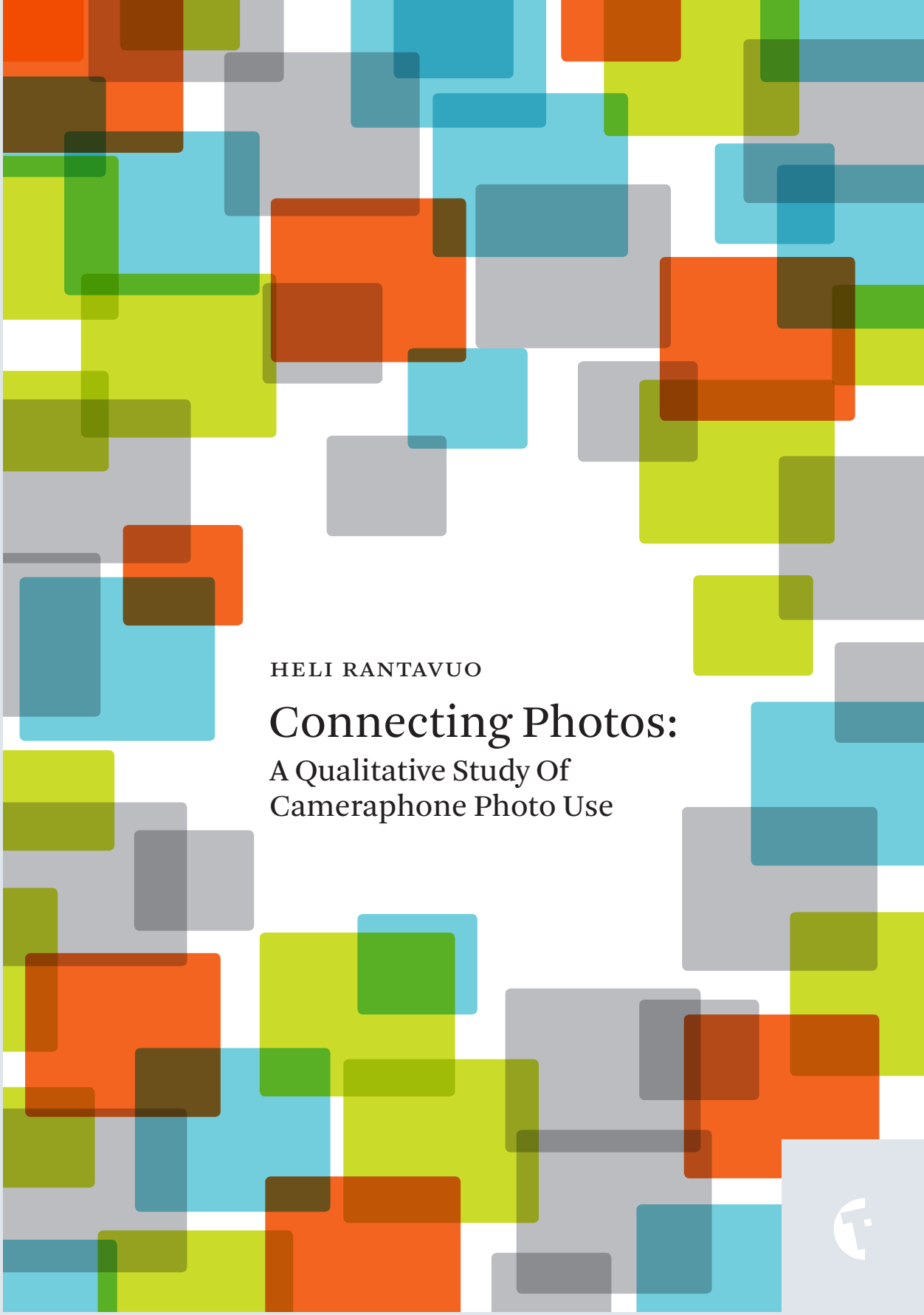

HELI RANTAVUO

Connecting Photos:

A Qualitative Study Of Cameraphone Photo Use

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Phenomena in the field of digital and mobile media typically change at the same time as they are studied. When I started my postgraduate studies and research in 2001, cameraphones were not yet available in Finland. With a degree in film and television studies, I was interested in studying new ways of viewing moving image on the internet and mobile devices. Soon, I decided to concentrate only on images that people made themselves with digital video cameras, still cameras and phone cameras. By the time of starting fieldwork for this study in 2006, cameraphones had become household items and I had narrowed down my focus to the use of cameraphone photographs. A changeable field of research requires an open mind and good nerves from the researcher and her supporters alike. Ilpo Koskinen supervised my research throughout its different stages with prompt feedback and pragmatic advice on how to translate my broad ideas into thesis format.

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Heli Rantavuo

1. Connecting photos

The introduction of cameras and picture messaging services into mobile phones coincided with the popular uptake of digital cameras in Finland in the early 2000s. The technological circumstances of what has been called snapshot photography, home photography, domestic photography and personal photography (Van Dijck, 2007, 98) changed in both technical and cultural terms. Handling photos shifted from commercial developing services to photographers themselves working on personal computers with image browsing, processing and archiving software. Photos began to be viewed on camera, phone and computer screens and to be sent in e-mails and mobile messages. The internet added a new dimension to the change as different services emerged for publishing and storing photographs, varying from public, diary-like blogs to private online photo albums. (See also Sarvas, 2006, 21–28)

My inquiry on cameraphone photos has unfolded simultaneously with these developments. In 2002, when I started the groundwork for the study at hand, my research target was called the multimedia phone. The phone had just been launched in the Finnish market as the first phone with a camera; it was priced towards the high end of the mobile phone price range (Snellman, 2006, 23); and the public had received it with a mix of scepticism, contempt, curiosity and fascination similar to that stirred up by the first mobile phones in the 1980s (Kopomaa, 2000, 29). Multimedia phones with cameras were seen as unnecessary gadgets; as new toys for the well-off consumers (Rantavuo, 2005; 2006a).

In the course of two years, multimedia phones became known as cameraphones[1] and they descended to the range of mid-priced mobile phones. Expectations had faded, not only in Finland but also internationally (Kindberg, 2004, 1), for the mobile multimedia messaging service (MMS) to repeat the surprise success of text messaging. Popular attention had turned instead to how mobile phone cameras compared with other digital cameras (Pekkala, 2004) and to the dangers of people being able to take photographs everywhere (Hintikka, 2004).

By 2006, the year when the empirical work for this study was carried out, cameraphones had become a mainstream, everyday commodity, possessed and used across age groups. In Finland, there were 1.2 million cameraphones in use, making up 23% of all teleoperator subscriptions. It was estimated that by the end of 2006, the figures would double (Snellman, 2006, 23). The scale of cameraphone sales worldwide was in the hundreds of millions (Future image, 2006; Sarvas, 2006, 25; Koskinen, 2007; 3). The cameraphone was no longer a novelty but, as this study will show, its role in domestic photography and its role as a visual communication device were yet to be established. The technology was "in search of interpretation" (Koskinen, 2007, 6; see also Woolgar, 2005, 27–28) equally by users and other stakeholders.

I began researching cameraphones and cameraphone photos in 2002 and carried out this work because I became interested in the ongoing interpretation of cameraphones. The photographs, new technologies for taking and using them, and people's interpretations of and attitudes towards them together formed an intriguing phenomenon that had not yet been studied. In the course of the research, the adoption of the cameraphone, attitudes towards cameraphones and cameraphone photography and the media environment surrounding the phone continued to change in Finland. These changes highlighted the complexity of the context in which information and communication technologies are appropriated, with social, cultural, technological and economic aspects in play, and made the phenomenon all the more interesting to study.

Based on cultural or social constructionist studies of computer,

1 In Finnish, *kamerapuhelin*. Of the versions found in international mobile phone literature, I use the economic version cameraphone (e.g. Van House & Davis 2005)

mobile telephone and internet use in everyday life (Silverstone, 1992; Bakardjieva, 2005; Lally, 2002; Peteri, 2006; Uotinen, 2005; Ling, 2004; Goggin, 2006; Scifo, 2005; Oksman, 2003, 2005, 2006), it is evident that people interpret and evaluate the devices with which they produce, distribute, view and store photographs, and not only the photographs as the end product. Media technologies such as cameraphones and digital cameras are not only technical means to an end but consumer products that are evaluated and interpreted as symbolic and aesthetic, and assessed as material and functional both before and after their purchase. (Julier, 2001, 48; Silverstone & Haddon, 1996, 44; Ling, 2004, 27–28) These evaluations, interpretations and assessments intertwine with the photographer's interest in the photographic image, and the practices and cultures in digital snapshot photography are formed at this intersection. This is the premise on which I build my discussion of cameraphone photo use in this work.

The work examines the production and distribution of cameraphone photos, focusing on the technological and cultural context of production and distribution. I examine how people use and interpret the photos and pictures they take and use with their phones and discuss processes through which the phones, photos and pictures gain their significance. The research questions through which the study is constructed are:

- How do people use cameraphone photos along with other digital photos and pictures?
- What kinds of meanings do cameraphone users assign to the photos and pictures and to the technologies with which they use them?
- What kinds of meanings do cameraphone users assign to themselves as the users of these photos and technologies?

The purpose of these research questions is to situate the use and interpretation of cameraphones and cameraphone photos as part of other media surrounding it. In particular, the purpose is to place cameraphones and photos as part of domestic photography, on one hand, and information and communication technologies use, on the other. I seek to avoid restricting cameraphones and photos to the field of mobile communication networks alone, as has been the

case in much cameraphone research, prior to empirical evidence that this field is where they gain their significance from. My first research question sets the task of finding out from the participants in this study in what different ways they use their cameraphone photos and other digital photos and pictures. My goal is not to gather data that would allow me to generalise ways of cameraphone photo use. Instead, the goal of the first research question is to bring to surface concrete instances of use, based on which it is possible to elicit discussion on the two other research questions that are concerned with processes of meaning-making.

The cameraphone provides a useful entry point to the changing landscape of domestic photography because it marks the changes clearly, perhaps more clearly than any other commonly used digital photographic device today. Firstly, the cameraphone combines photography with mobile telephony and messaging. From the point of view of this study, the combination is not significant only as a technological innovation but because it highlights the use aspect of photographs. Cameraphones embody the idea that photos are to be used for communication; not only for viewing and preservation. (See also Villi, 2008) Secondly, the cameraphone is a personal, everyday device, whereas cameras in domestic photography had to date typically been family owned, communally used items (Slater, 1991; 50; 1999, 289; Ulkuniemi, 1998; 109; Bourdieu, 1965, 39). At the same time, it is important to note that many continue to use different photographic devices in parallel. The cameras that the participants in this study used along with the cameraphone were digital pocket and manually operated cameras, digital video cameras and film still photo cameras.

The emphasis in this study is not on the camera objects, however, but on cameraphone photographs, and more precisely, the ways in which they are used. Transformations in the processes of handling, viewing and distribution of photos through digitalisation are not only technical but also social and cultural processes in the domestic sphere. With the cameraphone as the entry point, the aim of this study is to gain knowledge of changes taking place in the domestic photographic process of using cameras and photos; and of changes taking place in how people interpret new ways of using cameras and photos.

In order to tap into these changes, in my analysis I treat camera-

phone photos as digital data files, operated with various information and communication technologies that serve as the technical basis for making and circulating the photos. (Slater, 1999, 290) I discuss the visual content of the photos only to the extent to which it is relevant to understanding the circumstances, motivations and consequences of their use. It is not in the scope of this study to discuss the visual content of the photos in terms of why or how certain themes or subjects are featured and represented in them (as I observe below, cameraphone literature is to a large extent unanimous on what are the most common genres in cameraphone photography). Instead, I address the media technological circumstances in which the photos are used and interpreted. This approach exposes the analysis, firstly, to how people perceive the digitality of photographs and the domestic photography process. Secondly, it gives the analysis a focus on ways of using photos as digital files in and across different media.

My second research question: "What kinds of meanings do cameraphone users assign to the photos and pictures and to the technologies with which they use them?" opens up the potential to study cameraphone photographs as visual texts, as is common in interpretive studies of photography. This approach would have meant engaging in the vast and complex field of semiotics, exploring theories of sign systems, visual representation and the relationship of words and images, and positioning the study with regard to debates on structuralist, post-structuralist, or post-modern readings of images. (See, for example, Mitchell, 2005, 46–47, for how it seems unavoidable for any theoretical treatment on images to investigate and position itself with regard to these debates.) Studying images and their interpretation through the semiotic framework will no doubt continue to be a relevant and fruitful approach to researching new formats in photography such as cameraphone photographs. However, considering the latter part of the second research question, concerned with meaning-making around technology, it is more fruitful to follow a different path.

The reasoning behind the scope of this study has much in common with Paul Frosh's (2003) work on commercial stock photography where he studies the manufacture, distribution and consumption of stock photographs, forming an analysis of the "visual content industry" (Frosh, 2003, 3). Faced with a vast number of tex-

tual analyses and reception studies on commercial and advertising photography, Frosh identified a gap in research concerning its manufacture, in other words, "(...) the institutional and practical contexts in which advertisements are made (...)" (ibid). He steered away from the framework of semiotics and structuralism and instead set out to empirically investigate cultural industries and production processes, which, in his view, had been neglected in cultural studies. (Ibid., 3, 11) In a similar fashion, this study steers away from the textual analysis of photos in order to open up discussion on the technologies of manufacture, distribution and consumption of digital photos. In this study, individual photographs are gateways into examining the technological context of their production and distribution; into examining how the participants in this study interpreted and made meaningful to themselves new technologies related to photography and the changing process of domestic photography. In this set-up, it is not useful, or even possible, to separate meanings assigned to photos from the meanings assigned to the technologies that the photos are created and used with. This set-up is reflected in the methodology as well as in the reporting of the research, as will be evident from the following chapters.

The argument forwarded throughout this work is that the participants made cameraphone photos meaningful through their interpretation and understanding of, obviously, the cameraphone, but also through their interpretation, understanding and use of other media. Cameraphone photos were not evaluated and interpreted within the field of mobile communication only but the participants connected cameraphones and cameraphone photos also to domestic photography and information and communication technologies, at the levels of both meaning-making and concrete media use. At both of these levels, the participants perceived cameraphone photo use not as much as part of domestic photography than as part of information technologies, computers and information networks use. The participants sought to circulate their photos across devices and share them in information networks. When someone used her photos on the phone alone, it did not necessarily mean that she would not have wanted to circulate the photos but that obstacles had emerged preventing it. The work concludes that in researching as well in developing mobile and digital media, thinking in terms of individual devices or applications is not neces-

sarily the best way of understanding media use from the user's perspective. Based on the findings in this study, it is useful to think about media in terms of the content, the digital data files that people use and seek to use in ways that they desire. The findings complement research on cameraphones, and on digital media in general, in which the media have been approached, analysed, and portrayed as self-standing, individual devices without considering the media use surrounding them.

1.1. LITERATURE ON CAMERAPHONES

Research on sending digital images from mobile devices began in Finland even before multimedia phones were available (Mäkelä et al., 2000; Koskinen et al., 2001). These studies were made using test equipment and their interest was to anticipate the ways in which people would use digital photographs and other digital pictures in mobile communication (Koskinen et al., 2001, 14; Oksman, 2005, 350; Okabe & Ito, 2006a, 81). At the same time, the first Finnish academic studies were carried out on the social and cultural implications of mobile phone use (Kopomaa, 2000; Mäenpää, 2000) and on text messaging culture (Kasesniemi & Rautiainen, 2001). Once phones with cameras and the MMS feature entered the market, social scientific research began to emerge on this new technique for communication both in Finland and elsewhere in Europe.

The research questions and theoretical frameworks of the studies varied, but a common denominator was using cameraphone photos, taken by cameraphone users, as their empirical data. Consequently, along with specific theoretical contributions to their respective disciplines, the studies revealed what kinds of photos were taken with cameraphones and why. The results were similar: Cameraphone photos were captured and sent in everyday environments and at rarely visited locations; to aid the performing of tasks; to document something for oneself to show to others; to memorise or visualise a particular moment; to greet others; and to make jokes. (Battarbee & Kurvinen, 2005; Kindberg et al., 2004, 2005a; Koskinen, 2007; Kurvinen, 2007; Ling & Julsrud, 2005; Okabe & Ito, 2006; Oksman, 2005; 2006; Scifo, 2005; Van House & Davis, 2005)

As it became clear that sending pictures from cameraphones was not as common as initially had been expected (Koskinen, 2007, 5)

but people still bought cameraphones, it became relevant to ask what else they did with the photos (Kindberg et al., 2004, 1; Kindberg et el., 2005b, 42; Okabe & Ito, 2006, 90). Studies began to emerge that expanded their focus beyond mobile multimedia messaging. Daisuke Okabe and Mizuko Ito (2006, 85–86), for example, criticised literature on mobile multimedia messaging for lack of consideration for "the specifics of local social and cultural structures", which they proposed should be studied through what they called a naturalistic approach seeking to understand "native contexts of meanings and frames for action." However, while they mentioned that practices of use seemed to be based on existing mobile phone use and conventions in home photography (ibid., 99), how exactly users associated or operated these two together was not discussed.

To date, there are few studies that approach cameraphones through the context of media use and media culture that surround cameraphone use. Virpi Oksman, with her co-authors, has written about the cultural attitudes towards cameraphones and the "lifestyle profile" of MMS users (Oksman, 2005, 349, 353–354) and the meanings and use contexts of mobile media in Finnish teenagers' use (Oksman & Rautiainen, 2003). She has also touched upon how cameraphones and picture messaging are related to the emerging digital visual culture (Oksman, 2006). Recently, Ito (2006) has opened up the landscape where cameraphones are situated through her analyses on portable media at large in Japan. Due to their article length, these studies are limited in the extent to which they are able to study the contexts in which cameraphones are used and made sense of. More importantly, they continue to focus on the cameraphone device, whereas this study shifts focus from phone use to photograph use. The qualitative research agenda of this study emphasises the participants' photos, notes and interview accounts as the basis on which interpretations and conclusions of cameraphone photo use are formulated. In this sense, this research bears some similarity with ethnographic contributions on cameraphone use (Höflich & Hartmann, 2006) and aims to contribute to the existing body of work where the contexts of cameraphone use are highlighted.

In the field of visual culture studies and in research on domestic photography, digitality as a technological change and using photos in mobile or digital media are only emerging as a research topic.

(E.g. Mäyrä, 2007; Sturken & Cartwright, 2001, 160; Villi, 2008) Overall, the contexts of production, distribution and viewing have received less attention in research on domestic photography than its visual aspects. (Slater, 1999, 301–105) Snapshot photography with film cameras has mostly been studied as a phenomenon in visual culture and communication (Chalfen, 1987; Spence & Holland, 1991; Ulkuniemi, 1998) with a focus on the symbolic and the textual in the photographs. As digitalisation has brought snapshot photography into close connection with computers, mobile phones and information networks, there is increasing need to discuss the means of production and distribution of photographs. New technologies bring with them not only technical but also cultural change, as noted at the beginning of this chapter.

1.2. THEORETICAL APPROACH: CAMERAPHONE PHOTOS AS TECHNOLOGICAL AND CULTURAL

The two main sources for the theoretical framework of this study are the circuit of culture model (Hall, 1997, 1–4; Du Gay, 1997, 3–5) and the domestication studies approach (Silverstone et al., 1992; Silverstone & Haddon, 1996; Silverstone, 2005, 1–17; Haddon, 2003). Both sources are concerned with the question of how people make sense of, interpret and use media technologies, and they rely on similar premises and epistemology. The larger frame of reference of these areas of inquiry can be summarised as the cultural study of technology (Uotinen, 2005, 36–39) or, in more precise terms, the social constructionist study of technology (Bakardjieva, 2005, 9–25). Within cultural and social constructionist theorizing on technology, several different strands and a wealth of debate exists on how to adequately address the different components of what is called technology (raw materials, technical tools, engineers, designers, policymakers, users, and so on) and their relations. (MacKenzie & Wajcman, 1999, 21–24)

Johanna Uotinen (2005, 36–39) and Maria Bakardjieva (2005, 9–25) provide educating summaries of these debates from the perspective of studying information and communication technologies in people's everyday lives. As Bakardjieva puts it, summarizing social constructionist research, the theories have "demonstrated convincingly that new technological systems emerge through a

process of negotiation and struggle over meanings and material shapes involving a myriad of social actors" (Bakardjieva, 2005, 10). Uotinen specifies that when technology is perceived as a part of cultural and social processes, users are not seen as passive receivers but as particular persons who assign particular meanings to technologies (Uotinen, 2005, 38). It is not in the scope of this study to engage in the debates that concern different strands of social constructionist theorizing and their relationship to other paradigms of science and technology studies. It is sufficient to note that the insights of social constructionist theory form the backdrop to how I approach cameraphones and other digital photographic technologies in this study. However, the extensive use in current media research of the terms "culture" and "cultural", and the proliferation of the "cultural study" approach makes it necessary to explicate what these terms and approaches signify in the context of this work.

This study relies on the cultural studies theory that our life is imbued with interpreting and producing different types of signs. We constantly assign meaning, signification, to everything that we do. We seek explanation to why we do things and why things happen or appear in a certain way. According to cultural studies theory, which has its foundations in structural linguistic theory by Ferdinand de Saussure, things in themselves do not carry meaning. It is how people interpret things, make sense of them, and incorporate them into their everyday practices that gives things meaning and significance. However, meanings do not emerge from nothing, but they are produced in a framework of meanings that have been earlier assigned to other things. Also, meanings are created and meanings constantly change when networks of people exchange meanings that they have given to things. This exchange requires representing things and their meanings with words, stories, images, emotions, classifications, concepts, or values. (Hall, 1997, 2–3; Lehtonen, 2004) The cultural studies theorist Stuart Hall places representation and thus "the symbolic domain at the very heart of social life" (ibid.) According to this view, cultural meanings organise and regulate social practices, influence conduct, and have practical effects. (Ibid; Lehtonen, 2004) If culture is understood as continuous meaning-making in our everyday life, we can say that culture not only reflects other structures, such as those of economy, but that culture is "(...) as constitutive of the social world as economic or

political processes" (Du Gay et al., 1997, 2; Goggin, 2006, 6).

This theoretical view of culture is reflected in the theoretical framework as well as epistemology and methodology of this study. My premise is that digital photographs, as well as the cameras with which they were produced, the hardware and software applications with which they are used, and the storage media with which they are preserved can all be regarded as technical artefacts that become meaningful to their users through cultural interpretation and exchange. The meanings that people give to the technical artefacts, which in this study include the photographs, can consequently be studied through how the artefacts are represented. In this work, the representations that I study are interview accounts. As explained above, this study does not examine the visual representations within cameraphone photos. Instead, the visual content of the photographs is a methodological device for eliciting the linguistic representations i.e. the interview accounts from the participants. By examining how the participants represent their cameraphone photo use in their accounts, I come to the conclusion that cameraphone photos and their use became meaningful to the participants through how they interpreted the means of production and distribution of the photos, and through comparisons with and connections to other forms of photography and communication.

The social constructionist and cultural approach in studying technology has steadily gained ground from the 1980s onwards. Today, looking at social scientific studies of consumer technologies, it may seem there is little opposition towards the notion that technology becomes meaningful and useful through unlinear and complex social and cultural processes, instead of causal sequences of events whereby the world becomes more technologically "advanced" or "developed." However, views that imply technological determination are not marginal in the field of information and communication technologies, the frame of reference of this study. Recent examples can be found in academic discussions on media convergence, weighing the impacts of digital technology on media use and the "activity" or "passivity" of people (Heller, 2008, 30). Extensive projects in Finland, as at a European level, with their aim to build information societies (see, for example, Castells and Himanen, 2001) were motivated by technologically determinist political rhetoric (Tuuva-Hongisto 2007, 57–60; Uotinen, 2005, 37;

Maier-Rable, 2008, 50). Following the proliferation of popular internet use, also in the 1990s, prefixes "virtual" and "cyber" were used in both academic and popular discourse in a way that suggested, in determinist tones, that internet technology was having an impact on people's perception of self and identity. (Miller & Slater, 2000, 4–6; Silverstone, 2005, 6; Goggin, 2006, 13)

In academic literature, social constructionist views have been extensively debated following the emergence of actor-network theory, which attracted widespread interest. Bruno Latour especially has called in question interpretive approaches that, in his view, claim that "*human* desires, *human* meanings, *human* intentions, etc. introduce some 'interpretive flexibility' into a world of inflexible objects, of pure causal relations" (Latour, 2004, 65, italics in the original). Latour is opposed to this line of thinking because it asserts a division into objects, technology, and subjects, its users or interpreters (ibid., 1999b, 146–147), rendering objects "hapless bearers of symbolic projection" (ibid., 2005, 10–11). In his view, it is not fruitful to try to explain technology – its manufacture, use, or interpretation – with the help of social theory. In the actor-network theory way of thinking, technology constructs the social as much as the other way round. These should not be examined as separate fields but as one, focusing as much on examining technical elements as social ones. Instead of subjects and objects, separate and unequal in agency, Latour calls for examining human and non-human elements together as symmetrical and equal actors in constituting what is social or what is technology. The aim is to examine and describe as richly as possible the associations and assemblages that these actors form in association with each other (ibid., 10–12). This aim draws from ethnomethodology:

> "actors know what they do and we have to learn from them not only what they do, but how and why they do it. It is *us*, the social scientists, who lack knowledge of what they do, and not *they* who are missing the explanation of why they are unwittingly manipulated by forces exterior to themselves and known to the social scientist's powerful gaze and methods." (Latour, 1999a, 19, italics in the original.)

The proposition by actor-network theory is relevant for information and communication technology research that unavoidably deals

with complex encounters between human and non-human elements. Photo files and their use could be investigated following their trajectories, detecting networks that they become part of, and thereby identifying new constellations in domestic photography. However, in the context of this study, challenges arise at the methodological and epistemological levels. As my research questions indicate, the primary source of information in this study are people who use their phones and photos; in actor-network theory terminology, human actors. The method that I have chosen to answer the research questions, with people as my informants, is qualitative interview research. The fundamental source for my interpretations and hypotheses presented in the course of this study are the interviewees' accounts on their phones and photos (I discuss methodology in detail in Chapter 2). In actor-network terminology, this means that, with the loss of non-human actors, symmetry is lost for the benefit of human actors, and that knowledge is formed through the subject-object framework. In conclusion, working through the actor-network theory approach in this study would have required different types of research questions, allowing for a different methodology from what is adopted here.

1.2.1. Cameraphone photos in the circuit of culture

The circuit of culture model (Hall, 1997, 1; Du Gay et al., 1997, 3; Goggin, 2006, 6–7; Churchill & Wakeford, 2002, 157–161) emphasises meaning-making related to objects as a continuous process. Rather than privileging one particular viewpoint in explaining how an object comes to possess meaning, Paul Du Gay et al (1997, 3) argue, "it is in a combination of processes (...) that the beginnings of an explanation can be found." They identify the five most important processes in the forming of meaning for an object to be its production, consumption, regulation, representation and the identity work that takes place related to it. The processes are manifested as social practices that take place around objects. In social practices, the material, physical and commodity characteristics of objects form into representations, and certain cultural ideas are associated with these representations. (Du Gay et al., 1997, 10; Hall, 1997; Churchill & Wakeford, 2002; Goggin, 2006) Referring to the circuit of culture model, it can be said that among the participants

in this study, cameraphones and cameraphone photos acquired meaning not only as the result of their production in manufacture and their representation in marketing campaigns. They also gained their significance through how the phones and photos were used and represented to peers, and through the regulations that cameraphone users created for themselves and others, concerning cameraphone or cameraphone photo use.

The most frequently quoted work in which the model is put into practice is the study by Du Gay et al. (1997) on the Sony Walkman. The research proceeds by analysing examples of Walkman advertising as data for the representation and identity of a product. The production of the Walkman is investigated through the history and operations of the Sony Corporation and the Walkman product development and design process within the company. The consumption of the Walkman is analysed through statistical data on Walkman ownership and theories of consumption. Finally, to understand how the Walkman is socially regulated, samples of popular commentary are interpreted. The media researcher Gerard Goggin (2006) applies the model with little modifications in his analysis of what he calls cell phone culture, taking as his task to address the five processes of which the circuit of culture is proposed to consist. He addresses the production of the mobile phone through the histories of the manufacturing corporation Nokia and the telecommunications services operator Vodafone. Consumer identities are studied through the marketing exercised by these corporations. Goggin interprets literature on a particular service product, the text message, to discuss the consumption of mobile phones, and samples of public commentary to analyse the representation and regulation of mobile phones.

The study at hand is different from those by Du Gay et al. and Goggin mostly because, instead of public commentary, the work is based on empirical field data generated with participant cameraphone users. I form interpretations of cameraphone photo use starting from the users' accounts. The circuit of culture model implies that the five processes within the circuit, production, consumption, regulation, representation and identity, are a priori equally important areas to investigate, given any research agenda (Du Gay et al., 1997, 3; Goggin, 2006, 7). However, juxtaposing the five parts of the circuit of culture model with my empirical data re-

sults in different processes within the circuit gaining varying weights in significance. In the analysis, most weight is placed on the representation of cameraphone photo use and on how the participants used (consumed) the photos and the technical devices related to them. Regarding production, this study looks more into the production of cameraphone photos than to that of cameraphones. Accordingly, ways in which people regulated their use of cameraphone photos is considered more than regulating the use of cameraphones.

The benefit of the circuit of culture approach is that it stresses the need to study several points of meaning construction in order to understand the cultural and social significance of a technological object. However, at the same time, each of the five processes demarcated in the circuit are vast in scope. The extent of the analytic concepts of the model is manifest especially in the case of "identity". To discuss how the participants in this study constructed roles for themselves as users of cameraphones and cameraphone photos I prefer to speak of cameraphones and photos as associated with "certain kinds of people" or with a certain "social profile" (Du Gay et al., 1997, 10) instead of identity. Identity is a widely used and debated concept (Slater, 1997, 85; Miller & Slater, 2000, 10–11; Du Gay et al., 1997, 4) but in the circuit of culture model it is used without further explanation to discuss objects, companies and heterogeneous groups of people. The term identity is applied in discussing the Walkman (Du Gay et al., 1997, 10, 16) and the mobile phone (Goggin, 2006, 40–41), the identity of the corporations that manufacture these products (Du Gay et al., 1997, 4, 43; Goggin, 2006, 41) as well as the identities of the users of the respective products. In order to bring clarity to the use of the term identity and to employ it properly, analysis would require engaging in debates about the term identity, which is outside the scope of this study.

1.2.2. Cameraphone photos and domestication studies

The theory of domestication, developed chiefly by the media scholar Roger Silverstone (Silverstone et al., 1992; Silverstone & Haddon, 1996; Silverstone, 2005, 1–17; Haddon, 2003) roots my analysis further in the perspective of individual cameraphone users. The theory proposes that people "domesticate" technological objects in a

process that involves learning about the objects and planning their purchase, purchasing them and making them part of their everyday. Domestication studies highlight the characteristics of technological objects as consumer products that are assessed, before and after their purchase, as much on their symbolic and aesthetic aspects as their material and functional ones (Julier, 2001, 48; Silverstone & Haddon, 1996, 44; Ling, 2004, 27–28).

The circuit of culture model and domestication studies overlap in many ways. The domestication of objects is suggested to take place in four main stages. Contemplating and acquiring ownership is discussed under the concept appropriation. Fitting objects into the spatial order of the household is termed objectification, and incorporation refers to how objects fall into the temporal structure of the household. Finally, the way in which the owner and user of objects positions herself to peers and society through the ownership and use is discussed as conversion. (Silverstone et al., 1992, 20–26) These stages match with the process that the circuit of culture divides into terms production, consumption, regulation, representation and identity. From the point of view of this study, it is relevant that more than the circuit of culture model, which examines social practices around products as cultural and society-wide phenomena, the domestication approach focuses attention more closely on the user perspective. Its primary context and source for knowledge about interpretations of information and communication technologies is the household and the everyday (Haddon, 2003, 44–45; Bakardjieva, 2005, 24–25; Tuuva, 2003, 93). Through the circuit of culture model, it is possible to grasp, at a high level, the entire culture that has formed around a product along its lifecycle, from its early design phase through practices of using it to nostalgic representations of it when it is no longer in the market. The domestication approach shifts the perspective from a particular product to particular persons using it in their everyday. With this shift, it becomes necessary to study the context of its use, making it relevant to study not only public representations of the product, such as manufacturer or newspaper publications, but also other people, media, technologies, physical objects, and so forth that seem relevant from the user's perspective.

Sari Tuuva (2003, 93) remarks that early British domestication studies (Silverstone et al., 1992; Silverstone & Haddon, 1996; Had-

don, 2003) mostly understood the domestic as the household (see also Hartmann, 2006, 277), whereas Scandinavian studies of domestication (Lie & Sørensen, 1996) understood it more extensively as the sphere of everyday life that also encompasses workplaces, schools, shops, public transport, and so forth. (Peteri, 2006, 57) In a later formulation, Silverstone (2005) aligns with the latter approach. Through the focus on the everyday, the approach delineates a more specific agenda to studying representations, interpretations and practices around objects in the everyday context than the circuit of culture model does. While the original formulation of the domestication theory (Silverstone & Hirsch, 1992, 1–11; Silverstone et al., 1992, 15–27) does not set a particular empirical agenda, a later formulation in the context of information society research notes a preference for qualitative methodologies:

> "If everyday life in the information society is constituted through the actions and meanings that individuals and groups produce in their interaction both with each other and with the technologies that, at least in principle, enable that interaction, then an understanding of that process requires the researcher's focused attention on meaning and significance. (...) [P]rivileges those methodologies which seek to get beneath the surface of everyday life and practice, to explore the dynamics, the ambiguities and the contradictions as well as the certainties, of the relationships we create and sustain with our information and communication technologies, both old and new" (Silverstone, 2005, 4–6).

The preference for these methodologies are reflected in the many domestication studies on media, information and communication technologies and design objects that have employed interviews, observations, ethnography, photographic materials and the analysis of publicised materials such as advertisements or magazine articles. (See Silverstone & Hirsch, 1996; Silverstone, 2005; Lie & Sørensen, 1996; Bakardjieva, 2005; Ling, 2004; Lally, 2002; Peteri, 2006; Grönman, 2006)

1.2.3. The circulation of cameraphone photos and media convergence

The sophisticated discussion of the appropriation, use, and interpretation of information technological devices that the domestication approach provides does not fully capture how photos are connected with and circulated across different media applications. Bakardjieva notes this lack in the domestication approach by pointing out that new communication technologies increasingly enter the home as tools for producing. The domestication approach "ties the analysis to a dualism which renders consumption as the opposite of production", regardless of the fact that the consumption delineated in the approach "is indeed active and creative (...)" (Bakardjieva, 2005, 24). The circuit of culture and the domestication studies approaches inform the analysis of picture file circulation as far as using technical tools is concerned. The approaches are not as informative in investigating the motives for circulating the pictures across media platforms, or for discussing the dynamics involved in integrating cameraphone photos into different communication channels. In these areas, I turn to discussions on media convergence.

Media convergence theorizing is most often written from the perspective of global media and communications systems, discussing the concentration of ownership, possibilities for regulation, and what changes media convergence seems to have for entire media forms. (Jenkins, 2006, 3; Hardy, 2008; Murdock, 2000; Bolter & Grusin, 1999) In these theories, if media audiences and users are discussed, they are mostly positioned as consumers of services distributed by media companies. The benefit of convergence for media audiences and users is perceived as the possibility to consume media content in desired time and order. Murdock (2000, 36–37) notes the possibility for users to "move through the materials on offer in a range of ways." Heller (2008, 31) observes that digitalisation brings about "easy accessibility of all kinds of communication contents and cultural products (...) with quickly decreasing technological constraints (...)"

To date, there are few contributions that examine the productive use of media technologies by consumers, regarding media convergence from the perspective of media audiences or users. The aca-

demic contributions that I refer to in this area come from fan studies (Jenkins, 2006) and cultural anthropology (Ito, 2006). These contributions show how users connect media together and how they participate in creating media forms and content within larger media systems. The participation is analysed under the terms convergence culture (Jenkins, 2006) and media mixing (Ito, 2006). The focus is still on commercially produced and distributed media content. However, the users' work in producing their own materials, to complement or comment on the commercial content, and circulating these materials within their communicative and social networks is acknowledged and made visible.

1.2.4. Cameraphone photos and domestic photography studies

The final part of my analytic framework concerns the photograph itself. Above, I proposed that in cameraphone photo use, the evaluations, interpretations and assesments of the technological components intertwine with the photographer's interest in the photographic image. A core element in the cultural and social constructionist study of technology is to acknowledge that new technologies are adopted and used through familiar patterns of use related to existing technologies, instead of revolutionary ruptures (Lie & Sørensen, 1996, 6–8). In agreement with this view and also facing the absence of cultural analyses of digital photography, in order to understand why cameraphone users use their photos in the way that they do, I draw from analyses of domestic photography in the film era.

The body of literature on domestic photography is rich in approaches and accounts due to its heterogeneity in disciplinary approaches. The contributions that are especially relevant to this study are, first, analyses of norms that appear among snapshot photographers: why certain subjects or styles of photography and certain ways of using photographs are seen as more acceptable than others. (Chalfen, 1987; Bourdieu, 1965, 1999; Saraste, 2004; Ulkuniemi, 1998). Discussions of these norms are useful in understanding the meanings and significance associated by the users to the cameraphone as a photographic device. The second, equally relevant area of analysis concerns the consumption and marketing related to snapshot photography (Slater, 1991; 1999). This area high-

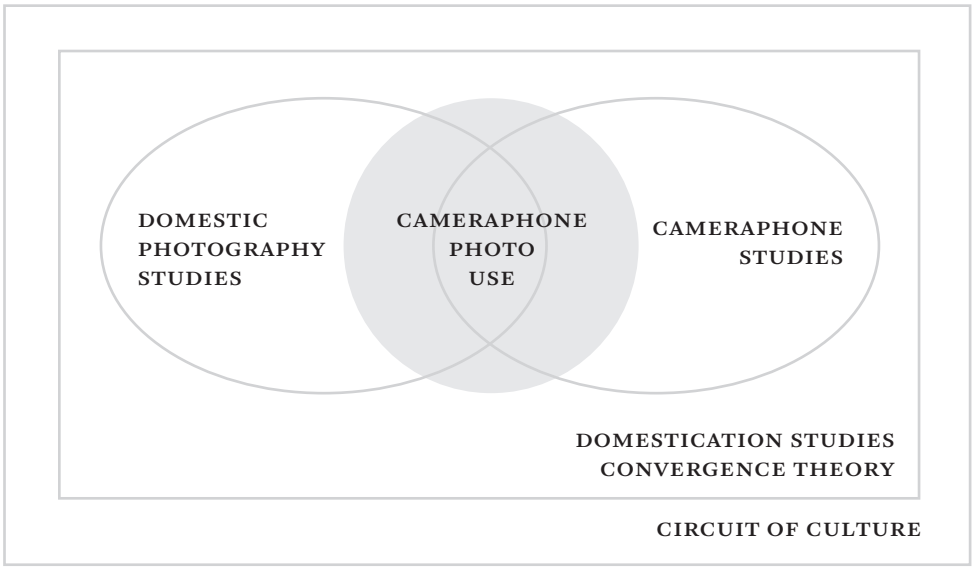

Figure 1. Cameraphone photos as technological and cultural. The rectangular areas represent theories or models for studying phenomena in the fields represented in oval. The coloured area represents the research topic of this study.

lights the technical and the commodity aspect of snapshot cameras and materials or equipment related to it, aligning it with the domestication and circuit of culture approaches.

1.2.5. Overview of the theoretical framework

The circuit of culture model and the theory of domestication both fall under the larger framework of cultural or social constructionist study of technology. The approaches acknowledge and actively seek to understand the role of the technical device in the creation, viewing, reading, or consumption of symbolic content. Thus they allow me to grasp the context of production and distribution of cameraphone photos analytically in a way that corresponds to my research questions. The openness of the two approaches matches the research agenda of this study that is explorative and does not set out to test a theory or model. As Richard Ling (2004, 33) observes, domestication is better characterised as "a method or an approach to research" rather than a theory that provides provable hypotheses on what intepretations people form of media technologies. In a similar fashion, the five components of the circuit of culture model, discussed below, provide an analytic tool or a "heuristic guideline" (Churchill & Wakeford, 2002, 159–160) for studying empirical data.

The circuit of culture model and domestication theory have mostly been applied to study the adoption, interpretation and use of commercially produced technology products. This study applies the approaches to the analysis of digital photographs that people take themselves. Through this discussion, the study aims to expand understanding of what different types of media technological phenomena can be studied through the approaches. (Figure 1) The study also aims to produce new knowledge to the field of domestic photography research and research on cameraphone use. The study reveals what new forms of domestic photography emerge through cameraphone use, what conventions of domestic photography are sustained, and how the two are interpreted and understood in conjunction with each other, with home computers and information networks also in the picture.

1.3. THE STRUCTURE OF THE REPORT

A separate chapter on methodology follows this introductory chapter. It discusses stages through which the methods for this study developed; the different types of data used; and the benefits and limitations of the methods and data.

Chapter Three begins the analysis by investigating how the participants made comparisons and evaluations concerning the phones and photos by placing them in the field of digital photography. On one hand, drawing a boundary between their use and what was perceived as "real" photography often played down cameraphones and cameraphone photos. On the other hand, phones and cameras were used in equally varied circumstances. Cameraphones were represented in a positive manner when they were interpreted as playful devices. I explore how conventions of domestic photography as well as cameraphone marketing worked behind these representations. In this chapter especially, it becomes manifest how the circuit of culture processes of production, consumption, regulation, representation and relating to certain user and consumer groups can be detected, but as perfectly intertwined in users' assessments and use of technological products. The domestication stages of incorporation, objectification and conversion are relevant in this chapter.

Chapter Four turns the attention to how the participants incor-

porated their cameraphone photos into their communicative practices where the photos converged into social currency (Silverstone et al., 1992, 26). In the process, as photo files were shared, different media channels converged. The chapter examines how photos were integrated into mobile and internet communication; where the photos merged with other visual material; and what kind of communication and exchange emerged around the photos. The circulation of cameraphone photos in and across media, discussed as convergence and media mixing (Ito, 2006), also revealed social boundaries and regulation of use. Different communication channels were used to reach different social networks and on the phone the photos were used to mark boundaries between public and private. The taking and keeping of joking photos was also regulated because of the possibility of circulating them in communication networks. Referring to discussion on media convergence, this chapter highlights why it is problematic to separate the processes of production and consumption in the analysis of user-generated content.

Chapter Five is based on the observation that almost half of the participants did not or could not use their photos in mobile messaging, use them on internet communication channels, or store them on computers. In other words, it was not possible for all users to incorporate cameraphone photos into their photographic or communicative practices. Studied through the practical level of plugging in cables and installing software, circulating cameraphone photos across media emerged as biased towards certain kinds of users. They represented themselves as confident either with their technical skills or with turning to the social network at their disposal to be able to use the photos in the ways in which they wanted to. This chapter focuses on the research question: "What kinds of meanings do cameraphone users assign to themselves as the users of these photos and technologies?" The chapter examines the participants' representations of user roles and how they positioned themselves with regard to the groups. The chapter investigates appropriation, incorporation and objectification of products related to cameraphones and suggests that cameraphone photo user roles were constructed through relationships to computer use rather than to digital photography.

In the conclusions, I return to the findings in the chapters and

the methodology to summarise how the participants used cameraphone photos and made their use meaningful with respect to domestic photography and information technologies. I discuss how my theoretical framework supported studying cameraphone photo use, forming the argument, and reaching the conclusions. Finally, I discuss what contributions and questions my conclusions may have for research on domestic photography and digital media use.

1.4. TERMINOLOGY

With regard to today's mobile phones as multimedia machines that not only serve as cameras but also as music and video players, internet browsers, navigators and much more, it may seem simplistic and outdated to speak of cameraphones. Nevertheless, I use the term cameraphone for several reasons. The most important reason is that it was the term that the participants in this study used. In Finland in 2002, the first phones with cameras were marketed with the term multimedia phone because they could be used for sending what were called multimedia messages that included text, sound and a picture or video. Finnish consumers did not adopt the term multimedia phone, however, and the phones were called cameraphones (in Finnish, *kamerapuhelin*). Still in 2006, when I gathered the data for this study, the term was in common use. It was not as usual then, as it is now for a phone to have a camera, and the phones with cameras were not among the cheapest ones (see section 3.2), which made the camera a feature that distinguished it from other phones. Another reason is more practical: instead of speaking of the use of photographs taken with a mobile phone, it seems more economical to speak about cameraphone photo use, even with the risk of overly emphasizing the camera in a device that is obviously meant for many other things, too.

Throughout the study, I use the term picture messaging instead of multimedia messaging or the acronym MMS. There are several reasons for this. Most importantly, the term picture message can be used to discuss cameraphone photos sent and circulated in any media; the term picture message is more representative of the messages featured in the data than the term multimedia message; and it is the term that the participants most frequently used (in Finnish, *kuvaviesti*). Another specification to be made is that I use the terms

"media" and "communication channels" almost as synonyms when I refer to circulating photos. The difference is in nuance. I will not elaborate further on this choice but wish to point out that I understand both mobile and internet communication channels as "media." When it comes to the term internet, I refer not only to the world wide web but also to other applications that it supports such as e-mail.

I use the term circulation to refer to the transfer of picture files across devices through information systems and networks. In other words, the term refers to a technical process, instead of a visual cultural process, in which textual elements and symbolic meanings of pictures become circulated across visual media.

Discussion of terminology is a reminder that this work provides a snapshot into one particular stage of cameraphones and cameraphone photos, if examined as a technical and commercial constellation. However, the main purpose here is to examine the meaning-making processes through which cameraphone photos find their place in the users' photographic and communicative practices. The findings on these processes may continue to be detected in the case of other constellations and other technical products at other locations and other historical moments.

2. Data and methods

Two early decisions formed the methodological basis of my study. First, to study the snapshot photographer's point of view on using cameraphones and circulating digital snapshots in digital media. Second, to consider the snapshots as part of the digital technology with which they were created and circulated, not as visual representations. For this task, I drew my methodical tools from the field of qualitative empirical research. The field hosts a range of research techniques and epistemological approaches to the target of research. However, as Jennifer Mason (2002, 3) puts it, one of the shared characteristics is their interpretive approach (Geertz, 1973, 3–30; Stake, 1995, 40–43). Qualitative studies are "concerned with how the social world is interpreted, understood, experienced, produced or constituted" (Mason, 2002, 3).

In qualitative inquiry, the respondents are encouraged to express, in their own words, their views on and definitions of the researched phenomenon. At the time of data collection, cameraphones had been available in Finland for five years and were only becoming common among different consumer and age groups. Apart from technical jargon, there were few concepts or terminology in popular use for cameraphone use or cameraphone snapshot circulation. With qualitative methods, I set the stage for the cameraphone users' own terminology and vocabulary to be the starting point for describing and interpreting the phenomenon. The challenge in anchoring interpretation to interviewees' accounts is that they often contradict themselves during interviews. The interviewee may, for example, at some stage recount her own thoughts and opinions, whereas at another stage she may repeat views that she

finds commonly accepted. In qualitative research, this highlights the need for reading the interview account interpretively as an entity, examining the relationship of different statements to each other, inferring their significance and connection to each other. Read this way, contradictory statements become material for understanding the diversity of interpretations concerning cultural phenomena.

To glean data on cameraphone users' activities and meaning-making processes, I used multiple methods to generate data both from the linguistic and the visual domains of the research topic. I employed the particular combination of methods based on the results of my earlier studies on digital snapshot photography and cameraphone use. In analysis and interpretation, I took up the case study method (Mason, 2002; 165–168; Stake, 1995, 71–104), which I had not employed before, complementing it with cross-sectional analysis (Mason, 150–151).

2.1. PREVIOUS LESSONS WITH SNAPSHOT PHOTOGRAPHERS

The data collection methods that I used in this study evolved over four studies. My first empirical study on cameraphone use was a case study on a project called "Moby Click" (Rantavuo 2005; 2006b) in 2002. In the project, nine Finnish art and design students were invited to test a mobile multimedia phone and prepare an exhibition for the modern art museum Kiasma as a result of this trial. Except for one work, however, the exhibition consisted of print photographic works. The case study findings showed that the students' background as art students motivated them to adopt the phone as a camera in the context of creating works to be exhibited at an art museum. In their private sphere, on the other hand, they enjoyed the opportunity of sending photos with the phone. The discrepancy suggested that it was important to be able to detect and study different contexts where the phones were used and interpreted.

Next, in 2004, I carried out fieldwork with ten Finnish digital pocket camera users. In this study, I examined how people used their photographs in general terms: their practices with snapshots from the point of taking them to storing them, mapping the tools and tasks involved in it. Inspired by the cultural probes and design

probes methods (Mattelmäki, 2006), I gave the participants disposable cameras, photography assignments and small notebooks to document their thoughts on digital photography during one week. At the interview, we viewed the photos for the assignments as well as digital photos taken by the participant. We discussed the photos, and through them, the interview themes that related to operating with digital photographs.

Experimenting with the photo assignments was important for developing the method of using photographs in this study – to elicit diary notes and interview accounts through the participant's photos. Based on experiences from the fieldwork, I decided to place more emphasis on photos taken on the participants' own initiative (instead of giving assignments) and the autodocumentary method in my later studies. While the photos taken for the assignments characterised the context of digital snapshot photography in an interesting way, pointing attention to furniture arrangements, computer hardware, and family members, for example, they did not reveal anything more than what was possible to cover with interview questions. At the same time, the participants made references to their own photos, which they were eager to show, and we discussed their use. Apart from the obvious point that the participants' own photographs were valuable empirical material, discussions on them were the most interesting, and I wanted to give them more time in the future.

I tested the new emphasis later during the same year in Japan where I studied local cameraphone use. This was also a step towards multiple methods as described by Oksman (2006, 106) and Hartmann (2006, 276) in the context of mobile media research. I worked with twelve cameraphone and digital camera users (Rantavuo, 2006a). I asked them to forward to me all of the digital pictures that they took, or when possible, that they interacted with in some way, during the two-week research period. At the subsequent interviews, we viewed these other photos that the participant had on their phones or computers. We discussed the context of production and circulation of the photos as well as the participant's general experiences in cameraphone use. Regarding data generation, I learned two things. First, that a questionnaire for background information worked well to save time in the interview, but that it should be changed from a multiple-choice to an open answer for-

mat for the sake of qualitative methodological consistency. The other, more significant lesson was that the participants were more elaborate on taking photos than using them. This was a problem because the goal of my study was precisely to learn about the variety of interactions with digital snapshots used with phones, cameras and computers.

As a result, I decided to re-introduce the written autodocumentary method to this study, with an assignment to make brief notes on the events and interactions that took place with any digital photographs or cameras during the study period. I also changed the questionnaire sheet format into an open answer one; decided to collect photos before, not in the interview; and refined the interview structure to allow as much time as possible for the participant's photos and notes. In 2005, I tested the interview structure with five new media design students. The fieldwork for my doctoral study started in January 2006 with the recruitment of participants.

2.2. THE PARTICIPANTS

In total sixteen cameraphone users participated in the study (appendix 1) in spring 2006. In methodical terms, I employed theoretical or purposeful sampling, aiming for a range of different contexts of cameraphone use to appear in the data (Mason, 2002, 124, 134–139; Koskinen, 2003, 61; Silverman 2001, 250–253). I gathered the participants based on my judgement that they were relevant informants regarding my research questions as cameraphone users who were of different ages, had different places of residence, and came from professional fields (Mason, 2002, 124).

The participants had different levels of experience and interest in ICT and cameraphone use. None of the participants had formal education in digital photography or mobile communication technology. The new media students Jani and Sami, and the information networks professionals Aaro and Tapio were skilled but not experts in these fields. Raimo had never used a computer and had no interest in taking it up. The other participants were accustomed to using computers through their work or studies and possessed computer skills that varied from intermediate to professional. The participants used their phones for photographic practices at different levels of frequency during the study. Those who turned out to be less

active and uninterested cameraphone users were nonetheless conscious and reflective of their choices, and as such explained to me about cameraphones as much as the more active participants did.

Niina and Harri as well as Sami and Eeva were couples, which meant that their practices with cameraphones and cameraphone photos could in part be discussed from two perspectives, whereas the other twelve participants were the only persons recounting their phone and photo use. The participants used their own mobile phones and, as is customary in Finnish social scientific research, participation was voluntary with no reimbursement involved. The names of the participants as well as those of the people and locations that they mention have been changed.

2.3. MULTIPLE DATA COLLECTION METHODS

Figure 2: Data collection methods

After initial contact, I met each participant personally and handed over the materials for the participant to use (appendix 2). I inquired which cameras the person actively used, and after the meeting, I sent out a background information questionnaire with a section for each of them (appendix 3). I used open-ended questions in the questionnaire in order to allow for and invite the participants' own definitions and conceptualisations on the topic. Apart from information on their current snapshot photographic practices, I gained information on the participants' backgrounds as snapshot photographers and preferences in the field. This helped me interpret the other sections of data.

The participants made notes on their activities with snapshots in a period of two to three weeks. A period this long made it possible to include a range of events that were still possible to cover in one interview meeting, and to analyse given the resources of this study. I prepared for the interviews based on the notes, picking out instances that I wanted to know more about, and noting down which events could be passed more quickly. The notes were mostly brief and minimal, with few contextual details or reflections. While they were not rich in information, they were valuable as tools. As an ob-

ject, which could be attached to one's phone, the notebook reminded the participant of being involved in the study and of making notes. The notes also served as indispensable memory aids for the participant while browsing the photos at the interview.

The duration and the timing of the autodocumentary period were discussed with the participants at the beginning of the interviews. How had a fortnight reflected their usual practices? How much had the time of year affected the practices that appeared during the study? Most participants were of the opinion that had the period been longer and the season different, their actions would have included more common activities. However, these opinions emerged regardless of the month or duration of the study. One participants, Sami, was surprised by how many notes he had made. First, it is possible that the participants' documented practices were different from the impression that they had of themselves, which would have made them critical about a study period of any duration at any time. Second, the participants focused their attention on taking photos.

However, even if the participant had not taken any photos, there were other instances of interacting with photos to discuss: viewing, showing, transmitting and storing them. Most importantly, my aim was not to gather a representative sample of each participant's typical practices but as I have pointed out above, a sample that would bring out a variety of cases for discussion. I advised the participants to note down any activity that involved any kind of camera or digital photograph, so that I would not restrict the participants' conception of what using digital photographs entailed or imply what it was that I was "looking for". As a result, the data includes reports on photos taken by the participant, photos taken by other persons, or photos or pictures that the participant downloaded from the internet. Equally, it includes reports on all of the cameras that the participants actively used, not only cameraphones.

I collected pictures from the participants at the interview where I could hear the contextual information on them. (The exception was Aaro who found it most convenient to send me both his notes and photos by e-mail during the autodocumentary period.) Some participants gave me copies of all their photos from the research period, with others, we agreed at the interview which photos would be sent to me. Would the photos from the research period exist had

it not been for this study? This was one of the first questions of the interview and the participants were very clear on it. They pointed out photos that they knew or suspected they had taken for the sake of the research, or explained how they had resisted the feeling of being obligated to take photos because of the study. Not all of the photos coincided with the research period. When photos were discussed that fell outside of it, they became part of the data.

Semi-structured interviewing was the most important method in my study (figure 2). The interviews were structured loosely through themes, discussed while looking at the participants' notes and photos (appendix 4). Central themes were circulating snapshots and the participant's understanding of the technology that she or he needed to use in it. Richard Chalfen's (1987, 19–40) framework for understanding processes of pictorial communication pointed me to the aspects that were important to consider.

Chalfen divides the communication process into five events: the planning, shooting, editing and exhibition of photos. For each event, he designates five components: its participants, where and when the photo was taken, the image content, the physical form of the photo in the communication event, and its visual style. My research questions were engaged more with the context of production and circulation of photos than the mode of visual communication that they created. I approached the photos as data files, not through their visual content. Therefore, in the interview questions, I spent little time discussing the visual style or content of the picture but gave weight to the shooting, editing and exhibition events, and their respective participants, places and times. For specific questions regarding camera and snapshot use, I referred to the study by Kindberg et al. (2005b, 43) and expanded them to encompass my emphasis on cultural signification processes.

The interview situations were a mix of casual, formal and, due to the personal photographic material, intimate encounter. Apart from my role as a researcher, I presented myself as a fellow camera-phone user and snapshot photographer, occasionally sharing my own experiences. This brought an element of conversation to the otherwise clear question-answer pattern of the interview. Mostly, the snapshots were of the kind that people show to each other casually. However, because we went into the photos and events related to them in detail, the kinds of photos, situations and emotions

came up that the participant would in normal circumstances have shared with intimate friends only. In spite of moments when I gained the trust of the participant, such as when I was eventually shown photos at first ruled out from the study, I suspect there were also photos and events that were not shared with me. The area of sexuality, for example, is probably more common in cameraphone use than this or other studies suggest.

2.4. ANALYSIS THROUGH CASE STUDIES

After the data collection period was over, I transcribed the interviews using software called TAMS Analyzer. Apart from words, I transcribed silences, amusement, laughter and other forms of manifest emotional response. Next, I started reading the transcripts. I was educated in and had benefited from cross-sectional data analysis (Mason, 150–163) in my earlier studies (Rantavuo 2005, 2006a, 2006b). I had prepared to analyse my data by dividing it into categories or codes that would respond to my research questions. However, trying to determine the purposeful categories I discovered that I was forcing the data into categories of analysis. My research questions were exploratory and categorizing obscured the participants' individual contexts. Most importantly, categorizing meant treating the visual and linguistic pieces of data separately. In data collection, all pieces in the data were interwoven. Accordingly, to understand the interviews, I had to look at the photos, and to know how the photos had been used, it was necessary to read the interview accounts. I needed a technique that allowed me to keep all the pieces of data per participant together, and analyse individual instances against this unified set rich with contextual information.

I took up the case study method (Mason, 2002, 165–168; Stake, 1995, 71–104) of data organisation and analysis. I organised the case studies around individual participants because in data collection, I had worked individually with each participant, constructing a view of their individual contexts and points of view on cameraphone use and digital snapshot photography. The unit of analysis, the focus point around which I gathered data in the case studies, was an individual instance, together with information on the context of this instance, of when a participant interacted with a digital

picture, a camera or related technology. The contextual information, which I wrote down in the case studies, varied from place and people present to what kind of signification the participant gave to elements related to digital photography. With this strategy, the case studies became studies on how individual participants used the cameraphone and other technologies for digital snapshot photography, and how they gave meaning to the use of these technologies. The key elements of each case study were 1) the interactions that gained most attention at the interview and thus also the most contextual information around them; 2) the participant's views on digital snapshot photography; and 3) the participant's background as photographer. (Mason, 2002, 34–35; 166–168.)

I wrote nine case studies: On Henri, Harri, Niina, Saara, Jani, Laura, Aila, Raimo and Toni. I made an analysis of a subsection of nine participants to follow the practice of cyclic interpretation in qualitative inquiry. The benefit of analysing and interpreting data in cycles is that, ideally, the data is not reduced all at once to respond to the research questions or hypotheses that have guided the study. Instead, interpretation forms and is refined in cycles where initial assumptions are juxtaposed to and informed by yet unanalysed data. (Mason, 2002, 168; Silverman, 2001, 240) I chose the nine participants based on the richness of data available, considering each type of it, the variety of interactions discussed, and that the selection included different levels of activity in cameraphone use and attitudes towards it. (Stake, 1995, 84) Examining the data sets, I pulled out reports on interactions with cameras, photos, or related technology such as image processing software. I wrote down in detail the interactions that had been discussed at length, and covered only briefly the ones that were mentioned in passing at the interview. I did not leave out anything that the participant had said in the interview on the situation in which the interaction had taken place, whether it was directly or indirectly related to the interaction. An example of this are Raimo's working conditions, described in subsection 4.1. I also attached my own comments and observations in brackets.

At first, I structured the cases to run from taking photos to viewing or sending them, and to end with managing them on the computer. However, the result was too schematic and list-like compared to the variety in context of my data (Silverman, 2000, 825). This

structure also made it difficult to keep interactions with cameraphones, the primary focus of my study, separate from activities with other kinds of cameras, the points of comparison and additional information. I therefore rearranged the structure with the consecutive titles "Background", "Cameraphone", "Digital camera" (followed by film and video cameras if the participant used one) and ending with a section called "Overall", where I gathered the participant's overarching views on the subject. I organised the sections on different cameras according to the rough chronology of taking photos to preserving them. The software tool VooDooPad that I used made it easy to insert photos within the reported interactions.

The role of the snapshots as research data changed in the course of this study. Starting fieldwork, I planned to collect photos as research data answering the question how people used cameraphones and digital snapshots. During fieldwork, however, the photos became more important from a methodological point of view. The transformation of the photos as data from sources of information as visual objects to methodical devices became even clearer at the analysis stage. The photos alone gave few answers to my research questions on how the participants made the cameraphone meaningful and understood themselves as its users. The interviews conveyed this information, and consequently, the pictures were "translated" into linguistic data. In data analysis and interpretation, my focus turned towards the linguistic data that the pictures supported as confirmation or illustration of what the participant had said or written down. I linked photos to other data sources, made connections between them, and formed contexts for the photos through my interpretation of these different sources together.

In interpreting the data, I read through each case study seeking for what Robert Stake (1995, 16–20) terms issues: "identification of issues draws attention to problems and concerns. (...) Issues are not simple and clean, but intricately wired to political, social, historical, and especially personal contexts." The issues that I discerned from the case studies were rough and suggestive and their number varied in each case. Regarding Raimo, for example, the issues that I discerned and wrote down underneath the case study text were: "Communication; joking tone; pictorial communication over text: joy in playfulness and joking, pride in being witty and in mastering a new technology; workplace dynamics: bosses – workers; seniors – jun-

iors; family relations; nostalgia." In the case of Laura, I wrote down: "Spontaneity; crafting with pictures; miniature and material; short time span of snapshots; strong evaluative comparison with paper photos and albums; connections to other forms of communication; private – family."

In discerning the issues from the case studies I paid attention to, first, how much was written on a particular topic, indicating that it had been an important area for the participant. Secondly, I inferred what could be significant by not only reading the manifest content, the uttered words, but also interpretively beyond it by being sensitive to implied meanings that I could detect in the combination of the uttered words, my knowledge of the participant, and her or his tone of voice and gestures during the interview. (Mason, 2002, 78, 149; Silverman, 2001, 33–34. Silverman provides an example of how omitting these aspects can in fact weaken the reliability of interpreting interviews.) Considering the case study texts as well as the interview meetings, I asked myself what in cameraphone use and digital snapshot photography seemed important, significant, or problematic to the participant. In Raimo's case, for example, an issue was his apparent pride over using the cameraphone fluently; in Laura's case, the way she invested her visual creativity in the cameraphone instead of other cameras. Last, I paid attention to what was special about the particular case study that I was reading. With Raimo, for example, it was workplace dynamics, and with Laura, her spontaneity and impulsiveness in using the cameraphone and the photos on it. These were so-called first stage interpretations that I refined later when re-examining each case. The first stage interpretations were important in determining what was at stake in the data: where it would direct me in terms of interpretation and further analysis.

At this point, I returned to cross-sectional analysis by applying it to the case study issues. I listed the issues from the case studies one case after another. This resulted in a list of 44 overlapping and intertwining issues. Based on my research questions, I merged them into wider, more abstract themes. My working titles for these themes were: playfulness, crafting, immediate visuality and defining one's relationship to information and communication technologies. I conceptualised the themes further and reformulated them into the following three questions: How did the cameraphone

mediate valuations concerning cameras, photos and people using them? How did the cameraphone mediate communication and relationships between people? What kind of connections did cameraphone use and photo circulation engender in the technical and technological area of digital photographic devices? These questions resemble what Stake (1995, 17) calls issue questions that can be used to organise a study.

Next, I returned to the data from the seven participants on whom I had not written case studies. There is a risk involved, when starting analysis and interpretation with a subsection, that the remaining data is unwittingly reduced under the initial findings. I attempted to avoid this, first, by assembling rough versions of case studies on these participants by compiling material from the questionnaires and interviews, along with photos, according to the same technique that I had employed when writing up the case studies (see above). The only difference in compiling the cases, which made them "rough versions", was that I did not write them out but the text remained as direct quotations from the linguistic material in the data. Second, I examined how the seven new cases responded to the broad themes that I had formed based on the eight case studies, looking for themes that could not perhaps be included in the three formulated ones.

The seven roughly formed cases turned out to inform the themes which were formulated into the above issue questions. The cases did not point me towards new crucial issues, which meant that the three issue questions remained as my framework of analysis. Next, I coded all sixteen case studies by asking them the three issue questions noted above. To illustrate the process, I use as an example the first issue question dealing with valuations related to cameraphones and cameraphone photos. I marked all comparisons, evaluations and valuations expressed in the case studies. Based on what comparisons and categorisations appeared in the cases, I grouped them into comparisons and valuations concerning a) cameraphones and digital cameras, b) cameraphone use and digital photography and c) cameraphones as consumer items. These groups formed the fundamental structure for a chapter. I repeated the same procedure with the other issue questions.

The final chapters formed in a manifold, challenging process of writing, rewriting, organizing and reorganizing the materials. The

themes created at the analysis stage are developed across chapters instead of chapter by chapter. Initially, I attempted to write the chapters based on the three issue questions. However, the more I juxtaposed the data with theory and literature, the more my argument on the significance of connections between cameraphone photos and media developed. Accordingly, the exploratory, data-driven writing formed into the argumentation that drives the format of the final report. After many different versions, the three empirical chapters are organised roughly around my three research questions that I attempt to answer by discussing my core argument through the findings in the data.

The technique of my analysis resembled "analytic induction" (Koskinen, 2003, 62–63; Silverman, 2001, 237–240) or "inductive reasoning" (Mason, 2002, 180–181). I began by analysing a part of my data, with the nine case studies as a result. Next, I compared the cases to each other, ending up with three main themes. Next, I compared these themes with the data from the remaining seven participants, in order to find out whether the themes were important in these cases as well. The emphasis in my analysis was to proceed from the data, from the particular, towards explanations, the general, and I did not consciously or purposefully draw on theories while constructing the main themes. However, my method of analysis was a mix of approaches rather than a pure case of analytic induction. I never formulated the themes from the nine cases studies into precise hypotheses with which to test the data (Koskinen, 2003, 62). Rather, the themes were "interpretive categories or themes (...) drawing on lay interpretations" (Mason, 2002, 179.) Second, unwittingly but unavoidably, I brought my own interpretations of what was important to study in digital snapshot photography into the case studies, simply through how I selected and structured the material.

2.5. ETHICAL CONCERNS RELATED TO PHOTOS AS DATA

With pictures in the data in which the participants themselves appear, there are ethical issues of privacy, publication rights and anonymity to be considered. In a qualitative interview study, where the participants are clearly in charge of their own photos, the issues are

perhaps more easily resolved than in anthropological or ethnographic research where the researcher needs to decide how to analyse and publish photos or videos taken in the field of the participants. (Da Silva & Pink, 2004, 158–159) The participants in my study had the liberty to decide which photos to show or submit to me (see also Kindberg et al., 2005b, 43). Regardless, in the interviews, there were moments where discussing photographs suddenly evoked emotional reactions. In these situations, I did not inquire further into the matter but reassured the participant that it was alright to become emotional and that we could continue the discussion on other matters if desired. The participants could also rule out photos that they showed or submitted to me from publication. I explained to the participants that the photos that they would submit to me would only be published in academic contexts, and not in popular press, for example. The permission to use the photos was given in writing. Although the participants preferred to remain anonymous in terms of their names, none required they or other people should not be recognised from the photos that they submitted for my use. (Mason, 2002, 117–119; Edgar, 2004, 101–104)

2.6. CONCLUSIONS

The method that I used in this study evolved through four previous studies where I tested different techniques of incorporating photos and pictures into the research data. Cameraphone photo use is difficult to study through observation, as much of it takes place in private environments and, as we will see in chapters Four and Five, using one photo can extend over weeks, months, even years, and involve many different stages. To tap into the process of using photos, I introduced the self-documentation method. The notes made by the participants varied in detail; sometimes not all instances of photo use had been documented in the notes; and sometimes the participant could not remember what a note stood for. However, my main task was to discuss meaning-making behind photo use, and not to gather a sample of photo use, so these omissions were not crucial. The notes and photographs that the participants did produce provided ample material for discussion at the interviews.

When a research project is concerned with how photos or pictures are used by people, careful plans are needed on how the im-

ages will be studied in connection with linguistic data that makes the images meaningful to the user and that informs the researcher of the use the images. In order to control the process of using images as data, it is necessary to decide whether the sources of the linguistic data around them are the users of the images, other sources surrounding the images (popular commentary, for example), or the researcher.

In the course of my study, I became more and more aware of the implications of my epistemological take that the participants' accounts on how they had used the photos, and not my own interpretations, were the sources of information for my research questions. As my research questions were concerned with the technological and cultural context of the photos, and not the photos themselves as individual artefacts, it became unavoidable that they turned into methodical aids rather than a target of analysis as such.

The way in which I have approached the photos in this study as data files is new to the field of visual data analysis. In social and cultural inquiry on cameraphones, photos have generally been approached through their visual (or multimedia) content and in a relatively narrow frame of time and use (or, at least, using photos over time has not been discussed; see, for example, Okabe & Ito, 2006; Koskinen, 2007). In other words, the focus has been on the immediate use of the photos and the emphasis on the function they have in social interaction.

Instead, I chose to approach the photos as files and follow their use to the extent that it reached during the study period. This approach shed light on the various technologies and media platforms that cameraphone photos were used with, absent from most cameraphone studies (see discussion in the introductory chapter). On the other hand, it produced knowledge of what cultural interpretations and social dynamics were attached to the technological infrastructure (Sarvas, 2006, 25) of cameraphone use. The focus in studies that develop technological infrastructures for media use is often on the behaviour of users (see, for example, ibid., 46.) What could be adopted from technical scientific research is making use of metadata, which was not possible in the context of this study for research economic reasons. (Sarvas, 2006, 25, 32–46)

Certain areas of interpreting and using cameraphone photos are difficult to generate data of. Ways of using the phones that are com-

monly known to take place but that were not brought up by the participants in this study included taking photos secretly, sending photos to be published in papers, or bullying others with picture messages or by taking photos. Only one photo was shown to me that was considered intimate by the participants whom it concerned (it showed a young man without a shirt on, in a changing room in a clothes shop). With the exception of photos that are sent to be published, perhaps, the mentioned areas are sensitive and may well have existed as a part of the participants' ways of using their phones and photos, even though they did not disclose them in the study. Although gaining knowledge of these areas is difficult, it is important to remember that they are part of the phenomenon of camera-phone use, and to seek for ways of understanding their role in photographic culture.

3. "Just playing around": Interpretations of camera-phone photo use

The participants called cameraphone use playing around, mucking about, showing off, fingering, fiddling, thumbing, toying and tinkering. Cameraphones were situated in the area of the everyday and the playful. Digital cameras, in turn, were associated with photographing at so-called special occasions, such as christenings, weddings, or birthday parties, and keeping the photos in digital or print albums. It is a commonly held view both in public discourse and in research literature that cameraphones are used to snap casual shots of everyday moments and that the photos are quickly discarded of. The same view states that events out of the ordinary are documented with digital cameras and that these photographs are meant to be kept. (Kindberg et al., 2005b, 48; ibid., 2004; 4; Okabe & Ito, 2006, 99; Oksman, 2006, 116; Van House, 2005)

A similar classification into two fields was made in this study when the participants defined cameraphone use as something different from what they understood as photography. In cameraphone literature so far, it has not been studied what aspects in particular motivate the division in discourse or whether the division is reflected in the practice of using cameraphones. Also, there has been little discussion, based on empirical studies, on what other fields of media users associate cameraphones with, either in a negative or positive sense, apart from photography.

In this chapter, I first analyse what made the participants separate cameraphone use from what they saw as proper cameras and photography. The separation was based on the technical properties

of cameraphones, the skills needed in photography and conventional uses of photographs. Referring to Bourdieu (1965), I suggest that film era notions of the everyday as a depreciated subject for photography were at play in the classification of cameraphone use as something separate from photography. I also explain the classification through the concepts of conversion and display proposed in domestication studies. Not all cameras were considered equally appropriate by the participants in all social situations but different camera objects, and photos taken with them, could be seen as symbols of taste or lack thereof.

Regardless of the fact that the division between cameraphones and cameras was made clear at the level of discourse, the division disappeared at the level of practice. The ways in which the participants incorporated their different cameras into their photographic practices was more mixed than the comparisons between cameraphones and other cameras suggested. Practical concerns such as battery life or intended subsequent use of the photos often were reasons for photographing everyday events with cameras and ceremonial events with cameraphones.

My final task in this chapter, after discussing negative definitions of the cameraphone (definitions through what it was perceived not to be), is to analyse what positive factors emerged for calling the use of the cameraphone "playing around." I turn to public representations of cameraphones and cameras, advertising in particular, and to the ways in which the participants associated cameraphones with the tradition of the miniature and to decorative and playful devices.

3.1. COMPARING CAMERAPHONES WITH CAMERAS

The participants frequently spoke of their cameraphones and their cameraphone use through comparisons to digital cameras. (See also Oksman, 2005, 356, 360) Cameraphones were distinguished from photography on the basis of the technical qualities of the phone camera and other cameras; the various skills they perceived as necessary for photography but not for cameraphone use; and the ways in which phone photos and other digital photos were used. The digital cameras that the participants used varied from manu-

ally operated ones to pocket models. Saara and Laura also sometimes used their analogue cameras. All of these cameras were placed in the categories of "real" or "proper" cameras with which "good" photographs were taken. Cameraphones, in comparison, were defined as toys that were used "just for playing around".

It was easy for Harri, a high-school student, to make the distinction between the inferior and the superior camera based on technical aspects. He complained about the small size and blurred look of the photos when he displayed them on the phone or computer screen, as opposed to the precision of digital camera photos.

> HARRI: I mean it's, I'd like to take photos with it, but it's the image quality when you look at it, it's so miserable on the mobile phone.
> HELI: What does that mean, what does it look like?
> HARRI: They're so small and blurred, you can barely see what's there. Well, you can just, like, when you put them on the computer, just about make sense of the picture. But if you compare it to, like, the image quality of a proper camera, it's completely, you can't even compare them really. And of course you can shoot video, too, [with the camera], you can't with the phone, not with mine at least.
> HELI: Yeah. And in digital photos, what do you, like, is the most important thing that makes the quality? In the photos, like?
> HARRI: That they're sharp [laughs] and not shaky. Natural looking of course. I like photos-- the kind of photos where people have been, like, arranged in line, they're useless, in my opinion. Like, me anyway, I try to take, like, photos where something happens.
> HELI: I see. And with a digital camera you can take those kinds of photos?
> HARRI: Mm. Well, with the phone I probably take more photos like that because it's on me always when something is happening. Too bad [laughs] the photos are so miserable otherwise, like, technically.

Low image resolution and the low quality and simplicity of the optics in phone cameras were the most criticised aspects by other participants as well. Consequently, with the resolution, optics, colour reproduction, exposure, the quality of the phone displays, and so on, approaching the standards of digital pocket cameras, it could be claimed that in future it may not be relevant to draw a boundary between cameraphones and other cameras based on their differences

in technical properties. (Koskinen, 2007, 3; Goggin, 2006, 152–153)

Technical competencies of devices may evolve quickly and in that respect, cameraphones and digital cameras may approach each other. However, cultural notions also played a role in the discursive separation of cameraphones and digital cameras. Another manner in which the participants separated cameraphones from the sphere of photography was by referring to skills and training as requirements for taking proper photographs. Learning about the technical properties of cameras and training oneself to control the photographic process is one of the ideals that domestic photography shares with amateur (in the sense of hobbyist) photography.

The photography amateur's aim has been defined as operating the camera as well as developing and printing photos skilfully, according to a certain aesthetic (Saraste, 2004, 51, 64, 75; Holland, 1991, 4–5). For domestic photography, on the other hand, diminishing complexity of operating the camera and the fact that developing one's photos is no longer necessary have been crucial in making it a mass phenomenon. Kodak first became a success in 1888 by abolishing the need for photographers to learn how to develop and print photographs and continued the success by reducing the need for training in photo-taking, as more and more operations in its cameras were made automatic (Brayer, 1996, 67; Coe, 1989, 60, 84–85, 89; Slater, 1991, 51–53; 1999, 294). In spite of these developments, popular publications have continued to cherish the ideal of the skilled photographer by advising home photographers on "improving camera use, 'looking better' in photographs, (...) avoiding 'mistakes', etc." (Chalfen, 1987, 147–148; Ulkuniemi, 1998, 110–111)

None of the participants described their cameraphones as an arena for learning and training in terms of camera or photo use. When we discussed their future plans or wishes in the sphere of digital photography at large, the participants focused on what they perceived as their insufficient skills for achieving what they defined as good photography. They desired more sophisticated skills either in the use of the digital camera functions or image processing software. One of the teenaged participants, Johanna, wanted to be able to take the kind of nature photographs that she had seen in magazines and camera catalogues. Toni, an adult participant, aimed at learning how to use the sepia tint and black and white effect for his photos and portraits that he took with his digital camera. Paula, one

of the younger adults, wanted to learn to use their manually operated digital camera more like her husband.

> PAULA: Umm, aims and wishes, probably for me it would be to learn to use some other than the [laughs] automatic functions in our camera. But let's see when that happens. But that, probably.
> HELI: Anything related to the mobile phone?
> PAULA: No, no, no great visions [laughs] about the mobile phone either, or the video [camera], the video is also just for casual use. But with the digital camera, you can learn to take the kind of, like, real photos.
> HELI: What are the real ones [laughs]?
> PAULA: I mean, you, like, set everything, and this, sort of, that you could influence [the photos] more.

The only plans and desires that were discussed in relation to cameraphones concerned speculation on which mobile phone model to purchase next. Nevertheless, on other occasions in the same interviews, many of the participants referred to skills that were specific to cameraphones and necessary in circulating cameraphone photos (discussed in Chapter Five). However, they were not understood as skills related to photography or even to mobile phones, but rather to computers. In a similar fashion, the participants did not regard what I perceived as resourceful use of the cameraphone as anything special.

Paula wanted to use a photo of her baby son as a permanent photo on her phone screen. Some of the photos had made it difficult for her to see the time displayed on the screen, so she had taken photos of her son in which she had placed him against a white background to make the digits on the screen indicating time appear clearly. As we will see in the next chapter, Raimo coded multiple layers of information into his photo messages. Overall, Raimo's use of the photos supported the finding that Koskinen et al. (2001, 66) made in their study on digital photo exchange: that the communication that was the most complicated was also the most humorous. Discussed in Chapter Four, Niina and Eeva had devised tactics for keeping some of their photos hidden from friends and family members, which involved photo switching on the display and folder organisation systems. This kind of use of the phone and the photos was uninterestedly classified by the participants as just playing

around, being silly. In sum, the participants' cultural notion of photography included the need and desire for learning specific photographic skills that were not seen as relevant for cameraphone use. Once again, the need and desire for photographic skills may arise for cameraphones, too, as they become more technically sophisticated (a guidebook was published by a popular press in Finland in 2006 for taking, processing and circulating cameraphone photos [Flyktman, 2006].) However, the perceived need for skills intertwined with another cultural convention: what were seen as the uses and purposes of cameraphone and camera photos.

The distinction between cameraphones and photography was frequently made through criticising the ways in which cameraphone photos were used by the participant her/himself or by others. Tapio, an adult participant, sneered at the photos that he had attached to and later deleted from his phone contacts for his family members and his mother. When cameraphones were still uncommon, Tapio had once shot a video clip of a colleague leaving on his motorbike from the company car park. He had sent it to the colleagues who were present by e-mail immediately after the event, and now disregarded the whole operation as showing off. He also reprehended the photo messages that he received.

> TAPIO: (...) I've had, for example, a photo of my mother in there, for when she called. I found it a nice feature that you could see, that [the photo] appeared. But after a while it wasn't so fancy anymore, instead it started to feel a bit ridiculous. They are new features but I don't think they're important to the consumers.
> HELI: So you really deleted them.
> TAPIO: I did, because I think I've taken the photos of photos. Not like [face-to-face], but of a larger picture, which I've got anyway.

> TAPIO: The pictures that I've received are mostly from my sister or my wife. They're in a nice place and, like, 'here I am, it's so much fun', like, showing it to the other [laughs] so he'll believe it, instead of just sending a text message. (...) So, that's what it seems to be. Bragging, bragging, showing off.

Some of the cultural, aesthetic and practical conventions for producing, keeping, displaying, sharing and viewing home photo-

graphs have been maintained for over a century, others for decades (Ulkuniemi, 1998, 86–88, 177–193). They have been reproduced in popular imagery such as advertising, cinema and television to the point of being self-evident for today's snapshot photographers (see e.g. Chalfen, 1987, 153–156; Holland, 1991, 5–6, 8). Neither Tapio nor any other participant found it to be part of photography to snap and delete photos with the phone impulsively only for the fun of it; to look at small-sized, blurred photos on the phone screen; to send them as mobile or internet messages; or to decorate the phone with them. Whatever this was, it was classified as something different from photography, as the characterisation of "playing around" implied.

> HELI: You have digital camera photos on CD's and in print and on DVD's, why haven't you stored [cameraphone] photos in the same way?
> PAULA: Umm... well [laughs] the thought hasn't even crossed my mind, that they should be [stored] somewhere other than the phone, because they don't... Somehow the photos taken with the digital camera are more like photographs, the phone photos are, like, for messages or, not so much for keeping, I think.

> SAARA: Well, I didn't, mm, in a way, expect like any kind of super image quality. Just for like, in a way, like, I haven't been planning to print them on paper or anything, at any point, so that they'd become like real photo-photos. It's just to have on me some, like, photos of persons who are important to me. It's mostly for that kind of use.

Of course, the technical qualities of the phones, and the fact that not all participants could operate all the functions of the phone, restricted what people saw as possible to do with their cameraphone photos (these restrictions are discussed in Chapter Five). In the context of this chapter, which deals with how the participants represented the cameraphone in their accounts, it is relevant to note that Paula and Saara, for example, accepted their restricted possibilities easily. This indicates that they had a particular idea of where and how to take photographs and how to use them as part of domestic photography. In domestic photography, it has not been customary to take photos of the daily environment or daily events

unless the photos have been of pets or children. The cameraphone, in turn, was strongly represented as part of the everyday. The cameraphone disrupted the cultural convention associated with domestic photography of taking photos only of events or environments that were out of the ordinary. It spoke for the persistence of this cultural notion that all participants apart from Tapio, who took photos daily with his digital pocket camera, had continued to follow it even after switching from film cameras to digital ones.

3.2. PHOTOGRAPHING SPECIAL OCCASIONS AND THE EVERYDAY

Indeed, when the use of different cameras was discussed, fundamental cultural notions and valuations regarding the everyday surfaced. Of the participants, Henri was the one to express most clearly when and why he wanted to use the digital camera instead of the cameraphone. He categorised moments in his life into what he called, with a touch of teenage irony, official events (Henri's expression in Finnish was "virallinen tapahtuma") and everyday events. Based on this categorisation, he said, he chose whether to bring a digital camera with him. Through the categorisation, Henri documented his life selectively with photos. He decided what moments he wanted to remember himself and to show to others. For Henri, official happenings included travels, car exhibitions, finishing waxing his brother's car and music performances where he played the piano. Photos from these events would be kept on his computer and copied and stored on discs. On the other hand, spending time with his friends and other everyday activities were not, according to Henri, material for long-lasting documents and could well be photographed with the cameraphone.

> HENRI: I've got few official photos taken with the cameraphone, like, that I would want to keep. So it's not, like, completely a substitute for the camera, like I would want to take photos everywhere and keep them. (...) If you just hang out there and mess about, it's not worth keeping those photos. It's like, by chance, if you happen to get a good picture and you want to download it to the computer. For example, there's my Messenger photo, we were riding our [mopeds] and there was this picture, so it's in my Messenger. It's really the only one now that I've offi-

> cially kept. (...) So, I bring a digital camera on me when I know I want to keep the photos, and I take photos that I know I will keep. (...) I don't think I've kept any photos of [the everyday.] Unless you count music performances or car exhibitions, I've got no everyday pictures.
> (...)
> With the digital camera, especially from travels, it's nice to look at [the photos] sometimes. If you can be bothered. And, like, show them to others. The main reason might be to have souvenirs for myself and that I can show them to others. And the cameraphone, it's like if something happens that you want to remember for, like, the next minute, you take a photo, and after a couple of weeks you look at it, like, why have I taken a photo of this, and delete it.

Other participants, too, wanted to photograph events that they considered important with the digital camera rather than with the cameraphone. Everyone said they would prefer to photograph their holidays, abroad or in Finland, with a camera other than the cameraphone. Tommi named family gatherings such as birthdays or funerals as examples of events where he would use a digital camera. The other teenagers said they would prefer the digital camera at parties with friends and festivities at school. Niina and Harri took photos with the digital camera at Niina's horseback riding contests. Saara had chosen to use her analogue camera instead of the cameraphone on a backpacking holiday in Eastern Europe in summer 2005 (she did not own a digital camera).

Pierre Bourdieu (1965, 39–45, 49, 60) has discussed the distinction of the everyday and the ceremonial in relation to domestic photography. The empirical data that he refers to dates from 1958–1963 (ibid., 27, 38) and thus obviously deals with cameras which were very different from those of today, as well as to a different cultural and social environment surrounding domestic photography. Precisely these differences make it interesting that the participants in this study represented the cameraphone through the same division into the ceremonial and the everyday as Bourdieu discusses. (In fact, Bourdieu ibid., 40) sees the division as much older than domestic photography itself.)

According to Bourdieu, the ceremonial events that motivate photography make people regard what they photograph ceremonially. Because ritual and ceremonial events are considered more

significant than daily ones, a photo of the Eiffel tower taken on a honeymoon, for example, is more valuable to the photographer than one taken during a business trip. (Ibid., 41–43, 48–50, 60; 1999, 170–174) Among the participants in this study, the value placed on the ceremonial became manifest through the choice that they suggested they would make between their cameras. Events regarded as ceremonial, ranging from waxing a car to a funeral, were connected to digital, video, or film cameras. Events regarded as everyday, typically, moments with friends and family, were connected to camera-phones. The discussion of why, fundamentally, some events were considered as ceremonial and others as everyday is beyond the scope of this study. What is relevant here is that the distinction was made in relation to using different cameras. I find two significant reasons for it: first, concern for the display of the photos, and second, concern for the display of the camera in different situations.

Different cameras provided the participants different possibilities for displaying and storing the photos. Henri (quoted above) said that, when using a digital camera, he knew he would transfer the photos onto his computer to look at and show to others, which he was not certain of in the case of the cameraphone. In other words, one component in evaluating an event as ceremonial was that he wanted others to see it. In a similar fashion, Jani justified using his digital camera with his practice of showing his photos to others. Jani had ambitions in photography and he liked to show his photos to friends on his laptop. He was concerned about what kind photos would be good enough to put on display, and could not imagine showing his friends any other kinds photos than ones taken with a digital camera.

> JANI: I would imagine that socially, in my case, the social get-togethers where we look at photos will form around digital [camera] photography, because I'm too embarrassed to show the cameraphone photos to anyone [laughs]. If I show my photos to anyone, they have to be really good [laughs].

In Bourdieu's (1999, 170–179) terms, Henri and Jani planned their photography and evaluated their photos according to what he calls functional aesthetics. Their evaluation of their photos was based on the function that the photos had for the viewers that they had in

mind, not on the aesthetic qualities of the photos. From the photographic-technical perspective, it seems common sense to state that the low image resolution and other technical limitations of the cameraphone photos, especially when viewed on a computer screen, made valuing them in aesthetic terms impossible. Consequently, in this line of reasoning, preferring a digital camera to take photos to show to others was inevitable. This would mean that improvements in the technical quality of phone cameras would make them eligible for ceremonial events. Will they?

Domestication studies have highlighted the significance of the symbolic dimension of media and communication technology products (Haddon, 2003, 45). Referring to the consumption theorist Thorstein Veblen, Silverstone et al. (1992, 25–26) remark that when a consumer displays his or her technology products to others, his or her "criteria for judgement and taste, as well as the strength of his or her material resources, will be asserted and confirmed." (See also Ling, 2004, 30, 104) Within the range of mobile phones sold and consumed in Finland at the time of the interviews, spring 2006, cameraphones could be characterised as mid-range in price and in technical features. The number of cameraphones had doubled from year 2004 to 2005 up to 1.2 million (23% of all mobile phone subscriptions). During the same period, the camera had become a mid-price mobile phone feature, whereas in 2003 it had still been a feature found only in phones that were classed as expensive (Snellman, 2006, 23).

Presented as a mobile phone in a social situation, a cameraphone could at the time of the study be considered as a confirmation of the consumer's taste and material resources to a certain degree. However, presented as a camera, the phone was in danger of creating the opposite effect: the participants' views suggest that it would have been distasteful to suggest that the phone camera was equal to other cameras. The ceremonial events where the participants wanted to photograph with "proper" cameras were typically social situations where, as Bourdieu stresses, taking photos was part of the event. Bourdieu highlights the role of the camera in festivities not only as a means of documentation but as a means for carrying out a ritual that dignifies the event and reinforces the unity of the group present. (Bourdieu, 1965, 40–41) When a camera is displayed in such a situation, it is displayed both as an object and

as a documentation device. Displaying a certain type of camera device symbolises the person's judgement of the nature of the situation and her taste in what type of documents are appropriate to produce from it.

Based on where the participants preferred to photograph with a camera, it can be concluded that they regulated the use of cameraphones in ceremonial situations. It was seen as appropriate to display a cameraphone in the pub, but not, for example, during funeral ceremonies. Whether the cameraphone was displayed in a social situation as a phone or as a camera, the possibility would exist to take a photograph. The awareness of this possibility appeared in how the participants categorised their preferred use of different cameras in different situations, classifying the situations as casual or formal, and anticipating whether their choice of camera would make them discreet and dignified, or whether they would attract attention.

3.3. THE MIXED USE OF CAMERAS

Before cameraphones had been introduced to the Finnish consumer market, Koskinen et al. (2001, 113) predicted that conventional subjects of snapshot photography would continue to be photographed with new camera devices. Indeed, regardless of the clear categorisation of the preferred use of cameras at the level of discourse, in practice, the categories broke down. The role of the cameraphone, when compared to other cameras, was not as clear-cut as statements in cameraphone research suggest (Kato et al., 2005, 303–305; Oksman 2006, 117–118; Okabe & Ito, 2005, 99) Not all cameraphone photography appeared as transitory and disposable. Photos were taken with phones in ceremonial events and everyday environments were photographed with digital cameras. Photos that the participants wanted to keep and ones that they soon deleted were produced with both cameras. In everyday circumstances, the use of different cameras in different situations was mixed.

First, considerations on the subsequent intended use of the photos influenced the choice between cameras. Did they want to show the photos in situations in which cameraphones would be the appropriate viewing device, at school, for example? Or would they

be shown at home, on the computer screen, such as in Jani's get-togethers? Would they be sent to grandparents by post, or uploaded onto internet photo sharing sites? Would they be saved in personal photo collections on the computer?

Circulating, displaying and storing photos involved technical operations. In making decisions between cameras to achieve the intended use, the participants anticipated the technical tasks, tools needed for it, and their willingness for performing the tasks and using the tools (discussed in detail in Chapter Five). Paula, on maternity leave with her baby son, kept the family's digital, manually operated camera always at hand on the living room table. She wanted to take photos of her son with it quickly when he did something funny or learned something new. She would show the photos to her husband later in the evening, and he would download some of them onto the computer. If, on the other hand, she saw the situation as something that she wanted to communicate to her husband immediately, she would use the cameraphone.

> PAULA: It's, of course, really easy [to send digital camera photos] by e-mail, and you can send better photos. But somehow the phone is, like, first of all, if you take a photo with a digital camera, you need to transfer it to the computer. If I took a photo of Aku during the day with a camera, a nice photo, or a fun photo, and I knew I wanted to show it to my husband straight away. I'd need to take it upstairs and plug it in to the computer and transfer it and send it from there. It's so much easier to just pull out my phone from the pocket, take the picture and send it with the phone. Less trouble, sending small things like that.

Practical circumstances also worked against plans and intentions and determined the choice between cameras. Sami always tested the battery power and Johanna secured the memory space on the memory card before taking out the digital camera. Not everyone was this meticulous, however, and even Sami's and Johanna's preparations were not always sufficient. Sami's camera ran out of battery power at a party and he switched to taking photos with his phone. Harri, Niina and Johanna had all photographed their high-school festivities with their cameraphones. Niina and Johanna found their cameras too big to carry to school or too valuable to take to an evening party. Harri left his camera at home, at first, and after his

Figure 3: High-school party "penkkarit" photographed by Johanna

parents had brought it to him, he broke it. Each took photos with their cameraphones instead and wanted to keep the photos in spite of their blurred look because they were the sole photos of the events.

Tapio, as a photography enthusiast, carried his pocket camera on him almost everywhere and took photos daily of both ordinary affairs and special occasions. He added the photos regularly to his own archives on compact discs and forwarded selected photos by e-mail, on discs, or in print to the friends or colleagues who had been involved in the events. Still, even he had photos on his cameraphone that he kept and valued, although in general he gave very little credit to the phone as a camera and did not use it often. On his visit to Russia, he photographed with his cameraphone because he was afraid his digital pocket camera would attract unwanted attention. He had a photo on his phone that he had taken with it inside a grand cathedral; he was pleased with its composition, lighting and the atmosphere it mediated. The same characteristics applied to a photo of himself at the summer cottage.

TAPIO: Well, I've got a photo of myself there that has a certain atmosphere. I've taken it myself when I was fishing in the evening. It just gives

> me a good feeling. (...) I remember when I took the photo of myself in the evening sun. I remember it was a nice moment, it was a nice night, calm waters, and so on. I think that's what it is, that you remember something visually and it triggers your thoughts.

All participants had casual cameraphone photos – of friends, family, oneself, pets, or a scenery – that they attempted to keep. Photography that was termed as "just playing around" typically took place among or in the presence of people who were close to each other, and these photographs gained memory or sentimental value through what they depicted or through the situation in which they had been taken. The value of the subject or event photographed, in the aforementioned logic of functional aesthetics (Bourdieu, 1999, 170–179), surpassed the aesthetic value (or in this case, the lack of it) of the photo, thereby rendering it material for preservation.

3.4. POSITIVE NOTIONS OF THE CAMERAPHONE

Above, I have discussed negative definitions of the cameraphone, formed through what the participants saw the phone camera lacked or what they felt they could not do with the phone. Although the cameraphone was used in varied situations, its use was defined as "playing around." I have suggested above that by this and similar expressions the participants sought to represent the cameraphone as separate from the conventions of "serious" home photography. What field it might belong to instead, they could not yet define. In the last section of this chapter, as I investigate what this field could be, I turn to the representation of cameraphones through their production and marketing; to what aspects in the cameraphone object caught the participants' attention; and to what they saw as positive about it, in other words, what could be achieved through its use.

Except for Raimo and Toni, who used cameraphones at work, the participants chiefly associated cameraphone use with spare time with no tasks to fulfil. The photos on the phone provided a source of recreation and entertainment while commuting or taking a break at work. Browsing and organising the photos gave the hands something to do. Most importantly, like mobile phones generally, cameraphones brought the personal, private sphere of memories

and emotions into impersonal public environments. (Kopomaa, 2000, 43, 73–74; Mäenpää, 2000, 140–14) Regardless, cameraphones were not described as important, memorable, or even fun without adding reservations. Cameraphone use did not involve obligations. By calling cameraphone use "playing around", the participants showed their awareness of the fact that looking at the photos was not considered useful: that it did not respond to requirements of efficiency or achievement, which made it uninstrumental. Cameraphone use was thus evaluated through the notion that the morally justified use of computers and other information and communication technologies involves goals and performing tasks. (See also Hartmann, 2005, 146–147)

Cameraphone marketing supported this view by presenting cameras and photos as transitory. Cameraphone adverts suggested that what was significant about cameraphones was to be able to snap a photo and show it to others, if not immediately, then later on. In advertisements for picture messaging, young adults sent joking photo messages to each other and teenage siblings teased each other with photo messages at home.

The images of snapshot photography constructed by cameraphone and digital camera marketing were different from each other. Digital camera marketing focused on the technical resources through which a good quality photographic image could be achieved. In newspaper and magazine advertisements, next to pictures of cameras, there were lists of digits and codes for technical features and the price. Without knowledge of the technical aspects of photography and cameras, the purpose or significance of the features was difficult to interpret. Marketing for software and guidebooks on image processing varied the slogan "make your photos perfect" and presented photo managing as a task that involved purchasing and mastering technology products. It was implied that the photograph should be of high technical quality already at the point of taking it but that there was always room for improvement through image processing. The purpose was to aim towards the amateur photography aesthetic ideals that valued nuances and composition (Saraste, 2004, 89–94). The needs that the participants voiced for learning and training in photography, discussed above, reflected these ideals.

In her research among Finnish cameraphone users, Oksman

(2005, 356) has noted critical attitudes towards the cameraphone product image: a phone that is considered to be expensive should have more use than only entertainment and having fun. Finnish studies on consumer attitudes also suggest that Finns see themselves as rational consumers who plan their purchases, buy only the necessary, and are reluctant to buy lifestyle products (Wilska & Konttinen, 2006, 32, 37, 47). Sami's contemplation over future acquisitions reflected the tension between wanting to buy a new cameraphone, if only for its novelty attraction, and the feeling that perhaps a camera would be more useful.

> SAMI: I'm not a photographer really, but as a hobby perhaps, it would be nice to have a manual digital camera one day. (...) I could photograph more, like, with the purpose of photographing, try to do it well, you know. (...) And thinking about mobile phones, I don't know. I've got mixed feelings about mobile phones. Sometimes I tell myself that next, I won't buy a mobile phone, it's really not worth it, that I'll buy a basic phone, if you can find one anywhere these days. But on the other hand, it would also be nice to try what the latest Nokia, N91 or whatever, with the top camera, is like, and so on. So, it may well be that at some point I'll have a better mobile phone, too.

Toni-Matti Karjalainen (2004, 87) has noted that in the late 1990s, the design and marketing of mobile phones began to transform their image from a technical business tool to a lifestyle product. (See also Kopomaa, 2000, 30) Part of the shift in the image was the integration of new features such as the camera in the phones (Karjalainen, 2004, 87). Typical for lifestyle products, cameraphones and services related to them were marketed by building an image around the product. As prices of cameraphones lowered in the mid-2000s (Snellman, 2006, 23), the look of the phones also changed. Apart from black and chrome, phones coated with colours became available, corresponding to a more youthful image.

A particular example of an uninstrumental feature in the mobile phone becoming crucial for its success (in the Finnish market in 2004) was the lid. At the time of the interviews, a teenaged participant Niina had had her new phone, with a lid, for just over a month. Harri smiled at how much he liked to fiddle with the lid in Niina's phone, opening and closing it and snapping photos in the

midst of it. The lid, uninstrumental but with aesthetic value, was one of the toy-like features found in cameraphones. The automatic camera functions can be seen as another toy-like feature in cameraphones compared to cameras. The simplicity of the optics and camera operations made cameraphones resemble disposable cameras, commonly given to children to use or used playfully at parties or on holidays. Like disposable cameras, the phone cameras allowed for quick, casual snaps. The photographer did not feel obligated to consider composition or lighting, which lowered the threshold for snapping photos. In an earlier study of mine (Rantavuo, 2005, 141) on cameraphone test use, an art photography student explained:

> "Recording moments, somehow, that you don't really have to think about anything because it's such a basic, simple device anyway. You just push the button and all the technical knowledge you have about photography sinks into the subconscious. You don't need it when you take the picture as you can't influence anything anyway, you don't think about it. (...) The mobile phone freed me from the technical burden of adjusting exposure, adjusting the aperture." (Max, 27)

Cameraphones can also be seen to continue the tradition of the miniature (Huhtamo, 2000, 74; Kopomaa, 2000, 34; Oksman, 2005, 359; Slater, 1991, 50). From the 18th century, photos have been attached to jewellery, decorative objects, toys and different peeping devices, and exhibited both in public places and private homes (Huhtamo, 2000, 74–101; 1997, 83–84; Ward, 32–36). In his study on mobile phone use, Timo Kopomaa (2000, 34) associates the phones to amulets because of their miniature nature. The family and holiday photos that are carried on phones, along with the contact information of significant others and personal text messages, make that impression even stronger (See also Okabe & Ito, 2006, 90; Scifo, 2005, 365). Laura described it as an intriguing experience to have something small, colourful, and although mechanical, vivid in your palm.

> LAURA: (...) The display is really big. It makes the photos, like, although they are, although it's smaller than the paper print photo, the photos are somehow touching on [cameraphones]. Or, umm, 'touch-

> ing', I mean that these photos are, in something like this that is lit and mechanic, like, more interesting than in two-dim-, like, in two-dimensional print. It makes then almost three-dimensional. When you take photos with this, although they're not three-dimensional of course, but the device makes them [seem that way].

Cameraphones share many characteristics with electronic toys and games. They are both small size, often colourful objects with miniature size screens, and they are both portable, audiovisual and electronic. In Oksman and Rautiainen's (2003, 297–298, 306) interview study, teenaged interviewees compared their mobile phones (without cameras) to virtual pets. Smaller children treated mobile phones as toys or placed them in the same category with toys when asked about their favourite objects. In the context of Japanese youth media culture, Mizuko Ito (2006) points to the media mix that takes place in the use of "portable media formats such as Game Boys, mobile phones, trading cards and character merchandise (...)" The way in which people engage with the photo albums and cameras on mobile phones resembles the way they engage with electronic toys and portable game devices. They are both interacted with alone as well as in company for fun, entertainment, joy and for feelings of attachment. As I mentioned at the start of this section, they are also both perceived as a way of passing time.

> SAMI: Well, I do actually look at [the photos], the selection that I happen to have on my phone, sometimes. Not necessarily because of any sensible reason, but while others play games on their mobiles, when I've got the five minutes on the bus, I might sometimes see what I have on the phone again. It's a bit like looking at some old text messages, like, oh, this thing happened.

> JANI: I was really bored, but I don't really- I mean, in that case I might look at pictures or play a game on my mobile phone.

In sum, I suggest that cameraphones were not represented as playful devices only because of their negative aspects compared to cameras. Cameraphones were also represented as playful because phone cameras were seen as gadgets that were not necessities but fun (the other functions of the phone could of course be seen as

necessities); cameraphones made it possible to pass time in an enjoyable way; and their miniature and colourful characteristics reminded the participants of decorative objects and portable games. Furthermore, the next chapter illustrates how common playfulness was in cameraphone photo circulation and exchange.

3.5. CONCLUSIONS

In this chapter, we saw how cameraphones and cameraphone photos were objectified. They were evaluated and interpreted as something other than photography through comparisons with domestic photography. With manually operated cameras as the technical norm, cameraphones were classified as camera devices negatively through what they lacked in image quality or other camera functions. The usages available for cameraphone photos, such as picture messaging and ways of integrating them into the phone's functions, also marked cameraphone photos as something other than photography. The usages were not part of a common domestic photography aesthetic. Also, skills needed in using the photographs did not correspond to the status that skills in what was classified as proper photography could provide.

Conventions of domestic photography were also at play when proper display of cameraphones and cameraphone photos was defined. The participants perceived cameraphones as suitable for photographing the everyday but not appropriate to be used at ceremonial situations or other occasions outside daily routines. Representations of different camera devices in marketing campaigns supported the classification of digital cameras and cameraphones into separate categories. Cameraphones were marketed as lifestyle products, digital cameras as technical necessities. Apart from negative definitions for the cameraphones and cameraphone photos, positive statements were made through classifications that associated the phones and photos with playful and decorative miniature devices. I saw this as an indication that, instead of the disposition of domestic photography, where particular aesthetics, usages, and physical artefacts are valued, the disposition of entertainment could perhaps be more fruitful in trying to understand the cultural role and meaning of cameraphones and cameraphone photos to their users.

Representing and objectifying cameraphones and cameraphone photos through their actual use emerged as a less complex and manifold field than suggested by their linguistic representation. Distinctions between cameraphones and digital cameras at the level of discourse dissolved in practice to give way to pragmatic concerns. In given situations, the availability and condition (battery life, defects) of cameras often determined the choice between them. Cameraphones were used at everyday as well as festive occasions. Subsequently, cameraphone photos were viewed, displayed and integrated into messaging without deliberating their value as an aesthetic object. (Silverstone et al., 1992, 23–24)

In order to understand the interpretations that given media devices gain, it is useful to consider how other media are interpreted, and what historical conventions or familiar practices the devices and their use are associated with. At the same time, it is important to note the continually transforming character of the interpretations and conventions referred to. Media cultural contexts in which specific media are used and interpreted are not fixed but changing. When people introduce new practices to photography with cameraphones, there follows a period in which the new practices are "in search of interpretation" (Koskinen, 2007, 6; see also Woolgar, 2005, 27–28), in search of new or modified norms and conventions for photography. In this chapter, the search was manifested by the fact that it was easier for the participants to define what the cameraphone was not than to define what they thought it was. Cameraphones and cameraphone photos were made sense of through the conventions of domestic photography and termed as "just playing." Nevertheless, the phone and the photos were used in various situations and represented as fun and pleasurable.

Descriptions of the cameraphone and its definitions are likely to change as time passes and their technological and cultural contexts change: as domestic photography, cameraphones, their use, and their consumption change. As digital snapshots continue to be introduced to arenas that have not been associated with the conventions of domestic photography before, such as mobile and internet messaging and tabloid papers, the criteria for "real" photography may transform. Circulating photos onto the personal computer and on the internet only for the fun of it may in the future be seen to be as normal as storing photos in print photo albums. Consumers may

also begin to see cameraphones as necessities as they assume similarity with the technical functionalities and qualities of digital cameras. The concept of what is a necessity and what is luxury also changes through generations of consumers, especially in the field of information and communication technologies (Wilska & Kontinen, 2006, 47–48, 55).

4. The circulation of camera-phone photos

This chapter focuses on the ways in which cameraphone photos were circulated from and onto the mobile phone. In mobile communication, the photos were not confined to picture messaging but became embedded in mobile communication in its entirety with text messaging and phone calls. In internet communication, the photos became embedded in casual chat conversations and e-mails, which was also the reason why there were attempts to regulate cameraphone photo taking and storage. Once on the computer, the origin of the photos as cameraphone photos faded as they became mixed with all other pictorial content available on and through the computer. While observing the use and circulation of photo files in and across media, I examine into the socially shared technological contexts of photo circulation.

The mobile phone is often used as an example of media convergence. The common notion is that the mobile phone is a converged medium because, apart from voice telephony, it hosts applications for other modes of communication (text and picture messaging, e-mail), for media content (games, internet browser, radio, music player, television) and for personal life management (calendar, calculator, alarm clock). (Jenkins, 2006, 16; Villi, 2006, 101, 104) This can be characterised as a technological and industrial viewpoint from the perspective of which the mobile phone is a converged medium simply because all of these applications have been added to it by the phone manufacturers, regardless whether they are employed or not by the phone users. From the technological and industrial perspective, convergence is understood "primarily as a

technological process bringing together multiple media functions within the same device." (Jenkins, 2006, 3)

Convergence can also be conceived from the viewpoint of the mobile phone user. From this perspective, it becomes relevant to examine the ways in which users connect and combine applications and media content. Sometimes users converge media in ways that are different from or even opposite to the industry aims, such as when cameraphone users transfer their cameraphone photos to the computer and circulate them on the internet instead of the mobile picture messaging service. The media analyst Henry Jenkins (2006), writing about "convergence culture", stresses the importance of consumer participation in shaping media convergence. In Jenkins' (ibid., 2–4) view, consumers converge media as they circulate content across media platforms, seek out information, make connections among dispersed media content and form communities where the consumed media content and its circulation and retrieval are discussed: "Corporate convergence coexists with grassroots convergence" (ibid., 18).

The cultural anthropologist Mizuko Ito (2006) has discussed the grassroots convergence of commercial media content as "media mixing". Focusing on Japanese popular culture, Ito uses the term media mix to describe how consumers access media content, for example stories around a fictional character, through different media formats such as electronic and video games, animations, comics and card trading. Apart from allowing consumers to "select and engage with content in more mobilised ways", media mixing, or grassroots convergence as Jenkins (2006, 18) puts it, allows consumers to "create lateral networks of communication and exchange at the consumer level" (Ito, 2006, 7). Both Jenkins and Ito focus their analysis on media content. I suggest that in circulating cameraphone photos and other digital pictures, shared meaning was constructed not only for the images but also for the particular communication channels that were used for the circulation.

4.1. PHOTOS AND MOBILE PHONE COMMUNICATION

RAIMO: I send text messages extremely rarely, because I have to wear my glasses, and wearing glasses – at least at work I never wear them. (...)

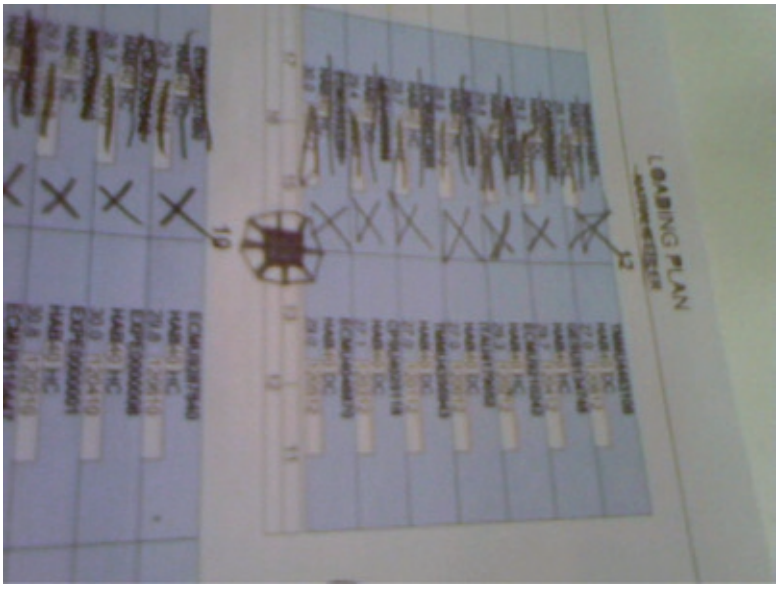

Figure 4: Loading plan at the port photographed by Raimo

> Just sending the picture, it's like, it saves you so much trouble. I don't have to start making a call, or writing a text message with some long explanation. Really, one picture tells you so much.

Raimo, 53, sent most of his photo messages at work to other stevedores. According to Raimo, practical reasons spoke for communicating with photos instead of writing text messages or for making phone calls. First, ports are noisy, which makes speaking on the phone inconvenient. Second, stevedores work outdoors or in unheated spaces. In the Finnish winter months, the temperatures are most often below freezing and can drop to 35 degrees Celsius below zero. Freezing temperatures make it difficult to operate anything with bare fingers, and if you need eyeglasses, they turn foggy when you put them on outdoors. Because of the cold, time indoors at the workers' facilities is valued. The stevedores used photo messages to mend the official working plans into what they saw as sensible in terms of spending the maximum of time indoors.

> RAIMO: This [photo] is taken of a print loading plan. So, when I for example get the loading plan from a ship, there are two assistants who need to do certain things. When I send them this picture, they'll know straight away that they won't have to show up for another hour and a

> half. If I had to say it out loud and everyone heard it, it wouldn't be very appropriate. But now that I send a photo to the guy there instead of saying it on the common phone, they'll know (...).

Some of Raimo's messages, such as the loading plans, were instrumental to managing work. Most of his messages were playful and humorous at the same time. Heather Horst and Daniel Miller (2006, 84; 96) note that it is often difficult, and sometimes irrelevant, to divide mobile phone use into instrumental and non-instrumental use. These areas intertwined and overlapped in picture messaging as well. Raimo's and Toni's regular and frequent picture messaging took place at their workplaces. (Outside work, they sent picture messages occasionally.) They both named practical reasons when explaining their motivation for using pictures instead of voice or text. Picture messaging required fewer operations on the phone keyboard than text messaging. The pictures did not need captions as they were sent to people who were aware of the purpose of the picture and able to discern the information from the picture alone. Below, I observe how the photos complemented voice and written communication and how the benefits of the photos extended beyond practical aspects.

Picture messages were also less intrusive and more private than phone calls both for the sender and the receiver. Some pictures, such as Toni's construction site photographs, communicated information more quickly than a verbal description would have. Toni used both cameraphone and digital camera photos at his work as manager in municipal heating systems. His cameraphone photo messages and photo e-mails communicated work stages at construction sites and helped when making orders for materials. As seems to be common in cameraphone use at workplaces where visual information is instrumental (Ling & Julsrud, 2005, 333), out of their own initiative, Toni and some of his colleagues also added photographs to the required construction site documentation that was archived. Taking, sending, printing and archiving photos meant some additional work for Toni but he wanted to keep up the practice because he saw it was useful for himself and his colleagues. Photographic documents in the archives, for example, made it easier to plan reparations later because close-up snapshots made details visible that written documents and blueprints did not. To-

ni's use of cameraphone photos in connection with other communication channels and documentation materials created, in Ito's (2006, 7) terms, synergy in constructing and retrieving work-related documentation.

At a closer look, picture messaging was not fully instrumental for either Raimo or Toni but as Ling and Julsrud (2005, 333–334) have noted, its benefits extended beyond practicalities. Toni's and Raimo's cameraphone use also contributed to the "maintenance of the group and its collective experience" (ibid, 334). The sense of camaraderie was supported by the fact that only some of the colleagues took part in the photographic activities that caused additional work and sometimes took place outside working hours. Toni defined these people as colleagues with similar interests in photographic communication and documentation as well as with a similar attitude to their work. He sent and received photo messages of construction sites to and from certain colleagues even on holidays for reassurance that reparation had proceeded well.

> HELI: But it's not always significant -
>
> TONI: No, no, no – that you should be able to forward the picture? Only in the sense that the situation is, let's say there is a situation that requires a quick reaction like placing an order. I can take a picture to show what kind of situation, what kind of damage. Other guys will know what has happened, or if I'm replacing someone, I'll see which way the reparations have been made. (...) Moilanen, for example, has the same way of thinking as I do, that we, all of us who work here, that we don't just work here but that it belongs to us. The style of thinking is a bit like the old days that it's our network, not the city company network.

At the port, Raimo's messaging took place only among the stevedores who worked at the docks. With the help of their private cameraphones, the stevedores communicated information that they did not want to expose to the port managers who worked at an office some kilometres away. The radio frequency phones were overheard at the office and the stevedores could not discuss, for example, the way they organised their work against regulations or the selling of alcohol and cigarettes on the ships. In exchanging this information in mobile phone communication, Raimo took advantage of the suggestive and symbolic nature of pictures in terms of information,

Figure 5: Heating pipe under reparation photographed by Toni

and the shifting meaning of the pictures according to context. His photos could either be read like Toni's, as straightforward information on the depicted target; as plain jokes; or as informative, instrumental messages for those who were aware of the true meaning of the photograph.

RAIMO: This one, this is related to work. It probably seems pretty odd, sending photos like this in the workplace. But us- we carry out our work in a certain way, and we should have a certain number of guys doing certain jobs. Everyone's got [radio frequency] phones, and we can't say out loud whatever on the [radio frequency] phone, if it happens that one of the guys who should be there is not. It's, well, [being absent is] basically not allowed, but it's very common. And when the bosses ask who should be working there, and no one is – like, something is not happening there that should be – we send a picture like this to the guy who's responsible for the job. He will know who the [missing] guy is, but you don't have to say it out loud over the phone. So it's a kind of camouflage. (...) It's really efficient. It just must feel, like, really odd to an outsider: can't you just say it out loud instead. But when we're loading or unloading a ship, there are certain jobs. Now, we might have a deal that one guy will take care of a job for two. If there's a problem – the bosses aren't there but they're watching it on the monitors – they'll notice and ask,

Figure 6: Raimo's example of a message that notifies managers are asking to locate a colleague

> like, where's this and this, or who should be there. So no one answers it. But you send a photo like this so that the guy [laughs] who is running the job knows to reply that 'he's here but out somewhere at the moment'. So it's really, in a way, very simple, but we've developed the idea further.

The camaraderie was consolidated by the humorous tone of the messaging. (See also Koskinen et al., 2001, 62) For Raimo, picture messaging provided another extension of the humour and joking that existed as verbal communication at the port. As he sent out pictures related to work tasks, he took the opportunity to transform them into visual puns. One of his techniques was to use a photo that he had used before in other contexts. A picture of a glass of brandy had served as an answer to many kinds of questions. Raimo had replied with it to questions about his plans for the weekend, for example, and I, arranging the study, received the photo with the caption: 'Doctor's orders – three days' sick leave'.

Several studies suggest that cameraphone photo messaging contributes to the understanding of a common history and mutual context among the senders and recipients (Battarbee & Kurvinen, 2005, 81; Ling & Julsrud, 2005, 334; Koskinen et al., 2001, 51–62,

Figure 7:
A glass of brandy photographed by Raimo

75–86; Scifo, 2005, 366). Ling and Julsrud (ibid.) use the word "lore" to describe the common knowledge that cumulates around the messages over time. Lore can be summarised as the stories and anecdotes that are told about the taking, content and exchange of the photos. This is what Stuart Hall terms as giving meaning to things "by how we represent them – the words we use about them, the stories we tell about them, the images of them we produce, the emotions we associate with them, the ways we classify and conceptualise them, the values we place on them" (Hall, 1997, 3) However, apart from the photos, cameraphones themselves engender lore, or shared meaning: stories and anecdotes cumulate also around the consumption i.e. purchase and use of the phones. Through this exchange, the phone owners create a mutual context for a shared technological culture. From within a shared context with peers, it is safe to negotiate the use or non-use of different communication technologies.

For both Raimo and Toni, photo messaging offered a shortcut from the phone keypad. Both men avoided sending text messages. Raimo said that it was difficult for him to enter text on a small keypad. Toni struggled with the automatic text enter function that he said distorted his messages. Both seemed frustrated over not mastering text messaging for the reason that it was common practice

for people around them. The frustration could be seen as connected to ideas of competency in information and communication technologies. Not being able to write and send text messages could be interpreted as being an incompetent mobile phone user, and therefore picture messaging provided a welcome alternative. It made Raimo and Toni competent members of the shared technological and cultural context of mobile messaging, which had become an integral part of Finnish society in the late 1990s through the proliferation of text messaging.

Picture messaging became all the more meaningful for Raimo and Toni through the shared context related to technology consumption. Regular picture messaging, especially in the context of work, justified the ownership of the latest mobile phone models and a disregard for the cost of messaging (both of which were commonly seen as something to be critical and restrictive of, as is discussed elsewhere in this study). Using the phones and the messaging service integrated Raimo and Toni into the information and communication technological consumer culture as affluent consumers. Raimo had never used computers, with which he said he was completely useless and clumsy, and had no intention of taking them up. In turn, Raimo had a state-of-the-art cameraphone that he described as easy to use in any task, including adding photo frames or sound files in his messages. Some of his picture messages were circulated by his colleagues, making them, according to Raimo, "classics" or "icons". This confirmed the success of his cameraphone use and photo messaging, which sustained and contributed to his social status at the port.

RAIMO: Certain pictures are becoming classics in our circles, for example the one with the mask, and what else, the coffee machine photo for example. You can of course take new ones but I haven't. I'll definitely keep them for quite a long time. And video clips are usually ones, they're of course unique in a way (...).

HELI: Where did it start spreading from, did you send it to someone or has the recipient-

RAIMO: The recipient has, like, I've never spread any pictures on purpose, but never told anyone not to do it. So if something becomes, like the photo with the mask, an outsider won't necessarily recognise who it is and there's nothing harmful about the picture. But they've become

certain kind of, certain pictures, they become, I could say, icons. They do represent certain people, a certain event, certain work, so it is very symbolic.

The participants rarely sent or received immediate photographic responses to picture messages. However, the rarity of responding to a picture message with a picture did not mean that picture messages were not responded to at all. They were, but instead of pictures, with phone calls or text messages. Similar observations have been made in relation to picture messaging before (Kurvinen, 2007, 52–53) and in the case of text messaging (Kopomaa, 2000, 68). This calls into question the view that mobile phone users would generally try to engage in communication with the same modality (Haddon & Vincent, 2005, 235) and suggests that instead, it is more characteristic for cameraphone photos and pictures to intertwine in the combination of mobile communication channels and modalities.

HELI: When you send photos, do you get a reply?
Paula: Umm, sometimes.
HELI: With a picture?
Paula: No, without.
HELI: Why do you think that is?
PAULA: I don't know [laughs]. They've got nothing to take photos of I guess, I don't know. Normally I get a text message, like, as a reply. I rarely get photos in particular. Sometimes my sister will send, like, something like, "we've cut down trees now" or something, from the summer cottage. "Now it looks like this" [laughs], that sort of thing.
HELI: How do you reply to them? When you get a picture message.
PAULA: Mm, I reply with a text message, or call them. But not with a photo.
HELI: Why?
PAULA: [Laughs] I just, I don't really see myself replying to them with some photo, like, in particular.
HELI: Yeah, so with a text message most often?
Paula: Yeah, I've just sent a text message, like, "looks nice".

AILA: (...) I must say, it happens to me, too, that when someone sends me a photo, I call them up [laughs]. Like, "OK I got it, and it looks really good" [laughs]. For real. The same happens to me [laughs], that the

person I sent the photo to calls me up. Like, "yeah, looks great!" [laughs]. So it kind of waters, waters it down, but maybe it's part of [picture messaging].

HELI: Yeah. Umm, does it happen that you'd get a photo back or that you'd reply with a photo, or is it always the phone call?

AILA: I haven't replied to any, and no one has replied to me with a photo. So, yeah, calling-- by the way, I just came to think of something. I haven't come to think about it, but it did happen that I called, to a photo, when I received a photo, about it, and then they called me back [laughs].

Aila's comment is interesting in how it brings together aspects where meaning is said to be produced for media in the circuit of culture model (Hall, 1997, 1; Du Gay et al., 1997, 3): representations of cameraphone use and picture messaging, their consumption and their regulation. Aila had formed a view of the "proper" use of picture messaging, possibly influenced by its marketing, that you should reply to a picture message with a picture. She consumed the service in a different way, which she found amusing because she felt that there were rules, although unspoken and unserious, that she and the people who did not respond to her picture messages with pictures were breaking. In her own representation of picture messaging, Aila negotiated the possibility to include other than visual modalities to picture messaging by stating that perhaps they are part of it. Aila's comment wraps up the themes of this section in the sense that it shows how cameraphone picture messaging was converged or mixed with voice and written communication, as well as with communication with other mobile media (radio frequency phones) and with the use of other documents (Toni's digital photographs and blueprints).

4.2. CAMERAPHONE PHOTOS ON THE INTERNET

Mobile messaging services have not isolated cameraphone photos into mobile phone networks. In previous studies concerning cameraphones, the internet has been mentioned in connection with cameraphones mostly in terms of "moblogging", sending photos from the phone directly to the internet, to be published openly or on websites open to peers. (Goggin, 2006, 153–161; Koskinen, 2007, 13–14; Sarvas, 2006, 61) To date, moblogging has not become com-

mon in Finland, and none of the participants mentioned using photos in this manner. Using the internet on the mobile phone was not common among the participants, either. Only one participant, Eeva, mentioned using her internet e-mail on her mobile phone.

Instead, nine out of the sixteen participants I interviewed downloaded cameraphone photos onto their computers and circulated the photos on the internet in varying degrees and fashions. These nine were three older and three younger adult men, two teenaged boys and one young adult woman. (Why these nine had adopted these practices and what excluded the other seven, all but one female, is discussed in Chapter Five.) The teenaged and young adult participants mostly used the instant messaging application Messenger for sharing their photos and sometimes e-mail. The internet photo sharing site *Flickr* and the Finnish photo sharing and chat site *Irc-gallery* were mentioned. The adult participants preferred e-mail or used company networks for sharing all types of photos.

Once the photos had been transferred onto the computer, the participants felt it was easy to integrate them into their internet communication. Compared to mobile messaging, sending photos via the internet was also perceived as cost-free and reliable. Low cost, effortless use and technical compatibility have been observed to be at the core of technologically mediated user-generated communication becoming active (Battarbee & Kurvinen, 2005, 81–82). The cameraphone photos often depict everyday environments such as the school, the home and the home neighbourhood. Cameraphone photos were compatible with the participants' internet communication both at the level of visual culture and at the level of technicality. The casual subjects and style of the cameraphone photos suited the informal, impulsive and everyday mode of the internet communication that they were made part of. However, the fundamental benefit of having cameraphone pictures on the computer was that they became part of the photo and picture corpus stored and accessed on the computer from which to draw in internet discussions and content publishing.

> HENRI: I do it on the computer, with the Messenger. Because of the cost. Well, [sending mobile picture messages is] not that expensive, but it's just not my thing. I'd rather say, like, you'll get a few photos online. Much easier. Neater.

In instant messaging, cameraphone photos were shared amidst discussions. Sometimes the conversation was based on exchanging pictures, sometimes it spontaneously and momentarily turned into exchanging pictures. Henri had been advising his friend on what kind of audio system he should equip his car with. In instant messaging conversations, they exchanged their own photos, photos downloaded from the internet and links to internet sites on the topic. Sami remembered a casual conversation with two friends. One made a joke about the other's car, and the conversation turned into a playful exchange of photos, retrieved from the computer and the internet, each suggesting a more miserable-looking motor vehicle to be the car that the friend owned. In this kind of exchange, cameraphone photos were regarded as an equal part of the whole body of picture files available to the participant on the personal computer, including pictures available on the internet.

An aspect that made the mix of pictures noteworthy was that it worked in contrast to some of the participants' personal archiving systems where phone and digital camera photographs were kept in separate folders. In the context of internet communication, the participants did not mention qualities such as image precision or colour reproduction, which were brought up when participants evaluated cameraphone photos in general. Instead, the value of the cameraphone photos in internet conversations stemmed from their subject.

> HENRI: (...) [I]f it's got to do with pictures of cars, I sometimes send [my pictures in the Messenger], or we post links to sites with pictures.

> EEVA: [T]he picture that I sent to [my boyfriend] ended up in my Messenger, umm, as an ID, as a Messenger, like, photo.
> HELI: (...) You mention here that getting the cable was groundbreaking for using the photos. What does that mean?
> EEVA: Well, precisely that I can send them more easily by e-mail whereas it, [the phone] took, or, it's somehow so slow to e-mail with [the phone] after all. So, I liked it that I got them, for example the Messenger photo, I can use them in that kind of situations. So that's why I thought it was groundbreaking. (Eeva, musician, 27)

The purpose of adding cameraphone snapshots in instant messaging conversations or chat sites was generally not to display photos for their photographic value (as the participants defined it in chapter three). Most important was the relevance of the photos to the topic at hand, in other words, their subject. Eeva wanted to represent and deliver information on her. Henri wanted to discuss, deliver information on and show his knowledge of cars. Any type of media content available was useful material in this exchange. In Jenkins's (2006, 2–4) and Ito's (2006) terminology concerning media convergence and mixing, Eeva circulated her own media content across media platforms as she embedded her cameraphone pictures into her instant messaging conversations and e-mails. Henri made connections among dispersed information on cars, converging them into one medium that was in this case his instant messaging channel. At the same time, both formed small communities of friends around the consumed media content.

The socially shared technological context that I claimed was important in mobile messaging was significant in internet messaging as well. To start with, the groups reached by internet communication, which for the participants was computer-based, were different from those reached by picture messaging. In the previous section, we saw that Raimo and Toni sent and exchanged picture messages mainly at work, and I suggested that this was because the meaning of the consumption and use of cameraphones, and picture taking and messaging was shared by the colleagues in the same way and to the same extent. The focus was less on what type of pictures were sent in the exchange.

Social boundaries on the internet were also primarily defined through a shared technological context: through particular messaging channels and only secondarily through the types of content circulated. The teenaged and young adult participants drew a line between friends, reached through instant messaging and chat applications, and relatives, reached by e-mail. (See also Oksman & Rautiainen, 2003, 299) This was a descriptive division describing the situation rather than a normative one stating a desire to keep the groups separate. The division implied, first, daily face to face contact with friends that continued on internet chat at home, and a more irregular contact with relatives that was maintained with irregular e-mail messages. Second, and more significantly, the divi-

sion implied that relatives were normally older and thus accustomed to a different computer and internet culture from before the time of instant messaging and chat. Speculating on the future of internet media and communication is outside the scope of this study, but considering the above division, it will be interesting to see whether it dissolves as the internet-literate generations become uncles and aunts, or whether internet applications built to support social interaction will be produced, represented and consumed to support boundaries between generations.

> TOMMI: [In the Irc-gallery] it's, like, chatting, and posting pictures, when we've been out mucking about. We remember the photos and the events, just chatting and asking, like, do you want to meet up today, reminders, and stuff. (Tommi, 17)

> HENRI: My friends are in the Messenger and my relatives in e-mail. I mean, I don't think I have any relatives added to my Messenger. They are covered by e-mail just as acquaintances, and if I send something to my friends, it's through the Messenger.
> HELI: Does it affect the topics if they are friends or relatives?
> HENRI: Yes it does. I wouldn't send photos of my cousin's christening to my friends. (...) Well, with my uncle, we've sent messages of all kinds of silly things. He just got a new computer and internet connection so he asked us to send him some fun stuff. So I've sent him stuff he's probably not so much into but whatever.

The significance of boundaries in making picture messaging meaningful was illustrated in Aaro's e-mail messaging. The younger participants drew boundaries within their social networks by using different internet media with different groups of people. They could choose from the several channels at their use. Aaro, who only reported using e-mail, drew boundaries in his social networks through the different types of picture material that he circulated through e-mail. Aaro could not send pictures from his mobile phone because of restrictions set by his employer, who provided it, but he did not own a digital still camera so he took his photos with the phone. His photo messaging to friends, colleagues and acquaintances consisted of visual jokes, puns and curiosities. In winter, he sent pictures of ice, snow and low temperature meterings and TV forecasts

by e-mail to his acquaintances in what he called the hot zone. Aaro's premise was that people in warm climate countries such as Australia, Brazil, Kuwait, Saudi-Arabia, or Malaysia, many of which he had visited on business, had no conception of what winter in Finland was like. Therefore he could use his photos to amaze and puzzle them winter after winter.

> HELI: How did you, why did you send these photos to them specifically? You were watching the weather forecast and how did it go from there?
>
> AARO: Well, I mean, I've always bombarded the foreigners with photos of this type. Some years ago I shot a clip with the video camera in the kitchen, where we had this old-fashioned temperature meter. So I shot it standing by the kitchen door, from a distance that is, I shot the kitchen window, then started zooming into the meter (...) closer and closer, you still couldn't see how low below zero the meter was pointing to, only when it got to minus 35 you could see it. And I made a clip out of it and sent it along, and got pretty good feedback for it, too.
>
> HELI: Oh, okay.
>
> AARO: Well, you can imagine if someone in Kuwait sees something like that, you know.

While we were in contact related to the study, Aaro also sent me the e-mail "spam" (e-mails classified as insignificant in terms of information circulated among groups of friends, acquaintances, or colleagues) that he received or sent. The most popular themes among the male-dominant group of colleagues who circulated the messages were sexual insinuations, cars or sports, and most of the messages were one-off visual jokes. Aaro laughed when I asked him if there were people from his "hot zone" network in his chain-message network. He said he could not possibly send these kinds of e-mails to a young woman in Kuwait.

In sum, digital pictures in different communication channels, mobile or internet, were used to gather people around the pictures to strengthen the sense of belonging together through shared meanings, or lore, made up of the cumulating shared history and context around the pictures. (Ling & Julsrud, 2005, 334) The shared meaning gathered not only around the pictures but also around the media with which they were shared. What is important to note is

that different media technologies and communication channels were not universally accessed and used by everyone although they were available to all participants on their computers. Media that were deemed acceptable, desirable and convenient by some users were not even considered for use by others. In other words, groups of people constructed together not only the shared meaning of their visual communication but also the shared meaning of the technological context through which the communication could take place.

4.3. CAMERAPHONES AS IMAGE REPOSITORIES

One of the teenaged participants, Tommi, used his cameraphone as a viewing device for his video works. Tommi and his friends regularly gathered outdoors to try out stunts such as taping a small fireworks rocket onto a sledge and sliding down the hill as the rocket burned. Tommi's role was to shoot the stunts on video. He did not name influences for the hobby, but in previous years, both Finnish and American television series with young men performing wild stunts had been popular among the younger viewers (shows as *Jackass* or *The Dudesons*). Tommi edited the clips on his home computer together with his friends, but he uploaded the video files onto his cameraphone, because regardless of its technical restrictions compared to the computer screen, it was the viewing device that was available outside the home.

> TOMMI: Another thing I do on the bus when I'm bored-- when I've edited a fun home video on the computer, next, I downsize it so I can run it on my mobile phone and upload it. I can watch it when I'm bored, or show it to my friends. Like, look at what we've been up to. That's what I use the phone more for, not so much for showing photos. I show these clips.

With the digital video camera, computer and cameraphone, Tommi and his friends engaged with popular culture representations first by mimicking them and then by reproducing them through their own collaborative media productions. Televised content, here in the form of stunts, was circulated across media platforms, ending up on the cameraphone, reproduced and modified along the way. A

community of interest, in Jenkins' terms, or a lateral network of communication in Ito's, was formed around the stunts and their mediated representations. As in the previous sections, I suggest that the community was formed equally around the video camera, the computer editing software and the cameraphone as a tool for viewing. The same forming of community around the phone emerged in playful uses of the cameraphone in social encounters. The cameraphone was a tool for amusement, for having fun; it was something on which those who were present could focus their action and wittiness (Koskinen et al. 2001, 35).

> HENRI: I think it was Mika's phone, he took some photos of us fooling around, and we checked to see what sort of photos he had managed to snap. But I don't think any were kept. He took some action photos at the birthday party and we got a good laugh out of them, there were some good action bits in there. (...) He took photos of, like, now let's take a photo, and then we looked at them, like, show me what it's like, how do I look, or how stupid do I look, like that. Like, okay, I don't need to save this, we'll delete this one, right, this kind of action footage, and then we saw again how stupid we looked. (...) We admired ourselves. Or were ashamed of ourselves, more like it [laughs].

Present in the sense of community and as part of the play was the knowledge that the photos could be reproduced, sent, or transferred out from the phone. This added a certain tension in the playing with the cameraphone. What Henri presented as trivial "playing around" fundamentally depended on the decision to embarrass oneself, expose oneself to "looking stupid", and therefore trusting the people taking part in the play not to exploit this decision by circulating the photos. Niina, another teenaged participant, reported that her boyfriend Harri had infuriated a friend by posting a picture of the friend, wearing a women's t-shirt at a party, on Harri's web photo directory. Harri anxiously denied having done anything wrong, saying that nobody knew the address of the site and that the photo had only been there for a day or two. With the simultaneous proliferation of digital photographic devices and internet publication platforms in the 2000s, people have become aware of the fact that any photo may be circulated among peers as well as publicly. Getting even in terms of taking silly photos of each other and nego-

tiating or arguing about whether to keep or delete the photos was part of Niina and Harri's own playful use of the cameraphone.

> NIINA: It's an eye. Again, some kind of let-me-take-a-photo-in-Swedish-class-dot-fi. (...)
> HELI: So what happens if one of you takes a photo like this of the other one, what happens after that?
> NIINA: We laugh at it, and then we delete it. [Laughs]
> HARRI: [Laughs] Exactly, we fight about deleting it.
> NIINA: Yeah. [Laughs] (...) [Harri] once took a photo of me, like, of my eye, so I tried to do the same, but I missed. [Laughs]

Cameraphones made photos portable and as a consequence, the question arose who in social encounters could look at them. Tactics were devised for keeping photos secret from some people while keeping them available to oneself. Niina liked to keep a photo of his boyfriend displayed on the screen, but when her mother asked to see the phone, she quickly switched it into a picture of her teddy bears so that her mother would not tease her about constantly looking at Harri's photo. Niina also arranged her photos into folders in a way that kept certain photos away from her friends' eyes.

> NIINA: At times, a friend asks me if she can look at the pictures and I show them.
> HELI: Yeah. How do you do it?
> NIINA: Usually, like, yeah you can see until here, but that's it.
> HELI: You keep them in folders so you know what folders you can show?
> NIINA: Actually, I have folders where I put the ones I want to keep, and the others are sort of loose. The ones others can see.

Eeva and Henri also arranged photos into folders in order to keep certain photos secret. Henri did not reveal what these photos were; Eeva's were of her boyfriend and she did not want her friends to see them. It is challenging to gain empirical knowledge on the pictures that people want to keep private, and there are no reports in current cameraphone literature on this area. However, the emphasis on the privacy of the cameraphone suggests that intimate photographs and photography is one significant aspect of cameraphone use.

Even with photos that were not intimate, the privacy of viewing cameraphone photos alone was highlighted. All participants except Toni and Aaro described looking at the photos on their phone as diverting, nostalgic, or even sentimental. The photos were typically looked at alone at home or while commuting.

> AILA: Well yeah, pretty often, now that I think about it, I look at [cameraphone photos] if I'm on the train to Turku and I've got nothing to do. I've read the papers that I have, or something, and I look at the photos on the phone. It's not necessarily related to, I'm not always feeling melancholic when I'm going to Turku [laughs] but, (...) and then, at home, on the sofa. Like, you're sitting there and the mobile is there at hand. So, you're just there, and the TV might be on or the stereo, and you sit there thinking about something, going over some things on your mind.

Saara compared looking at her photos to reading a book or a magazine in a public place, explaining that it was easier to enjoy privacy when immersing oneself in the phone. Saara, like Laura, also drew an analogy to print photo albums at home to stress the privacy of the phone photo collection. The print albums at home, she pointed out, were placed so that others could see them, take them out and start browsing. The photo albums were a photographic representation of the household out to the public, whereas the cameraphone was a personal, even secret album that was under the control of its owner alone.

> SAARA: Umm, sure on the other hand you could read a book or browse a magazine [when sitting around waiting for something]. But maybe it's like, you withdraw to your own world. I mean, no one else will come up and see [laughs] what I'm up to on my mobile. Like, if you're reading a paper someone might come up and start to make comments on it. [laughs] Maybe it's something like that. I haven't really thought about it but it might well be that it is like that. A private moment [laughs].
> (...)
> If I take pictures with a cameraphone, I just take them primarily for my own use. If, on the other hand, I take photos with the film camera, it's for, it's more likely that I'll show them to someone else. So maybe it's, it's more personal if I take photos with a cameraphone.

HELI: Yeah. Why do you think that is?

SAARA: Well, maybe it's also that the cameraphone is not exactly, not everyone comes to think about it, like, 'she's probably got pictures on her phone that she'd like to show' [laughs]. Whereas a photo album, well, it's just the way it is, you can pick it off the shelf and start looking at the photos.

Photo or video files were not uploaded onto the phone not only to be viewed and browsed in the manner of photo albums. Cameraphones also provided a way to constantly see and display selected photos and pictures as background images on the screens. Jani had processed a digital camera photo of his puppy dog on the computer and installed it on his first phone that did not have a camera but had a colour screen. Henri had downloaded a picture of Donald Duck from the internet, processed and transferred it onto the phone and kept it on display on his phone screen for a long time. Laura and Tapio had "uploaded" existing print photos onto the phone simply by taking photos of them with the phone camera. These photos, typically of family members, were installed on phone screens for daily viewing or attached in the contacts list to appear when the person called. Both the photos displayed on phone screens and the photos kept in phone "albums" marked the boundary between public and private and also between groups of people in the public to whom viewing the photos could be trusted.

4.4. CONCLUSIONS

Given the magnitude of discussion on media convergence (see Villi, 2006, for a useful summary), it is surprising that only recently it has been approached from the perspective of how media users connect media applications and media files. The starting point of both Jenkins's (2006) and Ito's (2006) analyses of consumer-generated convergence is commercially published and distributed media content in the area of popular culture. Consumers access the content through different distribution channels and extend its consumption into their personal communication channels. The material under analysis in this study, cameraphone snapshots, digital pictures and video clips, is different in that it is both produced and distributed by the mobile phone users themselves.

Studying convergence through user-generated and other content is similar in the sense that in their circulation, a range of media and communication channels are involved. Media are connected by users both in technical terms and through circulating and accessing content across them. In the case of cameraphone photographs, the users mixed, or converged, channels in order to support the kind of visual expression and communication that they desired. As Jenkins points out: "[Convergence] also occurs when people take media in their own hands. Entertainment content isn't the only thing that flows across multiple media platforms. Our lives, relationships, memories, fantasies, desires also flow across media channels. Being a lover or a mommy or a teacher occurs on multiple platforms" (2006, 17).

Both Jenkins and Ito stress the importance of building communities around media content. This can be seen as due to the fact that both Jenkins's and Ito's analyses are geared towards fan culture. However, communities were also formed around the cameraphone snapshots and other user-produced digital pictures. Whether incorporated in in mobile messaging, internet use, or mobile phone use, the photos were used to gather certain people around certain photos. Or, seen from another perspective, boundaries were marked between social groups through deciding which photos could be shared with whom.

The photos themselves were not the only aspect around which a sense of belonging together was constructed. It also made a difference what communication channel was used for sending and exchanging photos. The people who gathered around certain photos also gathered around certain channels in which the photos were circulated. Picture messaging or instant messaging, for example, were not used by everyone, specific participants and their peers only. These participants and their peers interpreted and consequently consumed, or domesticated and regulated the use of these channels in different ways. The channels through which photos and pictures were shared were chosen according to what specific group of people was to be reached. In other words, according to the participants' accounts, their colleagues, friends and family communicated with each other through different channels. This was illustrative of how information and communication technologies became accepted and meaningful only through cultural interpretations and

social practices through which different groups constructed their shared technological contexts for communication. Apart from constructing shared meanings for and through the media content, the communities also constructed shared meanings for the technology in which the media was shared. (See also Nieminen-Sundell, 2003)

Not only media channels but also types of pictures were mixed. When cameraphone photos entered the computer, they became part of the vast archive of images available on and accessible through the computer. On the same note, cameraphone handsets did not only host photos originally taken with the cameraphone but images with different origins. When using photos, the participants made no distinctions between the photos or pictures based on the means of their production. In research, on the other hand, it is common to focus research on particular devices or content produced with particular devices. When studying digital media content from the user's perspective, if the users do not follow the distinction between devices in their understanding of digital media use, it becomes necessary to ask whether it is useful or plausible to follow it in research, or whether other techniques are needed.

5. Cameraphone photo user roles

Sending photos as mobile messages, or transferring photos from phone to computer was not a self-evident possibility for all participants. Transferring photos from the phone involved learning how to use the messaging or wireless functions on the phone; purchasing cables or transfer devices (at the time of the study, the most common was a Bluetooth receiver); downloading software provided by manufacturers; and making all these elements work together. The motivation to embark on this process of consumption and appropriation was weighed by the participants against how they perceived themselves as information technology users and consumers and as cameraphone photo users.

Studied through the practical level of plugging in cables and installing software, circulating cameraphone photos across media emerged as biased towards certain types of user profiles. Six of the participants, all women, did not or said they could not use their photos in mobile messaging; use them on internet communication channels; or store them on computers. The participants who regularly transferred photos across media were confident either with their technical skills with computers of with turning to the social network at their disposal to be able to use the photos in the ways in which they wanted to. This chapter responds to the research question "What kinds of meanings do cameraphone users assign to themselves as the users of these photos and technologies?" and examines how the domestication stages of appropriation, incorporation and objectification were reflected in the participants' discussions of their user roles.

5.1 "NOT FOR THE AVERAGE JOE": CONSUMING MOBILE SERVICES

Cameraphone marketing promotes sending pictures as mobile messages or transferring the photos from phone to phone through wireless file transfer techniques (at the time of the study, Bluetooth or infrared.) Many of the participants, however, were ignorant of both the wireless transfer capabilities of their phones and the messaging services to which they had subscribed. (See also Oksman 2006, 112) They either did not know what functions and services were available on their phones or how to use them. One of the teenagers, Johanna, had tried mobile photo messaging only once and failed to make it work. She had not tried it again because she was worried about the price of the service, but she did not know how much she would be charged. She could not use the wireless transfer technique either, as it turned out when we were arranging for her photos to be sent to me. Regardless, in the interview, she subscribed to the marketing image of the cameraphone that promised easy photo sharing.

> JOHANNA: (...) [O]f course I, like, thought I'd take photos with it, and like, sure it will be easy to send them, you know.
> HELI: Yeah. At [the point of purchasing the phone] you thought you'd send them?
> JOHANNA: Yeah, and you know, how easy it would be to do it directly from the mobile phone, that you could just send it.
> HELI: Yeah. Is there anything else, I mean, you haven't sent them, so it's a bit different from what you thought [using the phone] would be. Is there anything else that's, like, different from what you thought?
> JOHANNA: No, not really, it's become a little like using any mobile phone. And it's got all the, you know, infrareds and everything, but.

The process of appropriating cameraphones had two dimensions. The reasons for acquiring the phone were different from those for which it gained significance or authenticity when owned. After becoming owner of the material object, the user had to become the owner and user of the service products that were accessible with the phone. (Silverstone et al., 1992, 21–22) Johanna had chosen her phone carefully and had made an effort to obtain it as it was for long

sold out. When she had discovered that she could not use the functions for which she had chosen the phone, she had started using the phone as a pocket camera and photo album. This was the case with many participants: There was a discrepancy between what photographic functions the participants had imagined they would use, which motivated their purchase and ownership of the cameraphone, and to what extent they made use of those functions. (Of course, the photographic functions were not the only ones involved but also the availability of video and radio; the design; and the manufacturer of the phone were mentioned as reasons for purchasing a particular phone.) At the point of purchase, the camera and photo messaging or wireless transfer had been of interest to the participants. Most had been under the impression that sharing their photo files would be easy and lost interest upon the discovery that, on the contrary, it was difficult to make it work.

> NIINA: I delete them, like, when the memory space gets full. (...) Because I can't put them on the computer, because I don't have the cable, you know. (...) We should just see if Harri's cable works on my phone, too. But if he can't make it work on his phone either, I don't see how – but these pictures don't have as much value to me as ordinary camera photos anyway, so it doesn't really matter if I'm not able to keep them.

The greatest stumbling blocks in photo use were the messaging services and/or the wireless transfer. The difficulties were due to a lack of information on how the transfer techniques worked. Because of the complexity of these techniques, users had learn about them before they could use them. Not all users could tell which functions were associated with the phone and which with the teleoperator services or software packages connected to it. This made it difficult for them to solve technical problems as they emerged. Although it is susceptible to becoming obsolete, I will use as an example the picture messaging service standard MMS that the participants in this study worked with. At the time of the study, it was the prominent service product in conjunction with which Finnish teleoperators marketed cameraphones. It provides an illustrative example because it brings together different aspects through which the participants defined their consumer roles with respect to services related to cameraphone photo use. The most significant as-

pects were the price of the service, its effectiveness, and its nature as an information system. Several participants said that they were not motivated to find out how photo messaging worked because of the price of sending picture messages. Jani, one of the younger adults, admitted that he did not in fact know how the phone-to-phone photo exchange worked. He laughed about it and said that he was also unwilling to learn. He saw no need for the mobile messaging service and found it too expensive.

> HELI: Do you receive MMS, I mean [pictures] on your phone from others?
> JANI: Well, that's the thing, I don't.
> HELI: No one sends you any.
> JANI: But [laughs] I'm also not sure if I've got the service working. I know I've sent them, back then, I've activated it, but I haven't sent any or [laughs] received any. So in that sense. But in a way, I haven't seen it, like, even the novelty value of it. That I would send one to someone, and call them back saying 'did you get it' [laughs]. So, like, it just doesn't attract me at all. I don't know. Because I know, no matter how many offers there are for subscriptions, like, 'now you can send [MMS's] for one cent apiece all December', so they could make people use these services, I just wouldn't. E-mail is such a good way, or posting them on the internet.

Jani was able to transfer his photos from the phone to his computer, but he was unaware of the status of his messaging service and resisted finding out how to make it work. He characterised himself as being sparing and saw picture messaging as expensive. (In spring 2006 in Finland, the price was approximately €0.20 per picture message sent.) He was content to use e-mail as an alternative route, free of cost per transfer. Jani could have received messages from others for free on his mobile phone if he wanted to. But he also resisted the advertising image of the picture messaging service that, according to Jani, would generate uninstrumental, unnecessary messaging. According to Jani, picture messaging campaigns encouraged people to spend more money on their telecommunication only for the sake of trying out a novelty. Jani's view of the picture messaging service implied, first, that he was worried about having to engage in the messaging by responding to the picture messages one way or

another that involved costs. Second, Jani was critical about picture messaging seen as a fad and advocated the view of messaging with a specific purpose (see also discussion in Chapter Three on scepticism towards the cameraphone as a consumer product).

Raimo, who held no concerns about the price of picture messaging and did find it difficult to manage his account, was infuriated over the fact that he had sent and paid for messages that never reached the recipient. Raimo had a long dispute with his service provider as well as the handset manufacturer before they resolved that size restrictions for files sent and received varied according to phone model and manufacturer, causing problems in message delivery. Something that neither teleoperators nor manufacturers could help was that people did not know which of their friends and relatives had a telephone that could receive picture messages (see also Oksman, 2006, 112). In line with marketing representations, participants represented picture messaging as something that should involve the exchange of picture or multimedia messages only. According to them, in effective picture messaging messages could have been sent to anyone as a surprise, they would have been received and viewed only with a short delay, understood without further explanations, and responded to with a picture or perhaps a text message. That the sender would need to phone the recipient to check whether they had received the message was seen as ridiculous, undermining the core idea. (See also Chapter Four.) Because there was no certainty whether the recipient had taken up picture messaging or whether her phone could receive the files, text messages, phone calls and internet communication were sometimes unavoidable in the exchange.

> PAULA: In fact, on our holidays, I noticed that a friend of mine in the East now had [a phone] that I could send [picture messages] to. But she didn't have one earlier. I don't send [picture messages] to others, really. I don't know who has that kind of phone, do I. It would be silly to call them up and ask, 'do you have the kind of phone I can send pictures to?' [Laughs]

Sami, a young adult participant, was skilled in computers and an experienced user of various digital devices. Like many other participants, he had faced difficulties with his picture messaging serv-

ice settings and his phone functionalities, but he was motivated and determined to make the messaging function work. When technical problems appeared he persisted to look for a solution because he was eager to send and receive photos on his phone. Sami's path of problem solving revealed the range of parties, systems, tasks and requirements involved in picture messaging and the resources that the user needed for its consumption.

> SAMI: I've switched SIM card2, a couple of times I guess. I've got two phones, sort of, I've borrowed a better phone from [school] for a project. So every time I switch on my phone it loses the MMS settings. When I noticed it, (...) I had to subscribe to them once again with [my operator] and so on and, blah blah, set them. Plus (...) for [the operator] service you had to remember your user identification and password, which I couldn't. And I can imagine how difficult it is for the average Joe [laughs] to switch on the settings on his phone in the first place [laughs].
> (...)
> SAMI: Saara had tried to send [her picture message] twice already (...) Anyway, there was this problem that, like before, I didn't have the MMS settings on. Okay, I put the settings on, but still there was some problem with the default settings, like, "receive MMS's only in your home network." I don't even know what they mean by "home network" but [laughs] it's no wonder if no one ever gets any messages. (...) I started suspecting that it must be about a setting in one of the menus cos' the bloody message failed twice to get through. So I went to the menu, found the right setting and ticked it. When we next spoke, I told Saara she should try to send it once more. Sending the message began to feel a bit artificial at this point, but well [laughs], the idea was there before all this.

The design of the messaging system did not support Sami's parallel use of different handsets. To reinstall his personal settings, which were erased when he removed his identification card from the phone, Sami contacted his telephone service provider. The service provider had designed a path for its customer contact that involved remembering information submitted upon initially opening the

2 SIM card: personal identification card of the phone user and her account

service. Sami retrieved the required information. Next, he needed knowledge of specialist technical terminology. He did not know exactly what choice he was presented with, but drawing from his knowledge and experience with information and communication technological systems and interfaces, he took an educated guess and ticked the correct option. During these operations, he communicated about the problems with his girlfriend, who was trying to forward him a message, both on the telephone and in person.

The characteristics specific to the MMS service that made it challenging for the participants to use may not reappear in other services. It is now possible in Finland for teleoperator retail to sell phones with operator-specific service settings installed, and to charge the customer a monthly fixed price for the automated services. In future, it may be more common to access the internet on mobile phones than it was at the time of this study (only Eeva mentioned e-mailing with her phone and complained about the slow connection; no one mentioned sending picture messages from the phone to e-mail addresses). If that were the case, users would be able to circulate their picture files from and onto the phone through the internet instead of the picture messaging service, as some participants already preferred doing by using the personal computer (discussed in Chapter Four). It is possible that overall, with technical changes and advancements in usability design and engineering, using mobile devices and purchasing the services becomes easier.

However, beyond the current technical set-up of the cameraphone and services used with it, something that will persist, being integral to information and communication technologies, is that users engage with complex systems that are created and provided by multiple players in the production of the technologies. In the foreseeable future, mobile device users will still be facing what Lucy Suchman (2007, 11) has formulated as an asymmetry between machines and men as interactional partners. In Suchman's view, machines and their operating systems mostly work according to a logic that does not correspond to the way people make sense of and engage in dialogue with them. Machines cannot respond to people's competencies because they are designed to respond to what are predicted as the users' plans. Plans, however, transform in the specific situation of use, but the machines cannot respond to the new circumstances. As a result, as in the case with Sami managing

his messaging account, to do what they want users must struggle to understand how the system behind the machine works. (Ibid., 11–13)

It was suggested in the introductory chapter that information and communication technology products are assessed by consumers, before and after their purchase, through their symbolic, aesthetic, material and functional characteristics. (Julier, 2001, 48; Silverstone & Haddon, 1996, 44; Ling, 2004, 27–28) The same process applied to the messaging service available for the cameraphone. Criticism was expressed towards the price and the image of the service as well as towards its efficiency or functionality as a means for communication. What is perhaps most significant is that the complex information technological system in itself, and engaging with it, emerged as a characteristic that was assessed through its symbolic and functional nature. Even if the complex system was easy to use, a user could not enjoy it unless she saw herself as part of the user profile for whom the product with the system was "meant for," and unless she was willing to purchase and appropriate such a product. As we saw in the case of Johanna, even that may not be sufficient: she saw herself as part of the consumer profile, yet she did not take into use the file transfer systems on her phone. In the following, I will examine the stage of incorporation where the system becomes, or does not become, a solid part of everyday routines.

5.2. THE GENDERED CIRCULATION OF PHOTOS

Cameraphone photo transfer across media became a part of everyday life most easily for the participants who saw themselves as competent users of information technologies. From the participants in this study, Sami, Tapio and Aaro, who were each professionals in some area of information and communication technology, and Harri, who was interested in computers, reported solving the technical problems in their photo transfer. They also mentioned having helped fellow cameraphone users. Six out of the seven female participants stated that they were not able to carry out the download, and were not planning do so. They had asked their boyfriends, husbands, sons and male colleagues for help. The only female participant who transferred her cameraphone photos to the

computer herself was Eeva. Her colleague had made the necessary instalments, and the hardware involved was her employer's so there were no purchases to make.

> EEVA: A CD, actually the CD didn't work, I had to download a new programme from the Nokia website, some new update that made it work. And of course I can't do all this by myself but a computer support services person at my work did it [laughs].

> SAARA: I don't really save [my cameraphone photos], probably because I don't have a device that I could download them to my laptop with.
> HELI: I see.
> SAARA: I would of course, if I did. On the other hand, they're not important enough to me to invest in something like that [laughs].

The participants do not form a representative sample of any particular population, and I do not attempt to claim that gender would always have a consequence for how people use their digital photographs. However, within the group of participants in this study, a gender divide emerged concerning ways of using cameraphone photos. Rather than examining gender as a cause, I find it possible and interesting to look at gender as one of the aspects through which the women participants especially assigned meaning to themselves as users of photographic and information technologies. As Silverstone et al. (1992, 25) observe, incorporating technologies into the moral economy of the household brings up "questions of both age and gender, as well as questions of the visibility or invisibility of technologies (...)" In fact, I will discuss later how the aspect of gender has been part of the production, representation and consumption of domestic photography for as long as it has existed.

The male participants transferred their photos from the phone to the computer, except for Raimo, who did not use computers at all. In talking about the transfer, the men showed no concern over the purchases involved. They elaborated on the technical process, while the women concentrated on weighing the outcome of the process, the possibility to keep the photos, against the challenges it proposed. Whether the men presented the process as easy or difficult, it corroborated the cultural notion of the male expert in information and communication technologies (Nieminen-Sundell,

2003, 44–48) and photographic technology (Slater, 1991; 55). Like Sami in the above section, the men described their technical tasks as complex and challenging. This representation of the tasks, sometimes even emphasised with concern over less knowledgeable users, highlighted their technical expertise. Aaro used a company phone and could not send the photos directly from his it. He transferred the cameraphone photos to his computer through a wireless (Bluetooth) connection and sent them by e-mail. Because he was enthusiastic about sending his photos by e-mail, as we saw in the previous chapter, the transfer was an important stage in his picture circulation.

> AARO: Basically, when I use [my company laptop], it's Bluetooth. And now that I've got a new version, It doesn't need any persuation. Once it's in reach, it asks, will you take, or, shall we connect. And if you don't do it, and start doing something else, it asks, shall I connect you later. Previously, you had to boot it and wait and see and wonder about it, it was a bit of a miserable combination. (...) [A]nd then, umm, through the net or by e-mail to my home computer. (...) These days I have a Bluetooth dongle at home, so [the phone] works with the home computer, too. I didn't have one before. Well, I did, but it didn't work.
>
> HELI: Okay. To recap, you transfer [your photos] from the phone to [the company laptop]. And when you say 'through the net or e-mail', what does through the net mean?
>
> AARO: Well, I just plug in the network cable, click on a disc and transfer it. (...) If I don't have lots to transfer, it's easier by e-mail. But if there's lots, it's easy to just plug in the cord, straight to the computer, and place them in the same IP space, the addresses, click on a disc, and [makes a clicking sound with his tongue], that's it, there you have it.

Like Sami's account in the previous section concerning picture messaging, Aaro's quote illustrates the network of technical components involved and the tasks and problem-solving efforts related to them in picture transfer from the phone to the computer. Aaro portrayed himself as competent in these tasks and operations, and if problems arose, the flaws were found in the technologies. The technical tools and tasks served his needs, instead of being a given circumstance that he responded and accommodated to by acquiring more skills or help. In this sense, Aaro's outlook on the technol-

ogy was opposite to that of the female participants, and except for Tapio, different even from the other male participants.

Aaro or Tapio, both information systems engineers, were neither experts but experienced users in the technical aspects of cameraphone or other digital photography. However, their technical skills were not as crucial as their interpretation of the technology. For Aaro and Tapio, the different technologies appeared as inherently imperfect and expectedly complicated. They were prepared to perform complicated tasks with the technologies and to try and improve them where possible. Seeing themselves as competent technology users and consumers, the men presented themselves as being able to work their way through new technical products and possible problems in them, and if necessary, replace the products with better ones. Sami and Harri, for example, presented their problem solving as a critical statements directed at the technologies instead. For them, the technology involved was a tool that anyone could operate if they invested enough time and effort in learning how to use it.

> SAMI: Yeah, I've got to open the Bluetooth connection, which, by the way, is obscenely difficult, with my Bluetooth stick anyway. I don't even want to talk about it. But it's, once again, something that I'm sure no one normal can operate. Next I have to open the Nokia programme and transfer them with it. Before, I transferred them to the PC hard drive, but now, I plug in the external hard drive so I can look at the photos on either of my computers.

> HARRI: (...) [T]he Nokia cable could be a little easier to use. It doesn't matter now that I've made it work, but if you think of someone else, who, like, is not so good with computers, there's absolutely no hope of making it work.

Sami and Harri presented themselves as knowledgeable and skilled in camera, phone and computer use in comparison to everyone around them because of their interest in the devices and their do-it-yourself type of experience. Interestingly, in contrast to cameraphones, regarding digital cameras and managing digital camera photos on the computer, the teenaged girls Niina and Johanna presented themselves in the same fashion.

> Niina: I was the one who learned to use [the family digital camera] first, I fiddled with it from the beginning, so it's always like, Niina, you take a picture. And I like to do things with it pretty much.

> JOHANNA: [Downloading photos to the computer] is pretty much on my shoulders because no one else does it. It's like, with any new electric appliance, it's me who reads the manual and teaches others how to use it. No one else can be bothered.

The technical components that a photographer had to work with when transferring digital camera and cameraphone photos to the computer were different. As was mentioned already, Niina and Johanna did not have transfer cables or wireless transfer tools at their disposal and they were reluctant to acquire and learn how to use them. Their family cameras, on the other hand, had all the necessary equipment available at home and installed on the home computer. (We did not discuss who installed the digital camera photo browsing software on the computers.) Applying their general knowledge of computers to the task was sufficient. Although there was a technical process involved in transferring digital camera photos to the computer, it was seen as simple by the girls in comparison to the one they encountered with cameraphone photos.

My attempt is not to draw a full analogy, but it is interesting to observe how, in the history of home photography, the way the equipment for it has been packaged and sold as significant for its success among consumers. Don Slater points out that by providing the consumer with cameras already loaded with film and with a processing and reloading service, "Eastman's real revolution was a marketing revolution: in 1888, he introduced what we might now call a complete marketing concept. (...) [Photography] could be sold as a cheap, simple, and reliable consumer commodity." (Slater, 1991, 52, emphasis in the original) In other words, the photographic components manufactured and sold by Eastman Kodak were compatible. The cable and software packages sold together with digital cameras today continue to apply the principle of compatibility. All participants benefited from the ease of use that the compatibility of the digital camera products to the computer provided. The older adult participants Laura and Aila, who regularly used digital cam-

eras, used computers in their work, and the teenagers Johanna and Niina used their family computers at home. In cameraphone photo circulation, on the other hand, the problems that the users faced with both the picture messaging service and other transfer techniques stemmed from the incompatibility of the technologies involved. (Kindberg et al., 2005b, 49; Pantzar, 2001, 104, 111)

Another intriguing point is that female consumers and the simplicity of the technical process of photography have been connected throughout the history of home photography. In the 1890s, Kodak marketed its simple and reliable commodities to women "as symbols of the extraordinary ease of taking pictures (even they could achieve photographic success) (...)" (Slater, 1991, 54) Echoes of the Kodak marketing are heard a hundred years later in Jessica Evans's view that the cultural notion of the snapshot photographer is

> "(...) deeply feminized, and indeed the majority of users are women and from a wider socioeconomic range than the serious amateurs. This constitutes the bread-and-butter 'mass' market for the industry. Products and services for this group are 'foolproof' and it is assumed that they have low expectations and few technical competencies (...)" (Evans, 1999, 131–132)

Returning to the ideas presented in Chapter Three of the cameraphone as a consumer product, cameraphones and the picture messaging service were at the time of the study understood as lifestyle products for non-experts, thus, as a foolproof technology. Digital cameras, in turn, were seen as technology devices whose use required a certain level of expertise. From the perspective of photo file circulation, the result was the opposite. Firstly, as the examples in this study and others (Oksman, 2003) show, the term expertise is highly contingent. The participants needed a level of technical expertise in picture messaging and in transferring the photos onto the computer. For Laura, using her photos on her phone alone required expertise: Laura's children taught her how to view her photos full-screen size. At the same time, like Niina and Johanna, Laura did not mention having any technical troubles in the field of digital photography.

The gendered cultural notion that computer expertise associates with male activities entails that certain types of skills in infor-

mation and communication technologies are more valued that others. For example, Riitta Nieminen-Sundell (2003, 44–48) discusses how, reflecting values in society, online shopping may not be counted as a computer skill in families but playing online games would. Ann Gray has shown how the same dynamics structure the gendered use of entertainment and other household technologies. (1992, 180) In the same way, managing or processing photographs would not count as expertise in the same way as programming does, for example. The female participants represented themselves as legitimate and confident users of information technologies in the field of photography. Aila mentioned that her husband was not at all interested in photography or photos, and when they had guests over, Aila showed them photos on the family computer. Niina and Johanna positioned themselves as the persons in their household who most frequently used the digital camera and managed the tasks related to it, such as keeping space available on the memory card by regularly transferring the photos onto the computer. However, this user role did not transfer this expertise to the context of cameraphone photo use. The female participants seemed to assent to the cultural notion of domestic photography as "foolproof", not an area of information technological expertise in the same way as managing cameraphone photo files.

Positioning oneself as incompetent can also be used as tactics to avoid routine tasks. Aila understated her information technological expertise to her son when it was of advantage to her. Henri, from his point of view as a son, reported observing what seemed as his mother employing similar tactics. (See also Gray, 1992, 169)

> HELI: Would it be possible for you to set the [option to allow for receiving picture messages on the mobile phone] yourself?
>
> AILA: It would. But, you know, no one just has done it [laughs]. Yeah. In my earlier [phone] I had them, like, but I really only realised it now [though the study] that actually I can't look at the photos on [my phone].
>
> HELI: If you'd like to have the settings, would you do it yourself, or give it for someone else to do it?
>
> AILA: I'd probably have my son do it. He did it on my earlier [phone] too, I remember.
>
> (...)

HELI: Your son has helped you copy [photos] to discs?
AILA: Yeah, he's so much faster [laughs.] Yeah, it's like, my son Ville uses the computer at home quite a lot, so I just hand him [the CD], like, copy them at some point, or, let's copy it.

HENRI: I've had no problems. With my mum I sometimes lose my nerve because she never knows how to use any of it, but what can you do. I've got no problem with any this [technology]. I've learned it all myself but at least I've learned it somehow.

It is not within the scope of this study to examine why exactly representing oneself as competent or incompetent, or as willing or unwilling to incorporate cameraphone photo transfer in everyday practices coincided with gender among the participants. It is, however, important to note that according to research, users associate notions of competent and incompetent users and gender with camera, photograph and computer use, and marketing campaigns make use of these notions. It is unlikely that cameraphone photo use, which overlaps with camera, photograph and computer use, would be neutral ground to this type of positioning. The findings indicate that similar dynamics were at stake when participants represented themselves as cameraphone photo users, which would be in line with the argument of this thesis that cameraphone photo use became meaningful through comparisons and associations with the media use that surrounded mobile phones.

5.3. THE CONSUMPTION AND USE OF STORAGE MEDIA

In their study on mobile phone text messaging, Kasesniemi and Rautiainen (2001, 157, 161) reported that teenagers wrote down messages in calendars, diaries, paper notes, schoolbooks, on the computer, or in notebooks specifically dedicated for text messages. The messages written down were ones that the receiver especially liked, or ones that were personal and intimate. Writing them down was, according to Kasesniemi and Rautiainen, both to document something pleasurable and one's everyday life. (Ibid.) In this study, cameraphone photos were stored on computers for the same reasons. As described in Chapter Three, not all cameraphone photog-

raphy was transitory. The participants took photos that they wanted to keep with the cameraphone in so-called special events, and cherished cameraphone snaps that were otherwise dear to them. In her study on home computer use, applying the domestication studies framework, Elaine Lally (2002, 207) points out that

> "[t]he function of an object is an aspect of the human-artefact relationship, but is also constituted through the relationship between the artefact and other objects. Single objects, even such highly technological objects as the home computer, do not function independently but need the collaboration of the other objects of the home in order to perform their functions properly within the domestic pattern of life."

It is a commonly held view that digitality enables photographers to take as many photos as they want. There is no reason to contest this view as such, but it is also apparent that managing the vast numbers of photo files as a consequence is not unproblematic for the photographer. The larger the files become, as the image resolution of cameras becomes higher, the more memory space they require. The memory space is embodied in consumer products such as discs, external hard drives, or server space. From this perspective, it becomes difficult to maintain the simplified view that digital photographs are immaterial. Based on the participants' accounts, the domestication stage of objectification, where objects are made to function in collaboration with other objects in daily life, is not foreign to digital photograph use. As Silverstone et al. (1992, 24) point out, many non-material or semi-material artefacts are physical displayed in one form or another, and through these mechanisms of physical display they enter the process of material objectification.

Objectifying cameraphone photos coincided with definitions of user roles because the participants had to form an attitude towards preserving their photos. The attitudes were different among the participants who could download their photos to the computer and those who could not. Those who could only store their photos on their phone expressed a more indifferent attitude towards their cameraphone photos than those who could store the photos on the computer. Niina, for example, did not have this possibility and consequently, she prepared herself for having to delete the photos at some stage.

NIINA: Well, umm, I put the best ones that I want to keep I into folders and delete the ones that I don't want to keep. And when the memory is full, I'm just forced to delete something.

HARRI, who could download his cameraphone photos onto the computer, intended to keep the photos that he had on his phone, and regretted it if he had to delete some of them. Taking into account Harri's contemplation around what pictures to delete, a choice forced by the technical characteristics of the phone, it would be too simplistic to state that the transitory characteristic of cameraphone photos would be due to their inferior image quality only. Technical restrictions such as the lack of memory space on the phone were also at stake when cameraphone photos were deleted and not stored.

HARRI: Well that's the difficulty, because I don't really-- The ones I kept, especially the ones that were a bit older, I wouldn't have wanted to delete them. But I had to because I wanted to take a photo.
HELI: Can you remember, or tell me, what the ones that you deleted were?
HARRI: Umm, hold on, at least of my parents, from last summer, and my sister. So they just had to be brutally deleted because otherwise new photos wouldn't have fitted in. I didn't have to delete too many photos luckily, maybe five.

Being able to transfer the photos onto the computer made it possible for the participant to store the photos for a longer time. The time was not unlimited, however, especially to those with older computers. Henri reported holding what he called computer-emptying sessions approximately twice a year when the memory space began to run out. He deleted photos that he saw as "useless" or "bad", and kept ones that he felt were "good" and that depicted what he categorised as "official events" (see Chapter Three). Tapio did not trust his camera or computer memory spaces but saved his photos on discs once a week, and made several copies of them. From the perspective of their widespread availability and low price, discs were unproblematic to access and use, but they could be lost or damaged; the information stored on them was known to be lost after a definite time; and the retrieval of the information may be-

come impossible in practice as image formats and standards change.

Also, the significance of the photos to their owners changed after they had been stored. Henri said that his photos became dated and useless on the discs because he never looked at them. Sami, who was determined to keep all the photos he took, had purchased an external hard drive for this purpose. As a result, he said he himself sometimes felt that the bulk of his photos that he poured on his computer through the Bluetooth was rubbish that he himself could not be bothered to look at. In 2005, some months before the interview, Sami had become familiar with the internet photo-sharing site *Flickr* that had reached international popularity. At the site, you could post your photos and decide whether you made them public or available only to people of your choice. Sami had been excited about this possibility of displaying his photos, but then quickly discovered the limits of the account that was offered for free.

> SAMI: Yeah, I've got an account, but at the time I didn't really realise what it was like. I mean, they've got this free account and you can add only about 120 photos a month. And I, [laughs], I started uploading my backpacking photos-- [laughs] I started adding my backpacking holiday photos in November, and never got down to the photos from August when I had already filled in the account. So maybe I didn't really understand at the time how it would be best to use it: just add a few nice recent shots. So I haven't really used it lately.

For Tapio, showing others the photos that he took was an important aspect in his photography and he was active in exploring different techniques for it. He transferred some of his cameraphone photos, ones that he liked that were either taken by himself or received from others, onto his laptop and from there to discs. However, he said that he had not viewed them on television, through the digital videodisc player, as he might have done with his digital pocket camera photos. At the time of the interview, Tapio used print albums, the laptop, printed paper sheets, and his employer company's shared computer network for showing and sharing his photos. He was also trying out an application on the internet to find a new way of archiving and sharing his digital pocket camera photos.

> TAPIO: I'm trying out album software that would give me an internet address where I could make a kind of an electronic album. You could go and see it with a, like, a password. So I could show [my photos] there. Showing them like that is still at the very beginning. (...) But surely I'd like to try, when new possibilities become available for showing [photos]. I'll move to another medium and build up [a photo collection] there, if new ways of doing it are invented.

The way in which Harri, Sami and Tapio discussed their photo storing leads the discussion back to appropriation and incorporation. Although the men were working within the digital realm, there were material boundaries to be dealt with. The storage platforms from discs to server space were products for which money had to be dispensed. In order to make use of them, you had to be interested in purchasing the products, learning to use them and incorporating their use into your photographic practices. I suggested above that to the users who saw themselves as competent information technology users, the process of using photos with the technology was of interest as such. This observation was reproduced with regard to the objectification of digital photos in storage media, as more interest was shown towards appropriating and incorporating available storage technologies than to the outcome of their use, viewing the photographs.

5.4. CONCLUSIONS

This chapter has brought together many of the discussions in previous chapters. The theme of this chapter was how the participants defined themselves as users of cameraphone photos and of related technologies. The way in which roles were constructed through ideas of desirable cameraphones and cameraphone use, echoed themes in Chapter Three in which I discussed what were seen as proper ways of using cameraphone photos. Both make it visible how the appropriation of cameraphones took place in two stages: first, in appropriating the phone, and next, appropriating the software and services available for it. Several participants did not use their phones in the way they had imagined they would when purchasing them. They formed a user role for themselves, saw themselves as part of the user profile of the product, in terms of using the phone.

However, the same role did not apply to the software and service applications, and if the user could not construct a desirable user role to motivate use of the applications, they remained outside of use. In these cases, the phone was used as a picture repository as described in Chapter Four. In the case of the photo messaging service, the service was perceived as pricy, inefficient and complex. The three perceived aspects, especially complexity, were suggested to continue to be fundamental aspects against which users position themselves as they make decisions of purchase and appropriation in the field of digital media. What is at stake is a cultural notion of complexity formed with respect to other products through their representations. For many user groups, as long as they perceive a product to be complex, even before trying it out, the step of appropriation will not be taken. In this case, improvements which make the product easier to use will not help as long as the product is not appropriated in the first place because of its complex image.

Circulating cameraphone photos from the phone to the computer, discussed in Chapter Four, was not self-evident among the participants as only half of the participants had incorporated the circulation into their routines. Consequently, only half of them stored their cameraphone photos. The incorporation coincided with representing oneself as a competent and motivated information technology user. Those who represented themselves as incompetent as well as unmotivated were all women, which lead me to discuss notions of gender related to information technologies and snapshot photography.

In Chapter Three, I suggested that the participants saw cameraphone photo use as something other than photography. Here, the division between the two was reflected in the sense that the women represented themselves as competent users of digital photographs (which also involved computers) but not of cameraphone photos. Cameraphone photo use seemed to be associated with a type of computer use with which the women defined themselves as incompetent. On the other hand, snapshot photography has a tradition of being understood as an area where technical skills are not needed, and this cultural representation may lead users to devalue their skills in this area.

6. Conclusions

Academic studies on cameraphone photo use have typically focused on mobile phones or on mobile communication networks. The most common reference that has been made to media surrounding the mobile phone has been that of domestic photography. However, the ways in which people connect photographs that they take with mobile phones into their domestic photographic practices have not been studied in length. This study has attempted to produce knowledge in this area by approaching domestic photography as part of digital technology and networked media. My research questions were: How do people use cameraphone photos along with other digital photos and pictures? Secondly, what kinds of meanings do cameraphone users assign to the photos and pictures and to the technologies with which they use them? And finally, what kinds of meanings do cameraphone users assign to themselves as the users of these photos and technologies? In answering these questions, the study has focused on the technological and cultural contexts of production and distribution of the photos. The photos have been examined as data files, generating from and remaining part of the digital technologies with which they are created and used. The analysis has been concerned with how the participants interpreted and understood the technologies, leaving interpretations of the visual content of the photos outside the scope of this study.

I have approached cameraphone photo use through the circuit of culture model and examined how cameraphone users made the phones and photos meaningful to themselves to use. The circuit of culture model highlights that meanings are already assigned to ar-

tefacts in the phase of their design and marketing. The meanings continue to form and reform throughout the process in which certain groups of people consume the artefacts and also in the ways they, and society in general, regulate their use. The model divides meaning formation around a cultural artefact into five processes: the production, consumption, regulation, representation and identity work that takes place in relation to the artefact. The circuit of culture model allows examining significations given to products throughout their entire lifecycle and perceives products as part of cultural, social and economic life at large. This wide scope has helped me to observe connections that participants made between cameraphone photo use and other media technologies.

In studying how the participants interpreted cameraphone photo use and other media technologies, I have drawn from the domestication studies approach. The approach proposes that products, both material and immaterial ones, become significant to and are domesticated by their owners and users at four main stages. In the first one, appropriation, a consumer assesses the product and her willingness to purchase it, and makes the purchase. At the following two stages, incorporation and objectification, the product is physically and temporally integrated into the everyday routines of its owner and others in the same household. The fourth stage, conversion, is one where owning and using the product is made to benefit the social status of its user with regard to people outside the household. The domestication approach directed my attention more closely to the perspective of cameraphone photo users than the circuit of culture model did. Domestication theory conceptualisation allowed me to operationalise the wider perspective of the circuit of culture model, that is concerned with the entire lifecycle of a product, in order to study the usage of cameraphone photos, phones, cameras and information technologies at an everyday level.

The data for the study was generated with sixteen Finnish cameraphone users from 17 to 52 years of age (appendix 1) in spring 2006 with questionnaire, autodocumentary and interview methods. The most significant part of the data were the interviews, elicited with each participant's own photos. The participant had made notes of all instances of taking and using digital photographs (viewing, sending, showing, etc.) over the period of several weeks, and

where possible, saved the photographs. In the interviews, we read through the notes and looked at the photos, discussing how the participant had used the photo after it had been taken or received and what she or he thought about using photos with digital technologies (appendix 4).

The methodological fashion in which I treated the photos as data files made it possible to observe the connections that the participants made between cameraphones and cameraphone photos and the media landscape around them. Tracking the files' trajectories from their creation to their use and storage brought up for discussion the technical, social and cultural contexts in which the meaningful use of the photos was created. Of course, neither the technological nor the cultural context is stable. They both have changed since the fieldwork was completed, the technological more than the cultural. However, the main purpose of this study has been to identify what cultural, social and technical aspects the participants found important and worked with when using cameraphones and cameraphone photos. The focus has been on how people make their photographic practices with the cameraphone meaningful. These aspects may, in turn, be detected in cases of making other technical products meaningful at other locations and historical moments.

The chapters opened up the discussion on cameraphone photo use from domestic photography, on one hand, and from mobile phones and mobile technology networks, on the other, to a wider media context. Apart from domestic photography and mobile phones, the photos gained significance, and were used, in the contexts of other media and information and communication technologies as well. Content that the participants produced gained meaning through connections to other forms of media content, and the participants sought to circulate the files that they had produced across devices and media platforms. The results show that through the media content that they create, people perceive mobile and digital media as networked and seek ways to transfer materials flexibly across them. Even when users employ their devices as self-standing content repositories, and files are not circulated, it may not be the desired state. From the perspective that I have outlined, it becomes relevant to ask whether the design of the device, or the services connected to it, make it impossible or difficult to make

connections with other devices and information networks. In light of this work, in researching as well as developing mobile media and digital media in general, thinking in terms of individual devices or applications needs to be questioned as the only way of approaching media use. Based on the findings in this study, it is useful to think about media use in terms of the content, the digital data files that people circulate across media.

Chapter Three discussed how and why cameraphones and cameraphone photo use were compared to domestic photography and classified as something different from it. Nevertheless, the participants sometimes used cameraphones in similar ways and in similar situations as they did their other cameras. Further discursive classification took place when playful usages of cameraphones and cameraphone photos were dismissed as "just playing around". At the same time, positive statements related to cameraphone photos emerged precisely in the context of play, playfulness and decorative and miniature aesthetics. The chapter suggested that cameraphone and cameraphone photo use could in fact be better understood in terms of playful and entertaining uses of the photos and phones rather than in terms of domestic photography in its traditional form. With time, however, interpretations and valuations associated with both domestic photography and mobile phone cameras and photos may change, and these areas may become perceived as one.

Chapter Four found that for many participants, cameraphone photos became significant through how they could be connected with other forms of mediated communication. I discussed the connections as part of what has been called convergence culture (Jenkins, 2006) and media mixing (Ito, 2006), in which media users converge or mix media through accessing and circulating content across technological platforms. So far in convergence theorizing, it has been studied how consumers engage with distributed media content. The findings of this chapter contributed to the understanding of how users circulate content that they have themselves produced. It emerged that in the circulation, classifications between photos or pictures based on their different technical formats, or means of production, dissolved. When there was use for a photo in a chat discussion, for example, it made no difference to the user which camera it had been taken with if it could be found on the

computer. However, cameraphone or other digital photos were not circulated to simply anyone and regardless of communication channels. Distinctions formed between social groups that formed around certain photos and certain channels. Some photos were sent to friends by chat applications, others to family members by e-mail and others to colleagues as picture messages. The groups shared a common context to interpret the photos, but they also shared a common communication technological context. Fundamentally, all of these media were available to everyone, but not everyone used them. Technologically mediated communication channels were not neutral, equally accessed and used by everyone, but socially and culturally defined and constrained. Communicating in chat, e-mail, or picture messaging was possible only if group members had interpreted, appropriated and incorporated the particular medium into their use.

Chapter Five echoed themes discussed in Chapter Three as it concluded that participants constructed their cameraphone user roles by positioning themselves towards information technologies and computer use, on one hand, and domestic photography, on the other. Once again, as in Chapter Three, cameraphone photo use was evoked as something closer to computer use than digital photography. Those who felt confident in information technology and computer use, all men, were able to circulate and store their photos. Women participants, who used computers daily, among other things to manage their other than cameraphone photographs, represented themselves as unwilling or incompetent to work with the information technological products that cameraphone photo circulation required. The chapter elaborated on the role construction referring to the domestication stages of appropriation, incorporation and objectification. User roles were defined not only regarding phone use but also regarding the use of services and software available on the phone with which photos could be transferred. The gendered distribution of user roles was discussed in light of cultural notions of computer expertise, which, according to research, brings to the fore men's competencies, and notions of snapshot photography that have historically downplayed women's competencies in technology.

6.1. STUDYING USER-GENERATED CONTENT AS TECHNOLOGICAL AND CULTURAL

Underlying my research design was the understanding established in social constructionist and cultural studies of technology that technologies gain significance in society through how people culturally interpret technical devices and incorporate them into their everyday practices (MacKenzie & Wajcman, 1999, 21–24; Woolgar, 2005, 27–28; Lie & Sørensen, 1996, 6–8; Uotinen, 2005, 36–39). In other words, I approached cameraphone photography, and through it, domestic digital photography, as technological phenomena. The approach was based on the premise that digital photographs as well as the cameras with which they were produced, the hardware and software applications with which they were used, and the storage media with which they were preserved could all be regarded as technical artefacts that became meaningful to their users in cultural interpretation and social practice. The research questions were structured upon this premise.

After gathering the data, I took as my unit of analysis any individual instance of a participant interacting with a digital picture, a camera, or related technology. In the analysis, I included information on the context of this instance. As I was studying the instances from a cultural point of view, I was interested in what meanings the participants gave to these instances and the technologies that they employed in these instances. With my research questions, I sought to learn from people about how they interpreted and assigned meaning to cameraphone photos and instances of using them in relation to other forms of photography and information technologies around them. Cultural studies theory of the signifying process maintains that meanings are formed in a framework of existing significations for things. In other words, meaning forms in a particular context of time, place, society, social groups, technology, culture and so on. This approach matched my understanding of how the phenomenon under study, assigning signification to cameraphone photo use, unfolded, and presented me with the concepts with which to study the phenomenon.

The epistemology of cultural studies relies on the understanding that meanings given to things by people can be known, at least partly, by studying the representations of these meanings: that

meaning is expressed to and exchanged with other people in words, stories, images, emotions, as well as in classifications, conceptualisations and values (Hall, 1997, 3). In line with cultural studies theorizing, I examined the data that the participants had created (questionnaire answers, diary notes, photos and interview accounts) as representations of the meanings that they had formed for the instances. I analysed and interpreted the representations and grouped them into broader themes that the representations indicated. I studied the themes through the circuit of culture model and the theory of domestication.

The circuit of culture model allows studying the signification a product gains in cultures and societies at large. The model operates at the level of phenomena, organisations and public discourse. The circuit covers multiple points of view and directs attention to the meaning-making processes of all the stakeholders to the product: its producers, consumers, the wider audience who do not become consumers of the product, and societal actors such as legislators. The model helped me, for example, to understand why the participants represented the cameraphone as a toy and digital cameras as proper cameras, as it guided me into examining what kinds of representations the design and marketing put forward of cameraphones, compared to representations of digital cameras.

However, the high-level concepts of the model were not as helpful in examining the dynamics in which the representations became part of cameraphone photo use and interpretation. For studying particular instances of cameraphone use, the analytic power of the model was weakened by its large scope. As the authors of the model state: "(...) [E]ach part of the circuit is taken up and reappears in the next part (...) We have separated these parts of the circuit into distinct sections but in the real world they continually overlap and intertwine in complex and contingent ways." (Du Gay et al. 1997, 4) In the case of many instances of cameraphone photo use, it would have brought no added value to state that the processes and concepts overlap. At the same time, discussing each process separately would have meant extending the analysis beyond the scope of this study. The intertwined and overlapping nature of the processes was emphasised by not having as the research topic commercially produced artefacts but user-generated content. In this set-up, the production, consumption, regulation, representation

and identity work could be seen as originating from the participants, conflating the processes even more. In sum, the circuit of culture model would seem to best serve an approach where a bird's eye view is adopted over a phenomenon and data for studying it originates from different sources and not only one group of people related to the phenomenon.

The concepts provided by domestication theory offered a more precise analytic tool for studying the user perspective than the circuit of culture model did. In investigating how the participants perceived and represented themselves as users of new technologies for photography and photo use in Chapter Five, the circuit of culture model highlighted the importance of the social profiles that are associated to products: the impression that a product is meant for specific user groups. The model did not assist in the analysis of how precisely, through what dynamics, users constructed their roles. The domestication theory concepts of appropriation, objectification, incorporation and conversion, on the other hand, discerned the process from the user's point of view in more detail. They brought into play not only public representations of products, such as advertising, but also other objects and people in the household and their spatial and temporal relationships within and outside the household. As much of the cameraphone and digital photo use reported in this study took place in homes, and nearly all of it in everyday circumstances, the vocabulary of the domestication theory was helpful in grasping the context in which the participants operated.

Studies on information and communication technologies employing the cultural or social constructionist framework have typically taken as their starting point a device, most often the personal computer. The most common software and service application whose use has been studied through the framework has been the internet, or more specifically, the world wide web. The typical starting point in these studies is that people have an information technological object at their disposal, such as a computer or a cameraphone, and the way in which they interpret and use it is studied as a totality. Distinctions are not made between the device; applications used within it that were perhaps purchased separately; industrially produced content; and content generated by the user. (E.g. Bakardjieva, 2005; Lally, 2002; Peteri, 2006; Uotinen, 2005; Goggin, 2006)

However, the domestication approach allows for this distinction. The theory sets the scene for studying both material and immaterial objects through the four stages of domestication (Silverstone et al, 1992; Silverstone, 2006, 233). Throughout the chapters, the focus shifted between meaning-making on cameraphones, services available for cameraphones, and cameraphone photos. Analysing meaning-making related to each of these was unproblematic through domestication terminology. The area where the domestication theory grew weaker was the area of photo file circulation. The stages demarcated in the domestication approach direct attention to one single product at a time, following its adoption into the daily routines of its consumer and user. The stages were not as useful in following the circulation of media content across several platforms simultaneously, or for discussing interpretations of the circulation. I examined into theories of convergence in order to analyse the circulation further. However, to date, there are few contributions to convergence theory that would discuss convergence from the user's point of view, let alone taking content produced by the user as the starting point. In most convergence theorizing, the user is presented in passing as a minor player at the societal and global level of media technological systems, structures of ownership and societal regulation.

6.2. IMPLICATIONS FOR DOMESTIC AND CAMERAPHONE PHOTOGRAPHY RESEARCH

At present, little academic research exists on digital domestic photography with digital cameras. Although the focus of this study was cameraphone photo use, it has produced knowledge that concerns digital camera photography in terms of how users evaluate different cameras and how they use their photos on computers and the internet. In the film era, domestic photography has mainly been studied from the perspective of visual culture and communication, investigating what subjects have been photographed and how they have been represented (Spence and Holland, 1991; Bourdieu, 1965; Ulkuniemi, 1998) and what communicative practices have formed around domestic photographs (Chalfen, 1987; Ulkuniemi, 1998). The study at hand contributes to domestic photography studies by highlighting the photographers' ideas about and experiences with

the tools with which they take and use their photos. Thus, it continues the discussion on the marketing and commodity aspects of domestic photography. (Slater, 1991; 1999)

Cameraphone technology changes quickly. The phones that the participants in this study used, dating from mid-2000s, were different from the ones available at present. However, considering the participants' desires and practices of using photos, the media and communication networks surrounding the handset appeared as significant as the handset itself to the forming of photo use. The networks, which offer certain possibilities to the user and shut others out, change more slowly. From that perspective, it is possible to detect longer-term tendencies in and future uses of cameraphone photography. At the time of this study, information networks offered, in principle, two channels for circulating photo files: the mobile multimedia messaging service, or picture messages, as I have called them, and the computer-based internet. These two channels were available in principle to all cameraphone users but, in practice, only some users could make use of them. Using one's photos on the computer and the internet emerged as important to those who were able to do it, and desirable for many of those who could not. Also, several users had tried picture messaging and were interested in it, but had given up as they had failed to manage the necessary settings or decided that the price of the messaging was too high. The future possibility of using photos on the internet on the cameraphone (instead of using the picture messaging service that was perceived by the participants as complex, expensive and ineffective) as quickly and cheaply as on the computer would seem welcome to users. This would require, however, overcoming shortcomings of current services and making the service uncomplicated to use from the point of view of the non-expert user, and low-cost.

Even with a smooth internet connection available on the mobile phone, cameraphone photos may not remain in use in the sphere of mobile phones only. Cameraphone photos were not used on the computer only because of the faster and cheaper internet service. They were also used on the computer because once on it, the photos became part of the vast corpus of digital media available through it. The corpus, made use of in internet messaging, for example, included photos, pictures and videos taken by the participant as well as everything available through the internet. Because of the limited

storage and bandwidth capabilities of mobile phones, it is difficult to see them as such corpus managers in the near future. Meanwhile, users would benefit from easier file transfer techniques from the phone to the computer, especially as phone cameras become more sophisticated and people are likely to save cameraphone photos more than thy saved the blurred low-resolution photos featured in this study. It is also consistently reported in popular press (e.g. Pukero, 2008) that printing photos has not lost its popularity. The participants in this study quoted the low resolution of the phone photos as the reason for not even considering printing them. With more advanced cameras in phones, it seems likely that people will wish to process and develop their cameraphone photos in the same pools as their other digital photos, which would also speak for the necessity of easy file transfer between phones and computers.

The above observations and predictions already point towards the conclusion that in the end, phone cameras and photos and their present and future use are not best understood through the context of photography but through the context of computers and information networks (see also Sarvas, 2006). The ways of using cameraphones and cameraphone photos that have been presented in this study only partly correspond to what can be captured with the term "photography." Storing, modifying, displaying, browsing, sending and deleting cameraphone photos on phones, computers and in information networks, sometimes in quick cycles, call for novel ways of conceptualisation that correspond to the new digital media environment.

6.3. IMPLICATIONS FOR PERSONAL MEDIA RESEARCH

Cultural and social conventions are persistent, and changes in the technical circumstances of photography have not caused ruptures but, rather, transformations in domestic photography. Consequently, it is reasonable that studies on cameraphone photos should refer to film era domestic photography studies. However, digitality does not mean that only the format changes from celluloid to pixels while cultural, social and communicative practices around photographs remain the same as before. The practices do not change overnight but domestic photographers do transform

them through the new possibilities for using photographs provided by new technologies. (Haddon, 2005, 11) Two dimensions of the change are especially noteworthy from the point of view of media users. First, the merging of media content files into one corpus instead of categories based on the medium of production. Second, the networked character of digital media.

In the era of digitality, it becomes more and more difficult to clearly define categories of media content. The definition of a snapshot, for example, stretches beyond how it was understood in the film era. As snapshots are exchanged, modified and published in various communicative and technical contexts on mobile phones, computers and on the internet, it becomes difficult to track their origin: who produced the picture with what technique. Research on media use often operates with classifications of media technologies into particular devices and media forms but these classifications may not be relevant for users. The results of the analysis in this study show that in incorporating cameraphones and cameraphone photos into everyday communication, users disregarded boundaries between phones, computers, their digital camera photographs, cameraphone photographs, photographs and pictures found on the internet, and so on. They sought to circulate media files regardless of technical boundaries in ways that were most purposeful for them.

In light of this study, from the users' point of view, it becomes questionable to start from the boundaries that exist between media production devices in studying digital photography, or digital media content production more widely. Being able to use photos or pictures in specific instances in desired ways was clearly more relevant to the users than where the photo or picture originated – whether the picture had originally been taken with a film or digital camera, a phone, or made with a computer. They all became part of the same vast corpus of content files that was stored and accessed on personal media devices and the internet. Consequently, instead of studying media use and production by concentrating on particular devices, it may be more enlightening to follow streams of the circulation and use of these files across devices and technical platforms. Media and communication networks are significant in shaping the use of media content. The networks that surround particular media do not only offer technical possibilities (or obstacles) for

using one's files. They also attach cultural significations and practices to the media. For example, domestic photography is changing both technically and culturally as a result of its digitalisation. Domestic photography has become a part of the network of digital media, and users engage to interpret the network and the role of domestic photography in it. (See also Ito, 2007, 2, 5, 11)

Apart from studies focusing on individual devices, studies are needed that focus on how people create and/or circulate media files across digital media. Signs of this kind of academic interest already exist in technology and service development (Sarvas, 2006) as well as in cultural and social sciences, as the works by Jenkins (2006) and Ito (2006) cited in this research indicate. Jenkins writes of "convergence culture", shifting the focus of most discussions on media convergence from speculations on future media distribution to activities by media consumers. However, for the purposes of analysing or explaining how and why users produce and circulate their self-made media files, the concept is still too broad, lacking anchorage to the user perspective. The benefit of Ito's term media mix is that it comes closer to the users' perspective and activity. However, it shares the vagueness of the term convergence in the sense that it is difficult to know, for example, whether the user is mixing or converging media content or media platforms.

The circulation of files and content in digital media ties together the interests of users who produce and publish content; the users who are the audience for this content; the commercial actors producing related services and technologies; and the societal actors, such as legislators, who need to react to the changing media environment. (Ito, 2007) Therefore it provides a wide and rich area of inquiry for studying trajectories of content files, either from the point of view of technological enablers and constraints, or from the point of view of circulated visual, auditive, or linguistic content. More research is needed to produce knowledge of how users connect media in practice, what encourages and what constrains them, and how they link together their understandings of different media. How do people group media together, and what distinctions are made? Examining media this way through circulated media content, light would be also shed on the boundaries in the circulation. Who uses and connects digital media, who does not, and for what reasons? Technologies support some users and shut other users out

by their functionalities but also through the social and cultural interpretations and practices that surround them. In this study, the seemingly trivial task of transferring photos to the computer led to the questions "who are users generating visual content and thus creating visual culture on the internet today?" and "what kind of people are excluded?" The circulation of content in and across digital media is an emerging field that has cultural and societal impact and it merits research that elucidates the specificities that media change brings about.

In the field of information technologies manufacture and service production, although from the 1980s onwards there has been growing awareness on the importance of considering the user perspective holistically (Battarbee, 2004, 22–24), we are still far from the situation in which the user perspective is one of the core drivers in technology and service development. Firstly, the user perspective in technology product development has so far been dominated by interest in the cognitive and psychological aspects of users, not the social or cultural ones. Secondly, as is manifest in Chapter Five in this study, it seems that the knowledge that exists and is formed of the user perspective is not yet applied in product and service development as efficiently as technical or market knowledge is. For cultural and social constructionist studies to be an equal counterpart to studies of technology, markets and economy, much more research on how people use and interpret information and communication technology products and services needs to be carried out. Furthermore, this research needs to be carried out in more varied institutional contexts than it is today, both within academia and industry. Apart from social sciences, humanities and design research, the cultural perspective needs to be present in engineering and economics faculties, and apart from marketing departments in companies, the cultural perspective needs to be integrated into product development.

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APPENDIX 1

Participants

Harri, 17, high school student
Henri, 17, high school student
Johanna, 18, high school student
Niina, 18, high school student
Tommi, 18, high school student

Eeva, 27, musician, student
Jani, 30, architect, new media designer, student
Paula, 31, nurse
Saara, 25, musician, student
Sami, 29, new media designer, student

Aaro, 47, IT engineer
Aila, 44, teacher
Laura, 47, producer
Raimo, 53, stevedore
Tapio, 52, IT engineer
Toni, 51, heating and ventilation engineer

APPENDIX 2

APPENDIX 3

Digikuvaustutkimus 2006, Heli Rantavuo, Taideteollinen korkeakoulu, Medialaboratorio

OSALLISTUJATIEDOT
Kirjoita kaksoispisteen jälkeen.

1. Nimi:
2. Syntymävuosi:
3. Asuinpaikka:
4. Opintoala:
5. Jos työskentelet, ala:

KUVAUSHISTORIA JA VÄLINEET
Kysymykset koskevat sekä still- että videokuvaamista. Täsmennä tarvittaessa.

6. Milloin aloitit valokuvaamisen (muun kuin digitaalisen)?

7. Mitä välineitä olet käyttänyt valokuvaamisessa (muussa kuin digitaalisessa; kameroiden lisäksi esim. jalustoja, objektiiveja, laboratoriota tms.)?

8. Milloin aloitit digitaalisen valokuvaamisen?

9. Mitä välineitä olet käyttänyt digitaalisessa valokuvaamisessa (kameroiden ja kännyköiden lisäksi esim. tietokoneohjelmat, printterit, CD:t tms.)?

10. Onko sinulla välineitä, joita olet hankkinut digikuvausta varten, joita et käytä? Mitä ne ovat?

KAMERAKÄNNYKKÄ JA KUVIEN KÄYTTÖ
Kysymykset koskevat sekä still- että videokuvia kännykällä. Täsmennä tarvittaessa.

Kuvaaminen

11. Kuinka usein kuvaat kännykällä?

12. Millaisia kuvia otat kännykällä eniten?

13. Kuinka monia kännykkäkuvia käsittelet kuvankäsittelyllä, miten? (Esim. kehyksin, väritehostein, animaatioin, tekstilisäyksin tms.)

Kuvien katseleminen ja näyttäminen

14. Kuinka usein katselet kännykkäkuvia?

15. Minkä eri välineiden avulla katselet kännykkäkuvia?

16. Missä eri muodoissa katselet kännykkäkuvia? (Esim. soittajan tunnisteena, taustakuvana tms.)

17. Millä eri tavoin lähetät kännykkäkuvia muille?

18. Kenelle useimmiten lähetät kännykkäkuvia?

19. Millä muilla tavoin kuin lähettämällä näytät kännykkäkuvia muille?

20. Kenen kanssa useimmiten katselette kännykkäkuviasi yhdessä?

Muiden ottamien kännykkäkuvien katsominen

21. Millä eri tavoin saat kännykkäkuvia lähetyksenä muilta?

22. Keneltä useimmiten?

23. Millä muin eri tavoin joku muu näyttää sinulle kännykkäkuvia?

24. Kuka niitä näyttää useimmiten?

Kännykkäkuvien säilyttäminen

25. Missä eri paikoissa ja muodoissa kännykkäkuviasi on? (Esim. kännykässä, verkossa, arkistointiohjelmassa, CD:llä, printtinä tms.)

26. Kuinka monta kännykkäkuvaa olet tähän mennessä suunnilleen säilyttänyt?

DIGITAALINEN KAMERA JA KUVIEN KÄYTTÖ
Kysymykset koskevat sekä still- että videokuvaamista digitaalisella (still-) kameralla. Täsmennä tarvittaessa.

Digikameralla kuvaaminen

27. Kuinka usein kuvaat digikameralla?

28. Millaisia kuvia otat digikameralla eniten?

29. Kuinka monia kuvia käsittelet? (Esim. rajauksin, väritehostein, kehyksin, animaatioin, tekstilisäyksin tms.)

Digikuvien katseleminen ja näyttäminen

30. Kuinka usein katselet digikameralla otettuja kuvia?

31. Minkä eri välineiden avulla katselet digikameralla otettuja kuvia?
32. Missä eri muodoissa katselet digikuvia? (Esim. taustakuvana, näytönsäästäjänä tms.)

33. Millä eri tavoin lähetät digikameralla ottamiasi kuvia muille?

34. Kenelle useimmiten lähetät digikameralla ottamiasi kuvia?

35. Millä muilla tavoin kuin lähettämällä näytät digikameralla ottamiasi kuvia muille?

36. Kenen kanssa useimmiten katselette digikameralla ottamiasi

kuvia yhdessä?

Muiden ottamien digikuvien katsominen

37. Millä eri tavoin saat digikuvia lähetyksenä muilta?

38. Keneltä useimmiten?

39. Millä muin eri tavoin joku muu näyttää sinulle digikameralla otettuja kuvia?

40. Kuka niitä näyttää useimmiten?

Digikuvien säilyttäminen

41. Missä eri paikoissa tai muodoissa digikuviasi on? (Esim. kamerassa, tietokoneella, verkossa, CD:llä/DVD:llä, printtinä tms.)

42. Kuinka monta digikameralla otettua kuvaa olet tähän mennessä suunnilleen säilyttänyt?

DIGITAALINEN VIDEOKAMERA JA VIDEOIDEN KÄYTTÖ
Kysymykset koskevat sekä still- että videokuvaamista digitaalisella videokameralla. Täsmennä tarvittaessa.

Digivideokameralla kuvaaminen

43. Kuinka usein kuvaat digivideokameralla?

44. Millaisia videoita tai kuvia kuvaat digivideokameralla eniten?

45. Kuinka monia videoita tai kuvia editoit, miten?
Digivideoiden tai digivideokameralla otettujen kuvien katseleminen ja näyttäminen
Täsmennä tarvittaessa videoiden ja still-kuvien kesken.

46. Kuinka usein katselet digivideokameralla kuvaamiasi videoita tai kuvia?

47. Minkä eri välineiden avulla katselet digivideokameralla kuvaamiasi videoita tai kuvia?

48. Millä eri tavoin näytät digivideokameralla kuvaamiasi videoita tai kuvia muille?

49. Kenelle useimmiten näytät digivideokameralla kuvaamiasi videoita tai kuvia?

Muiden ottamien digivideoiden katsominen

50. Millä eri tavoin joku muu näyttää sinulle digivideokameralla kuvaamiaan videoita?

51. Kuka niitä näyttää useimmiten?

Digivideoiden säilyttäminen

52. Missä eri paikoissa tai muodoissa digivideoitasi on? (Kamerassa, tietokoneella, verkossa, CD:llä/DVD:llä tms.)

53. Kuinka monta digivideokameralla kuvattua videota olet tähän mennessä suunnilleen säilyttänyt?

Kiitos!

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APPENDIX 4

HAASTATTELURUNKO

A. ALOITUS

A. a. Merkintöjen teko: miten sujui?
A. b. Kuvaaminen: miten sujui, tuntuiko että otti kuvia tutkimusta varten?

1. KUVAT JA MERKINNÄT

1.1. Vapaassa järjestyksessä merkintöjen ja kuvien pohjalta: Väline, paikka, muut mukana olleet ihmiset, syy kuvan ottamiseen, toimet kuvan kanssa

2. VALITUT KUVAT

2.1. Kuvien polku: siirtäminen omissa laitteissa, lähetys, muuntelu, säästäminen, katselu, aikooko tuhota vai säästää.
2.2. Mitä teki, miksi? Mitä ei, miksi?

3. KOKEMUKSET TEKNIIKAN PARISSA

3.1. Mitä uusi tekniikka on tuonut sinun kuvaamiseesi?
3.2. Millaisia kokemuksia sinulla on digikuvaamisen eri välineiden kanssa?

4. KUVAAMISEN INTENTIOT

4.1. Miksi alunperin siirryit digitekniikkaan?
4.2. Miksi digikuvaat?
4.3. Millaisia tavoitteita sinulla on digikuvauksessa nyt?

C. KYSYTTÄVÄÄ, LISÄTTÄVÄÄ?

D. KOPIOT JA LUVAT