Eason 2005, 193). However, the ever-growing practice of publishing personal photographs in social media is an example of a less selective mode, representing at least partly the Snapr culture.

Another explanation for the prevailing intimacy in photo messaging is that images are more ambiguous than verbal messages, and thus need common background or previous mutual knowledge between the communicators to be interpreted correctly (see e.g. Mäkelä et al. 2000, 553–554; Ling et al. 2005, 76; Kondor 2007, 29). Pictorial understanding may require a common context of interpretation, a close social bond. Therefore, photo messaging can be expected to function most effectively in intimate groups, where the level of mutual comprehension is at a high level.

The results from the Arcada study comply well with the observations of intimacy in photo messaging. In the questionnaire, 29 people of 91 in total responded to the question "To whom do you normally send MMS messages?" 23 of them mentioned sharing mo-

bile photographs with friends, four reported explicitly sending MMS messages to their girlfriends, and 15 communicated by photo messages with family members, be they siblings, children, parents or family in general. Only two of the respondents (both were part of the Arcada staff) had sent MMS messages to colleagues or students.

A similar result could be concluded on the basis of the question "From whom do you normally receive MMS messages?" This question received a slightly higher number of responses (35). Again, the majority of photographic communication occurred between acquaintances, as 25 respondents had received MMS messages from friends. One respondent had received messages only from his wife, another only from his girlfriend. 16 respondents mentioned having received MMS messages from family members. One had also received photo messages from colleagues and students, and two had received their only MMS messages from a teleoperator (probably promotional messages).

The study interviews conform with the results from the questionnaire. Kasper described sending photo messages "just to pretty close friends". When comparing sending photographs as MMS messages and publishing them on the web, he indicated that messaging is more closely tied to personal relationships: "To send [via MMS] the picture, it's more personal." The photographs he publishes on the web are less "inside jokes", and more motivated by an artistic ambition.

For Lotta, the group to which she communicates with mobile images was "kind of the same circle that I talk to": friends, boyfriend, family, and friends abroad. Anja had received SMS messages also from students and colleagues, but MMS messages only from friends or family members. Ulla explained that she sends MMS messages to people with whom she would communicate more often in other ways, too. Joakim and Bengt, too, described sending MMS messages to close friends, and not to random people.

Often, the messaging culture exists between only certain individuals, in an extremely limited communication circle. Three of the Arcada interviewees narrowed the circle of people to whom they send MMS messages down to only one single person. A possible reason for this behaviour was simply that other friends or family members did not own an MMS-enabled phone at that time and thus could not participate in the photo messaging culture.

Kjell's reason for sending photo messages mostly to family and a few friends was that "[t]hey have to be really good friends to whom

you send the message, because it reveals a lot of your own interests and personality". In addition, the contents of a photograph may be meaningful and significant only to one certain person. He used to send photo messages to "keep up with friends", to maintain a connection, for example by sending a picture of an interesting bird to a friend whom he knows to be interested in birds, as "it connects to that what the receiver is interested in". He concluded that "I have a few good friends, we are sending to each other what we see and what we do. We try to keep contact by sending pictures of when we are at some special occasion, trip or if anything has happened, we try to share the experiences visually."

Kjell also mentioned that "I have separate pictures for different receivers", meaning that the photo messages he sends are connected to the interests or hobbies his friends or family members have. They are not general pictures, but personalized and customized photographs. The photographs he sends from travels are examples of these "specialized pictures". They are aimed at certain people; he sent, for instance, a photograph from Miami to a friend who had been to Miami before and told him about it.

Lotta also remembered having sent a photo message in conjunction with something that she had previously been talking about with a friend: "[W]e were just talking about this yesterday, and now it really happens, and I take a picture of it."

Bengt commented that "[t]hey are more personal, those [the photographs] that you send as MMS (...) like this car that I saw and took a picture and sent to my son, it was just for him and no one else". The personality of the photograph was accentuated because his son had just bought the same model of car as depicted in the photo message. If Bengt had placed the same photograph of the car on a general photo sharing site on the web, it would have been just a "photo of a car", but now that certain model had meaning in the interpersonal communication relationship betwen the father and the son.

Ulla provided an example of a personalized photo message (Image 2). She had received a photo message from a friend, showing the friend's two Belgian giant rabbits, familiar to Ulla, standing on their hind legs. In the message, the photograph was accompanied by the text "Is the grass really greener on the other side of the fence?" The owner of the rabbits had built a place for them outdoors. Both rabbits are standing, one on the ground and one on an object of some sort. They are merely standing on their hind legs faced towards the fence,

but not looking over the fence.

Ulla explained that she did not forward the image to some third person who would not be familiar with the rabbits, as then it would have been only a "general funny e-mail message of animals". The photograph of the rabbits might have worked well on Flickr just as a "general funny picture", but as an interpersonal message it would have been awkward, if sent to someone with no connection or previous knowledge of the rabbits.

Ulla proceeded by mentioning that she had received or sent MMS messages only with personal contents, and that she would send photographs of "dead" things (e.g. buildings) only if it were of somebody's home. The contents of a photo message seem to need a personal connection both to the sender and the receiver, in order for the photograph to be worth sending.

As the one exception, Mikael was quite open to the idea of online publishing of photographs sent as MMS messages. In general, he liked to post photographs on the web, his friends forming a community that gathered at a blog. He was engaged in strictly one-to-one intimate pictorial communication only with his girlfriend.

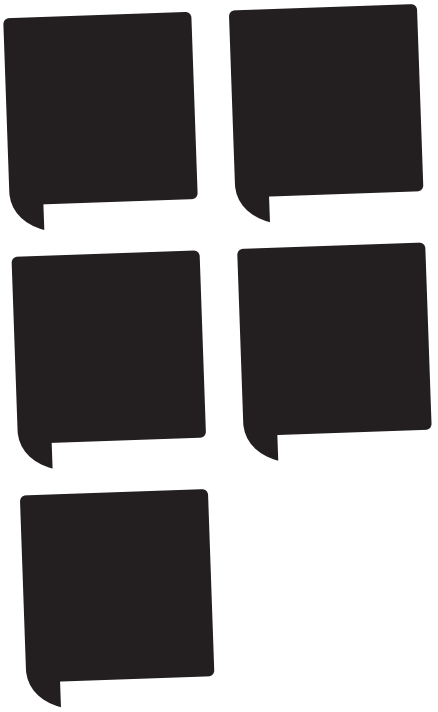
4.5 Conclusion

Photo messaging introduces to photographic communication elements that are characteristic to telephone communication and especially mobile messaging: interpersonality and intimacy. Mobile messaging is primarily dyadic person-to-person communication, in particular between partners, family members and friends. In this sense, photo messages do not easily lend themselves to establishing new relationships. The results from the Arcada questionnaire and interviews give support to this conclusion, as almost all of the respondents' MMS messages were communicated to close acquaintances: the social circle of photo messaging is extremely small.

In the chapter, I divided the practices of remote sharing of camera phone photographs into two domains: publishing and interpersonal messaging. Publishing is strongly connected to the social media applications and services on the web, whereas messaging concentrates on communicating the photograph directly to a certain person. Privacy and intimacy are important attributes for messaging.

The camera phone influences personal photography in two quite contrary ways. First, the function of photography can become more pronouncedly interpersonal through the easy one-to-one sharing of contents. Second, photographs on the mobile phone can be often projected toward building an extremely personal archive, a private visual database.

However, there are also other qualities of mobile phone communication that affect camera phone photography. In the next chapter, I will review the temporal features of visual mobile communication brought about by real-time communication that is characteristic of telephone communication. I refer to the temporal aspect of photo messaging as *near-time* communication, derived from the expression near real-time.



5 Near-time photographic communication

> [The camera phone is used to capture] like instant things, for example you see a really hot girl somewhere, and I want to take a picture and send to a friend, look who's at the party, so it's like quick things with the phone.

This quote from Kasper demonstrates the momentary character of photo messaging, which is influenced both by the digital camera in the phone and the network connection included in the device. The camera phone enables photographs to be communicated forward almost immediately after they have been captured.

In this chapter, I will review time in relation to camera phone communication. I will not focus on the implications of time *in the image*,[23] but rather on the time that passes between the original exposure and the remote viewing of the photograph. It is the time *outside* the photograph, the time diverged from the moment of capturing the photograph. The justification for this orientation is that the major change that photo messaging causes in the practices of personal photography is related specifically to the time of communication, rather than the time of the photographic act.

In reference to the theory of photography, a part of the chapter is devoted to adapting ideas from Roland Barthes, in particular his discussion on spatial immediacy and temporal anteriority and the concept of punctum. For Barthes, it was not possible to consider photography as a part of telephone communication, but I will extend his thoughts into the context of visual mobile communication.

23 A good example of a recent, interesting study on time in a photograph is by Petri Anttonen (2005) on temporal sequence photography. Anttonen used sliding shutters in a camera that jointly combined the simultaneous and the non-simultaneous in one photograph (ibid., 199).

5.1 Inherent immediacy of photo messaging

It can be argued that in the process of developing communication technology over the last few centuries, the most emphasis has been placed on advancing telecommunication media, in particular to overcome geography by enabling people to communicate over distances. Since the late 19th century, development has been particularly rapid in technologies that allow communication over distance in real time, that is, everything with the prefix *tele* – telegraph, telephone, telex, television (see Manovich 2001, 162; Harper & Hodges 2006, 256). In this telematic culture,[24] messages can be sent to distant others without material carriers. Distance is not an obstacle to communication anymore, and communicative connections are no longer determined by physical location.

In addition to the crossing of distance, the possibility of communicating in real time is a vital aspect of telecommunication; tele is defined both by the simultaneity and the crossing-of-space of communication. Paul Virilio (1998, 51; see also Darley 2000, 188) even insists that, due to new communication technology, *here* ceases to exist and everything is only *now*, meaning that we can be present in multiple spaces simultaneously. This is in strong contrast to the fact that, before electronic communication, the geographical distance between places was relative to the time taken to move from a place to another.

John Urry (2000, 104–105, 126, 129) uses the expression *instantaneous time* in describing how communicational changes allow information to be instantaneously transmitted across the globe. When information from any point can be transmitted with the same speed, the concepts of near and far, distance, and space itself no longer have any meaning (Manovich 1996).

5.1.1 Photograph as after-image

Real-time communication over distance has always been the essence of telephone communication. By contrast, the most prominent use of photographs has been recording and documenting events for viewing at a later time. Before the advent of digital photography, it took

24 The term telematization has been used to describe the increasing penetration of everyday life by long distance communication media (Höflich & Gebhardt 2005, 9). Weibel (1996, 340) places the beginning of the telematic culture around 1840, at the time of the invention of telegraphy.

considerable time just to develop the photographs, not to speak of transmitting them instantly from the camera to some distant recipient.

Conceptions of photography have generally regarded the essence of photography as the *that-has-been*, subject to the passing of time. According to Barthes (1977/1991, 44), a photograph does not establish a consciousness of the *being-there* of the object in the photograph, but an awareness of its *having-been-there*. In his essay *Rhetoric of the Image,* Barthes presents a specific space-time category for photographs: spatial immediacy and temporal anteriority, "the photograph being an illogical conjunction between the *here-now* and the *there-then"* (ibid.).

The concept of spatial immediacy can be read as the ability of a photograph to provide in itself a presence in space by being in front of the viewer as a material artefact, the *here-now* of an event photographed in some other place, some time ago. The *then* of the photograph is present here and now. The photograph provides an *after-image* of the moment, place or person photographed, through a temporal transition – in a way, the photograph is a re-enactment of that situation. Photography is then about presence in space and absence in time.

Photographs are like time machines, as they shuttle us back and forth between past and present (Batchen 2004, 97). Yet, there is only one *then* for the photograph, the moment when it was captured. By contrast, the spectator's *now*, the moment of looking at the image, has no fixed duration (Wollen 2003, 76; Osborne 2003, 70). Actually, the *then* of the photograph can outlast the viewer's *now* (Cousins 2000, 4), as the photograph will continue to exist even after the viewer's death.

Photography can also be thought to be about the disappearance of the object. Every photograph puts an end to the real presence of the object. (Baudrillard 1999, 147) The click of the shutter marks "the place of an irreversible absence, a place from which the look has been averted forever" (Metz 2003, 143). As a consequence, every photograph has an auratic relation to its moment, as nothing else can produce that instant again. This is also true of photo messages; the photograph sent as a photo message is a repetition of a one-time occurrence.

However, the available research on photo messaging directs us to the assumption that the communicative relationship of the photo

message to time is in many respects different from that of a photograph taken with a camera lacking any capabilities for telecommunication. The most important difference is the immediacy of communication; photo messages tend to be sent forward from the camera phone quite soon after the photograph has been captured.

In the previous chapter, I introduced the idea that many of the conventions of photo messaging originate in the practices familiar from mobile messaging. It can be fairly safely presumed that a text message is normally written, sent and received within a reasonably short time span.[25] A similar relation with time and level of immediacy can be associated with photo messaging. The sender and the recipient of a photo message share roughly the same time space with the photograph, meaning that the act of taking the photograph, sending it and viewing it are most probably temporally only slightly apart (minutes, hours, but rarely days or more).

A photo message can offer the same type of spatial immediacy as any photograph. In addition, a photo message can also provide temporal immediacy. A conventional photograph can mediate an event from *there-then* to *here-now,* but a photo message forms a connection between *there-now* and *here-now*. A traditional photograph is communication *over* time, not communication *in* time. In a photo message, the past of the photograph is not always temporally much apart from the present, the moment of viewing. Photo messaging is thus more about communicating over space than communicating over time.

Photo messaging does not, however, represent perfectly live transmission, as photo messages cannot be sent synchronously with the capture of the photograph. Photo messages are affected by the limitations of the camera to establish communication in time, as taking and communicating a photograph always takes time. Photography, even on a mobile phone, is not real-time communication, at best only near-time communication. It is slightly delayed in the same way as text messaging.

Following the classification by Lev Manovich (1995a), the screen of the mobile phone can be weighed against the *real-time screen* showing the present (cf. the concept of Big Optics defined by Virilio),[26] the

25 I have not actually found studies which concentrated on finding out how immediate text messages are, how soon after writing they are sent.

26 Big Optics represents real-time electronic transmission of information and the world of telecommunication. By contrast, Small Optics is based on the geometric perspective and involves the distinctions between near and far. (Virilio 1998)

classical screen displaying a static, permanent image (e.g. a printed photograph), and the *dynamic screen* displaying a moving image of the past (e.g. film). A photo message lies somewhere between the real-time screen and the classical screen, as the photograph communicated to the screen of another mobile phone has never a capacity for similar real-time transmission as, for example, a radar screen. If photographs were continually updated in real time, they would, in effect, turn into a video call. Yet, most importantly, the screen of a mobile phone differs from the screen of a stand-alone digital camera in that it is a *telecommunicative screen*, it can show photographs of distant, yet contemporaneous occurrences.

5.1.2 Communicating the now

The findings in the studies on photo messaging are congruent with the notion of immediacy (see Koskinen et al. 2002, 26; Kato et al. 2005, 307–308; Kindberg et al. 2005a, 1545; Sarvas et al. 2004; Rivière 2005, 174; Spasojevic et al. 2005; Wilhelm & Towle 2005). I have not come across any studies maintaining that photo messages are primarily sent forward from mobile phones only after extensive time (days, weeks) has passed.

Studies indicate that camera phone communication shifts away from "this is what I saw then" to "this is what I see now" (Gye 2007, 285; Goggin 2006, 149). Wilhelm et al. (2004, 1406) highlight the importance of the *power of now* in camera phone communication. Thus, the idea of live coverage is not altogether unfamiliar to people using photo messages in mobile communication. Photo messaging is tied to the technological and cultural form of phone communication – the *here and now communication space* (Poutiainen 2007, 11; see also Weight 2007, 164).

According to Kindberg et al. (2005b), timeliness (i.e. how soon the communication occurs after the point of capture) is an important factor when choosing to send images by MMS. Certain images gain greater impact when being shared in the moment. Kindberg et al. (ibid., 47-48) provide an example of such an image from their study. A father wanting to remind his daughter to feed the fish sent a picture of a goldfish as a photo message. Because of mobile connectivity, the father could be sure that she was going to receive the message in time.

Koskinen (2007, 51) follows these findings by stating that it is the fact that *one is there right now* that often justifies sending the message. People simply report with photo messages what they are doing

at the moment, and communicate the place where things are happening (ibid., 57).

The conventions of mobile messaging can be contrasted with other forms of photographic communication from the mobile phone, which are not necessarily as immediate. For instance, the study on a web-based mobile sharing service MobShare (Sarvas et al. 2005) showed that sharing of photographs did not follow immediately after the capture. During the six-week test period, the majority (84 percent) of the pictures shared were taken within three days prior to sharing, however the average time difference between capturing and sharing was 64 hours. (ibid., 34)

In the MMM2 study reported by Van House and Davis (2005), the finding was that most sharing of photographs to the web from the mobile phone occurred within 24 hours of image capture. However, it is hard to regard a full day as a period which could be counted as immediate. Thus, it seems that the pronounced interpersonal aspect in photo messaging contributes to the immediate sharing of photographs.

5.1.3 "Photo messaging is about what I am experiencing at the moment"

The insights and experiences of the interviewees in the Arcada study are in line with the results on the immediate character of photo messaging that I have found in other studies. In accentuating the importance of the *moment*, Kjell commented that "[photo messaging is about] what I am experiencing at the moment". The ability to communicate at the very moment is "very important" to him, and he continued that "[m]ultimedia messaging is something that is bound to the moment". Via a photo message, he can share the moment, send "an instant postcard": "That I want to say what I am doing now, this is my moment."

Anja presented a case of establishing a contemporaneous and moment-based connection through photo messaging when thinking about the possibility of sending an MMS message from Lapland, in northern Finland, to her friends at their summer house, expressing "it's like this here", when, in spring time, Lapland is still covered with snow and at the summer house, in southern Finland, the ice in the lake has already broken. If they viewed the same photograph a month later, the difference in the weather would not be so drastic anymore, as the snow in Lapland would also have melted away. Simi-

larly, Bengt had received photo messages from his lady friend on her trip to Egypt in November that showed how warm it was there at the time, compared to the cold weather back home.

Kasper tended to send photo messages "pretty much instantly" after taking the photograph. Lotta, too, mentioned sending photo messages "mostly instantly" after capture. Joakim indicated usually sending the photo messages "almost immediately when I have been in this situation". He followed this by stating that he usually sends photo messages from situations that come up quickly: "it's something out of the norm kind of situations" or "out of the blue situation". For him, the main positive thing about camera phones was that one could send the photograph right away.[27]

Mikael used to send photo messages within a couple of minutes of taking the photograph. For him, immediacy was the most important reason to use MMS, as he did not want to wait until he gets to the computer in order to send certain photographs. The camera phone "makes it [photography] a lot more personal and immediate, it brings maybe a new dimension to visual communication, you can send them wherever you are". Actually, for him immediacy was practically the sole motivation for sending photo messages: "I think the only reason to use them [MMS messages] is because they are immediately there."

Ulla mentioned that certain photographs, especially those tied to a situation, lose their interest over time. It is appropriate to send a photograph of the situation immediately, but after a while, other forms of communication might be more feasible. For example, after catching a remarkably big pike fish, she sent the photo message (Image 3) "quite immediately", "because it's the situation, and after a while it's not big a thing getting the fish. Later on it's something you can tell or mention in a text message."

The plastic basin where the pike fish is placed exemplifies the size of the fish. The volume of the basin is familiar to those Finns who have bought one in order to bathe their baby. In a sense, it is a classic "look how big a fish I caught" photograph, although lacking the angler herself smiling beside the fish.

When asked why it is important that the person at the other end

27 In addition to sending photo messages, Joakim mentioned capturing photographs during the day with his camera phone and moving them to his computer in the evening and then sending them to his friends via IM (instant messaging). His IM evening chats included the sending of photographs of "unusual things that you walk by on the street" during the day, forming, in a way, a visual report describing his day, kind of a photoblog.

can receive the photo message on his phone immediately, Anja responded that "[i]f he doesn't receive it right away (...) the delay is so big that it [the photograph] has not so much meaning any more. If I have seen a duckling, 'oh here were so cute ducklings that just came out of the nest', it might not be so interesting after some days." So, she had the custom of usually sending the photo messages almost instantly after capture, except for such "stock photographs" (e.g. pictures of flowers) that she communicated as birthday greetings.

In fact, the only instances of photo messages not being sent immediately after capture that came up in the interviews were these stock photographs used as mobile greeting cards, for which the photograph could be retrieved from the memory of the phone. The study by Heli Rantavuo (2009) also provides examples of the same images being used several times in different photo messages.

These examples from the Arcada interviews demonstrate, for their part, the salience of immediacy in photo messaging.[28] The idea is to share a specific, fleeting moment by using a photograph. Often the value of those photographs diminishes by time. Therefore, transience is another focal characteristic of photo messaging. In the following section, I will continue by discussing the often short life of photographic messages.

28 The traditional forms of mobile messaging – such as MMS and SMS – have a stronger attachment to immediacy than those forms of mobile communication that have emerged in PC communication – such as e-mail. Although the messages may be directed to the same mobile phone, text messages and e-mails have different connotations of urgency (Mazmanian & Erickson, 2007; ref. Rettie 2007).

5.2 Transient visual messages

A dominant feature of all telephone communication is transience. Voice calls have been habitually recorded by intelligence agencies and the like, but not readily preserved and documented by ordinary people. Only since the emergence of text messaging has phone communication been easily documented. By contrast, photography has been a mode of communication oriented primarily for documentary purposes.

5.2.1 Camera phone and disposable photography

The transience of photographic images is not a totally new phenomenon. According to John Tagg (1988, 56), the era of throwaway images began as early as the late 19th century, when Kodak revolutionized family photography and illustrated newspapers began to reproduce large amounts of portraits of public figures. The possession of individual images was not so remarkable anymore. Halpern (1974) adds that "[w]here the Victorian portrait suggested permanence the snapshot suggests transience."

During the last ten years, digital technology has even more precipitated transience in personal photography. The proliferation of cost-efficient digital photography – the zero-cost involved in digital photography after purchasing the memory card – is a major factor behind the spontaneity of photography and lesser value of individual photographs. If one does not have to pay for developing the film and printing the photographs, the threshold of discarding a photograph is often lower.

The material form of printed photographs influences greatly the way people treat their photographs. A study by Van House et al. (2004a; 2004b) on the social uses of personal photography – the reasons people take photographs, the kinds of photographs they take, what they do with them afterwards – shows the power of the physical image. The participants readily deleted photographs received as e-mail attachments, but would almost never throw away photographs received from friends and family through ordinary mail.

Throwing away printed family photographs can be seen as a "horrific" act, and thus rarely realized (Rose 2004, 553). The elimination of a physical photograph is a much more demanding effort (both mentally and physically) than discarding an immaterial photograph from the memory card is, as one has to throw the photograph into

the garbage or even burn it. If the experience of disposing a digital photograph equalled that of burning of a photograph, the threshold of discarding it would probably be higher.[29]

The camera phone, on the other hand, promotes disposable photography. Some years ago, people might have made the decision between an analogue and a digital camera by choosing to capture more "important" images on analogue film cameras (Van House et al. 2004a). Now a similar divide has been established between digital cameras and camera phones in that stand-alone cameras are often used to take pictures that will be cherished and useful for a longer time.

The general anticipation towards mobile images seems to be that they are best when fresh, they can live vigorously for a while, be shared with friends and then be soon forgotten. They have little expectation of future value and a short useful life (Van House & Davis 2005). Korean researcher Dong-Hoo Lee (2005) underlines the transience of mobile photographs by stating that "to photograph with a camera phone is to assume that the event is easily forgettable".

Koskinen (2007, 21) considers camera phone photographs to represent barely more than a spur of the moment, "designed for no other purpose than to have fun for a few seconds before being discarded". Camera phones embrace a photographic culture where photographs are intended more for momentary fun and consumption rather than for providing a lasting value (ibid., 58–59).

Based on her study, Rantavuo (2007) concludes that camera phone snapshots are not necessarily perceived as photographs at all. Rather, they are conceived of as disposable instruments, or decorations that momentarily support communication. One interviewee in her study noted interestingly that "[s]omehow the photos taken with the digital camera are more like photographs, the phone photos are, like, for messages or, not so much for keeping". (ibid.)

Oksman (2006, 116) maintains that because of the ubiquity of camera phones, photography is no longer perceived as a precious and unique occasion. She takes an example from her study, where two 20-year-old interviewees claimed that "[i]t's more spontaneous because you have the thing [camera phone] with you all the time. (...) That maybe they're not real, actual photographs. You don't think of these phone images as something you will return to when you're

29 I thank Mika Elo for the idea of burning a digital photograph – burning in the sense of torching it, not saving it on a DVD or some other optical disc.

a grandmother." A subject in another Finnish study (Pesonen 2005) mentioned that he had deleted some "really old" photographs from the camera phone, but it turned out that those photographs were only a few months old. However, when used as a "digital wallet" (see Oksman 2005, 359) the mobile phone can also act as a more lasting repository for images: an archive, a miniature photo album of girlfriends, boyfriends, children, grandchildren and pets.

A rare yet genuine problem with camera phone photographs is that, if they are saved in the camera phone itself, they are buried in a disposable device. Bengt explained that he was not able to transfer his photographs from the old camera phone to the computer, so he lost all the photographs when upgrading to a new phone. Kasper also noted that there is a high risk of the photographs being destroyed when a person changes the phone (which nowadays happens quite often).

The technical aspects of the camera phone also have an effect on the transience of mobile photographs. The camera phone might be considered as more of a photographic toy. The low quality encourages users to capture images for short-term uses, "with more interest in sharing than in searching or retrieving their photos" (Wilhelm et al. 2004, 1406). However, the quality of cameras in camera phones is advancing rapidly, although in many camera phones their quality is still quite low. Mobile phones today are also supplied with increasing amounts of memory, so it is no longer necessary to erase photographs from the phone because it is full. Therefore, it is less self-evident that camera phone photographs have little expectation of future value.

5.2.2 "I don't know why I have saved them because I have sent them already"

The affiliation with networked photography promotes, for its part, the transience of photographs. Rantavuo (2007) points out that when used in web communication, the snapshot photograph becomes a disposable tool. It is a "transitory tool for transitory communication" (ibid.). The participants in a study on Flickr use (Van House 2007) also described the photographs published on the web as "transitory, ephemeral, throwaway; a stream, not an archive". There exists a new category of photography, called "ephemera"; Flickr and other websites oriented for the social use of digital photography have much more to do with transience than with loss (Murray 2008, 154–155).

In all, photographs might become less objects to be saved than messages to be circulated (Sontag 2004).

As part of networked photography, photo messages, too, are ephemeral and potentially disposable postings, fleeting acts of communication. Van Dijck (2007, 110) writes how the connotation of e-mailing photographs instead of sending printed photographs in a letter is "one of transience rather than of permanence, a mere update rather than a record".

The Arcada interviews also indicated that there is a difference between *communicating* and *remembering*. Bengt had deleted many photographs from the phone, but for instance those that he had received from his lady friend from her trip to Egypt he had saved, "of course". He also had a habit of saving most of his own MMS messages. He wondered, however, why he had done that: "I don't know why I have saved them because I have sent them already." This provides an exceptionally demonstrative example of the communicational dominance in photo messaging.

Kasper noted that "[t]he more nonsense picture I get, those I usually erase". He seemed to consider those as (humorous) acts of communication, that they were not even intended to be considered as treasured photographic objects. In a similar fashion, Mikael commented that "[m]essages you just want to send somebody, like a funny face or something, and you don't want to keep yourself, you don't save them. If it's something you want to remember then you save it."

By contrast, Kjell had a habit of saving on the computer the MMS messages he had received, mainly in order to be able to look at the photographs better, as the small mobile screen did not offer a detailed view of the image. He also mentioned archiving the photo messages he had sent himself. Generally, he considered the photographs saved on the phone as a "log of happenings".

Thus, photo messages can be useful in both interpersonal communication and individual reminiscing. They are communication in the moment, but at the same time building blocks of memory. Nowhere near all of the communicated photo messages fall into cyber oblivion.

5.3 Distance as the new punctum

One possible explaining factor for the transience – and non-transience as well – of photo messaging can be dusted off from the theory of photography: the *punctum*. A detail in the photograph, as well as time, and in the context of photo messaging, also the distance between the communicators can be the source of punctum. Distance is what I propose to be the *new punctum*.

Roland Barthes introduced the concept of punctum in his classic work *Camera Lucida: Reflections on Photography* (1981/2000). The punctum is the *detail* in a photograph that attracts the viewer (ibid., 42). It is in contrast to the *studium*, the cultural coding or cultural context of the photograph, the general knowledge in the photograph (ibid., 94–96). The studium is the whole context of meaning and references (Baudrillard 1999, 139), it is the shared cultural information of average interest (Scott 1999, 24). By contrast, the punctum is, in a way, cultureless and totally personal (Barthes 1981/2000, 90).

The detail in the photograph that "stings" the viewer is too personal to generalize for all viewers (Jay 1993, 453; Mikkonen 2005, 71–72). However, this personal relation does not have to be personal in the sense that the viewer knows the person in the photograph or that there is some kind of intimate relation between them, but that there is something in the photograph that is personally relevant to the viewer, a subjective meaning. "It is what I add to the photograph and *what is nonetheless already there"* (Barthes 1981/2000, 55).

The concept of punctum can be said to be a later version of the *trauma* that Barthes developed in his essay *The Photographic Message* (Barthes 1977/1991). Barthes (ibid., 30–31) writes that "[t]he trauma is a suspension of language, a blocking of meaning. (...) Truly traumatic photographs are rare, for in photography the trauma is wholly dependent on the certainty that the scene 'really' happened: *the photographer had to be there."*

In addition to the detail in the photograph, *time* can also be the source of punctum. Or, more accurately, the passing of time, the fact that the person or object in the photograph existed and does not necessarily exist anymore, implicating the future death of the viewer as well. It is not just the abrupt and unforeseen detail, but also a detail overrun by time.

Barthes (1981/2000, 96) writes that "I now know that there exists another punctum (...) than the 'detail'. This new *punctum*, which is

no longer of form but of intensity, is Time, the lacerating emphasis of the *noeme* ('*that-has-been*'), its pure representation." Barthes describes this with the famous example of the photograph of young Lewis Payne, waiting in his cell in 1865 to be hanged:

> The photograph is handsome, as is the boy: that is the *studium*. But the *punctum* is: *he is going to die*. I read at the same time: *This will be* and *this has been.* (...) *I shudder (...) over a catastrophe which has already occurred*. Whether or not the subject is already dead, every photograph is this catastrophe. (ibid.)

This catastrophe is the punctum of the passage of time. A photograph is a pure representation of the passage of time, and therefore also connotes death (Olin 2002, 108; Fried 2005, 560–561). The feeling of loss is important; the inevitable aura of a lost past attached to all photographs causes a trauma or pain (Jay 1993, 444).

A photo message, too, manifests a future death – death is latent in the image – yet due to its immediate and transient nature a photo message has a different relation to death and the passage of time from, for example, album photographs. In fact, it would be very peculiar to receive a photo message containing a picture of a dead person (not dead in the image, but dead now). By contrast, family photo albums are full of people that have already passed away. The passage of time is far more evident when viewing a family album than it is when communicating with photo messages.

Because photo messages are normally communicated very soon after taking the photograph, as communicational objects they are rarely very old. There is not necessarily a defeat of time in a photo message, at least at the moment of sending and reception. The noeme, the essence of a photograph, the *that-has-been* still exists, but the *has-been* is not very far temporally from the *is*, the present. The past is not very past in a photo message. In that sense, it is hard to feel a sensation of loss when receiving a photo message, at least a loss related to time.

My claim is then that in photo messaging the source of punctum is rather *distance* than time. The intimate one in the image is alive, but she is not here. She is absent, and this absence – not absence in time (which, in the extreme, is death), but absence in space – can be the source of punctum. What the notion of punctum does, in practice, is express the subjective awareness of absence produced – somewhat

paradoxically – by the visual activation of a feeling of presence (Villi & Stocchetti 2010).

This temporary loss represents the same type of absence as with all telephone communication. It is the not the split between now and then but here and there that is the source of punctum. A picture sent as a photo message of the loved one brushing her teeth in a hotel room on the other side of the world can *wound* the receiver back home, due to the sensation of yearning. The photo message wounds over distance. In this sense, the photo message is similar to a picture of a loved one that has been placed in the wallet or a pendant. However, a photo message is not just a reminder of the other, but often, in addition, an expression of the sender's feelings in that exact moment.

The distance as the source of punctum has an effect on communication with photo messages and especially the transience of mobile photographs. When sending photo messages between two intimate ones, the loss is probably not permanent, and the motivation for photo messaging is high only during the phase of absence. This is exemplified, for instance, by two of the Arcada interviewees sending photo messages to their girlfriends habitually during their time in the army, when there was a forced distance between them, but cutting down on photo messaging after the military service was over.[30] By contrast, the punctum of time never ceases. It is not possible to abolish time in the same sense as distance; the dead cannot return. Time as the source of punctum in a photograph is universal, no matter what its subject matter (Batchen 2007, 285–286).

My argument is that in the case of photo messaging the fading of distance (i.e. when the loved one has returned) invalidates the punctum in the photograph for the recipient of the photo message; distance is no longer a source of punctum. And if the punctum acts as an important motive for cherishing and saving photographs, then there is necessarily no reason to save the photo message once when the distance has reduced to zero, when the loved one is back home again.

30 These photo messages are discussed in more detail in chapter seven.

5.4 Conclusion

In this chapter, the discussion on time has been related to the degree of immediacy between the capture of the photograph and the act of telecommunication. The camera phone enables the effortless communication of photographs over distances without much delay, in almost real time, or, *near time*. This new relation to time in photographic communication affects the way a photograph can mediate the being of the object depicted in the image. A conventional photograph mediates an event from there-then to here-now; by contrast, a photo message can form a connection between there-now and here-now. In addition to spatial immediacy, a photo message also provides temporal immediacy. Photo messages communicate *the now*.

The Arcada study shows clearly how photo messaging is about what one is experiencing at the moment. The interviewees explained sending photo messages almost instantly after capturing the photograph for the message. Most of the photographs they communicate as photo messages are strongly linked to sharing a certain moment, and would have less value if communicated the following week, or even the following day.

Immediacy is closely affiliated with transience. Photo messages are often most meaningful in the passing moment of communication, and do not necessarily have importance in the long run as documents to be placed in a photo album in order to be looked at during the coming years and decades. Many photo messages are valuable only as records of a certain interpersonal interaction and engagement at a specific moment.

The temporal and temporary character of photo messaging is emphasized when considering the unrealistic possibility of an ordinary family photograph growing *outdated* and losing its significance for the family community. The contents of a photographic document might become undesirable, but not outdated.

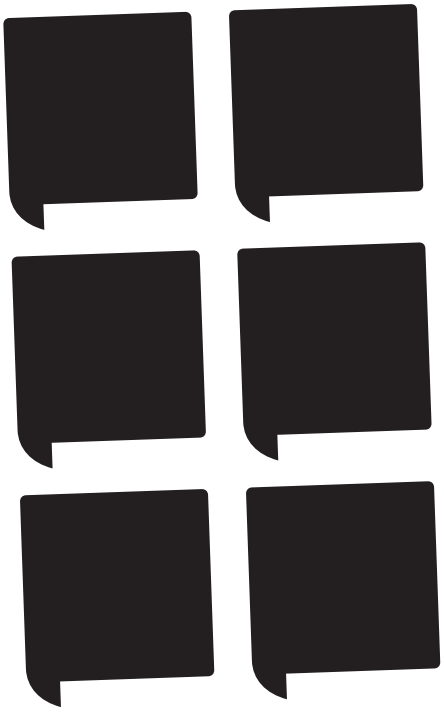
The transience of photo messaging follows the conventions and the transitory nature of interpersonal mobile communication. In many regards, photo messages are closer to text messages than they are to printed photographs: photo messages are photographs whose purpose is primarily to act here and now. Photo messages, as well as text messages, can of course be saved for longer periods, but still it would be hard to imagine a widely-spread habit of assembling a text message album, although the most cherished text messages might

end up in a digital archive or copied on paper.

As an explanation regarding the decision to save or not to save a photograph, I offered the punctum. A concept developed by Roland Barthes, it refers to something in a photograph that stings, personally touches the viewer. A detail in the photograph, the passage of time or, in the case of photo messaging, the distance between the sender and the receiver of the photograph can all be a source of punctum. In the case of distance, the photograph easily loses its emotional edge when the communicators are back together again. This may lead to the diminishing of the value of the photograph.

Barthes's punctum is a very different concept from Carey's ritual view of communication. First of all, punctum is connected to photography. Secondly, punctum is *personal* rather than focused on the social aspects of communication. Punctum cannot explain, nor is it intended to explain, how communication functions in the society.

I have now discussed key themes relating to photo messaging: interpersonal communication, intimacy, immediacy and transience. The goal in the next two chapters is to employ this foundation in constructing the framework consisting of ritual communication and mediated presence. The discussion in this chapter on the inherent immediacy in photo messaging has served as a prologue, in particular for the discussion on mediated presence.



6 Ritual visual communication

> The mood is blue when you are in the army (...) the same blue chairs every Sunday night (...) I wanted to share that feeling with my girlfriend.

The above quote and the photo message representing empty seats in a train (Image 4), sent by Mikael to his girlfriend when returning back to the army base from a furlough, represent well the ritual visual communication mode of photo messaging. The photograph in itself is used to establish a connection, a sense of sharing and loving fellowship, and to share the mood with the girlfriend. The longing for her presence is subsumed in the photograph. The seats are empty, void of any human presence; the blue mood of the journey away condenses in the blue seats. In this sense, the photograph depicts the emotions of that (recurring) Sunday night very well.[31]

The focus in this chapter is on discussing mobile communication and photo messaging in the context of ritual communication, in particular the ritual view of communication as defined by James W. Carey. I consider photo messaging as being a predominantly ritual form of communication; it is characterized by sharing and mutual participation, rather than transmission of information.

Another theme in this chapter is the redundant nature of photographs sent as photo messages. An utterly banal everyday moment might not be worth photographing for photography's sake, but the act of photography can be motivated by ritual interaction. The banal moment is photo-worthy as a message that communicates the contemporaneous feelings of the sender, establishing a connection and a sense of togetherness between the communicators.

31 Fortunately, Mikael received a consoling and caring text message as a response from his girlfriend, which eased the melancholy a bit.

6.1 Ritual communication and social cohesion

According to Carey (1989, 18, 43), the ritual view of communication is typified by such concepts as sharing, participation, association, fellowship and the possession of common faith. The ritual view of communication is not directed toward the extension of messages in space but toward the maintenance of society in time; not the act of imparting information but the representation of shared beliefs. The ritual view regards communication as a means for producing and maintaining communality and community, and conceives communication as a practice through which a shared culture and community is created and modified. (ibid.) In all, ritual communication facilitates the maintenance, creation and integration of social networks and relationships between people (Lüders 2007, 184).

Carey (1989, 20–21) offers an example of how the ritual metaphor works in the context of reading a newspaper. The act of reading is conceived as less gaining information and more as attending a mass, a situation in which nothing new is learned but in which a particular view of the world is portrayed and confirmed. As a consequence, according to the ritual view, news is not information but drama.

By contrast, in the transmission view of communication the transfer of information plays an important part. Communication is perceived as a one-way transfer of messages and defined by terms such as sending, transmitting or giving information to others. It is formed from a metaphor of transportation, and in the centre is the idea of communication as a process of distribution of messages over distance for the purpose of control. The transmission view of communication is the basic orientation in our culture, one which dominates contemporary dictionary entries under the term communication. (Carey 1989, 14–15) For example, the Wikipedia entry for communication begins with the description "Communication is a process of transferring information from one entity to another."[32]

Carey (1989, 43) relates the transmission view strongly to the 19th century desire to use communication to extend influence over wider distances and greater populations. By making a very strict distinction, transmission is related to power, control and conquest, whereas ritual communication can be conceived as a way of belonging (Cmiel 1992, 286). When the transmission of information forms the frame

32 The English language Wikipedia visited on 25th October 2009.

of reference for communication, the desire is simply to know how much it is possible to communicate or get across most efficiently. This view is evident in phrases such as the *information superhighway* used to describe new media technology. (Jones 1997, 7)

The significance of the ritual view of communication in the context of communication studies is that it has quite influentially called into question the dominant perception of communication as mere transmission of information. The ritual view stresses that the social value of communicative behaviour is independent of the informative value of the message.

In addition to communication studies, ritual in mobile communication can also be approached from the viewpoint of sociology or social psychology – to consider, for instance, how mobile communication is used to create and maintain solidarity and cohesion within a group. The book *New Tech, New Ties: How Mobile Communication is Reshaping Social Cohesion* by Rich Ling (2008a) contains an interesting discussion on mobile communication and ritual interaction. Ling develops the idea that ritual interaction – mediated or co-present – provides social cohesion. Ling bases his argumentation largely on the ideas and theories of Emile Durkheim, Erving Goffman and Randall Collins.

Although Ling (2008a) does not relate his study to camera phones,[33] he importantly extends the study of ritual to interpersonal communication, to micro-interactions and to "normal mundane interaction". His focus is not on ritual as obsessive or repetitive behaviour, nor does he consider ritual in the Durkheimian sense as a special event, celebration, formal ceremony or cyclical rite. Thus, he is thinking more in line with Goffman (1967) by applying the idea of social ritual to everyday interpersonal interaction in small-scale settings. Another interesting trait in Ling's study is the focus on mediated interaction. Actually, Ling (2008a, 56) criticizes previous analysis of ritual and social cohesion in that it has been based largely on the idea of physical co-presence.

Ling's definition of ritual shares characteristics with Carey's definition, although Ling does not use the concept of ritual in a strong binary opposition to another form of communication or some other social practice. Ling (2008a) conceives the sharing of a mood and

33 Ling (2008b) has conducted a smaller study on the role of camera phone photographs in maintaining bonds and relationship ties, titled "Trust, cohesion and social networks: The case of quasi-illicit photos in a teen peer group".

the mutual recognition of being engaged in a common situation as the basis of ritual cohesion. For example, gossip or chitchat can serve as a kind of phatic interaction. The point is not to exchange groundbreaking information or to carry out any instrumental interaction. Gossip can simply be a phatic device by which partners assure one another that they are still active friends. (ibid., 153)

The viewpoint on mobile communication provided by Ling serves as a good background for my discussion on ritual communication in the context of photo messaging. Ling's approach also fills some of the deficiencies of Carey's model. For example, Carey focuses more on the societal level than he does on examining the ritual view and the transmission view of communication in the framework of strictly interpersonal communication settings, which is the essential context of communication in regard to my study. For Carey, society is possible only in and through communication (Pauly 1997, 3).

However, importantly, in relation to interpersonal communication, Carey (1997) stresses the significance of oral conversation. In this, he emphasizes face-to-face conversation – the full presence – over mediated forms of communication. According to Carey, "[t]o say that communication begins in ritual is to say it begins in conversation in the sense that it is *embodied.* Conversation requires the actual presence of bodies. (...) Conversation enforces a recognition of others in the fullness of their presence." By contrast, the printing press, television and the Internet "do not so much create communities as remind us of communities elsewhere embodied in first-order ritual and conversation". (ibid., 314–315)

Most significantly, ritual communication in both Ling's and Carey's view is about the management and maintenance of social cohesion, either pronouncedly on the societal (Carey) or the interpersonal level (Ling). The contribution of my study is that I apply Carey's theory to mediated interpersonal communication. In a sense, the ritual view of communication is revisited in an era of mobile phone communication. What I add to both Carey's and Ling's viewpoint is the discussion of ritual in the context of visual communication and photography.

6.1.1 Ritual communication in the context of mobile communication

Ling (2008a, 6) quite explicitly notes that certain characteristic forms of mobile communication can be considered as mediated ritual inter-

action. Ritual communication also surfaces – although not always as overtly as an overarching concept – in other commentary on mobile communication. For instance, Christian Licoppe (2004, 147, 152) states that when the frequency and continuity of the flow of calls in mobile communication is important, the act of calling counts at least as much, if not more, than what is said. The ritualistic connection is established by expressing a state, feeling or emotion, rather than by explicitly communicating one's news. It is almost a phatic mode of maintaining the link (ibid.). This type of continuous, connected communication is closely related to the ritual view of communication as defined by Carey, as the connection is often more important than the explicit transmission of information.

A Norwegian example demonstrates the tendency to exchange text messages continuously (even 20–25 messages a day) with self-reporting texts: "I just woke up now", "I'm finished with eating now" (Prøitz 2005, 198). According to Ruth Rettie (2006), the near-synchronicity of text messaging relates to the feeling of a shared present. The recipient of the message knows that the other party is thinking of her at that particular time. Even a one-line text message, regardless of its textual contents, implies "I am thinking of you". (ibid.) In the connected mode, the objective of mobile contact is "movement in the same rhythm" (Kopomaa 2000, 52–53). The relationship is, in a sense, online all the time, and particularly for those who rely on text messaging, their social relations are "always on", the connected state is the default (Ito 2004). It is important to notice how these views demonstrate the *power of now* (see chapter 5.1.2), the immediate character of mobile messaging.

Ling (2007) notes how "[o]ften it is not the specific words of the text message or content of the call that are important, but rather the process of communicating". The mediated interaction keeps the link between the partners active (ibid.). Mobile phone users create a space of shared awareness of one another by sending messages that are primarily designed to keep in touch, rather than to communicate specific bits of information (Okabe & Ito 2006, 84; see also Polazzi et al. 2002, 341). These *sweet nothings* function to affirm the connection with each other (Ito 2004). The ability to send short messages at any time provides a feeling of *ultraconnectedness* (Miyata et al. 2005, 433). According to Ito (2004), this type of messaging is similar to the awareness that people might share about each other if they occupied the same physical space. The messages are "virtual taps on

the shoulder", quick affirmations of a connection. (ibid.)[34]

Hans Geser (2004, 7–8) follows along the same lines by noting how the mobile phone supports continuous *grooming calls,* which have primarily a non-instrumental, socio-emotional function. The use of the mobile phone is often similar to face-to-face communication, where it is common not to aim at conveying specific information, but rather at expressing affection (ibid.).

Another notable aspect of mobile phone communication, and especially text messaging, is communication as gift-giving. The processes of exchange can transform messages into things that have a special value and ritual properties. The routine sending of the nightly goodnight messages becomes recognised as a symbol of commitment, an act that closely resembles ritual gift-giving (Taylor & Harper 2002; Taylor & Harper 2003, 25–28; Berg et al. 2003, 434–435; for a discussion on goodnight text messages see also Grinter & Eldridge 2001; Ito & Okabe 2003, 20; Licoppe 2004, 150; Prøitz 2005, 191). Therefore, even if the content of the text message seems unimportant, the mere act of sending makes it important (Johnsen 2003, 166). This *tele-gift-giving* is very close to ritual communication. The gift forms a connection between the sender and the receiver.

Other new media can be also reviewed in the context of the ritual view of communication. Nardi et al. (2000) have found similar examples in instant messaging (IM). They coin the term *outeraction* to describe a set of communicative processes outside of information exchange. For example, IM buddy lists can be used to maintain a sense of connection within an active communication zone in times when there is no actual conversation. These awareness moments produce a feeling of connection. (ibid.).

A direct link between the ritual view of communication and mobile communication is established by the concept of *connectedness*. Connectedness has been widely discussed in literature on mobile communication (for outlooks on mobile connectedness see e.g. Fox 2001; Katz & Aakhus 2002b, 8; Raudaskoski & Arminen 2003, 10; Licoppe 2004; Haunstrup Christensen 2008; White & White 2008). Connectedness consists specifically of the maintenance of relationships

34 When considering these examples, the special situation of Japan has to be taken into account. Japanese youth have to use mediated communication to achieve a sense co-presence with peers, as they are not able to realize a physical connection at will because of their dependence on the parental home. For partners of teenage couples living with their parents, the mobile phone can be the primary means for staying in touch. (Ito 2005c, 138; Miyata et al. 2005b, 483)

by connecting for the connection's sake, not because an important piece of information needs to be transmitted. It is interaction that has no external purpose: it is its own goal (Lehtonen et al. 2003, 77).

By using the mobile phone, the reassurance of the relationship or the well-being of the communicators can be ongoing and perpetual. Communication technologies are being used to compensate for the absence of the intimate ones, to provide a continuous pattern of mediated interactions, in which the boundaries between absence and presence eventually get blurred (Licoppe 2004, 135–136). The connection is developed and maintained through short bursts of communication (Ling 2004, 184–185).

Connectedness can be linked to *awareness*. Rettie (2003) states that awareness of the others can convey connectedness even without any message exchange (cf. the example of IM outeraction). There may be little salience of the other person, but at the same time an experience of connectedness. According to IJsselsteijn et al. (2003), the aim of communicative awareness is often simply to stay in touch, to be reassured about the wellbeing of others, to let the other know that one is thinking of him. The informational content of the message is of secondary importance to the emotional content that is being transmitted. (ibid.)

6.1.2 Changes in the uses of the mobile phone

The basis for ritual communication in mobile phone communication was partly laid in the use of the conventional telephone. Amparo Lasén (2002, 24) explains that conversation and sociability have been the main uses of the landline telephone.[35] Dimmick et al. (1994, 659) state that the telephone helps to feel close to family and friends, and it allows the individual to feel ensconced in family and friendship networks and feel a sense of participation in communal life. However, Ling (2004, 58) diverges from these views by stating that studies have shown that conventional landline telephony is used primarily to carry out instrumental activities, such as coordination, confirming appointments and organizing affairs.

One explanation for this contradiction in views is that the function of the landline phone is changing due to the proliferation of mo-

35 Interestingly, in the early days, the landline phone was conceived as a receiver device for mass communication contents. The use of the telephone for entertainment and broadcasting of news, opera, weather reports, and religious services was one of its main uses until the end of the 19th century (Lasén 2002, 18-20; Katz 2006, 115).

bile phones. In the present day, the landline phone is possibly being stripped of its more ritual uses in favour of the mobile phone. The landline phone is less of a personal phone, oriented more toward use in office-settings and the like.[36]

Of significance is also that the many studies concentrated on studying the communication habits of young people can skew our perception in the direction of the view that mobile phones are used greatly for connected communication and non-instrumental uses. In the group interviews of a Norwegian study (Ling & Yttri 2002, 147), the oldest users frequently focused on issues of safety and security when discussing mobile telephony. The middle-aged users focused on the possibilities for coordination offered by the mobile phone. The youngest users, in addition to the instrumental uses of safety and logistical coordination, were those who used their phones in an expressive manner. (ibid.)

It is important to note that job-related phone use does not by definition represent the transmission view and family communication the ritual view. For instance, a transmissive use of the mobile phone in the family context is the micro-coordination of activities, especially noticeable among families with children. It is the exchange of information regarding the ongoing routine maintenance of everyday life, and thus those calls are not intended as social interaction but more as functional and instrumental activities. (Ling & Haddon 2005, 246–247; Ling & Yttri 2002, 139–140)

In conclusion, there is no comprehensive and definitive evidence on which view describes better the practices and conventions of mobile communication, the ritual or the transmission view of communication. Mobile phone communication is employed for transmitting information, for planning and coordination of everyday matters; at the same time, social cohesion and reassurance have a very important role in mobile communication, especially in intimate relations. However, my definite argument is that the communicative practices of photo messaging can be best understood when examining them in the context of ritual communication.

36 This comparison between the landline and the mobile phone is irrelevant in the case of many developing countries. For people in developed countries, the mobile phone still often acts chiefly as a true mobile phone, a device that has brought with it the added benefit of mobility in comparison to the landline phone. By contrast, for the large majority of the people in the world, the mobile phone is not an extension of the landline phone, but rather the first form of any personal telephone communication – for them, the major advantage of the mobile phone is to be connected at last (Castells et al. 2007, 218).

6.2 Photo messaging as ritual communication

Before I discuss photo messaging in detail, I will consider the ritual view of communication in relation to the redundant and mundane character of camera phone imagery. In general, the study of photography, and personal photography in particular, is an approach in which Carey's model rarely has been applied.[37]

6.2.1 Highlighting snapshots

In his book *Towards a Philosophy of Photography*, philosopher Vilem Flusser (1984, 18) makes a distinction between informative and redundant photographs. According to Flusser, redundant photographs carry no new information, they are superfluous, representing the "repetition of sameness". This conception links redundancy to Carey's model, as in the transmission view the success and effectiveness of communication are defined precisely by the capability to transmit information. In the context of the transmission view, redundancy is a negative aspect, as transmission of information is clogged and hindered by superfluous contents.[38]

Flusser (1984, 18, 42) draws a fairly direct parallel between snapshots and redundant photographs. Snapshot photography for him represents the repetition of sameness, as the snapshot photographers constantly shoot photographs, constantly produce redundant pictures. A camera may take the same or similar photographs, again and again and again. (ibid.) On the one hand, this outlook is linked to the contents of the photographs, as the camera apparatus itself enables the almost endless capturing of a certain object or situation. On the other hand, and even more, redundancy is a feature of the use and communication of images. When viewed in isolation, a single snapshot of a children's birthday party is not necessarily redundant for the viewer, but when presented in a photo album or a slideshow – consisting of other photographs portraying the same kids, smiling, blowing candles and making funny faces – it can be considered as redundant.

37 Michele Strano (2006) discusses ritual communication in the context of family photography, focusing on social norms research.

38 Rothenbuhler (1998, 125) states how information deals with difference, but most everyday communication has little to do with difference. It is as if the underlying message of most communication is: things have not changed (ibid.). In this sense, the repetition of sameness is a quite natural attribute of communication.

However, Flusser's evaluative understanding of the redundant nature of snapshot photography can be well criticized, as conventional personal photography – snapshot photography along with it – has principally been used rather to elevate experiences out of the ordinary. Susan Sontag (1977, 65; 1999, 91; 2004, 61) has written much on this link between the value of or interest in an event and the wish to have a photograph of it – photographs reshape our conceptions of what is important.

Slater (1995, 133–134) brings up the capability of the snapshot to shift "private experience from the plane of the mundane, ordinary and insignificant onto a plane of idealised moments". Snapshot photography lifts up the cherished moments from the mundane everyday, and in this sense it is difficult to conceive of snapshots as redundant, at least from the viewpoint of the family or friends depicted in the photographs.

Liz Wells (2003, 199) points out how personal photographs have tended to record highlights of life, such as births, weddings, and so on, rather than the banal everyday life. Snapshooters selectively use their cameras at specific times, in specific places, during specific events and for specific reasons (Chalfen 1987, 98). Pierre Bourdieu (1990, 6–7) writes how in family photography everything seems to obey implicit canons, norms that organize the photographic valuation into what is photographable and what is not.

In fact, the everyday or commonplace has not commonly been chosen to be photographed at all. Chalfen (1987, 94) observes (in times before digital photography and camera phone photography) that we seldom, if ever, find snapshot images of people taking showers, brushing teeth, combing hair, shaving, using the toilet, vacuuming, dusting, polishing furniture or silverware, or otherwise cleaning the house. These photographs of the very mundane, repetitive and everyday could easily be labelled as redundant. In fact, family and snapshot photographies are not documentary (Slater 1995, 134), as a large part of the domestic life is left outside the realm of photography. The snapshots actually represent an incomplete family life, concentrating only on certain highlighted aspects.

Notable is also the absence of snapshots taken at the workplace. In a study by Jo Stanley (1991, 65), the subjects responded that they simply did not feel it was worth recording themselves at work (either paid work or private domestic labour). According to Stanley (ibid.), work is perhaps an experience people might try to deny or ignore,

rather than record. Photography is about representing the high points, not the mundane routine. Or, as Bourdieu (1990, 34) notes, "the field of the photographable cannot extend indefinitely (...) one does not photograph something that one sees every day".

One view is that many of the family photographs are mundane on a general level, but rise above triviality when shared in the family context. These photographs appear thin and ephemeral, when wrenched from the private context (Holland 1997, 107). In a study by Gillian Rose (2004), British women with young children commented that they felt ambivalent about their family photographs: the photographs were considered as precious objects, but at the same banal and trivial.

6.2.2 Camera phones producing mundane images

The ubiquitous camera phone is carried all the time and everywhere, also in situations that can be expected to be as mundane as ever. Probably not everyone would intentionally bring a camera when he decides to go and have a beer in the pub around the corner. Yet, the camera phone is most likely to be in the pocket during those outings, too. A common view is that, through its pervasive character, mobile phone photography widens the scope of snapshot photography from the family into the less intimate world of city life, hobbies and work. The scope of photo-worthiness and the implicit norms or canons of photography (see Bourdieu 1990, 7) are somewhat different in camera phone photography from those in conventional snapshot photography.

Compared to the stand-alone camera, which is mainly used for special excursions and events – noteworthy moments bracketed off from the mundane – camera phones capture moments more fleeting and unexpected (Okabe & Ito 2003; 2006, 99; see also Gai 2007, 202–203) – a cake that looked good at a café, or a sudden encounter with a cute child or pet (Ito, 2004). The mundane is elevated to a photographic object (Okabe & Ito 2003).

Camera phones change the definition of photo-worthy from what is special and enduring to what is often transitory and ordinary (Van House et al. 2005, 1854; Van House & Davis 2005), the trivial moments and spontaneous images of everyday life (Lee 2005; Kasesniemi et al. 2003, 8; Rivière 2005; Haddon 2007, 123; Hjorth 2007, 227; Vihavainen et al. 2007; Rantavuo 2009, 62).

It should be noted that photography concentrating on the mun-

dane aspects of life is a wider-ranging phenomenon than one only related to camera phone photography. For example, on Flickr and many other photo sharing sites on the web, photography has become less about the special or rarefied moments of family living and more about an immediate, rather fleeting display of the small and mundane (Murray 2008, 151).

In a study on photobloggers (Cohen 2005, 887), it came up that they concentrate on photographing the everyday, the banal, the mundane or the "Real Life". They want pictures of life as it happens, as they experience it; it is the life that traditionally happens "outside of photographs". Thus the photographs are not "Big Occasion snaps", those about weddings and birthdays. (ibid.) Based on her study on camera phone photography in the context of moblogging, Karin Wagner (2007, 635) highlights the commonness of photographs of meals, road repairs, toddlers, pets, household chores and new hairstyles, to name a few.

Although many family photographs depict people at leisure – in the backyard, at the beach (Halle 1993, 96) and in other mundane settings – on streets, in parks, in kitchens, in front of the house, in the driveway, next to the car (Hirsch 1981, 47), the mundane in photography can also be equated with the truly banal: watching television, brushing teeth. Mundane is not about the family outing in the park (in contrast to a wedding ceremony); it is lowered to the level of the extremely redundant, photographing the *repetition of sameness* to which Flusser (1984, 42) so decisively referred: brushing teeth occurs every morning and night.

In conclusion, the camera phone does not adhere only to the conventions of snapshot photography, but also opens up new areas of the everyday life for photography. In a more elaborate way, it can be concluded that the setting of camera phone photography in general is the everyday, but the subjects and happenings included in the photographs are not necessarily banal or mundane. Rather, camera phone photographs cover the unexpected moments of the mundane life; unique events that take place in the scope of some daily routine (Wagner 2007, 640). However, for the purposes of photo messaging, even the mundane and redundant moments of the mundane life can be photo-worthy.

6.2.3 Visual connectedness

In this section, I discuss camera phone photography in the context of photo messaging. My argument is that however redundant or non-informative its contents may be, a photo message can establish a connection. The *visual little nothings* of everyday life, photographs of mundane events, serve well in ritual communication. As van Dijck (2007, 114) notes, when photographs shared from a camera phone are used to merely show affect, they are more about connecting and getting in touch than communicating memory objects.

It is important to remember that all photo messages are not of a kind. Ritual communication is – although predominant – only one dimension of photo messaging, and cannot be generalized to all uses of photo messages. For example, based on her study, Scifo (2005, 371–373) distinguishes three types of use for photo messages as a new linguistic resource: performative messages (employed as a resource to generate an act); informative messages (visual communication dominated by an informative function); and problem-solving messages (instrumental, pragmatic photos, taken in order to reduce time and costs or to solve emergencies). All of the three forms represent transmission rather than ritual.

A commonly anticipated transmissive use of photo messages is providing visual information for people in maintenance work, for example when ordering spare parts (Raudaskoski & Arminen 2003, 28; Ling & Julsrud 2005). Instrumental MMS messages can deal with important conditions or events, such as dates and appointments, or professional tasks (Döring et al. 2006, 205).

Despite these examples of transmissive expressions for photo messaging, it can be concluded, based on existing research, that photo messaging is strongly connected to the ritual view of communication and the maintenance of social cohesion. The "I'm thinking of you" messages are not sent in order to explicitly transmit images as such, but rather to show the recipient that she is on the sender's mind; "The message is a symbol designed to maintain and refresh the relationship" (Koskinen 2007, 22–23). Photo messaging can form a collective communication space centred on exchanging content that is intimate and fun and has no rational or informational purpose but is, rather, sensation-oriented (Rivière 2005, 184).

In the Maypole study (Mäkelä et al. 2000, 553–554), the images were used largely for expressing emotions, moods and humour. There was hardly any usage of images for functional reasons like the ar-

rangement of activities (ibid.). Larissa Hjorth (2005b, 63) notes how, for many of the respondents in her study, neither SMS nor MMS messaging is primarily about information dissemination, but rather about a reassuring type of co-presence (for similar observations see Raudaskoski & Arminen 2003, 27).

Like text messaging, photo messaging can be compared to gift-giving. To send a photo message is in itself a gesture of showing that one cares about the other person (Lehtonen et al. 2003, 79). This type of messaging is not associated with any specific goal but is rather about maintenance of community (Ling & Julsrud 2005, 334).

In an example Koskinen (2007, 99) provides from the Mobile Image study, people sent out photo messages containing a whole range of images including old socks, tabletops and soda bottles. Typically, these photographs were sent from boring situations. The camera phone rendered the less photographic aspects of mundane life communicable in visual form. (ibid., 91–92) A certain banality is almost built into photo messaging (Battarbee 2004, 147). A *thumbs up* photo message, consisting of an upright thumb,[39] can be a functional form of interpersonal communication, but would not probably be included in the family album.

In other studies on camera phone photography and photo messaging, research subjects have explained that they use their mobile phones to send pictures of daily life to members of their intimate sphere for information, but even more for connection (Van House et al. 2005; Kindberg et al. 2005a). In her study with Korean university students, Hjorth (2007) concluded that the emphasis when sharing camera phone photographs was less on the actual content and more on the act of sharing.

Again, this visual connectedness does not relate only to photo messaging, but also to publishing personal photographs online. Van House et al. (2004a) suggest that photographs shared on the web are used to keep other people up to date on what is going on in one's life, as well as to connect to loved ones. A couple that used to share photographs through a photoblog explained it being "like a kiss or a hug". More generally, camera phone users talk of sending photos sporadically throughout the day just to make the other laugh. Many of these images are more about connection than content. (Van House 2007; see also Mørk Petersen 2008, 66)

39 See Koskinen 2007, 86-87 for discussion on the body as a resource for interaction in camera phone photography.

When examined in the context of ritual communication, the redundancy of a photograph in relation to its informational content is not of significance, as the photograph can be used to maintain a connection without having to be concerned about its superfluous contents. In fact, French sociologist Michel Maffesoli (1995, 93) contends that it is reasonable to have image-based communication whose only aim is to "touch" the other, just to be in contact without changing information.

6.2.4 "Photo messages are more just to see how it is, and not for the photographic value"

Previously, in chapter 6.2.1, I affiliated certain forms of text message use with ritual communication. However, when I asked the Arcada interviewees to compare text messaging with photo messaging, a conclusion was that, of the two, photo messaging is more firmly grounded in ritual communication. Mikael noted that "[a photo message] is more of an entity, if you send just an SMS, it's just something you want to say, it's more of a normal communication, but if you send a photo with it, there is something more you want to say with it (...) photo messages are more a connecting thing, you try to make a connection, and SMS are also that, but also like informational."

The relationship between text and photo message was described by Anja as follows: "The text message is normally about information (...) the photo message can be a nice extra." For her, an MMS message gives a "wow" feeling, and an SMS sent from the same situation would be "blah". Kasper explained that "[t]ext messages are for me like information, like in a boring sense, concerning school or jobs or timetables (...) picture messages are more for like amusement purposes".

Ulla summarized this attitude well: "SMS is more daily basis, and a message with a picture, it's always something extra (...) SMS is so much more basic daily communication (...) either it [MMS] is very practical [photo of an apartment she has seen sent to her boyfriend] or then it's something extra, something cute, something special, but SMS is like routine."

Mikael continued the comparison by stating that SMS would be "I'm coming at two o'clock tomorrow (...) because it's so simple message, you don't need to say it with a photograph", and an MMS would be "hi, I'm sitting inside with my computer and I am really bored, maybe we can meet at two o'clock tomorrow, and then I would show a bored picture of myself". For him, the reason why he decides to

take a photograph to be sent as an MMS would be "a longing for a connection between me and some other people (...) so you want to share something".

The picture of Mikael reclining bored on the computer keyboard (Image 5) serves in conveying the prevailing feeling of gloom and longing for the other. It probably stresses his anxiety to meet better than a simple "let's meet" text message.

Kjell explained how he visually maintains the relationship with his brother: "I do not talk much with him, but we share what we do, keep contact [with photos]." Both are interested in motorcycles, so they send each other photographs of nice looking motorcycles. According to Kjell, there would be no sense in calling and saying "Oh, I'm looking at a really nice motorcycle here", so visual messages function well in this type of maintenance of a relationship. Photographing and sending pictures of motorcycles, "the same or similar photographs again and again and again" (Flusser 1984, 18), can easily be perceived as redundant.

Bengt stated that "[w]ith this camera phone it is more to show where you are and what you do, and there is not so much aesthetic value in that picture" and continued that "they [the photo messages] are more just to see how it is, and not for the photographic value".

The cherry tree that was mentioned in chapter four also acts as a good case in the context of visual connectedness. Anja mentioned having taken two photographs of the cherry tree in her yard. She first took a photograph of the cherry tree in bloom with a camera phone (Image 6). She sent the picture to a friend, because "it looked so nice". A motive for sending the message was also "to care of the other when you are somewhere else". However, when she realized that the mobile picture of the cherry tree turned out beautiful, she took a picture with her stand-alone camera as well, with the intention of recording it for later use, maybe looking at the photograph the following winter. According to her, the original (camera phone) photograph of the tree was more oriented for "communication".

The camera phone photograph communicated her good mood and enjoyment when admiring the cherry tree in bloom. It also mediated in a ritual manner her caring thoughts to the absent friend. The stand-alone camera photograph served more as a document to remind her of the summer, the time when nature was "alive".

Another similar example came up in the interview with Ulla, who described a situation when she had photographed a Darth Vader

made out of sand (Image 7) with both her camera phone and stand-alone camera. She explained capturing the camera phone photograph with the sole intention of sending it to her nephew, to the one in her circle of acquaintances who was most into Star Wars; this special relation was the motive behind taking the camera phone photograph. By contrast, the other photograph of Darth Vader, which she took with the stand-alone camera, was oriented more towards archival purposes.

Furthermore, the moment itself was a strong motivating aspect for sending the image of Darth Vader. The special thing about Darth Vader was that it was made out of sand and that Ulla saw it at the beach in the Finnish town of Lappeenranta, where she was visiting. She was in Lappeenranta only then, so it was a transitory and momentary situation when she was confronted by the Sand Darth Vader. There was no need to explain why she was sending the photograph just then, no need to ask "why now"; the motive was to send "Greetings from Lappeenranta".

I can provide an example of this type of photo messaging from my own experience. One Boxing Day I took a camera phone photograph of my wife and two daughters on a walk in the forest and sent it as an MMS to my cousin. There was nothing special about the walk, I did not have any special need to document the moment. The reason I took the photograph was that normally we get together with the extended family on Boxing Day, but that year we were in another city and could not take part. The photo message communicated our presence to the rest of the family, as well as the recognition that it was Boxing Day. On some other day, I would not have taken any kind of photograph of the walk in the forest. For me, the photo message acted as a mobile postcard.

In fact, the ritual form of communication apparent in photo messaging is close to the one behind sending postcards. The postcard is often not used to express anything special or articulate, but rather to acknowledge that "I am alive" and "thinking of you" (Östman & Laakso 1999, 17–18). According to Östman and Laakso (ibid.), at least in the Finnish postcarding culture, the postcard entitles a strong phatic aspect; it can, in an implicit manner, say that everything is OK. The postcard connects in the space between absence and presence (Korhonen 2001, 54).

6.3 Conclusion

Based on available research, it can be concluded that the use of personal photographs in the context of photo messaging is tied quite firmly to the ritual view of communication as articulated by James W. Carey (1989). The ritual view of communication is expressed by such terms as sharing, participation and fellowship.

The ritual conventions of photo messaging stem largely from the practices of mobile communication. Photo messaging functions in maintaining the connection, in the same sense as Licoppe and Heurtin (2002, 106) describe the use of short, frequent mobile phone calls in strengthening the formation and maintenance of deep bonds, not motivated by their content but by the reassurance they bring. In the text messaging culture, there exists also a common practice of sending messages just in order to keep in touch with intimate others; the motivation of communication is almost exclusively in sustaining the relationship, connecting for the connection's sake.

Ritual communication is evident in how mobile communication is used to create and maintain solidarity and cohesion among a group. An important contribution from this perspective has been offered by Rich Ling (2008a). Importantly, Ling applies his treatise on ritual interaction to everyday interpersonal interaction in small-scale settings. By contrast, Carey's model is more focused on journalism and mass communication, at the expense of interpersonal communication.

The emphasis on ritual communication does not indicate that people do not also use their mobile phones to send photographs to members of their intimate sphere in order to convey information of some sort. However, based on existing research, it can be concluded that transmissive expressions of communication are less prominent in photo messaging, and that thus the ritual view of communication, rather than the transmission view, is the more advantageous perspective for examining the dominant uses of photo messaging in interpersonal communication.

The connecting function, keeping in touch visually, has effects on personal photography as well. The everyday or commonplace has not commonly been chosen to be photographed. However, the ritual connection makes a mundane situation or object worth photographing, photo-worthy. Such a photograph is not necessarily precious as a photographic document to be preserved for future genera-

tions, but valuable as a transient message, connecting remote people to each other in a fleeting manner, providing social cohesion in the moment.

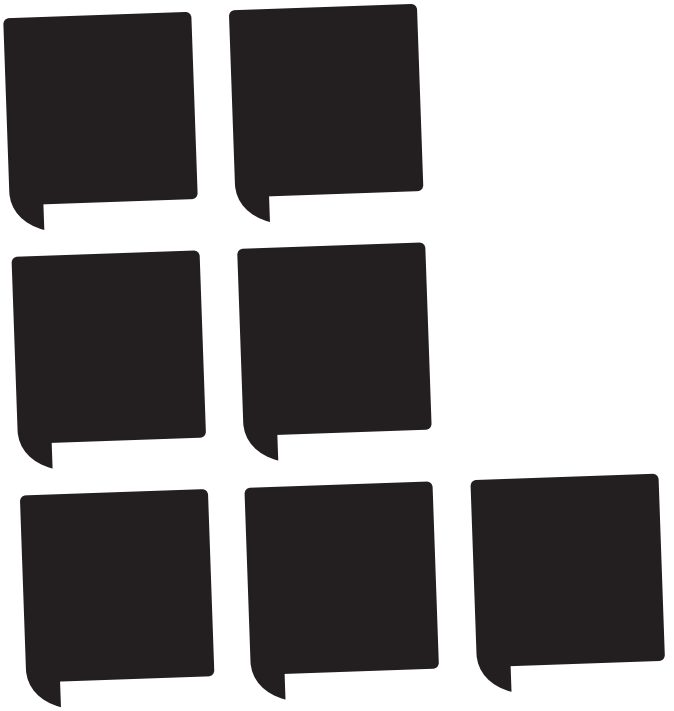
A key argument in this chapter has thus been that, however redundant or non-informative its contents may be, a photo message can establish a connection. The *visual little nothings* of everyday life serve well in ritual communication, maintaining communality between the communicators. Redundancy, the repetition of sameness, does not impede ritual communication, as the amount and utility of explicit information communicated is not relevant.

A relevant theme in relation to the use of photo messages in communicating information is the status of images in general as carriers of explicit and conceptual information. However, although I have touched on the subject earlier on in my work (Villi 2001), I have now left the topic aside. From previous experience, I know that opening up a discussion on the informational status and capacities of images, in particular in relation to written communication, would have taken the study too far in a new direction.[40]

The results from the Arcada study confirm that ritual communication is exemplified by photographs captured and sent forward with a connecting motivation and function. The focus is not on capturing "good", aesthetically pleasing photographs, but rather on photographs aimed at establishing a connection to an intimate but physically remote individual, sharing the moment with him or her.

Earlier, in chapter five, I introduced the idea that photo messaging is to a large extent determined by the will to overcome absence in space. Photo messages are communicated in situations when the person at the other end of the photographic connection is not physically present. In addition, the communication of the photograph is temporally closely tied to its capture. In the next chapter, I will discuss this mediated presence in more detail.

40 For a discussion on the informational status of images and especially the relationship between words and images see e.g. Mitchell 1986; Mitchell 1994; Kress and van Leeuwen 1996; Barry 1997; Mirzoeff 1998; Stephens 1998; Kress 2003.



7 Mediated presence

> 'Hey, I am here, check this out' (...) it is sort of like an authentication of that you are in that place, and you can show that 'hey, I'm here right now'

This quote from Joakim leads us to the discussion of the second main theme of my study, mediated presence – the use of photo messages in communicating presence over distance. Alongside ritual communication, it is a focal attribute in describing the communicative practice of photo messaging. I will discuss mediated presence both as a sense of presence in a remote location and presence with a remote person.

The feeling of presence a photo message can establish is not necessarily any more potent than it is with any photograph, yet different, as the presence is communicated primarily over distance, not over time. Thus, I intend to offer a new conception of presence in relation to photography, characterized by a more telecommunicative and synchronous form of mediated presence.

I set the chapter in motion by discussing the spatial aspects of photo messaging. In photo messaging, there is often an essential connection between the physical setting and the act of communication.

7.1 Telecommunicative space

Place and *space* are important concepts in the context of mobile communication. In this section, I utilize space in the sense geographer Doreen Massey (2008) defines it: space is the product of the simultaneous existence and interrelations of people. I adapt this notion of space to *telecommunicative space*, where the interrelations do not occur between co-present people but rather between people connected via telecommunication media. By contrast, I consider place as very simply the physical location. Thus, a person resides in a physical place, but at the same time he can act in a telecommunicative space, e.g. when talking on the telephone. This space of the telecommunicative connection can also be labelled as *phonespace* (Hulme & Truch, 2005, 466).

People spend an increasing share of their daily lives in the phonespace. A growing proportion of social interactions are mediated, they occur with mostly verbal representations of others rather than through co-present face-to-face encounters (IJsselstein et al. 2003; Huhtamo 1995, 94). Castells et al. (2007, 171–178) point out how mobile communication redefines places into a space of communication; places act as points of convergence in communication networks, they are subsumed into the space of flows.

The communicative space created by telecommunication media can be outlined by comparing it to the concept of *non-place* coined by the French anthropologist Marc Augé (1995). Certain locations, such as motorways, airports and airplanes, hotel chains, leisure parks and shopping malls are physical places, but at the same time non-places. Augé (ibid., 77–79) explains that a place which cannot be defined as relational, historical or concerned with identity is a non-place. It is a place surrendered to the fleeting, the temporary and ephemeral.

Similarly, the telecommunicative space as such has no identity. It obtains its value and importance from the fleeting and ephemeral, yet meaningful, acts of communication that take place (or should I say *take space*) in the communicative space. The phonespace, in particular, is not such a non-place where strangers quickly pass each other but, conversely, a space where people familiar to each other interact. As mentioned before, mobile phone communication is often a means to separate oneself from the unfamiliar others in the non-place and join with the more intimate ones, who happen to be located somewhere else (cf. the concept of absent presence presented in chapter

2.1.2).

Many *real places* (e.g. traditional meeting places such as cafés) – places of active physical presence, previously socially meaningful places – can actually turn into non-places as people engage in mobile communication and thereby transform their physical locales socially meaningless. Michael Bull (2005, 178) notes that, as people become immersed in the "mobile media sound bubbles of communication", the spaces they habitually pass through in their daily lives increasingly lose significance (see also Meyrowitz 2005, 25–27; 1985, 115; Geser 2004, 36; Ling 2008a). Mobile communication transforms non-places into telecommunicative spaces and real places into non-places.

For many users, mobile communication can be perpetual rather than consisting of only temporal excursions into the telecommunicative space. Ito and Okabe (2005b, 264) conclude that by using mobile communication, people can experience a sense of a persistent social space. Thus, the phonespace is a constant space, but the physical locale keeps on changing.

However, the telecommunicative space is not necessarily valued as a setting for communication. The general assumption is that a medium that best imitates face-to-face interaction is somehow more social (Postmes et al. 1998, 692–693), and that negative effects result from withholding or diminishing face-to-face interaction (Woolgar 2005, 34). Ronald Rice (1999) notes how some writers still project onto face-to-face communication a sort of romantic, mythic, idealized notion.

The concepts of place and space are also useful when reviewing the communicative characteristics of photo messaging. Photo messaging can especially emphasize the relationship between mobile communication and place, mainly by incorporating the physical place to the communicative act by providing a photograph taken of that place.[41]

By contrast, verbal mobile phone communication is often confined to places that have no intrinsic relationship to the act of communication; the content of communication is determined by the participating subjects, not by the physical locations in which the commu-

41 The GPS features that are increasingly added to mobile phones also append the physical location to mobile communication. As a consequence, photographs and other content produced with the mobile phone can be augmented with metadata on the spatial context of the place. For a discussion on contextual metadata in mobile photography see e.g. Davis et al. 2005 and Sarvas et al. 2004.

nicators reside. When talking or texting on the mobile phone, one does not necessarily have any indication of the spatial context of the other communicator. However, often this *de-localization* calls for *re-localization* (Licoppe & Heurtin 2002, 101). In a verbal call, re-localization can be achieved by providing information of the location during the phone call.[42] Photo messages, by contrast, are automatically and explicitly localized by the photographs they communicate.

Photospace – the communicative space of photo messaging – is thus more place-bound than the verbal phonespace. Photo messaging can accentuate the significance of places in the space of flows; they go from being mere points of communication, non-places, into being individual places depicted in the photographs, places with identity. It can be even presumed that the non-places, which Augé refers to, are often photographed for photo messages. If the function of a photo message is to establish a connection, then a photograph of an airport lounge might do the trick: it conveys something like "Hi, I am waiting for the transit flight, everything is OK."

In the study by Scifo (2005), I can find support for my view that photo messages are strongly connected to the place. Scifo writes that "the camera phone enables the multiplication of connections between different physical and social spaces rather than the weakening of a 'sense of place' – even though mobile communication is often cited as contributing to the processes of disembedding experience from local contexts". With its new visual potential, mobile technology "emphasizes forms of experience that are strongly rooted in physical and social spaces". (ibid., 373) Scifo contends that in photo messaging the situation in which the subject is located is transformed into the content of the communication itself. The camera phone enables "the doubling of place", the trans-location of place. (ibid., 364–365)

On a contrasting note, photo messaging can also be about communicating people rather than communicating places. Thus, in photo messaging, the place can be involved in communication in the same exiguous manner as background noise is entailed in a voice call.

By comparing phonespace and photospace, I have wanted to set up the idea that communicating one's presence in a certain location is an important aspect of photo messaging. In the following, I will continue the discussion of mediated presence in the context of visual communication.

42 In a Finnish study (Arminen 2006, 320), almost 90 percent of calls involved a sequence in which the mobile party stated her or his location to the other.

7.2 Presence mediated by mobile communication and photography

A general endeavour regarding mediated presence is for it to appear as non-mediated presence. Actually, presence can be defined as a perceptual illusion of non-mediation in which the medium appears to become either invisible or transformed into a social entity (Lombard & Ditton, 1997). The illusion of non-mediation can occur in two distinct ways: the medium can appear to be invisible or transparent and function as would a large open window, or the medium can appear to be transformed into something other than a medium (ibid.). In the first case, non-mediation is close to immediacy as described by Bolter and Grusin (2000)[43], and in the second case, it is close to a ubiquitous computing environment.

7.2.1 Physical and social presence

A dividing line can be drawn between presence as the sense or the illusion of *being there* or *being there together* – between *physical presence* and *social presence* (IJsselsteijn et al. 2000; Schroeder 2005, 342). According to IJsselsteijn and Riva (2003), "[p]hysical presence refers to the sense of being physically located in mediated space, whereas social presence refers to the feeling of being together, of social interaction with a virtual or remotely located communication partner".

A large part of mobile communication can be described essentially as using a medium to be with another, providing social presence. More often than having a sense of the place, the users experience the sense of being with another. (Biocca et al. 2003, 456, 458; Biocca & Harms 2002, 4, 10) In studies on mobile communication, presence has been closely attributed to the synchronous presence of the communicators in the phonespace. Licoppe (2003, 177; 2004, 147) describes *connected presence* as a continuous telephonic presence providing a reassuring link between the communicators. The interaction is detached from place, and the relationship is reduced to the series of calls which sustain it (ibid.).

However, as I have already proposed, in photo messaging, there is often a connection between the physical setting and the act of communication. Thus, photo messaging can also provide, in addition to

43 Immediacy (or transparent immediacy) is a style of visual representation whose goal is to make the viewer forget the presence of the medium and believe that he is in the presence of the objects represented (Bolter & Grusin 2000, 272-273).

social presence, physical presence. It is possible to *send the location*, give the other a sense of *being there*.

Social presence also has a more specific theoretical discourse. Short et al. (1976, 65) have introduced social presence as a media capacity theory. They state that the quality of social presence is dependent on the degree of salience of the other person in the interaction. Social presence can thereby be used to compare the effectiveness of various communication media. According to the theory, the fewer the number of cues (verbal, aural, visual), the lesser the degree of social presence experienced, which leads to a reduction of interpersonal affection (Walther et al. 2001, 106–107).

In the context of the social presence theory, visuality is an important attribute. The capacity to transmit information about the facial expression, direction of looking, and other non-verbal vocal cues contributes to the social presence of a communication medium. The removal of the visual channel is likely to produce a serious disturbance of affective interaction. (Short et al. 1976, 59, 65).[44] Short et al. (ibid., 73) maintain that a picture telephone would, therefore, provide greater social presence than a voice telephone.

The degree of social presence can be linked to the ritual view of communication, in that media high in social presence are used more for connected, person-oriented, ritual communication. When a medium is low in social presence, communication is more task-oriented and less person-oriented. The transmission of information and simple problem-solving tasks are unaffected by the degree of social presence the medium can communicate (Short et al. 1976, 75, 109). A distinction can thus be made between *communicating people* and *communicating information*.

7.2.2 Presence, index and time

Presence is a theme that is focal to many writings on photography. In fact, presence – and absence – can be said to have always been the constitutive core of photography. A photograph gives presence to absence, as it presents the viewer with something that is already gone (Burgin 1982a, 10–11; Seppänen 2005, 120–121; Elo 2005, 89–90). Sontag (1977, 16, 155) asserts that a photograph is both a *pseudo-presence* and a *token of absence*, a surrogate possession of a cherished person or thing. Hirsch (1997, 5) continues by stating that "the

44 It has to be noted that Short et al. (1976) relate visual communication to facial signals and do not discuss photography.

referent is both present (implied in the photograph) and absent (it has been there but is not here now)". The presence the photograph mediates is created through the indexical link to the object photographed in the past that somehow abolishes the distance between the past and the present.

In *Camera Lucida,* Roland Barthes (1981/2000, 76–77, 80, 87) notes that every photograph is a certificate of presence, "literally an emanation of the referent"; the fact that the photographed object has been there is the essence, the noeme of photography. Much of the discussion of photography's indexicality has in fact been dominated by Barthes's Camera Lucida, which has led to a preoccupation with the origins of the photographic image in a chemical trace, and the photograph's relationship with time and absence (Green & Lowry 2003, 47–48, 56).

In addition to Barthes, many prominent scholars of photography have expressed their views on the indexical nature of the photograph. Photographs are "images produced as a consequence of being directly affected by the objects to which they refer" (Batchen 2004, 31). A photograph is not only an interpretation of the real, but also a trace, something directly stencilled off the real. There is always a presumption that something exists, or did exist, which is depicted in the picture. (Sontag 1977, 5–6, 154)

On a contrasting note, Umberto Eco (1982, 33) maintains that the whole theory of the photograph as an analogue of reality has to be abandoned, as we know that the image, which takes shape on celluloid is analogous to the retinal image but not to that which we perceive. Eco (ibid.) continues that a simple phenomenological inspection of any visual representation shows that an image possesses none of the properties of the object it represents.

However, photograph as a perfect analogue and an index are two different things. The attribute of resemblance is irrelevant regarding the indexicality of photography. Although the photograph cannot tell us exactly how the object in the photograph was, what further properties it had, how it looked from other angles, it can tell us that there was before (and may still be) some particular being – the object photographed. Photographs depend on this original presence. (Sonesson 1989, 77; Batchen 2001, 139) It is possible to believe that the object existed in that place, although we are presented with just an image in two dimensions. Batchen (2001, 133; 2004, 74) states that the reality offered by the photograph is not that of *truth-to-ap-*

pearance but rather of *truth-to-presence*. The presence in the photograph is not a hallucination, after all.[45]

In accordance, for a sense of presence one only needs to know (see) that the particular being was there (and therefore in the photograph) and nothing else. I will maintain this view, even though writers like W.J.T Mitchell (1994, 281–282) express that "[i]t is getting increasingly hard to find anyone who will defend the view (...) that photographs have a special causal and structural relationship with the reality that they represent".[46] Personally, I do not question that my grandfather really did exist and was present, when I look at a photograph of him sitting on his front porch in 1963. One may not perceive properly all the attributes of the person in the photograph, but can well perceive his existence. Mediated presence is not dependent on such variants as hard or soft focus, large or small grain, or, the digital character of the photograph.

Of importance, in relation to mediated presence in photography, is the strong resonance of absence in time in a photograph. In contrast to verbal phone communication, a conventional photograph does not offer presence in the sense of being there together, i.e. social presence; the person in the photograph and the viewer do not share the same time, they cannot be in the same communicative space. Moreover, according to Barthes (1977/1991, 44), a photograph is in no way a presence, for "in every photograph there is the always stupefying evidence of *this is how it was*". A conventional photograph says only and for certain *what has been* (ibid., 75) and, I must add, never *what is*.

When Barthes noted that "the photograph is in no way a presence", he was referring especially to this presence in time, or the lack of it in conventional photography. The presence of the subject in the photograph is not contemporaneous; therefore photography for Barthes is never about the present, even though the act of viewing occurs in the present (Price & Wells 1997, 44). The photograph is never an index of something present in this exact moment, like a weather vane would be an index of the wind blowing just now. The photograph represents a presence-gone, an anterior presence, the *having been there*.

45 One way to even more undermine the prospect of hallucination is to augment the printed photograph with physical parts of the person captured in the photograph. Batchen (2004, 76) describes how a manner of adding a lock of hair to a photograph reiterates and strengthens the presence of the subject. It is a play between the past captured in the photograph and the physical immediacy of a piece of the body in the present.

46 Eight years earlier, Mitchell (1986, 85) advocated that to see what an image means or represents is just as natural as opening the eyes and seeing objects in the world.

7.3 Visual mobile presence

A photo message does not create a connection via the past (as when family members are looking together at photographs taken in the 1970s) but rather a connection between two *presents*. With a photo message, one can narrate what one is doing and experiencing right then, right there (Scifo 2005, 368).[47] A photo message is therefore not a time machine but rather a *tele-machine*. It does not communicate the *passing of time*, but rather the *being in time*.

This feature of photo messaging can be illustrated with a fictional example of a photo message from a friends' wedding that the recipient cannot attend. With a photo message of the married couple dancing, it is possible to experience the wedding visually while the couple is still dancing. The feeling of presence is probably very different compared to viewing a picture of the grandparents' wedding in the 1930s.

In chapter five, I presented how, because of the immediate nature of photo messaging, the feeling of absence in a photo message has more to do with distance; absence is not absence in time but absence in space, the intimate other being in some other place at this precise moment. In a photo message, the other person is absent by not being here, but we know that she is somewhere else, in the place from which she sent the photo message. The distance is emphasized by the fact that a photograph sent as a photo message very seldom depicts both parties involved in the communication act. By contrast, through a conventional photograph, one can be present in her own mediated reality, for instance when looking at oneself in a photograph taken some time ago.

The idea of mediating presence via photo messages has been introduced in several studies. Even before MMS messaging, there were predictions that the "sending of place" and the experience of "being there" will become possible through camera phones (Kopomaa 2000, 96). The prospect of mediating contemporaneous presence also surfaced in the Maypole study (Mäkelä et al. 2000, 553–554). For example, during one interview a mother pointed out that, as she often does not have the chance to join one of her children at certain events

47 It should, again, be noted that photography, even on a mobile phone, does not represent real-time communication. It is hard to consider the communication of still photographs forming a live connection similar to a webcam or television transmission. Thus, in a photo message, the photograph's then and the viewer's now are not perfectly synchronous, yet they are temporally much closer to each other than in a conventional printed photograph.

like sport competitions, she would be extremely happy to see how her child is doing at the moment, by receiving photographs (ibid.).

In Mobile Image, the other pioneering study on photo messaging (Koskinen et al. 2002, 78), it was concluded that digital images are used to share one's visually mediated experience, often in a very concrete way: "Look, I am at a café with my friends! My, what a mountain of dishes I have to do! Now I am abroad, now I am parachuting!"

In the study by Kindberg et al. (2005b, 46), one subject described the photographic connection as "telepresence" in that it made his absent girlfriend feel as if she were "here to see it" (for similar views see also Kasesniemi et al. 2003, 69; Counts & Fellheimer 2004; Aoki et al. 2005; Jacucci et al. 2005, 212; Gai 2007, 205; Kondor 2007, 27–28). One conclusion of Kindberg et al. (2004, 12) was that

> (...) unlike text messaging, many of the images sent to absent friends and family were in fact visual evidence or proof of something having had occurred. (...) the fact that they [the photographs] could be captured and shared almost in the moment added an extra dimension to this kind of remote sharing. Proof of being somewhere or experiencing some event could be made more potent by showing when something was happening as well as what was happening. (ibid.)

Rivière (2005, 174, 183), too, brings up the aspect of mediated presence when associating the immediacy of the photographic exchange between mobile phones and the instantaneousness of the photographic act. Mediated presence surfaces in quotes from Rivière's research interviews: "I can imagine the atmosphere better with a photo. If they only send text saying 'we're eating and drinking', it's not quite the same." "It gives you a good feeling to receive a photo. (...) If it was of friends in a restaurant, I can sense the lovely pleasant atmosphere." (ibid.)

Scifo (2005, 368) relates photo messaging to mediated presence by noting that sending a photo message is meant to give access to and to share the place in which the subject is. According to Scifo (ibid.), "MMS seems to act as a form of testimony and authentication of one's presence in a certain physical space (...) and a tool for sharing that very same space and objects that may be there". In continuation, she proposes (ibid., 371) that "remote, simultaneous visual communication among young people is becoming a way for them to take hold of the

experience and world of others, bring the other person into the other's own world".

7.3.1 "You can show that hey, I'm here right now"

The idea and possibility of mediating presence by using photo messages came up clearly in the Arcada research interviews. For example, Joakim noted that photo messages "prove that you are somewhere", in a "certain situation".

According to Mikael, the reason for sending photo messages might be that "[i]t has been something funny you want to show some friend or you want to say 'hi' from a ski resort". The photo message sent to classmates from a skiing trip to northern Finland (Image 8) is emblematic of the photo messages sent by Mikael, as it portrays Mikael himself. It is a proof of his presence in a certain place. The skiing goggles and the snow-covered trees in the background reveal the locality. The holiday feeling is accentuated by the fact that the sky is clear and the sun is reflected on the lens of the camera phone.

For Bengt, a photo message can also act as an invitation or wish for the other to "join" the presence, as in "I wish you were here". Anja could imagine sending an MMS from a party only when somebody could not attend it, "so that also she [the absent one] could take part".

There were several examples of sending pictures of dogs as proof of the pets' presence and well-being. Anja's dog was sometimes taken care of by her son, and he had send her pictures of the dog, trying to communicate on the dog's behalf that "Here I am, everything is OK".

The difference to text messaging in mediating presence was obvious. Bengt remembered sending an MMS of a sunrise to his lady friend, as she likes the colours, and they had talked about sunsets and sunrises earlier. The MMS had "a connection to what we had discussed earlier". By contrast, according to him, an SMS message reading "I'm looking at a beautiful sunrise" would not have had the same effect. Similarly, for Kasper, it would be useless to write a text message of a sunset, but it's worth sending a picture of it, as "it's like visual moments that are captured that I send, and I don't think there would be any sense to try to recreate them in words".

Joakim came up with notional situations where a photo message would work better than a text message. For example, during his trip to Japan, he ended up in the middle of an enormously big crowd, and thus a photo message explicating "hey check out the number of people and I'm standing right in the middle of them" would have been

more effective than a text message sent from the same situation.

Mikael observed that "[m]aybe the photograph helps to put the text in place and time, that now I am here and doing this, and this is the place where I am, whereas text messages are only, like, they could come from anywhere by which time and the mood could be anything".

7.3.2 "It has to be so much distance that the person can't share the moment"

Based on the interviews, it is also apparent that the subjects send photo messages particularly when there is a prolonged physical distance between the sender and the receiver. Photo messaging is, to a large extent, determined by the will to overcome absence in space.

Upon arrival to Spain, Lotta sent a photo of herself and her boyfriend (Image 9) as an MMS to her parents in Finland "to let the people back home know that we had just arrived and that we're OK, and this is how it looks like, and it's warm and sunny". According to Lotta, the MMS message "gave them [her parents] an understanding of what we're experiencing". The physical distance between them was accentuated by the fact that in Spain it was a glorious day and in Finland it was raining. The scenery and the buildings behind the couple also underline the fact that they were definitely not in Finland at that moment. By contrast, Lotta did not see a big need to send messages to her boyfriend as "we just spend so much time together".

Following a similar logic, Mikael had no great need for photo messaging with his girlfriend, explaining that "we live together, I see her face enough".[48] Anja mentioned using SMS messages to communicate with people that she saw every day (e.g. colleagues) and reserved MMS messages to those whom she did not see on a daily basis.

Kasper reported sending photo messages "mainly to people who live maybe a bit farther away or that I see more rarely" and to "those that I see I can show the picture". He offered an example of communicating pictorially with a good friend who lives in another city about 160 kilometres away, and therefore they can meet only seldom: "I don't see him as often, so we send each other jokes and fun things we see in the city (...) it's mainly like hello and how's your day (...) to cheer the other one up."

48 Risto Sarvas (2006, 76) maintains that remote photo sharing is not of such great value when people (such as family members) can see each other daily. They can instead share the photographs they have taken during the day when they are back home.

Ulla noted that "[i]t has to be so much distance that the person [receiver of the photograph] can't share the moment". Kjell commented that "[MMS messaging] mostly happens when you are out of your basic localization. I do not send much when I'm in Helsinki [his hometown]."

Once again, it is easy to notice how photo messages resemble postcards, especially ones sent from holidays. The ability to send MMS-messages from holiday trips can even prompt the purchase of a camera phone. For instance, Bengt had bought a camera phone for his lady friend just before she went on a trip to Egypt, so that they could send each other photographs. He had also sent MMS messages to his daughter from a trip to Italy, and most of the few messages he had sent were from trips. He explained that "[t]he longer the distance, the bigger reason there is to send [MMS messages]. You send postcards, these are instant postcards."[49]

Ulla provided an example of a photo message she had sent to a friend from the hospital after breaking her leg (Image 10). The photograph of the leg, all wrapped up, communicated "Greetings from hospital". The viewpoint in the photograph is very personal, it is Ulla's everyday view of her own leg, and not, for example, a view from the hospital window. The photograph communicates her situation as a patient in the hospital. If it were possible to buy postcards at the hospital, this type of photograph would probably not be included in the selection.

A camera phone photograph can also act as a *Merry Christmas photo message* or a *Happy Birthday photo message.* Kasper and a couple of his friends had sent some other friends a photo message before Christmas depicting a boozing Father Christmas or "Bad Santa" (Image 11). It was not about communicating contemporaneous presence but rather greeting others with a specially-made, customized photograph, like a digital-age *carte de visite* (see Hjorth 2005a); a photograph not taken for oneself, but to be given, sent or otherwise communicated to others. Importantly, it represents a planned photograph, in that Kasper and his friends had used time to disguise one of them as Santa Claus wearing sunglasses and drinking whiskey. It was definitely not a quick snapshot.

49 It has to be noted that also text messages have, to an extent, replaced postcards. In a Finnish study (Nurmela et al. 2006, 77), the respondents were asked if they had used text messages in lieu of letters or postcards. Around 30 percent noted having done this "often" and slightly over 40 percent "a few times".

7.3.3 "The army is not like a holiday"

The time during the compulsory military service serves as an example of an active phase of photo messaging. The need for intimate communication increased at the time when two of the male student interviewees,[50] Kasper and Mikael, were forced to be separated from their girlfriends for long periods. During their time in the army, they also sent more SMS messages and made more phone calls than normally. Kasper explained that "[w]hen I was in the army it [photo messaging] was quite a big communicational help, because she [his girlfriend] didn't know what I was doing and I didn't know what she was doing".

During his time in the army, Mikael sent photographs to his girlfriend "to tell I miss her". The content of those photographs was not very special; he sent pictures of himself, which he described as "I miss you and a sad face" photographs. In Image 12, the facial expression is used as a message to convey the negative mood. It can be noted that Mikael is sitting once again in the train, in the familiar blue seat (see chapter six). However, this time the emptiness of the emotional atmosphere – as in the picture of the empty seats – is replaced by the equal sadness represented by the gloomy expression on his face. It is about sharing the feeling and maybe expecting, again, a cheering and loving response.

Mikael also communicated to his male friends with photo messages from the army. It was communication with those with mutual knowledge and awareness of what it is like in the army. Sending such photo messages is in contrast to sending postcards, because, at least in Finland, it has not been a common custom to send postcards from the army as, after all, according to Mikael, "[t]he army is not like a holiday". The important detail in Image 13 is the green attire, which indicates that the sender is somewhere in Finland taking part in some army camp or other training procedure. If he were dressed in civilian clothing, the photograph could in fact portray a holiday scene, with the sun shining and the lake behind.

The photograph taken from inside a truck with army peripherals stuffed in, in a quite disorderly fashion (Image 14), was also used to mediate the everyday army life. The photograph does not say much to a random viewer, but for a specific recipient, the knowledge that

50 In Finland, the male population is obliged to serve either 180, 270 or 362 days in the military. The other, although less popular, option is 362 days of non-military service.

it was sent from the army opens up the subtext of the objects in the photograph – the bags, the boxes, the rucksacks, the pails.

The photograph of the trucks stuck in the mud (Image 15) could again be of indifference to the general audience, but for someone who has experienced the military service, it can serve as a nostalgic reminder of the difficulties the conscripts can experience. If not at the time, then certainly afterwards the whole episode in the mud can be seen in a humorous light, as Mikael's comment "[f]unny thing when three cars got stuck in the mud at the same time" indicates. In general, this type of photo message sent from the army to male friends serves in creating a ritual partnership between those familiar with the army experience, the community of conscripts and ex-conscripts.

Afterwards, Mikael also published on his blog the photographs he had taken in the army with his camera phone. He did not anticipate this when capturing the photographs, but only later came up with the idea to publish them. The photographs told the story of his time in the army.

7.3.4 Synchronous gaze

Of the eight participants in the Arcada study interviews, only Ulla explicitly stated that she did not feel like she was mediating her presence through photo messages. However, she liked to share her experiences, for example, what she was seeing. This can be regarded as an example of the use of photo messaging as a form of television, or rather *tele-vision*. This follows the meaning of television as *vision at a distance,* and not the visual broadcasting system with which we equate the word television nowadays.

According to Samuel Weber (2002, 67), television is a transfer of seeing itself; the viewer can see from places that are remote from her physical body. Photo messaging is very close to this definition of television. It does not represent amplification of vision or eyesight in order to see remote places better (as when using a telescope), but exactly this relocated or transferred vision.

An aspect related to photo messaging as television is the *synchronous gaze*. Photo messaging does not necessarily represent face-to-face telecommunication, i.e. the photograph does not inevitably include the face of the person sending the photo message. However, to achieve a sense of mediated presence, one does not have to see the other person, but rather to feel that they are sharing the same view.

The way Anja explained this was that when she has sent a photo message of flowers to a friend, it has been like looking at the flowers together via the photo message.

This type of mediated presence is common to mobile messaging in general. Ito (2004) makes an important point on that the metaphor in text messaging is side-by-side, in contrast to the face-to-face modality of a telephone conversation. Text messaging is based on the expectation that someone is in *earshot* (Ito & Orkabe 2005a, 264). What photo messaging adds to the side-by-side presence of text messaging is the aspect of visual perception. A photo message offers both an interpersonal, shared experience and a common view to the same world through the photograph. In the context of photo messaging, the side-by-side presence manifests itself precisely in the synchronous gaze, the possibility for two people to be *seeing the same,* even when physically distant (Villi & Stocchetti 2010).

Koskinen (2007, 132) illustrates the same phenomenon by describing how, when a person observes something interesting and communicates it visually to others, the communicators for a brief moment "share a point of reference". The aspect of interactivity differentiates photo messaging from traditional media forms such as printed photographs and postcards (ibid.). Okabe (2005) also notes how camera phones make ubiquitous visual access to others possible, and thus the gaze of others is always present as a potentiality.

De Lange (2007) presents a similar example of the synchronous gaze, based on his study on Bliin,[51] a web-based geotagging and proximity sharing service. The photographs published by the Bliin users offer an *over-the-shoulder* perspective, and a pervasive sense of presence arises through sharing perspectives: "I see what you see now." (ibid.)

In the Arcada study, Joakim remarked that "[with a photo message] you can show unusual or strange things happening at the moment they happen, and you can send a picture of that to a friend or somebody, hey, something like this happened right now". Bengt was thinking along the same lines when commenting that "I think that those [photographs] I would send on the phone as MMS, has to do with what's going on, the feeling which is there, there is a connection that I'm here now watching this". "I can take a picture and show that hey, now this is going on (...) share the experience." Lotta noted

51 www.bliin.com

that "[a] text message is a simple way just to say one thing you have to say, and if you put a photo in it, it's probably because it is something fun or good-looking, like a view or something, you want someone to see what you are seeing (...) [the other] can see what we are talking about".

Mikael frequently used the verb "to show" when discussing his photo messaging habits. "Often when you send photo messages, it's something funny you want to show, or it's something special you want to share. Often the only way to share it is to show it, you can't explain how I saw a funny duck, because it isn't funny, but to show it with a picture it is more funny." Photo messages are sent in such instances when "there's something funny to show, it might be like a little thing on the table that I photograph".

7.4 Conclusion

In addition to the importance of ritual communication, the other main argument of my study is that mediated presence is an essential aspect of the communicative uses of photo messaging. I define mediated presence as using a communication medium – such as a mobile phone – to be in contact with one another over physical distance, being socially present although being physically absent. Mediating presence over physical distance is closely connected to emotional vicinity, meaning that mediating presence with photo messages flourishes almost exclusively between remote, but intimate, others.

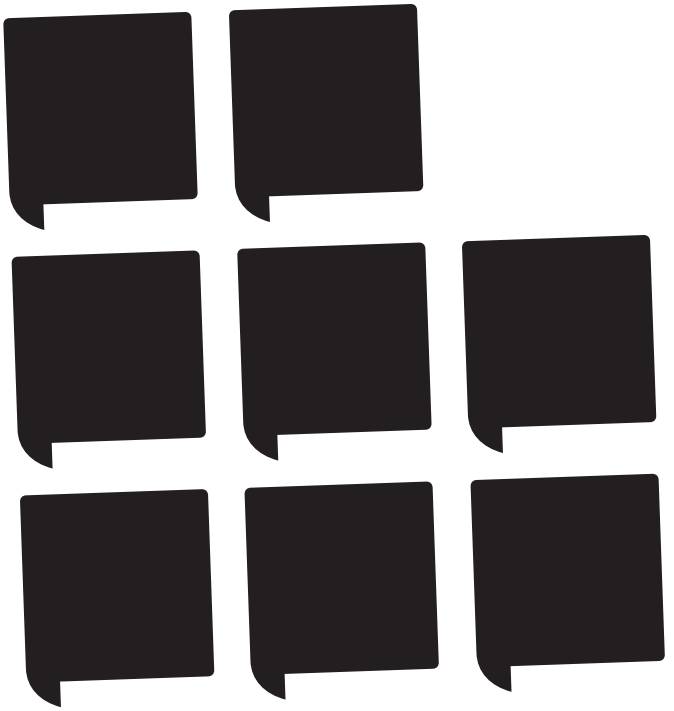
The idea of mediating presence via photo messages has been introduced in several earlier studies. In my own study, mediated presence as a theme was manifest in the Arcada interviews. The interviewees offered a large number of examples of mediating their presence by using photographs they had taken with their camera phones. In fact, the centrality of mediated presence in photo messaging is the main result that the Arcada study provides.

In photo messaging, there is often an essential connection between the physical setting and the act of communication. A photo message can offer an illusion of being physically located somewhere, i.e. physical presence. Thus, the place photographed and communicated is not just a mere point of communication and photo messaging is not only about engagement in the phonespace. This is in contrast to verbal mobile phone communication, where the actual place of communication often has very limited significance and is not necessarily known to the other communicator.

The photo message offers potentially a visual connection between there-now and here-now. The sender of the photo message can communicate her contemporaneous presence in a certain location, the *I am here now*. Because photo messages can mediate presence by a quasi-simultaneous connection, they can also provide a feeling of social presence, the being-there together. In a traditional photograph, this connection is different as it is one between there-then and here-now; a photographic print is here in front of my eyes (present), but at the same time the person or situation depicted in the photograph is already gone (in time), the person photographed might even be dead.

By sending a photograph of the view the communicator is seeing herself at the present moment, one can establish a synchronous gaze. The sender and the receiver of the photo message can experience the

same view in an almost concurrent manner, although not exactly synchronously. An evident example of this is the photo message sent from the hospital by Ulla, portraying her view of her own leg in plaster when lying on the hospital bed. In order to achieve a sense of mediated presence, one does not necessarily have to see the other person, but rather to share the same view.



8 Conclusions and the way forward

The main objective of this study has been to review those practices in photographic communication that are connected to the convergence of the telephone and the camera, epitomized in the camera phone. Importantly, *the practices of photo messaging cannot be explained only by the conventional modes of communicating photographs, but rather by practices familiar from mobile communication.* This argument is also the essence of the framework that I have utilized in examining photo messaging as a communicative practice.

In the study, I have developed the research on visual mobile communication by firmly conjoining the study on mobile communication with the study on photography. My research strategy has been to re-examine an existing body of knowledge on photo messaging in the light of a theoretical framework comprising ritual communication and mediated presence.

In addition to previous studies on photo messaging, I have based my argumentation on an empirical study that I concluded in 2006–2007 at the Arcada University of Applied Science in Helsinki, Finland. I have referred to it as the Arcada study. The study consists of a questionnaire with 54 students and 37 Arcada staff members augmented by eight individual interviews.

Photo messaging is part of an era where visual mobile communication is becoming more common – either by publishing camera phone photographs on the web or sending them interpersonally via the Internet or mobile networks. Due to the appearance of camera phones, photography is now an organic and elementary part of telecommunication.

In general, the development of mobile phone communication is characterized by a progress from interpersonal communication – the conventional context of telephone communication – to broader media consumption and content production. However, in my study I have concentrated on the direct interpersonal communication of photographs and limited the sharing or publishing of camera phone photographs on the web (e.g. on Flickr or Facebook) beyond the scope of the study.

In the following, I will review my main results and discuss the conclusions from each chapter. At the end, I will briefly consider the status and evolution of photo messaging as a communicative practice and reflect on some prospects for future research.

8.1 Main results

My main research question was *how are the conventions and practices of mobile phone communication manifested in interpersonal photographic communication when using camera phones?*

In order to answer this question, I have constructed a framework consisting of ritual communication and mediated presence. The decision to concentrate on ritual communication and mediated presence derives from the study of the practices and conventions of mobile phone communication, especially mobile messaging. Thus, the framework in itself comprises my main argument and the answer to the research question: *the conventions of mobile phone communication are manifested in interpersonal photographic communication in communicative practices best explained by ritual communication and mediated presence*. In addition, I have utilized the framework as a theoretical tool for assessing and affiliating the previous studies on photo messaging.

In discussing ritual communication, I have applied the model of communication formulated by James W. Carey (1989), in which he distinguishes the ritual and the transmission view of communication. Carey's model is a basic conceptual construction for studying communication that also provides a valuable tool for assessing photo messaging as a communicative practice. Notably, personal photography in particular has not been extensively studied in relation to the transmission and the ritual view of communication. Another fresh angle has been to review the model in the context of interpersonal communication.

The ritual view of communication is typified by such concepts as sharing, participation and fellowship. Ritual communication serves in maintaining a contact between communicators without necessarily communicating any explicit content or exchanging meaningful information. By contrast, in the transmission view, communication is perceived as one-way transfer of messages, and defined by terms such as sending, transmitting or giving information to others.

In addition to Carey's model, I have outlined ritual communication by using Rich Ling's study (2008a) on how mobile communication reshapes social cohesion. Importantly, Ling extends the study of ritual communication to mediated interpersonal communication and micro-interactions, which is the communicative context of photo messaging. For both Carey and Ling, ritual communication is about

the management and maintenance of social cohesion – community and togetherness.

I have indicated that mobile communication in general is employed for both transmitting information and ritual communication. The planning and coordination of everyday matters are important functions of mobile communication, and at the same time social cohesion and reassurance have a very important role, especially in intimate relations. Likewise, for photo messaging, ritual communication covers only one dimension and cannot be generalized to all uses of photo messages. An example of exchanging visual information for the purposes of micro-coordination of activities (see Ling & Haddon 2005; Ling & Yttri 2002) is a picture of a garment accompanied by the text "Does this dress look good?"

However, my definite argument has been that the dominant communicative mode in photo messaging is better explained by the ritual view than the transmission view of communication. I have established how results of earlier work on photo messaging show a major emphasis on ritual communication, although Carey's model consisting of the ritual and the transmission view of communication as such has rarely been explicitly mentioned as a theoretical context. Therefore, in this study Carey's model has served as an overarching theoretical discourse – originating in communication studies – in affiliating the previous studies on photo messaging.

The ritual view of communication regards the act of communication as being more important than the content of the message itself. Thus, the success of communication is not necessarily affected by redundant content. This point led me to the discussion on the banal character of photographs sent as photo messages – the capturing and sharing of fleeting feelings, moods and mundane moments of the everyday and commonplace. *Visual chitchat or small-talk* can be a valuable communicative activity, even if it consists of repetitive and superfluous photographic messages – *visual little nothings.* These ritual conventions of photo messaging follow largely from the practices of mobile communication, where often the act of calling or texting counts at least as much, if not more, than what is said.

In the Arcada study interviews, it was expressed clearly how photo messages are predominantly used in maintaining a connection in a ritual manner. The majority of the subjects' photo messages were oriented primarily toward sharing the moment with an intimate other. The interviewees presented only a few examples of using

photo messages to explicitly transmit visual information.

An encapsulating view on photo messaging can be quoted from Kjell, one of the interviewees. For him, a strong motive for taking a photograph for a photo message was "to touch people with what you are doing now", to communicate that "I still think about you", or "I'm alive". In general, "[t]he communication and type of photos which are used in mobile communication are different [from standard photography]".

The other main argument in my study has been the salience of mediated presence in the practices of photo messaging. The results provided by the Arcada study, in particular, are quite consistent on this matter. Mediated presence is not a clearly articulated theoretical model, but rather a conceptual theme describing the use of communication technology for being in contact with one another over physical distance; being socially present although being physically absent. Thus, mediated presence does not refer to a physical, face-to-face presence, but rather to a feeling of presence, a communicative presence. Presence is a key concept in the context of mobile communication studies in general.

A photograph also enables mediated presence by conveying the presence of the absent, the object or person captured in the photograph. What matters is the indexicality of the photograph as the guarantee of the *real* presence of the other.

A photo message can, as a photograph, communicate presence by providing a visual notion of the existence of the person or place. Therefore, in photo messaging, the presence mediated by a telephone is augmented with the possibility offered by photographs to communicate the presence visually. Importantly, the use of photographs incorporates the place of communication more firmly into mobile communication; the place is not manifested only as background noise.

The aspect that photo messaging adds to the presence mediated by any photograph is the quasi-simultaneous character of the mobile connection; the presence is communicated primarily over distance, not over time. Photo messages can act as authentication of one's contemporaneous presence and, at the same time, link the communicators together in an almost synchronous manner.

In the context of mediated presence, it is important to distinguish social presence, the mediated being together with someone, and physical presence, the feeling of being there, located in another place.

In my view, photo messaging embodies both social presence and physical presence: a photo message connects to the other and conveys her presence in the remote place, and at the same time it can communicate the place captured in the photograph, although not in a very immersive manner.

The main outcome of the Arcada study is its support for the notion of mediated presence. According to the interviewees, they communicate with photo messages particularly in situations when there is a temporary, yet prolonged, physical distance between the sender and the receiver. The time during the military service emerged as an apparent example of an active phase of photo messaging. The need for intimate and interpersonal visual communication increased at the time when Kasper and Mikael were separated from their girlfriends for extended periods at a time.

Overall, the significance of photographs in mobile communication and the mediation of presence is crystallized in the interviewee quote from Mikael, presented in chapter seven: "Maybe the photograph helps to put the text in place and time, that now I am here and doing this, and this is the place where I am, whereas text messages are only, like, they could come from anywhere by which time and the mood could be anything."

However, it is important to note that mediating one's presence via images does not explain all uses of photo messaging among the Arcada interviewees. The Merry Christmas greeting card presented in chapter 7.3.2 or the photo messages containing cars and rabbits referred to in chapter 4.4 are focused on communicating the object or the idea rather than the current presence of the sender of the message. The use of humour as a motive for photo messaging also surfaced in the interviews; "fun" was mentioned in conjunction with camera phone photography and photo messaging. Mikael noted that "it's part of the camera phone culture to have funny pictures" (examples of exchanging humorous and witty images can also be found in Mäkelä et al. 2000; Koskinen 2007; Rantavuo 2008; 2009).

The interconnectedness of ritual communication and mediated presence in the conventions and practices of photo messaging is evident. A photo message can provide means for both simultaneously maintaining a connection between individuals and communicating presence. Togetherness as an attribute of the ritual view of communication is closely affiliated, in particular, with social presence, the feeling of being together. The presence of a person in a certain place

can be communicated by using rather mundane and redundant photographic contents, and thus, also in that sense, mediated presence can be well assessed from the perspective of ritual communication.

The emphasis on ritual communication and mediated presence in elucidating the practices and conventions of photo messaging does not mean that one should overlook other possible explanations. For one, it an be argued that the camera phone is an emblem of the *visualization of culture*. The phone – a device traditionally used solely for verbal communication – offers now the capability for visual communication, acting as an imaging device. Camera phones, photo messaging and moblogs contribute towards a more active visual competence (Döring & Gundolf 2005, 219) and turn images into a ubiquitous means of communication. On the general level, according to the dominant scenario, we are undergoing a "revolutionary" transformation in image culture (Robins 1996, 11). The production of visual imagery grew enormously during the 20th century; it can even be called the breakthrough of visuality, the most visual (or image-rich) era in human history (Seppänen 2001a, 19, 38; 2005, 17; see also Kellner 1995; Stephens 1998; Mirzoeff 1999; Kress 2003).

However, it is important to note that, although mobile communication is more visual than before, it does not necessarily suggest an image revolution. For example, according to a study on the views of telecommunication experts by Glotz and Bertschi (2005, 273), it seems unlikely that photographs will increasingly replace words in mobile communication. Thus, it might be feasible to think that images do not substitute words but rather act *alongside* them in new and innovative ways.

Another possible explicatory context for photo messaging is *mobility*. In general, mobility is a theme that affects the society on a much larger scale than just in the context of communication. For instance, Green (2002, 282) conceptualizes mobility as an individual body's movement in a fundamentally geographical space. Weilenmann (2003, 23) makes a distinction between movement and mobility: movement is the physical movement of persons or artefacts, whereas mobility is the social dimensions associated with movement and the use of mobile technology to communicate. Mobility can hence be roughly divided between transportation and communication.[52]

52 Useful theorization on mobility and the sociology of mobilities can be found in the volumes *Mobile Communication and Society: A Global Perspective* (Castells et al. 2007) and *Sociology Beyond Societies: Mobilities for the Twenty-first Century* (Urry 2000).

In telephone communication, mobility is nowadays more a premise than an added value. Mobile communication is predominantly not about communication in mobile situations, but rather about providing means for personal telecommunication. In fact, when used as the only phone, increasingly at home or in the workplace, the mobile phone is actually often used in non-mobile situations. The mobile phone becomes partly a fixed technology, and in that sense it is more accurately or extensively described as *personal* instead of mobile technology (Fortunati 2001, 87, 96). Following this line of thought, *mobile photography*, when used to describe camera phone photography, is in a sense an awkward term. Moreover, photography has been mobile since the camera was taken out of the studio.

As a conclusion, I consider ritual communication and mediated presence to be more explanatory and accurate concepts in describing the communicative practices and conventions of photo messaging than the visualization of culture or mobility. The value of ritual communication and mediated presence is also in that they can be effectively used to affiliate and assess the different studies on photo messaging under a common framework.

I devoted the last two main chapters of my study – six and seven – to discussing ritual communication and mediated presence. The preceding chapters – three to five – served in laying out the foundation for my theoretical framework. In these chapters, I discussed themes relating to camera phone photography and communication, and attested the importance of the interpersonal, intimate, immediate and transient character of mobile communication regarding the practices of capturing and communicating photographs with the camera phone.

A conclusion made in chapter three (*Camera phone photography*) was that the camera phone is essentially not a true *camera-phone, as* the functions of the camera and the phone are quite rarely used simultaneously to perform visual interpersonal communication. The camera phone is rather a communication device that is at times used as a phone and at times as a camera – in addition to the multitude of other uses the device can offer. The camera in the phone is mostly of use as a compact camera that is almost always at hand. In this reasoning, I utilized mainly the Arcada interview material. The interviewees did not consider the camera in the camera phone to be an indispensable means of communication. Of importance to them was rather that the camera is placed in a ubiquitous device, hence under-

valuing the significance of the incorporation of the camera in a telecommunication device.

Next, I considered photo messaging as networked photography. Camera phones transform, for their part, photography towards a digital and networked form of visual communication. This observation was linked to wider changes in communicative practices that have taken place primarily in the web environment. The need, especially among younger users, to share moments is exemplified by Twitter and other micro-blogging applications that provide a space for people to communicate their whereabouts in short messages in a timely fashion. The *power of now* that is so characteristic of photo messaging is firmly linked to the *real-time web* represented by the continuous flow of tweets, status updates and news alerts.

In chapter three, I also discussed the digital immateriality of most contemporary photography and reviewed the relation between photo messaging and post-photography. My conclusion was that, as long as the discourse of post-photography is mainly linked to the loss of the indexical relation to reality – caused primarily by the emergence of digital technology – photo messaging at best represents *communicative* post-photography. The major mode in which the digitalization of cameras affects photographic communication is how photography pervades completely new communication media, such as telephones. The increase in the number of camera phones does not lead to a post-photographic era of digitally created and manufactured pictures, but rather the opposite, as there is not much to do with the camera phone than just to point, shoot and communicate.

In chapter four (*Interpersonal and intimate photographic communication)*, I discussed the difference between messaging and publishing of photographs – between the strictly interpersonal forms of photo sharing and the more publicly oriented sharing. Photo messaging is about sending photographs directly to others in a small circle of close acquaintances. I established how this practice is based on intimate communication familiar from the conventions of mobile phone communication and especially text messaging. The Arcada study, for its part, proved that photo messaging is a mode of communication that is used almost solely between intimate others.

I also presented the view that photo messages are much like postcards; they are photographs sent over distance that establish a connection. Both postcards and photo messages share the same interpersonal aspect. The idea of a photo message being a mobile and in-

stant postcard also surfaced in the Arcada interviews.

Another theme in chapter four was personal photography – the genre of photography that photo messaging is most closely affiliated with. I linked camera phone photography and photo messaging in particular to snapshot photography. The personal character of camera phone photography reaches its extreme when a person photographs solely for the individual memory residing in the phone, and thus the photographs act only as an extension of one's personal experience.

In chapter five (*Near-time photographic communication*), I discussed photo messaging in relation to time. The main themes in the chapter – immediacy and transience – relate in some sense to all digital photography. Photographs can be captured, viewed on the screen of the camera and then possibly deleted in a matter of seconds. What mobile communication adds to this feature of digital photography is to include the element of telecommunication, thereby enabling the inclusion of distant others to the photographic moment in almost real time.

The effect of mobile interpersonal communication on photographic conventions is that the uses of personal photographs can partly take a more transient and momentary role. Photographs can become easily disposable single-use images, which are of importance only during communication in a particular situation. They function as communicative objects through which distant people engage with each other, helping them to form a connection in the present, as opposed to a connection between the past and present. Photo messages gain value as *momentos* while losing value as mementos (see van Dijck 2007, 115).

In consequence, the lasting value of a photo message can be thought to be quite trivial. The transient photo message comes and goes, fulfilling its task in communication, without necessarily establishing a place in the photographic collection. It is hard to imagine that, for example, a conventional family photograph could similarly become outdated or lose its value. Photographs can be removed from family albums in times of dispute or divorce, but less frequently because the photograph is no longer relevant. In fact, the value of a family photograph rather increases as time passes from the moment of photography. An outdated photograph is, therefore, quite an absurd idea, in particular in the context of family photography.

My conclusion in chapter five was that photo messages are not eter-

nalizing in the same sense as conventional photographs. By contrast, photo messages are rather immediate and momentary in their communicative function. The time span in photo messaging is strongly related to the practices of mobile messaging. This view was supported by the results from the Arcada study, which demonstrated how photo messages are most often used in communicating something that one is experiencing in the moment.

8.2 Virtual refrigerator door

For the time being, photo messaging occupies merely a niche in people's communication practices. One has to take into account the possibility that the whole idea of photo messaging is not very attractive to the general public, that there is no strong need at all for immediate, interpersonal photographic telecommunication offered by camera phones, and that people prefer rather to share their photographs in co-present situations, or distribute them on the web, to a possibly broader audience.

When people adopt new media, it is often assumed that they take advantage of all the new possibilities that the media offer in order to achieve previously unprecedented tasks. However, this may be a mistaken expectation, as technology is, rather, used initially with reference to desires that are historically well established, but remain unfulfilled because of the limitations of previous technologies. (Horst & Miller 2006, 6) For example, Sturken and Cartwright (2001, 117) write how photography emerged as a technology because it fit certain emerging social concepts and needs of the time, such as the rise of bureaucratic institutions in the modern state. In addition, Batchen (1997) has written in an influential manner about the relationship between the evolution of photographic technology and the "desire to photograph".

Therefore, it is necessary to ask if there is a genuine communicational need for photo messaging, or is it only a technological possibility? Is there a desire for photo messaging that until now has been limited by the non-existence of practical, well-designed applications for photographic telecommunication?

In this study, I have presented ritual communication and mediated presence as such potential needs. Although new, more engrossing functions of photo messaging may appear, I strongly believe that the *raison d'être* of photo messaging is in enabling near-time photographic presence and connection; this is what distinguishes photo messaging from the other *photographies*.

Here I want to draft one specific usage for photo messaging: to act as a *virtual refrigerator door* for photographic communication between family members when temporarily separated from each other. I assume that the door of a refrigerator is normally not filled with family photographs taken decades ago, but rather with relatively fresh postcards and snapshots. These images act as a manifes-

tation of the family community: an ephemeral and shifting collage, which is produced by and within the activities of the present (Slater 1995, 139). Likewise, photo messages can connect individual family members by communicating visually their transient emotions, situations and moods. The difference is, of course, that the photo messages reside in individual phones, and do not have a common exhibition space comparable with a refrigerator door, family album or moblog.

The virtual refrigerator door entails, in fact, the capability to be a forum for more active photographic communication in the family community than a photo album. Slater (1995, 138–139) notes how the family album, after all, plays quite a small part in everyday life. It is important to know that the family photographs exist in the album, yet the album is not part of the daily practices concerning photography.

By contrast, photo messaging has the potential to become an everyday form of photographic communication within the family. Family members can share their presence by sending each other photo messages that describe their actions and whereabouts, establishing a connection through images. Photo messages can create a mobile album for a *live* community, instead of a community consisting of living and dead family members that exists only over time.

Perhaps even better than family communities, photo messaging can suit the maintenance of full-time intimate communities (see chapter 4.1). A close group of friends might not compile a conventional photo album documenting the passage of time, or even a moblog, but prefer to maintain their community by constantly sharing photographs interpersonally. The essence of a full-time intimate community is in the present rather than in the past. There are no ancestors in a full-time intimate community; if its members are absent, they are absent in space, not absent in time.

8.3 Future research

Photo messaging serves as a valuable concept in anticipating future communicative uses of mobile phones, in a situation when practically all mobile phones will be equipped with a camera. In addition, the concept can be extended from mobile phone communication to other mobile and personal means of visual telecommunication as well. The camera itself is becoming a telecommunication device, as new stand-alone cameras come with built-in Wi-Fi, and older digital cameras can be equipped with memory cards that enable the transmission of photographs directly from the camera. The question is, then, will wireless telecommunication – without the implementation of any traditional medium of telecommunication as such – affect photography and photographic communication in a different manner than the convergence of the camera and the telephone does. What is the extent of the influence of the conventions and practices of mobile phone communication on photo messaging?

The results of the present study can also be affiliated with other novel forms of networked photographic communication, such as publishing camera phone photographs on the web. The popularity of social networking services shows that people are interested in communicating their presence, whereabouts and moods, often in a very real-time manner. Importantly, social networking is not just about verbal communication, as Facebook, for example, is already a very visual web service: over 2.5 billion photographs a month are uploaded to Facebook (The Economist 2010).

In general, the study of the different characteristics of photo messaging can be utilized in developing future applications and services for interpersonal visual mobile communication. The results I have presented indicate what types of practices and conventions these services should take advantage of. Thus, the suggestion is to design software and technology for camera phones that would facilitate even more immediate, seamless and convenient interpersonal communication of photographs from the phone, instinctively enabling a true perpetual visual ritual connection and photographic presence.

References

ADAM, G. STUART (2008). Foreword to the revised edition of *Communication as Culture. Essays on Media and Society* by James W. Carey. London: Taylor & Francis, ix-xxiv.

AGAR, JON (2003). *Constant Touch. A Global History of the Mobile Phone.* Cambridge, UK: Icon Books.

ALBRECHT, KRISTOFFER (2008). On Photographs as Tangible Objects. In *Kuva ja konteksti / Image and Context* (Eds. Albrecht, Kristoffer & Pentikäinen, Johanna). F33 Working papers. Helsinki: University of Art and Design, 4–8.

AOKI, PAUL M. – SZYMANSKI, MARGARET H. – WOODRUFF, ALLISON (2005). Turning from image sharing to experience sharing. Paper presented at Ubicomp 2005 Workshop on Pervasive Image Capture and Sharing: New Social Practices and Implications for Technology. Tokyo, Japan, September 11, 2005.

ANTTONEN, PETRI (2005). *Ajan kosketus: aikasarjavalokuva teoksina ja teoriana* [The touch of time: temporal sequence photography as works and theory]. Academic dissertation, University of Art and Design. Helsinki: Musta taide.

ARMINEN, ILKKA (2006). Social functions of location in mobile telephony. *Personal Ubiquitous Computing, 10*, 319–323.

AUGÉ, MARC (1995). *Non-Places. Introduction to an Anthropology of Supermodernity* (Trans. John Howe. Orig. 1992 *Non-Lieux. Introduction à une anthropologie de la surmodernité*). London: Verso.

BARRY, ANNE MARIE SEWARD (1997). *Visual Intelligence: Perception, Image, and Manipulation in Visual Communication.* Albany, NY: State University of New York Press.

BARTHES, ROLAND (1977/1991). *Image, Music, Text.* Essays selected and translated by Stephen Heath. The Noonday Press: New York, 15–31 'The Photographic message', 32–51 'Rhetoric of the Image', 52–68 'The Third Meaning'.

BARTHES, ROLAND (1981/2000). *Camera Lucida: Reflections on Photography* (Trans. Richard Howard, Orig. 1980 *La Chambre claire: Note sur la photographie*). London: Vintage.

BATCHEN, GEOFFREY (1999). *Burning with Desire: The Conception of Photography*. Cambridge, MA: The MIT Press.

BATCHEN, GEOFFREY (2001). *Each Wild Idea: Writing Photography History.* Gambridge, MA: The MIT Press.

BATCHEN, GEOFFREY (2004). *Forget Me Not. Photography & Remembrance*. New York: Princeton Architectural Press.

BATCHEN, GEOFFREY (2007). This Haunting. In *Photography Theory* (Ed. Elkins, James). New York: Routledge, 284–286.

BATTARBEE, KATJA (2004). *Co-experience. Understanding user experiences in social interaction*. Academic dissertation. Publication series of the University of Art and Design Helsinki A 51. Helsinki: University of Art and Design.

BAUDRILLARD, JEAN (1999). *Photographs 1985–1998* (Ed. Weibel, Peter). Ostfildern-Ruit: Hatje Cantz Publishers.

BEALE, RUSSEL (2005). Supporting Social Interaction with Smart Phones. *IEEE Pervasive Computing, Apr-Jun., 2005,* 35–41.

BECKER, KARIN (2004). Where is Visual Culture in Contemporary Theories of Media and Communication? *Nordicom Review, 1–2/2004*, 149–57.

BERG, SARA – TAYLOR, ALEX S. – HARPER, RICHARD (2003). Mobile Phones for the Next Generation: Device Designs for Teenagers. In proceedings of the *SIGCHI conference on Human factors in computing systems CHI '03*. Ft. Lauderdale, Florida, USA, April 5–10, 2003. New York: ACM Press, 433–440.

BIGNELL, JONATHAN (2000). *Postmodern Media Culture*. Edinburgh: Edinburgh University Press.

BIOCCA, FRANK & HARMS, CHAD (2002). Defining and Measuring Social Presence: Contribution to the Networked Minds Theory and Measure. In proceedings of *Presence 2002*. University Fernando Pessoa, Portugal, October 9–11, 2002. New York: ACM Press.

BIOCCA, FRANK – HARMS, CHAD – BURGOON, JUDEE K. (2003). Toward a More Robust Theory and Measure of Social Presence: Review and Suggested Criteria. *Presence Vol. 12, No. 5, October 2003,* 456–480.

BOBERG, MARION (2008). *Mobile phone and Identity: A Comparative Study of the Representations of Mobile Phone among French and Finnish Adolescents*. Academic dissertation. Joensuu: University of Joensuu.

BOLTER, JAY DAVID & GRUSIN, RICHARD (2000). *Remediation. Understanding New Media.* Cambridge, MA: The MIT Press.

BOURDIEU, PIERRE (1990). *Photography. A Middle-brow Art* (Orig. 1965 *Un Art Moyen: essai sur les usages sociaux de la photographie*). Cambridge: Polity Press.

BRIGGS, ASA & BURKE, PETER (2002). *A Social History of the Media. From Gutenberg to the Internet*. Cambridge: Polity Press.

BULL, MICHAEL (2005). The Intimate Sounds of Urban Experience: An Auditory Epistemology of Everyday Mobility. In *A Sense of Place: The Global and the Local in Mobile Communication* (Ed. Nyíri, Kristóf). Vienna: Passagen Verlag, 169–178.

BURGIN, VICTOR (1982a). Introduction. In *Thinking Photography* (Ed. Burgin, Victor). London: Macmillan, 1–14.

BURGIN, VICTOR (1982b). Looking at Photographs. In *Thinking Photography* (Ed. Burgin, Victor). London: Macmillan, 142–153.

BURGOON, JUDEE K. & HOOBLER, GREGORY D. (2002). Nonverbal Signals. In *Handbook of Interpersonal Communication* (Eds. Knapp, Mark & Daly, John, 3rd ed.). Thousand Oaks: Sage, 240–299.

CAREY, JAMES W. (1989). *Communication as Culture. Essays on Media and Society.* Boston: Unwin Hyman.

CAREY, JAMES (1997). Afterword: The Culture in Question. In *James Carey: A Critical Reader* (Eds. Munson, Eve S. & Warren, Catherine A.). Minneapolis, MN: University of Minnesota Press, 308–340.

CAREY, JAMES (1998). Political ritual on television: episodes in the history of shame, degradation and excommunication. In *Media, Ritual and Identity* (Eds. Liebes, Tamar & Curran, James). London: Routledge, 42–70.

CASTELLS, MANUEL – FERNÁNDEZ-ARDÈVOL, MIREIA – LINCHUAN QIU, JACK – SEY, ARABA (2007). *Mobile Communication and Society: A Global Perspective*. Cambridge, MA: MIT Press.

CHALFEN, RICHARD (1987). *Snapshot Versions of Life.* Bowling Green, OH: Bowling Green State University Popular Press.

CMIEL, KENNETH (1992). A Review of James Carey's 'Communication as Culture'. *Theory and Society, 21/2*, 285–290.

COHEN, KRIS R. (2005). What does the photoblog want? *Media, Culture & Society, Vol. 27(6),* 883–901.

COOLEY, HEIDI RAE (2005). Autobiographical Impulse and Mobile Imaging: Toward a Theory of Autobiometry. Paper presented at Ubicomp 2005 Workshop on Pervasive Image Capture and Sharing: New Social Practices and Implications for Technology. Tokyo, Japan, September 11, 2005.

COULDRY, NICK (2003). *Media Rituals: A Critical Approach.* London: Routledge.

COUNTS, SCOTT & FELLHEIMER, ERIC (2004). Supporting Social Presence through Lightweight Photo Sharing On and Off the Desktop. Paper presented at CHI 2004, April 24–29, 2004, Vienna, Austria.

CRARY, JONATHAN (1990). *Techniques of the Observer*. Cambridge, MA: MIT Press.

DARLEY, ANDREW (2000). *Visual Digital Culture: Surface Play and Spectacle in New Media Genres*. London: Routledge.

DAVIS, MARC – VAN HOUSE, NANCY – TOWLE, JEFFREY – KING, SIMON – AHERN, SHANE – BURGENER, CARRIE – PERKEL, DAN – FINN, MEGAN – VISWANATHAN, VIJAY – ROTHENBERG, MATT (2005). MMM2: Mobile Media Metadata for Media Sharing. In *Extended Abstracts of the Conference on Human Factors in Computing Systems (CHI 2005)*, Portland, Oregon, April 2–7, 2005.

DEMUMIEUX, RACHEL & HABBOUCHE, FARID (2004). Facilité d'utilisation et usages des MMS sur les mobiles. *Mobilité & Ubiquité '04,* June 1–3, 2004, Nice, France. New York: ACM Press.

DEWDNEY, ANDREW & LISTER, MARTIN (1988). *Youth, Culture and Photography.* London: MacMillan.

VAN DIJCK, JOSÉ (2007). *Mediated Memories in the Digital Age.* Stanford, CA: Stanford University Press.

DIMMICK, JOHN W. – SIKAND, JASPREET – PATTERSON, SCOTT J. (1994). The Gratifications of the Household Telephone: Sociability, Instrumentality, and Reassurance. *Communication Research, October 1994*, 643–663.

DONNER, JONATHAN (2005). The social and economic implications of mobile telephony in Rwanda: An ownership/acess typology. In *Thumb Culture: The Meaning of Mobile Phones for Society* (Eds. Glotz, Peter – Bertschi, Stefan – Locke, Chris). New Brunswick, NJ: Transaction Publishers, 37–52.

DONNER, JONATHAN (2008). Shrinking Fourth World? Mobiles, Development, and Inclusion. In *Handbook of mobile communication studies* (Ed. Katz, James E.). Cambridge, MA: The MIT Press, 29–42.

DÖRING, NICOLA & GUNDOLF, AXEL (2005). Your life in snapshots: Mobile weblogs (moblogs). In *Thumb Culture*: *The Meaning of Mobile Phones for Society* (Eds. Glotz, Peter – Bertschi, Stefan – Locke, Chris). New Brunswick, NJ: Transaction Publishers, 211–224.

DÖRING, NICOLA – DIETMAR, CHRISTINE – HEIN, ALEXANDRA – HELLWIG, KATHARINA (2006). Contents, Forms and Functions of Interpersonal Pictorial Messages in Online and Mobile Communication. In *Mobile Understanding: The Empistemology of Ubiquitous Communication* (Ed. Nyíri, Kristóf). Vienna: Passagen Verlag, 197–208.

ECO, UMBERTO (1982). Critique of the Image. In *Thinking Photography* (Ed. Burgin, Victor). London: Macmillan, 32–38.

THE ECONOMIST (2010). Global swap shops: Why social networks have grown so fast — and how Facebook has become so dominant. *The Economist,* January 28th, 2010.

ELO, MIKA (2005). *Valokuvan medium* [The medium of the photograph]. Academic dissertation, University of Art and Design. Helsinki: Tutkijaliitto.

ESKOLA, JARI & SUORANTA, JUHA (2003). *Johdatus laadulliseen tutkimukseen* [Introduction to qualitative research] (6th ed.). Tampere: Vastapaino.

FLUSSER, VILÉM (1984). *Towards a Philosophy of Photography* (Trans. Anthony Mathews. Orig. 1983 *Für eine Philosphie der Fotografie*). Göttingen: European Photography.

FORTUNATI, LEOPOLDINA (2001). The Mobile Phone: An Identity on the Move. *Personal and Ubiquitous Computing Volume 5, Issue 2,* 85–98.

FORTUNATI, LEOPOLDINA & CIANCHI, AMALIA (2006). Fashion and Technology in the Presentation of the Self. In *Mobile Communications in Everyday Life: Ethnographic Views, Observations and Relections* (Eds. Höflich, Joachim R. & Hartmann, Maren). Berlin: Frank & Timme, 203–226.

FOX, KATE (2001). *Evolution, Alienation and Gossip: The Role of Mobile Telecommunications in the 21st Century*. Social Issues Research Center, Oxford. http://www.sirc.org/publik/gossip.shtml, accessed May 19, 2006.

FRIED, MICHAEL (2005). Barthes's Punctum. *Critical Inquiry, 31, Spring 2005,* 539–574.

GAI, BO (2007). A local study of the camera phone: The usage pattern and beyond. In *Mobile Media 2007: Proceedings of an international conference on social and cultural aspects of mobile phones, media and wireless technologies* (Eds. Goggin, Gerard & Hjorth, Larissa). Sydney: University of Sydney, 198–207.

GERGEN, KENNETH J. (2002). The Challenge of Absent Presence. In *Perpetual Contact: Mobile Communication, Private Talk, Public Performance* (Eds. Katz, James E. & Aakhus, Mark). Cambridge, UK: Cambridge University Press, 227–243.

GESER, HANS (2004). *Towards a Sociological Theory of the Mobile Phone*. University of Zurich. http://socio.ch/mobile/t_geser1.pdf, accessed March 4, 2006.

GESER, HANS (2005). Is the cell phone undermining social order? Understanding mobile technology from a sociological perspective. In *Thumb Culture: The Meaning of Mobile Phones for Society* (Eds. Glotz, Peter – Bertschi, Stefan – Locke, Chris). New Brunswick, NJ: Transaction Publishers, 23–36.

GLOTZ, PETER & BERTSCHI, STEFAN (2005) People, mobiles and society. Concluding insights from an international expert survey. In *Thumb Culture: The Meaning of Mobile Phones for Society* (Eds. Glotz, Peter – Bertschi, Stefan – Locke, Chris). New Brunswick, NJ: Transaction Publishers, 261–288.

GLOTZ, PETER – BERTSCHI, STEFAN – LOCKE, CHRIS (EDS.) (2005). *Thumb culture: The meaning of mobile phones for society*. New Brunswick, NJ: Transaction Publishers.

GOGGIN, GERARD (2006). *Cell Phone Culture: Mobile Technology in Everyday Life*. London: Routledge.

GOGGIN, GERARD (2008). Cultural Studies of Mobile Communication. In *Handbook of mobile communication studies (*Ed. Katz, James E.). Cambridge, MA: The MIT Press, 353–366.

GOGGIN, GERARD & HJORTH, LARISSA (EDS.) (2007). *Mobile Media 2007: Proceedings of an international conference on social and cultural aspects of mobile phones, media and wireless technologies*. Sydney: University of Sydney.

GOFFMAN, ERVING (1967). *Interaction Ritual: Essays on Face-to-face Behavior.* New York: Pantheon Books.

DE GOURNAY, CHANTAL (2002) Pretense of Intimacy in France. In *Perpetual Contact: Mobile Communication, Private Talk, Public Performance* (Eds. Katz, James E. & Aakhus, Mark), 193–205.

DE GOURNAY, CHANTAL & SMOREDA, ZBIGNIEW (2003). Communication Technology and Sociability: Between Local Ties and 'Global Ghetto'? In *Machines That Become Us: The Social Context of Personal Communication Technology* (Ed. Katz, James E.). New Brunswick, NJ: Transaction Publishers, 57–70.

GREEN, DAVID & LOWRY, JOANNA (2003). From Presence to the Performative: Rethinking photographic indexicality. In *Where is the Photograph?* (Ed. Green, David). University of Brighton (Photoforum) and Kent Institute of Art and Design (Photoworks).

GREEN, NICOLA (2002). On the Move: Technology, Mobility, and the Mediation of Social Time and Space. *The Information Society, Volume 18, Number 4, 1 July 2002*, 281–292.

GRINTER, REBECCA E. & ELDRIDGE, MARGERY (2001). 'y do tngrs luv 2 txt msg?' In Proceedings of the *Seventh European Conference on Computer-Supported Cooperative Work ECSCW '01,* Bonn, Germany. Dordrecht: Kluwer Academic Publishers, 219–238.

GRINTER, REBECCA E. & ELDRIDGE, MARGERY (2003). Wan2tlk?: Everyday Text Messaging. In proceedings of *Computer-Human Interaction CHI'03,* April 5–10, 2003, Ft. Lauderdale, Florida, USA, 441–448.

GRUNDBERG, ANDY (1990). *The Crisis of the Real. Writings on Photography, 1974–1989*. New York: Aperture.

GYE, LISA (2007). Picture This: The Impact of Mobile Camera Phones on Personal Photographic Practices. *Continuum: Journal of Media & Cultural Studies, Vol. 21, No, 2, June 2007,* 279–288.

HABUCHI, ICHIYO (2005). Accelerating Reflexivity. In *Personal, Portable, Pedestrian: Mobile Phones in Japanese Life* (Eds. Ito, Mizuko – Okabe, Daisuke – Matsuda, Misa). Cambridge, MA: The MIT Press, 165–182.

HADDON, LESLIE (2007). More than a Phone: Emerging Practices in Mobile Phone Use amongst Children. Paper presented at Towards a Philosophy of Telecommunications Convergence, conference organized by T-Mobile Hungary and The Hungarian Academy of Sciences, Budapest 27.–29.9.2007.

HAGEN, PENNY – ROBERTSON, TONI – KAN, MELANIE – SADLER, KIRSTEN (2005). Emerging research methods for understanding mobile technology use. In proceedings of the *19th conference of the computer-human interaction,* Canberra, Australia, November 23–25, 2005. New York: ACM Press.

HALLE, DAVID (1993). *Inside Culture: Art and Class in the American Home*. Chicago: The University of Chicago Press.

HALPERN, STEVEN (1974). Souvenirs of Experience: The Victorian Studio Portrait and the Twentieth Century Snapshot. In *The Snapshot* (Ed. Green, Jonathan), published as *Aperture, Volume 19, Number 1.* Millerton, NY: Aperture, 64–67.

HARPER, RICHARD & HODGES, STEVE (2006). Beyond Talk, Beyond Sound: Emotional Expression and the Future of Mobile Connectivity. In *Mobile Communications in Everyday Life: Ethnographic Views, Observations and Relections* (Eds. Höflich, Joachim R. & Hartmann, Maren). Berlin: Frank & Timme, 255–272.

HARPER, RICHARD – PALEN, LEYSIA – TAYLOR, ALEX (EDS.) (2005). *The Inside Text: Social, Cultural and Design Perspectives on SMS*. Dordrecht: Springer.

HART, CHRIS (1998). *Doing a Literature Review: Releasing the Social Science Research Imagination*. London: Sage.

HAUNSTRUP CHRISTENSEN, TOKE (2008). 'Connected presence' in distributed family life. *New Media & Society Vol 11(3),* 433–451.

HIRSCH, JULIA (1981). *Family Photographs: Content, Meaning, and Effect.* Oxford: Oxford University Press.

HIRSCH, MARIANNE (1997). *Family Frames: Photography, Narrative and Postmemory*. Cambridge, MA: Harvard University Press.

HJORTH, LARISSA (2005a). Locating Mobility: Practices of co-presence and the persistence of the postal metaphor in SMS / MMS mobile phone customization in Melbourbe. *Fibreculture Journal issue 6: Mobilities, New Social Intensities and the Coordinates of Digital Networks*. http://journal.fibreculture.org/issue6/, accessed October 12, 2008.

HJORTH, LARISSA (2005b). Postal presence: A case study of mobile customisation and gender in Melbourne. In *Thumb Culture: The Meaning of Mobile Phones for Society* (Eds. Glotz, Peter – Bertschi, Stefan – Locke, Chris). New Brunswick, NJ: Transaction Publishers, 53–66.

HJORTH, LARISSA (2007). Snapshots of Almost Contact: The Rise of Camera Phone Practices and a Case Study in Seoul, Korea. *Continuum: Journal of Media & Cultural Studies, Vol. 21, No. 2, June 2007*, 227–238.

HOLSTEIN, JAMES A. & GUBRIUM, JABER F. (2005). Interpretive practice and social action. In *The Sage Handbook of Qualitative Research* (Eds. Denzin, Norman K. & Lincoln, Yvonna S., 3rd ed.). Thousand Oaks: Sage, 483–506.

HOLLAND, PATRICIA (1991). Introduction: History, Memory and the Family Album. In *Family Snaps: The Meanings of Domestic Photography* (Eds. Spence, Jo & Holland, Patricia). London: Virago Press, 1–14.

HOLLAND, PATRICIA (1997). 'Sweet it is to scan...' Personal photographs and popular photography. In *Photography: A Critical Introduction* (Ed. Wells, Liz). London: Routledge, 103–150.

HORST, HEATHER A. & MILLER, DANIEL (2006). *The Cell Phone: An Anthropology of Communication*. Oxford: Berg.

HUHTAMO, ERKKI (1995). Ruumiiton matkustaja 'ikään kuin' –maassa [The disembodied passenger in the 'as if' land]. In *Virtuaalisuuden arkeologia: Virtuaalimatkailijan uusi käsikirja* (Ed. Huhtamo, Erkki). Rovaniemi: University of Lapland, 88–125.

HULME, MICHAEL & TRUCH, ANNA (2005). Social Identity. The New Sociology of the Mobile Phone. In *A Sense of Place: The Global and the Local in Mobile Communication* (Ed. Nyíri, Kristóf). Vienna: Passagen Verlag, 459–466.

HÖFLICH, JOACHIM R. (2005). The mobile phone and the dynamic between private and public communication: Results of an international exploratory study. In *Thumb Culture: The Meaning of Mobile Phones for Society* (Eds. Glotz, Peter – Bertschi, Stefan – Locke, Chris). New Brunswick, NJ: Transaction Publishers, 123–136.

HÖFLICH, JOACHIM R. & GEBHARDT, JULIAN (2005). Changing Cultures of Written Communication: Letter – E-mail – SMS. In *The Inside Text: Social, Cultural and Design Perspectives on SMS* (Eds. Harper, Richard – Palen, Leysia – Taylor, Alex). Dordrecht: Springer, 9–32.

HÖFLICH, JOACHIM R. & HARTMANN, MAREN (EDS.) (2006). *Mobile Communications in Everyday Life: Ethnographic Views, Observations and Relections*. Berlin: Frank & Timme.

IJSSELSTEIJN, WIJNAND & RIVA, GIUSEPPE (2003). Being There: The experience of presence in mediated environments. In *Being There: Concepts, effects and measurements of user presence in synthetic environments* (Eds. G. Riva, F. Davide & W. A. IJsselsteijn). Amsterdam: IOS Press.

IJSSELSTEIJN, WIJNAND – DE RIDDER, HUIB – FREEMAN, JONATHAN – AVONS, STEVE E. (2000). Presence: Concept, determinants and measurement. In proceedings of *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series Vol. 3959*. http://www.presence-research.org/papers/SPIE_HVEI_2000.pdf, accessed June 19, 2007.

IJSSELSTEIJN, WIJNAND – VAN BAREN, JOY – VAN LANEN, FROUKJE (2003). Staying in Touch – Social Presence and Connectedness through Synchronous and Asynchronous Communication Media. In proceedings of the *10th International Conference on Human-Computer Interaction* 2003, Crete, Greece. http://www.ijsselsteijn.nl/papers/hci2003.pdf, accessed August 20, 2007.

ISHII, KENICHI (2006). Implications of mobility: The uses of personal communication media in everyday life. *Journal of communications, volume 56, issue 2 (June 2006),* 346–365.

ITO, MIZUKO (2004). Personal Portable Pedestrian: Lessons from Japanese Mobile Phone Use. Paper presented at Mobile Communication and Social Change, the 2004 International Conference on Mobile Communication in Seoul, Korea, October 18–19, 2004.

ITO, MIZUKO (2005a). Introduction: Personal, Portable, Pedestrian. In *Personal, Portable, Pedestrian: Mobile Phones in Japanese Life* (Eds. Ito, Mizuko – Okabe, Daisuke – Matsuda, Misa). Cambridge, MA: The MIT Press, 1–18.

ITO, MIZUKO (2005b). Intimate Visual Co-Presence. Paper presented at Ubicomp 2005 Workshop on Pervasive Image Capture and Sharing: New Social Practices and Implications for Technology. Tokyo, Japan, September 11, 2005.

ITO, MIZUKO (2005c) Mobile Phones, Japanese Youth, and the Re-placement of Social Contact. In *Mobile Communications: Re-negotiation of the Social Sphere* (Eds. Ling, Rich & Pedersen Per E.). London: Springer Verlag.

ITO, MIZUKO & OKABE, DAISUKE (2003). Mobile Phones, Japanese Youth and the Replacement of Social Contact. In *Front Stage/Back Stage: Mobile Communication and the Renegotiation of the Social Sphere*, conference proceedings (Eds. Ling, R. & Pedersen, P.). 22–24 June 2003, Grimstad, Norway. http://www.itofisher.com/PEOPLE/mito/mobileyouth.pdf, accessed February 28, 2007.

ITO, MIZUKO & OKABE, DAISUKE (2005a). Intimate Connections: Contextualizing Japanese Youth and Mobile Messaging. In *The Inside Text: Social, Cultural and Design Perspectives on SMS* (Eds. Harper, Richard – Palen, Leysia – Taylor, Alex). Dordrecht: Springer, 127–146.

ITO, MIZUKO & OKABE, DAISUKE (2005b). Technosocial Situations: Emergent Structuring of Mobile E-mail Use. In *Personal, Portable, Pedestrian: Mobile Phones in Japanese Life* (Eds. Ito, Mizuko – Okabe, Daisuke – Matsuda, Misa). Cambridge, MA: The MIT Press, 257–276.

ITO, MIZUKO – OKABE, DAISUKE – MATSUDA, MISA (EDS.) (2005). *Personal, Portable, Pedestrian. Mobile Phones in Japanese Life*. Cambridge, MA: The MIT Press.

IVINS, WILLIAM M. JR. (1953/1980). *Prints and Visual Communication*. Cambridge, MA: The MIT Press.

JACOBS, SCOTT (2002). Language and Interpersonal Communication. In *Handbook of Interpersonal Communication* (Eds. Knapp, Mark & Daly, John, 3rd ed.). Thousand Oaks: Sage, 213–239.

JACUCCI, GIULIO – OULASVIRTA, ANTTI – SALOVAARA, ANTTI – SARVAS, RISTO (2005). Supporting the Shared Experience of Spectators through Mobile Group Media. In proceedings of the *2005 international ACM SIGGROUP conference on Supporting group work GROUP '05*, November 6-9, 2005, Sanibel Island, Florida, USA. ACM Press: New York, 207–216.

JAY, MARTIN (1993). *Downcast Eyes. The Denigration of Vision in Twentieth-century French Thought.* Berkeley: University of California Press.

JOHNSEN, TRULS ERIK (2003). The Social Context of the Mobile Phone Use of Norwegian Teens. In *Machines That Become Us: The Social Context of Personal Communication Technology* (Ed. Katz, James E.). New Brunswick, NJ: Transaction Publishers, 161–170.

JONES, STEVEN G. (1995). Understanding Community in the Information Age. In *Cybersociety: Computer-Mediated Communication and Community* (Ed. Jones, Steven G.). London: Sage, 10–35.

KADMON SELLA, ZOHAR (2007). The Journey of Ritual Communication. *Studies in Communication Sciences, 7/1 (2007),* 103–124.

KALLIO, TOMI J. (2006). Laadullinen review –tutkimus metodina ja yhteiskuntatieteellisenä lähestymistapana [Qualitative review study as a method in social sciences]. *Hallinnon tutkimus, 2, 2006,* 18–28.

KASESNIEMI, EIJA-LIISA (2003). *Mobile Messages: Young People and a New Communication Culture*. Tampere: Tampere University Press.

KASESNIEMI, EIJA-LIISA – AHONEN, ARI – KYMÄLÄINEN, TIINA – VIRTANEN, TYTTI (2003). *Elävän mobiilikuvan ensi tallenteet. Käyttäjien kokemuksia videoviestinnästä* [Moving pictures. User experinces about video messaging] Espoo: VTT.

KATO, FUMITOSHI – OKABE, DAISUKE – ITO, MIZUKO – UEMOTO, RYUHEI (2005). Uses and Possibilities of the Keitai Camera. In *Personal, Portable, Pedestrian: Mobile Phones in Japanese Life* (Eds. Ito, Mizuko – Okabe, Daisuke – Matsuda, Misa). Cambridge, MA: The MIT Press, 300–310.

KATZ, JAMES E. (ED.) (2003). *Machines that become us: The social context of personal communication technology*. New Brunswick, NJ: Transaction Publishers.

KATZ, JAMES E. (2006). *Magic in the Air: Mobile Communication and the Transformation of Social Life.* New Brunswick, NJ: Transaction Publishers.

KATZ, JAMES E. (ED.) (2008). *Handbook of mobile communication studies.* Cambridge, MA: The MIT Press.

KATZ, JAMES E. & AAKHUS, MARK (EDS.) (2002a). *Perpetual Contact: Mobile Communication, Private Talk, Public Performance*. Cambridge, UK: Cambridge University Press.

KATZ, JAMES E. & AAKHUS, MARK (2002b). Introduction: Framing the Issues. In *Perpetual Contact: Mobile Communication, Private Talk, Public Performance* (Eds. Katz, James E. & Aakhus, Mark). Cambridge, UK: Cambridge University Press, 1–14.

KAYE, JOSEPH 'JOFISH' & GOULDING, LIZ (2004). Intimate objects. In proceedings of the *2004 conference on Designing interactive systems: processes, practices, methods, and techniques,* August 01–04, 2004, Cambridge, MA, USA. New York: ACM Press, 341–344.

KELLNER, DOUGLAS (1995). *Media Culture*. London: Routledge.

KIM, HYO – KIM, GWANG JAE – PARK, HAN WOO – RICE, RONALD E. (2007). Configurations of relationships in different media: FtF, email, instant messenger, mobile phone, and SMS. *Journal of Computer-Mediated Communication, 12(4), article 3.*

KINDBERG, TIM – SPASOJEVIC, MIRJANA – FLECK, ROWANNE – SELLEN, ABIGAIL (2004). *How and Why People Use Camera Phones*. Consumer Applications and Systems Laboratory. H&P Laboratories Bristol. http://www.hpl.hp.com/techreports/2004/HPL-2004-216.pdf, accessed June 18, 2005.

KINDBERG, TIM – SPASOJEVIC, MIRJANA – FLECK, ROWANNE – SELLEN, ABIGAIL (2005a). I saw this and thought of you: some social uses of camera phones. In *Extended Abstracts of the Conference on Human Factors in Computing Systems (CHI 2005),* Portland, Oregon, April 2–7, 2005. New York: ACM Press, 1545–1548.

KINDBERG, TIM – SPASOJEVIC, MIRJANA – FLECK, ROWANNE – SELLEN, ABIGAIL (2005b). The Ubiquitous Camera: An In-depth Study of Camera Phone Use. *IEEE Pervasive Computing, Apr-Jun., 2005,* 42–50.

KNAPP, MARK L. – DALY, JOHN A. – FUDGE ALBADA, KELLY – MILLER, GERALD R. (2002). Background and Current Trends in the Study of Interpersonal Communication. In *Handbook of Interpersonal Communication* (Eds. Knapp, Mark & Daly, John, 3rd ed.). Thousand Oaks: Sage, 3–20.

KONDOR, ZSUZSANNA (2007). The Mobile Image: Experience on the Move. In *Mobile Studies* (Ed. Nyíri, Kristóf). Vienna: Passagen Verlag, 25–34.

KOPOMAA, TIMO (2000). *Kännykkäyhteiskunnan synty* [Birth of the Mobile Information Society]. Helsinki: Gaudeamus.

KOPOMAA, TIMO (2005). The Breakthrough of Text Messaging in Finland. In *The Inside Text: Social, Cultural and Design Perspectives on SMS* (Eds. Harper, Richard – Palen, Leysia – Taylor, Alex). Dordrecht: Springer, 147–160.

KORHONEN, MERJA (2001). Poissaolo postikorteissa – tapausesimerkki eräästä poissaolosta [Absence in postcards – a case example of absence]. In *Postikortti sosiaalisessa kontekstissa* (Eds. Laakso, Ville & Östman, Jan-Ola). Hämeenlinna, Finland: Korttien talo.

KOSKINEN, ILPO (2003). User-Generated Content in Mobile Multimedia: Empirical Evidence from User Studies. In proceedings of *International Conference of Multimedia and Expo ICME 2003.* Baltimore: IEEE Publication, 645–648.

KOSKINEN, ILPO (2005a). Seeing with Mobile Images. Towards Perpetual Visual Contact. In *A Sense of Place: The Global and the Local in Mobile Communication* (Ed. Nyíri, Kristóf). Vienna: Passagen Verlag, 339–348.

KOSKINEN, ILPO (2005b). Pervasive Image Capture and Sharing: Methodological Remarks. Paper presented at Ubicomp '05, The Seventh International Conference on Ubiquitous Computing. September 11–14, 2005, Tokyo, Japan. http://www.spasojevic.org/pics/PICS/Ubicomp05ws2Koskinen.pdf, accessed September 16, 2005.

KOSKINEN, ILPO (2007). *Mobile Multimedia in Action.* New Brunswick, NJ: Transaction Publishers.

KOSKINEN, ILPO & KURVINEN, ESKO (2005). Mobile Multimedia and Users: On the Domestication of Mobile Multimedia. *Telektronikk, 3/4, 2005.* http://www.telenor.com/telektronikk/volumes/front.php, accessed January 27, 2006.

KOSKINEN, ILPO – KURVINEN ESKO – LEHTONEN TURO-KIMMO (2002). *Mobile Image.* Helsinki: Edita.

KOUWENHOVEN, JOHN A. (1974). Essay based on the lecture 'Living in a Snapshot World'. In *The Snapshot* (Ed. Green, Jonathan). Published as

Aperture, Volume 19, Number 1. Millerton, NY: Aperture, 106–108.

KRESS, GUNTHER & VAN LEEUWEN, THEO (1996). *Reading Images: The Grammar of Visual Design*. London: Routledge.

KRESS, GUNTHER (2003). *Literacy in the New Media Age.* London: Routledge.

KRIEBEL, SABINE T. (2007). Theories of Photography: A Short History. In *Photography Theory* (Ed. Elkins, James). New York: Routledge, 3–50.

KURVINEN, ESKO (2007). Prototyping social action. Academic dissertation. *Publication series of the University of Art and Design Helsinki A 75*. Helsinki: University of Art and Design.

LAAKSO, HARRI (2001). Valokuvan pyhä ja sokea indeksiyys [The sacred and blind indexicality of the photograph]. In *Mediaontologisia epäilyjä* (Ed. Kurki, Eeva). Helsinki: University of Art and Design.

LAAKSO, HARRI (2003). *Valokuvan tapahtuma* [The Event of Photography]. Academic dissertation, University of Art and Design. Helsinki: Tutkijaliitto.

LAAKSO, MARKKU – LAAKSO, VILLE – ÖSTMAN, JAN-OLA (1999). Postikortti diskursiivisena kokonaisprosessina [The postcard as a discursive process]. In *Postikortti diskurssina* (Eds. Laakso, Ville & Östman, Jan-Ola). Hämeenlinna, Finland: Korttien talo, 123–144.

LACEY, NICK (1998). *Image and Representation: Key Concepts in Media Studies.* London: Macmillan.

DE LANGE, MICHIEL (2007). From Always-On to Always-There: Locative Media and Playful Identities. Paper presented at Towards a Philosophy of Telecommunications Convergence, conference organized by T-Mobile Hungary and The Hungarian Academy of Sciences. Budapest 27.–29.9.2007.

LASÉN, AMPARO (2002). *The Social Shaping of Fixed and Mobile Networks: A Historical Comparison*. Report for the Digital World Research Centre, University of Surrey. http://www.dwrc.surrey.ac.uk/Portals/0/HistComp.pdf, accessed March 5, 2008.

LEE, DONG-HOO (2005). Women's Creation of Camera Phone Culture. *Fibreculture Journal, issue 6: Mobilities, New Social Intensities and the Coordinates of Digital Networks*. http://journal.fibreculture.org/issue6/, accessed October 12, 2008.

LEHTONEN, TURO-KIMMO – KOSKINEN, ILPO –KURVINEN, ESKO (2003). Mobile Digital Pictures – the Future of the Postcard? Findings from an Experimental Field Study. Paper presented at the 9th Interdisciplinary Conference on Research in Consumption. Department of Design History/Material Culture, University of Applied Arts, Vienna, Austria, 27–29 June 2003, 71–98.

LEVINSON, PAUL (2004). *Cellphone. The Story of the World's Most Mobile Medium and How It Has Transformed Everything!* New York: Palgrave Macmillan.

LICOPPE, CHRISTIAN (2003). Two Modes of Maintaining Interpersonal Relations Through Telephone: From the Domestic to the Mobile Phone. In *Machines That Become Us: The Social Context of Personal Communication Technology* (Ed. Katz, James E.). New Brunswick, NJ: Transaction Publishers, 171–186.

LICOPPE, CHRISTIAN (2004). 'Connected' presence: the emergence of a new repertoire for managing social relationships in a changing communication technoscape. *Environment and Planning D: Society and Space, 2004, volume 22,* 135–156.

LICOPPE, CHRISTIAN & HEURTIN, JEAN-PHILIPPE (2002). France: Preserving Image. In *Perpetual Contact: Mobile Communication, Private Talk, Public Performance* (Eds. Katz, James E. & Aakhus, Mark). Cambridge, UK: Cambridge University Press, 94–109.

LIESTØL, GUNNAR (2007). The Dynamics of Convergence & Divergence in Digital Domains. In *Ambivalence towards Convergence: Digitalization and Media Change* (Eds. Storsul, Tanja & Stuedahl, Dagny). Gothenburg: Nordicom, 165–178.

LING, RICH (2004). *The Mobile Connection: The Cell Phone's Impact on Society*. San Francisco: Morgan Kaufmann Publishers.

LING, RICH (2007). Mobile Communication and the Generation of Social Cohesion. Paper presented at Towards a Philosophy of Telecommunications Convergence, conference organized by T-Mobile Hungary and The Hungarian Academy of Sciences. Budapest 27.–29.9.2007.

LING, RICH (2008a). *New Tech, New Ties: How Mobile Communication is Reshaping Social Cohesion*. Cambridge, MA: The MIT Press.

LING, RICH (2008b). Trust, cohesion and social networks: The case of quasi-illicit photos in a teen peer group. Paper presented at the Budapest conference on Mobile Communications, Budapest, Hungary. http://www.richardling.com/papers/2008_Networking_ethics.pdf, accessed October 14, 2009.

LING, RICH & HADDON, LESLIE (2003). Mobile Telephony, Mobility, and the Coordination of Everyday Life. In *Machines That Become Us: The Social Context of Personal Communication Technology* (Ed. Katz, James E.). New Brunswick, NJ: Transaction Publishers, 245–266.

LING, RICH & JULSRUD, TOM (2005). Grounded Genres in Multimedia Messaging. In *A Sense of Place: The Global and the Local in Mobile Communication* (Ed. Nyíri, Kristóf). Vienna: Passagen Verlag, 329–338.

LING, RICH & PEDERSEN, PER E. (EDS.) (2005) *Mobile Communications: Re-negotiation of the Social Sphere.* London: Springer Verlag.

LING, RICH & YTTRI, BIRGITTE (2002). Hyper-coordination via Mobile Phones in Norway. In *Perpetual Contact: Mobile Communication, Private Talk, Public Performance* (Eds. Katz, James E. & Aakhus, Mark). Cambridge, UK: Cambridge University Press, 139–169.

LING, RICH – JULSRUD, TOM – YTTRI, BIRGITTE (2005). Nascent Communication Genres within SMS and MMS. In *The Inside Text: Social, Cultural and Design Perspectives on SMS* (Eds. Harper, Richard – Palen, Leysia – Taylor, Alex). Dordrecht: Springer, 75–100.

LISTER, MARTIN (1995). Introductory Essay. In *The Photographic Image in Digital Culture* (Ed. Lister, Martin). London: Routledge, 1–28.

LISTER, MARTIN (1997). Photography in the age of electronic imaging. In *Photography: A Critical Introduction* (Ed. Wells, Liz). London: Routledge, 249–291.

LISTER, MARTIN (2007). Photography, Presence, and Pattern. In *Photography Theory* (Ed. Elkins, James). New York: Routledge, 350–358.

LISTER, MARTIN – DOVEY, JON – GIDDINGS, SETH – GRANT, IAIN – KELLY, KIERAN (2003). *New Media: A Critical Introduction*. London: Routledge.

LOMBARD, MATTHEW & DITTON, THERESA (1997). At the heart of it all: The concept of presence. *Journal of Computer Mediated Communication, 3(2)* http://jcmc.indiana.edu/vol3/issue2/lombard.html, accessed June 19, 2007.

LOWRY, JOANNA – GREEN, DAVID – CAMPANY, DAVID (2003). Foreword. In *Where is the Photograph?* (Ed. Green, David). University of Brighton (Photoforum) and Kent Institute of Art and Design (Photoworks).

LÜDERS, MARIKA (2007). Converging Forms of Communication? In *Ambivalence towards Convergence: Digitalization and Media Change* (Eds. Storsul, Tanja & Stuedahl, Dagny). Gothenburg: Nordicom, 179–198.

MAFFESOLI, MICHEL (1995). *Maailman mieli: yhteisöllisen tyylin muodoista* (Trans. Mika Määttänen. Orig. 1993 *La contemplation du monde)*. Helsinki: Gaudeamus.

MANOVICH, LEV (1995a). An Archeology of a Computer Screen. Published in *Kunstforum International, Germany, 1995; NewMediaTopia*. Moscow, Soros Center for the Contemporary Art, 1995. http://www.manovich.net/, accessed August 18, 2005.

MANOVICH, LEV (1995b). The Paradoxes of Digital Photography. Published in *Photography After Photography*, exhibition catalog. http://www.manovich.net/, accessed August 18, 2005.

MANOVICH, LEV (1995c). To lie and to act: Potemkin's villages, cinema and teleprsence. Published in *Ars Electronica 1995 catalog*, Linz, Austria, 1995. http://www.manovich.net, accessed August 18, 2005.

MANOVICH, LEV (1996). Respect for Distance. Film/Telecommunication Benjamin/Virilio. *Telepolis - das Magazin der Netzkultur.* Munich: Verlag Heinz Heise. http://www.manovich.net/, accessed August 18, 2005.

MANOVICH, LEV (2001). *The Language of New Media*. Cambridge, MA: MIT Press.

MASON, JENNIFER (2002). *Qualitative researching* (2. ed). London: Sage.

MASSEY, DOREEN (2008). *Samanaikainen tila* [The concurrent space] (Collection of texts. Eds. Lehtonen, Mikko - Rantanen, Pekka - Valkonen, Jarno. Trans. Rovio, Janne). Tampere: Vastapaino.

MATIKAINEN, JANNE (2006). Vuorovaikutus ja sosiaalisuus verkossa [Interaction and sociality online]. In *Verkkoviestintäkirja* (Eds. Aula, Pekka – Matikainen, Janne – Villi, Mikko). Helsinki: Gaudeamus, 177–196.

MATSUDA, MISA (2005a). Discourses of Keitai in Japan. In *Personal, Portable, Pedestrian: Mobile Phones in Japanese Life* (Eds. Ito, Mizuko – Okabe, Daisuke – Matsuda, Misa). Cambridge, MA: The MIT Press, 19–40.

MATSUDA, MISA (2005b). Mobile Communication and Selective Sociality. In *Personal, Portable, Pedestrian: Mobile Phones in Japanese Life* (Eds. Ito, Mizuko – Okabe, Daisuke – Matsuda, Misa). Cambridge, MA: The MIT Press, 123–142.

MAZMANIAN, M. & ERICKSON, I. (2007). New forms of face: negotiating social interaction in mobile text-based communication. Paper presented at the British Sociological Association Annual Conference 'Social Connections: Identities, Technologies, Relationships', University of East London, 12–14 April 2007.

MCQUAIL, DENIS (1987). *Mass Communication Theory: An Introduction* (2nd ed.). London: Sage.

METZ, CHRISTIAN (2003). Photography and Fetish. In *The Photography Reader* (Ed. Wells, Liz). London: Routledge, 138–147.

MEYROWITZ, JOSHUA (2005). The Rise of Glocality. New Senses of Place and Identity in the Global Village. In *A Sense of Place: The Global and the Local in Mobile Communication* (Ed. Nyíri, Kristóf). Vienna: Passagen Verlag, 21–30.

MIKKONEN, KAI (2005). *Kuva ja sana: kuvan ja sanan vuorovaikutus kirjallisuudessa, kuvataiteessa ja ikonoteksteissä* [Image and word: The interaction between images and words in art and iconotexts]. Helsinki: Gaudeamus.

MILLER, ANDREW D. & EDWARDS, W. KEITH (2007). Give and take: a study of consumer photo-sharing culture and practice. In proceedings of the *SIGCHI Conference on Human Factors in Computing Systems*, San Jose, California, USA, April 28 - May 03, 2007. ACM Press: New York, 347–356.

MIRZOEFF, NICHOLAS (1998). What is Visual Culture? In *Visual Culture Reader* (Ed. Mirzoeff, Nicholas). London: Routledge, 3–13.

MIRZOEFF, NICHOLAS (1999). *An Introduction to Visual Culture*. London: Routledge.

MITCHELL, WILLIAM J. (1992). *The Reconfigured Eye: Visual Truth in the Post-photographic Era*. Cambridge, MA: The MIT Press.

MITCHELL, W.J.T. (1986). *Iconology: Image, Text, Ideology*. Chicago: The University of Chicago Press.

MITCHELL, W.J.T. (1994). *Picture Theory*. Chicago: The University of Chicago Press.

MIYATA, MISA – WELLMAN, BARRY - BOASE, JEFFREY (2005). The Wired – and Wireless – Japanese: Webphones, PCs and Social Networks. In *Mobile Communications: Re-negotiation of the Social Sphere* (Eds. Ling, Rich & Pedersen Per E.). London: Springer Verlag, 427–449.

MOKKA, SARI & VÄLKKYNEN, PASI (2002). Presence: läsnäolon tunne virtuaaliympäristöissä [Presence: the sense of presence in virtual environments]. *Tutkimusselostuksia 47/2002*. Tampere: VTT Tietotekniikka. http://www.vtt.fi/inf/julkaisut/muut/2002/Presence_raportti.pdf, accessed June 18, 2007.

MODEL, LISETTE (1974). Article without title. In *The Snapshot* (Ed. Green, Jonathan). Published as *Aperture, Volume 19, Number 1*. Millerton, NY: Aperture, 6–7.

MUELLER, FLORIAN 'FLOYD' – VETERE, FRANK – GIBBS, MARTIN R. – KJELDSKOV, JESPER – PEDELL, SONJA – HOWARD, STEVE (2005). Hug Over a Distance. In *Extended abstracts on Human factors in computing systems, Conference on Human Factors in Computing Systems CHI '05*, April 2–7, 2005, Portland, OR, USA. New York: ACM Press, 1673–1676.

MURRAY, SUSAN (2008). Digital Images, Photo-Sharing, and Our Shifting Notions of Everyday Aesthetics. *Journal of Visual Culture, Vol 7(2),* 147–163.

MÄKELÄ, ANU – GILLER, VERENA – TSCHELIGI, MANFRED – SEFELIN, REINHARD (2000). Joking, storytelling, artsharing, expressing affection: a field trial of how children and their social network communicate with digital images in leisure time. In proceedings of the *SIGCHI conference on Human factors in computing systems,* The Hague, The Netherlands, 548–555.

MØRK PETERSEN, SØREN (2008). *Common Banality: The Affective Character of Photo Sharing, Everyday Life and Produsage Cultures*. Academic dissertation. Department of Innovative Communication at the IT- University of Copenhagen, Denmark.

MÖRÄ, TUOMO (2004). Demokratian juurihoitoa: James Carey ja journalismi [Root treatment for democracy: James Carey and journalism]. In *Mediatutkimuksen vaeltava teoria* (Eds. Mörä, Tuomo – Salovaara-Moring, Inka – Valtonen, Sanna). Helsinki: Gaudeamus, 119–136.

NANCY, JEAN-LUC (2005). *The Ground of the Image* (Trans. Jeff Fort). New York: Fordham University Press.

NARDI, BONNIE A. – WHITTAKER, STEVE – BRADNER, ERIN (2000). Interaction and Outeraction: Instant Messaging in Action. In proceedings of *CSCW 2000, ACM (2000),* 79–88.

NATHWANI, KRUPA & EASON, KEN (2005). Perceptions versus expectations of multimedia messaging service (MMS). *Personal and Ubiquitous Computing, Volume 9 , Issue 4,* 191–197.

NURMELA, JUHA – PARJO, LEA – SIRKIÄ, TIMO (2006). From Citizen to eCitizen: Results from statistical surveys about Finns' use of ICT in 1996–2005. *Reviews 2006/3, Science, Technology and Information Society.* Helsinki: Statistics Finland.

NYÍRI, KRISTÓF (ED.) (2005). *A Sense of Place: The Global and the Local in Mobile Communication*. Vienna: Passagen Verlag.

NYÍRI, KRISTÓF (ED.) (2006). *Mobile Understanding: The Empistemology of Ubiquitous Communication.*Vienna: Passagen Verlag.

NYÍRI, KRISTÓF (ED.) (2008). *Integration and Ubiquity: Towards a Philosophy of Telecommunications Convergence.* Vienna: Passagen Verlag.

OKABE, DAISUKE (2004). Emergent Social Practices, Situations and Relations Through Everyday Camera Phone Use. In proceedings of *Mobile Communication and Social Change, International Conference on Mobile Communication,* October 18–19, Seoul, Korea, 2004. http://www.itofisher.com/mito/archives/okabe_seoul.pdf, accessed May 12, 2005.

OKABE, DAISUKE (2005). Social practice of Camera Phone in Japan. Paper presented at Ubicomp 2005 Workshop on Pervasive Image Capture and Sharing: New Social Practices and Implications for Technology. Tokyo, Japan, September 11, 2005. http://www.spasojevic.org/pics/PICS/okabe_ubicomp.pdf, accessed April 23, 2006.

OKABE, DAISUKE & ITO, MIZUKO (2003). Camera phones changing the definition of picture-worthy. *Japan Media Review 2003*. http://www.ojr.org/japan/wireless/1062208524.php, accessed May 17, 2005.

OKABE DAISUKE & ITO, MIZUKO (2006). Everyday Contexts of Camera Phone Use: Steps Toward Techno-Social Ethnographic Frameworks.

In *Mobile Communications in Everyday Life: Ethnographic Views, Observations and Relections* (Eds. Höflich, Joachim R. & Hartmann, Maren). Berlin: Frank & Timme, 79–102.

OKADA, TOMOYUKI (2005). Youth Culture and the Shaping of Japanese Mobile Media: Personalization and the Keitai Internet as Multimedia. In *Personal, Portable, Pedestrian: Mobile Phones in Japanese Life* (Eds. Ito, Mizuko – Okabe, Daisuke – Matsuda, Misa). Cambridge, MA: The MIT Press, 41–60.

OKSMAN, VIRPI (2005). MMS and Its 'Early Adopters' in Finland. In *A Sense of Place: The Global and the Local in Mobile Communication* (Ed. Nyíri, Kristóf). Vienna: Passagen Verlag, 349–362.

OKSMAN, VIRPI (2006). Mobile Visuality and Everyday Life in Finland: An Ethnographic Approach to Social Uses of Mobile Image. In *Mobile Communications in Everyday Life: Ethnographic Views, Observations and Relections* (Eds. Höflich, Joachim R. & Hartmann, Maren). Berlin: Frank & Timme, 103–122.

OLIN, MARGARET (2002). Touching Photographs: Roland Barthes's 'Mistaken' Identification. *Representations No. 80*, 99–118.

OSBORNE, PETER (2003). Photography in an Expanding Field: Distributive Unity and Dominant Form. In *Where is the Photograph?* (Ed. Green, David). University of Brighton (Photoforum) and Kent Institute of Art and Design (Photoworks).

OVERÅ, RAGNHILD (2008). Mobile Traders and Mobile Phones in Ghana. In *Handbook of mobile communication studies* (Ed. Katz, James E.). Cambridge, MA: The MIT Press, 34–54.

PALEN, LEYSIA – SALZMAN, MARILYN – YOUNGS, ED (2001). Discovery and Integration of Mobile Communications in Everyday Life. *Personal and Ubiquitous Computing, Volume 5, Issue 2,* 109–122.

PALMER, DANIEL (2005). Mobile exchanges. Paper presented at the Vital Signs conference, ACMI, Melbourne, Australia, 8–9 September 2005.

PASINI, MIKE (2007). *A Glimpse Into the Digital Imaging Future*. http://www.imaging-resource.com/EVENTS/CES07mrp/ces-glimpse.htm, accessed May 22, 2008.

PAULY, JOHN (1997) Introduction / On the Origins of Media Studies (and Media Scholars). In *James Carey : A Critical Reader* (Eds. Munson, Eve S. & Warren, Catherine A.). Minneapolis, MN: University of Minnesota Press, 3–13.

PESONEN, JUHA (2005). *Näppäilykuva sai siivet – kamerapuhelin valokuvan merkityksien muuttajana* [Snapshot photography got wings – the camera phone transforming the meaning of photography]. Master's thesis. Helsinki: University of Helsinki.

PIENIMÄKI, MARI (2007). Minne suuntasit valokuvatutkimus? Valokuvat tutkimuskohteina [Photography research – where are you heading? Photographs as an object of research]. *Tiedotustutkimus 2007:3*.

POLAZZI, LAURA – JACOBS, MARGOT – ANDERSEN, KRISTINA (2002). Presence in the Emotional Space. In proceedings of *Fifth Annual International Workshop on Presence Research (PRESENCE)*. Porto, Portugal, 341–344.

POSTMES, TOM – SPEARS, RUSSELL – LEA, MARTIN (1998). Breaching or Building Social Boundaries: SIDE-Effects of Computer-Mediated Communication. *Communication Research, Vol. 25, No. 6*, 689–715.

PORTUS, LOURDES M. (2008). How the Urban Poor Acquire and Give Meaning to the Mobile Phone. In *Handbook of mobile communication studies* (Ed. Katz, James E.). Cambridge, MA: The MIT Press, 105–118.

POUTIAINEN, SAILA (2007). *Finnish Cultural Discourses About Mobile Phone Communication*. Academic dissertation. Amherst: University of Massachusetts.

PRICE, DERRICK & WELLS, LIZ (1997). Thinking about photography: Debates, historically and now. In *Photography: A Critical Introduction* (Ed. Wells, Liz). London: Routledge, 1–54.

PRØITZ, LIN (2005). Intimacy Fiction: Intimate Discourses in Mobile Telephone Communication amongst Norwegian Youth. In *A Sense of Place: The Global and the Local in Mobile Communication* (Ed. Nyíri, Kristóf). Vienna: Passagen Verlag, 191–200.

RANTAVUO, HELI (2007). Transitory Tools: Cameraphone Photos and the Internet. Paper presented at Towards a Philosophy of Telecommunications Convergence, conference organized by T-Mobile Hungary and The Hungarian Academy of Sciences. Budapest 27.–29.9.2007.

RANTAVUO, HELI (2008). Playing with Broadband: Circulating Digital Snapshots. In *Digital Tools – A New Way to Interact with the World* (Eds. Acuña, Blanca & Correia, Nuno). F35 Working papers. Helsinki: University of Art and Design.

RANTAVUO, HELI (2009). *Connecting Photos: A Qualitative Study of Cameraphone Photo Use*. Academic dissertation. Helsinki: University of Art and Design.

RAUDASKOSKI, SANNA & ARMINEN, ILKKA (2003). Mobiilipalveluiden näkymät – tapaustutkimus eTampereen mobiiliklusterin asiantuntijoidennäkemyksistä [The prospects of mobile services – A case study on expert views of the eTampere mobile cluster]. *Tietoyhteiskuntainstituutin raportteja, 1/2003*. Tampere: University of Tampere.

RETTIE, RUTH (2003). Connectedness, Awareness and Social Presence. Paper presented at 6th International Presence Workshop, Aalborg,

Denmark. http://www.presence-research.org/papers/Rettie.pdf, accessed August 21, 2007.

RETTIE, RUTH (2006). How text messages create connectedness. *Receiver* # 15, *April 2006*. http://www.vodafone.com/flash/receiver/archive/index.html, accessed December 20, 2007.

RETTIE, RUTH (2007). Interactional Divergence Notwithstanding Technological Convergence. Paper presented at Towards a Philosophy of Telecommunications Convergence, conference organized by T-Mobile Hungary and The Hungarian Academy of Sciences. Budapest 27.–29.9.2007.

RICE, RONALD (1999). Artifacts and paradoxes in new media. *New Media & Society, 1(1), 1999,* 24–32.

RIVIÈRE, CAROLE (2005). Mobile Camera Phones: A New Form of 'Being Together' in Daily Interpersonal Communication. In *Mobile Communications: Re-negotiation of the Social Sphere* (Eds. Ling, Rich & Pedersen, Per E.). London: Springer Verlag, 167–186.

ROBINS, KEVIN (1996). *Into the image: Culture and politics in the field of vision*. London: Routledge.

ROSE, GILLIAN (2004). 'Everyone's cuddled up and it just looks really nice': an emotional geography of some mums and their family photos. *Social & Cultural Geography, Vol. 5, No. 4, December 2004,* 549–564.

ROTHENBUHLER, ERIC W. (1998). *Ritual Communication: From Everyday Conversation to Mediated Ceremony*. Thousand Oaks: Sage.

RUBINSTEIN, DANIEL & SLUIS, KATRINA (2008). A life more photographic. *Photographies, 1:1,* 9–28.

SARVAS, RISTO (2006). *Designing User-Centric Metadata for Digital Snapshot Photography.* Academic dissertation. Helsinki: Helsinki University of Technology and Helsinki Institute for InformationTechnology HIIT.

SARVAS, RISTO – VIIKARI, MIKKO – PESONEN, JUHA – NEVANLINNA, HANNO (2004). MobShare: controlled and immediate sharing of mobile images. In proceedings of the *12th Annual ACM international Conference on Multimedia*, New York, NY, USA, October 10–16, 2004. New York: ACM Press.

SARVAS, RISTO – OULASVIRTA, ANTTI – JACUCCI, GIULIO (2005). Building Social Discourse Around Mobile Photos – A Systemic Perspective. In proceedings of the *7th international conference on Human computer interaction with mobile devices and services, MobileHCI'05,* September 19–22, 2005, Salzburg, Austria. New York: ACM Press, 31–38.

SATYANARAYANAN, MAHADEV (2005). Swiss Army Knife or Wallet? *IEEE Pervasive Computing, Apr-Jun., 2005*, 2–3.

SCHROEDER, RALPH (2005). Being There Together and the Future of Connected Presence. *Presence: Teleoperators and Virtual Environments, v.15 n.4,* 339–344.

SCIFO, BARBARA (2005). The Domestication of Camera-Phone and MMS Communication: The Early Experiences of Young Italians. In *A Sense of Place: The Global and the Local in Mobile Communication* (Ed. Nyíri, Kristóf). Vienna: Passagen Verlag, 363–374.

SCOTT, CLIVE (1999). *The Spoken Image: Photography and Language*. London: Reaktion Books.

SEPPÄNEN, JANNE (2001a). *Katseen voima: kohti visuaalista lukutaitoa* [The Power of the Gaze: An Introduction to Visual Literacy]. Tampere: Vastapaino.

SEPPÄNEN, JANNE (2001b). *Valokuvaa ei ole* [Photograph does not exist]. Academic dissertation, University of Tampere. Helsinki: Musta taide.

SEPPÄNEN, JANNE (2005). *Visuaalinen kulttuuri: teoriaa ja metodeja mediakuvan tulkitsijalle* [Visual culture: theory and methods for reading media images]. Tampere: Vastapaino.

SHORT, JOHN – WILLIAMS, EDERYN – CHRISTIE, BRUCE (1976). *The Social Psychology of Telecommunications*. London: John Wiley & Sons.

SILVERMAN, DAVID (2000). *Doing Qualitative Research: A Practical Handbook.* London: Sage.

SILVERMAN, DAVID (2001). *Interpreting qualitative data: Methods for Analyzing Talk, Text, and Interaction* (2nd ed.). London: Sage.

SLATER, DON (1991). Consuming Kodak. In *Family Snaps: The Meanings of Domestic Photography* (Eds. Spence, Jo & Holland, Patricia). London: Virago Press.

SLATER, DON (1995). Domestic Photography and Digital Culture. In *The Photographic Image in Digital Culture* (Ed. Lister, Martin). London: Routledge, 129–146.

SMITH, JOEL (2001). Roll over. *Afterimage, Sep/Oct 2001, Vol. 29, Issue 2*.

SOORYAMOORTHY, RADHAMANY – MILLER, B. PAIGE – SHRUM, WESLEY (2008). Untangling the technology cluster: mobile telephony, internet use and the location of social ties. *New Media & Society, 2008; 10*, 729–749.

SONESSON, GÖRAN (1989). *Semiotics of Photography: On tracing the index*. Report 4 from the Project 'Pictorial meanings in the society of information'. Lund: Lund University.

SONESSON, GÖRAN (1999). Post-photography and beyond. From mechanical reproduction to digital production. *Visio, 4, 1*, 11–36. http://www.arthist.lu.se/kultsem/sonesson/VisioPhoto1.html,

accessed February 22, 2008.

SONTAG, SUSAN (1977). *On Photography*. New York: Farrar, Straus and Giroux.

SONTAG, SUSAN (1999). The image-world. In *Visual Culture: The Reader* (Eds. Evans, Jessica & Hall, Stuart). London: Sage, 80–94.

SONTAG, SUSAN (2004). Regarding the Torture of Others. *New York Times Magazine* May 23, 2004.

SPASOJEVIC, MIRJANA (2005). Camera Phone Use and its Implications. Paper presented at Ubicomp '05 The Seventh International Conference on Ubiquitous Computing. September 11–14, 2005, Tokyo, Japan. http://www.spasojevic.org/pics/PICS/spasojevic-pics.pdf, accessed September 16, 2005.

SPASOJEVIC, MIRJANA – ITO, MIZUKO - VAN HOUSE, NANCY – KOSKINEN, ILPO – KATO, FUMITOSHI – OKABE, DAISUKE (2005). Pervasive Image Capture and Sharing: New Social Practices and Implications for Technology. Workshop proposal, Ubicomp '05, The Seventh International Conference on Ubiquitous Computing. September 11–14, 2005, Tokyo. http://www.spasojevic.org/pics/PICS/UbicompCamphone-Final.pdf, accessed September 16, 2005.

STANLEY, JO (1991). 'Well, who'd want an old picture of me at work.' In *Family Snaps: The Meanings of Domestic Photography* (Eds. Spence, Jo & Holland, Patricia). London: Virago Press, 60–71.

STEPHENS, MITCHELL (1998). *The Rise of the Image, The Fall of the Word*. New York: Oxford University Press.

STRAND, PAUL (1974). Interview. In *The Snapshot* (Ed. Green, Jonathan). Published as *Aperture, Volume 19, Number 1*. Millerton, NY: Aperture, 46–49.

STRANO, MICHELE M. (2006). Ritualized Transmission of Social Norms Through Wedding Photography. *Communication Theory, 16 (2006),* 31–46.

STURKEN, MARITA & CARTWRIGHT, LISA (2001). *Practices of Looking: An Introduction to Visual Culture*. Oxford: Oxford University Press.

TAYLOR, ALEX S. & HARPER, RICHARD (2002). Age-old practices in the 'new world': a study of gift-giving between teenage mobile phone users. In proceedings of the *SIGCHI conference on Human factors in computing systems: Changing our world, changing ourselves*. CHI 2002, April 20–25, 2002, Minneapolis, Minnesota, USA. New York: ACM Press.

TAYLOR, ALEX & HARPER, RICHARD (2003). The gift of the gab: A design oriented sociology of young people's use of mobiles. *Journal of Collaborative Computing: Computer Supported Cooperative Work, 12(3),* 267–296.

TAGG, JOHN (1988). *The Burden of Representation: Essays on Photographies and Histories*. London: Macmillan.

URRY, JOHN (2000). *Sociology beyond Societies: Mobilities for the twenty-first century.* London: Routledge.

VAN HOUSE, NANCY (2007). Flickr and Public Image-Sharing: Distant Closeness and Photo Exhibition. *Extended abstracts of Conference on Human Factors in Computing Systems CHI '07*. April 28–May 3 2007, San Jose, CA, USA. New York: ACM Press.

VAN HOUSE, NANCY & DAVIS, MARC (2005). The Social Life of Cameraphone Images. Paper presented at Ubicomp 2005 Workshop on Pervasive Image Capture and Sharing: New Social Practices and Implications for Technology. Tokyo, Japan, September 11, 2005. http://fusion.sims.berkeley.edu/GarageCinema/pubs/pdf/pdf_A611A197-5FEA-45FC-A9D1259A8523DD6A.pdf, accessed May 15, 2007.

VAN HOUSE, NANCY – DAVIS, MARC – TAKHTEYEV, YURI – GOOD, NATHAN – WILHELM, ANITA – FINN, MEGAN (2004a). From 'What?' to 'Why?': The Social Uses of Personal Photos. Working Papers, School of Information Management and Systems (SIMS), University of California, Berkeley. http://www.sims.berkeley.edu/~vanhouse/photo_project/pubs/vanhouse_et_al_2004a.pdf, accessed May 10, 2005.

VAN HOUSE, NANCY – DAVIS, MARC – TAKHTEYEV, YURI – AMES, MORGAN – FINN, MEGAN (2004b). The Social Uses of Personal Photography: Methods for Projecting Future Imaging Applications. Working Papers, School of Information Management and Systems (SIMS), University of California, Berkeley. http://people.ischool.berkeley.edu/~vanhouse/van%20house_et_al_2004b%20.pdf, accessed May 13, 2005.

VAN HOUSE, NANCY – DAVIS, MARC – AMES, MORGAN – FINN, MEGAN – VISWANATHAN, VIJAY (2005). The Uses of Personal Networked Digital Imaging: An Empirical Study of Cameraphone Photos and Sharing. In *Extended abstracts of the Conference on Human Factors in Computing Systems (CHI 2005)* in Portland, Oregon, April 2–7, 2005. New York: ACM Press, 1853–1856.

VETERE, FRANK – GIBBS, MARTIN R. – KJELDSKOV, JESPER – HOWARD, STEVE – MUELLER, FLORIAN – PEDELL, SONJA – MECOLES, KAREN – BUNYAN, MARCUS (2005). Mediating Intimacy: designing technologies to support strong tie relations. *CHI 2005,* April 2–7, 2005, Portland, Oregon, USA. New York: ACM Press, 471–480.

VINCENT, JANE (2005a). Are People Affected by Their Attachment to Their Mobile Phone? In *A Sense of Place: The Global and the Local in Mobile Communication* (Ed. Nyíri, Kristóf). Vienna: Passagen Verlag, 221–230.

VINCENT, JANE (2005b). Emotional attachment and mobile phone. In *Thumb Culture: The Meaning of Mobile Phones for Society* (Eds. Glotz, Peter – Bertschi, Stefan – Locke, Chris). New Brunswick, NJ: Transaction Publishers, 117–122.

VIHAVAINEN, SAMI – SARVAS, RISTO – NÄSÄNEN, JAANA – GRENMAN, KATRI (2007). User-Centric Approach for Designing Cross Media Applications in Personal Photography. In proceedings of *IARIGAI*, Grenoble, France, September 9–12, 2007.

VILLI, MIKKO (2001). Images as Information, Information as Images. Paper presented at Text and Image – The 8th Summer School of Cultural Studies, June 1, 2001. University of Jyväskylä, Finland.

VILLI, MIKKO (2006). Mediakonvergenssi ja verkkoviestintä [Media convergence and e-communication]. In *Verkkoviestintäkirja* (Eds. Aula, Pekka – Matikainen, Janne – Villi, Mikko). Helsinki: Yliopistopaino, 101–120.

VILLI, MIKKO & STOCCHETTI, MATTEO (2010). Visual mobile communication, mediated presence, and the politics of space. Unpublished article manuscript.

VIRILIO, PAUL (1998). *Pakonopeus* (Trans. Mika Määttänen. Orig. 1995 *La Vitesse de libération*). Tampere: Gaudeamus.

WAGNER, KARIN (2007). The Everyday Seen Through a Camera Phone. Paper presented at the Conference INTER: A European Cultural Studies Conference in Sweden, organised by the Advanced Cultural Studies Institute of Sweden (ACSIS) in Norrköping 11–13 June 2007, 633–643. http://www.ep.liu.se/ecp/025/063/ecp072063.pdf, accessed March 11, 2009.

WALTHER, JOSEPH B. – SLOVACEK, CELESTE L. – TIDWELL, LISA C. (2001). Is a Picture Worth a Thousand Words? Photographic Images in Long-Term and Short-Term Computer-Mediated Communication. *Communication Research, Vol. 28 No. 1,* 105–134.

WEBER, SAMUEL (2002). Televisio: laite ja näyttö (Trans. Jussi Backman. Orig. 1996 Television: Set and Screen in Mass Mediauras: Form, Technics, Media). *Nuori Voima, 4–5/2002*. Helsinki: Nuoren Voiman Liitto.

WEI, RAN & LO, VEN-HWEI (2006). Staying connected while on the move. *New Media & Society, Vol. 8, No. 1,* 53–72.

WEIBEL, PETER (1996). The World as Interface: Toward the Construction of Context-Controlled Event-Worlds. In *Electronic Culture – Technology and Visual Representation* (Ed. Druckery, Timothy). New York: Aperture.

WEIGHT, JENNY (2007). Living in the moment: Transience, identity and the mobile device. In *Mobile Media 2007: Proceedings of an international conference on social and cultural aspects of mobile phones, convergent media and wireless technologies* (Eds. Goggin, Gerard & Hjorth, Larissa). Sydney: University of Sydney, 161–168.

WEILENMANN, ALEXANDRA (2003). *Doing Moblity.* Academic dissertation. Gothenburg Studies in Informatics, Report 28, June 2003.

WELLS, LIZ (1997). On and beyond white walls. Photography as art. In *Photography: A Critical Introduction* (Ed. Wells, Liz). London: Routledge, 199–248.

WELLS, LIZ (2003). Image and Identity, Introduction. In *The Photography Reader* (Ed. Wells, Liz). London: Routledge, 376–379.

WHITE, PETER B. & WHITE, NAOMI ROSH (2008). Maintaining Co-Presence: Tourists and Mobile Communication in New Zealand. In *Handbook of mobile communication studies* (Ed. Katz, James E.). Cambridge, MA: The MIT Press, 195–207

WILHELM, ANITA & TOWLE, JEFF (2005). Caterpillar Mobile: Mobile Media Fun. Paper presented at Ubicomp 2005 Workshop on Pervasive Image Capture and Sharing: New Social Practices and Implications for Technology. Tokyo, Japan, September 11, 2005. http://www.spasojevic.org/pics/PICS/CaterpillarMobilePhotosWkshop_CameraReady.pdf, accessed December 16, 2005.

WILHELM, ANITA – TAKHTEYEV, YURI – SARVAS, RISTO – VAN HOUSE, NANCY – DAVIS, MARC (2004). Photo annotation on a camera phone. *Extended Abstracts on Human Factors in Computing Systems,* CHI '04. Vienna, Austria, April 24–29, 2004. ACM Press, New York, NY, 1403–1406.

WILLIAMS, RAYMOND (1975/1990). *Television: Technology and Cultural Form* (Ed. Ederyn Williams). London: Routledge.

WILLIAMS, VAL (1991). Carefully Creating and Idyll: Vanessa Bell and Snapshot Photography 1907–46. In *Family Snaps: The Meanings of Domestic Photography* (Eds. Spence, Jo & Holland, Patricia). London: Virago Press, 187–198.

WOLLEN, PETER (2003). Fire and Ice. In *The Photography Reader* (Ed. Wells, Liz). London: Routledge, 76–81.

WOOLGAR, STEVE (2005). Mobile Back to Front: Uncertainty and Danger in the Theory-Technology Relation. In *Mobile Communications: Re-negotiation of the Social Sphere* (Eds. Ling, Rich & Pedersen Per E.). London: Springer Verlag, 23–44.

ÖSTMAN, JAN-OLA & LAAKSO, VILLE (1999). Postikortille diskurssia löytämässä [Finding a discourse for the postcard]. In *Postikortti diskurssina* (Eds. Laakso, Ville & Östman, Jan-Ola). Hämeenlinna, Finland: Korttien talo, 11–22.

ÖSTMAN, JAN-OLA & LAAKSO, VILLE (2001). Postikortin konteksti [The context of the postcard]. In *Postikortti sosiaalisessa kontekstissa* (Eds. Laakso, Ville & Östman, Jan-Ola). Hämeenlinna, Finland: Korttien talo, 13–32.

Appendices

1 Questionnaire on media consumption and mobile photography

Name

Age

Sex [M – F]

E-mail address

Field of specialization within Arcada / media dept.

Media consumption

How would you describe yourself as a user of new communication technology?

EXPERT	SKILFUL	AVERAGE	WEAK	NOT A USER	DON'T KNOW

In what year did you use the **Internet** for the first time?

In what year did you receive your first **mobile phone**?

What functions of your **mobile phone** do you use?

MOBILE PHOTOGRAPHY

How often do you take photographs?

VERY OFTEN	OFTEN	SELDOM	RARELY	NEVER	DON'T KNOW

How often do you use a **camera phone** to take photographs?

VERY OFTEN	OFTEN	SELDOM	RARELY	NEVER	DON'T KNOW

How often do you take photographs with a **standard camera**?

VERY OFTEN	OFTEN	SELDOM	RARELY	NEVER	DON'T KNOW

How often do you communicate **visually** over the Internet (IM, Skype etc.)?

VERY OFTEN	OFTEN	SELDOM	RARELY	NEVER	DON'T KNOW

How often do you **send photographs** to web sites
(such as IRC-Galleria, Flickr)?

VERY OFTEN	OFTEN	SELDOM	RARELY	NEVER	DON'T KNOW

Do you have a standard camera (analogue / digital)?

Do you have a mobile phone with a camera?

Have you taken photographs with your camera phone?

Have you **sent** MMS messages from your camera phone?

If you have not sent MMS messages, what have been the reasons?

- Cost
- Technical complexity
- Poor image quality
- Friends/family can't receive MMS messages with their phones
- Other reasons

Have you **received** MMS messages on your phone?

If you have sent or received MMS messages,
please answer the questions marked with an asterisk (*):

* **How many** MMS messages do you **send** per month?

* **To whom** do you normally send MMS messages?

* How many MMS messages do you **receive** per month?

* From whom do you normally **receive** MMS messages?

* Which **media elements** do you normally include in the MMS messages you send (photo, audio, video etc.)?

* How do you like to **share you mobile photographs** (from the screen of your mobile phone, by sending them as MMS messages, sending them to the web etc.)?

* Try to estimate what is the share (in %, options 1. and 2. totalling 100 %) of the photographs that you have **taken with your mobile phone** that you
1. keep on your mobile phone, move to a computer or a website, send as MMS messages
2. delete from the phone without sending or saving them anywhere else

* Try to estimate what is the share (in %, options 1. and 2. totalling 100 %) of the photographs that you have **taken with your mobile phone** that you
1. send as MMS messages
2. do not send as MMS messages

* Try to estimate what is the share (in %, options 1. and 2. totalling 100 %) of the photographs that you have **sent as MMS messages** that you
1. keep on your mobile phone or move to a computer or a website
2. delete from the phone without saving them anywhere else

* Try to estimate what is the share (in %, options 1. and 2. totalling 100 %) of the photographs that you have **received** as MMS messages that you
1. keep on your mobile phone or move to a computer or a website
2. delete from the phone without saving them anywhere else

2 Thematic interview framework

BACKGROUND

1. What is your relationship with photography?
2. Do you take photographs only for personal pleasure, or have your photos been published somewhere?
3. How often do you take photographs?
4. Do you use a standard camera or a camera phone?
5. How often do you send photo messages?
6. Do you send more photo messages than you receive?
7. What are the possible reasons for not sending photo messages?
8. How do you like to share your mobile photographs?
9. Do you move the photographs from the phone to a computer, the web etc.?

A TIME AND DISTANCE

1. How far do you send photo messages?
   In the same town, from trips to other countries?
2. How soon after taking the photo do you send it?
   Do you use photo messages to describe what is happening now?
3. How important is immediacy in photographic communication?
4. Do you save the photo messages you have sent and received? How?
5. Do you save your camera phone photographs? How?

B INTERPERSONAL COMMUNICATION

6. With whom do you communicate with your mobile phone?
7. To whom do you send photo messages? Do you see them daily?
8. From whom do you receive photo messages?
9. Do you reply to a photo message with another photo message?
10. Are photo messages and text messages comparable?
    What kind of text messages would you send as MMS messages?
11. Do you have a need to share you camera phone photos?
    The difference between publishing on the web and sending MMS?

C RITUAL AND TRANSMISSION

12. What is the reason for taking ordinary photographs?
13. What is the reason for sending photo messages?
    Information or connection?
14. In what situations do you send photo messages?

D PHOTOGRAPHY

15. Are the photo messages different from the traditional photographs you take? Their contents, their aesthetic value etc.
16. What kind of situations or subjects are included in the photo messages? Do you take pictures of "your life", or more general photos?
17. Do you send photographs taken by other people or are the photo messages your "own"?
18. Is there a difference between traditional snapshot photography and mobile photography? Are there photographs that you would take only/primarily with the camera phone?
19. Has the camera phone changed your photography habits or conventions? Is it significant that the camera is in a phone?
20. How do you choose which photos to send as photo messages?
21. Do you take photos with the intention on sending them as photo messages, or do you choose the photo messages at a later stage?

E COMMUNICATION

22. How do you conceive the convergence of photography and mobile phone communication?
23. How important is it that the camera is in a phone? How does photo messaging compare with other uses of the mobile phone?
24. Which is more important in relation to your communicational habits: the camera or phone in the camera phone?
25. Do you perceive the camera phone as an image sharing and transmission device, a visual communication device?

Do you have photos on your mobile phone?
Have some of them been sent or received as photo messages?

Images

IMAGE 1. The emergency shot of a VW Kleinbus.
The photograph is reproduced with Ulla's permission.

IMAGE 2. "Is the grass really greener on the other side of the fence?"
The photograph is reproduced with Ulla's permission.

IMAGE 3. Pike fish in a plastic basin.
The photograph is reproduced with Ulla's permission.

IMAGE 4. "The same blue chairs every Sunday night." *The photograph is reproduced with Mikael's permission.*

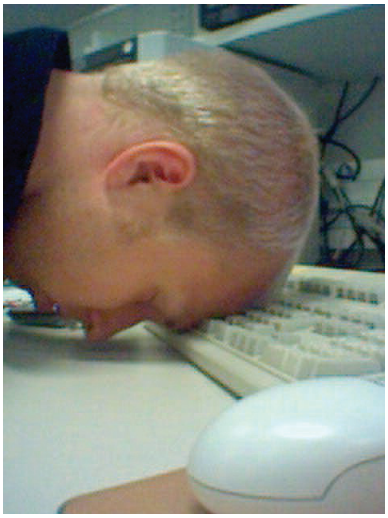


IMAGE 5. "A bored picture of myself." *The photograph is reproduced with Mikael's permission.*

IMAGE 6. Picture taken with the camera phone of the cherry tree in bloom. *The photograph is reproduced with Anja's permission.*

IMAGE 7. Camera phone photograph of Sand Darth Vader. *The photograph is reproduced with Ulla's permission.*

IMAGE 8. "Hi" from skiing trip.
The photograph is reproduced with Mikael's permission.

IMAGE 9. "This is how it looks like, and it's warm and sunny." *The photograph is reproduced with Lotta's permission.*

IMAGE 10. "Greetings from hospital."
The photograph is reproduced with Ulla's permission.

IMAGE 11. "Bad Santa."
The photograph is reproduced with Kasper's permission.

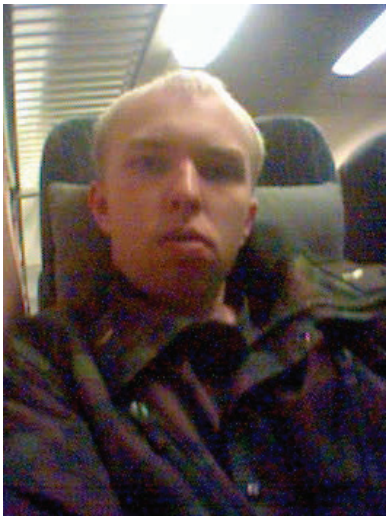


IMAGE 12. "I miss you and a sad face." *The photograph is reproduced with Mikael's permission.*

IMAGE 13. "The army is not like a holiday." *The photograph is reproduced with Mikael's permission.*

IMAGE 14. Last night in the army camp. *The photograph is reproduced with Mikael's permission.*

IMAGE 15. "Funny thing when three cars got stuck in the mud at the same time." *The photograph is reproduced with Mikael's permission.*

The transition to visual mobile communication is evident in the screens of mobile phones, which have transformed from small black-and-white displays portraying numbers and letters into big, phone-sized, colourful, high-resolution displays. This is in striking contrast to the fact that only a few decades ago a telephone did not include a screen of any kind.

In this doctoral thesis, visual mobile communication is situated specifically in camera phone photography and photo messaging. The main research question focuses on how the conventions of mobile phone communication are manifested in interpersonal photographic communication when using camera phones. Photo messaging is examined by using a framework consisting of two themes: ritual communication and mediated presence. In addition to a theoretically oriented analysis, the study utilizes results from an empirical case study with Finnish camera phone users.

ISBN 978-952-60-0006-0
AALTO UNIVERSITY
School of Art and Design
www.taik.fi/bookshop
Cover design by Laura Villi