She and her mobile phone: On examining the connection between female mobile use patterns and parenting





MASTER'S THESIS

She and her mobile phone: On examining the connection between female mobile use patterns and parenting

Master's thesis

Supervisors:

Philosophy of science, technology and society studies Faculty of behavioural Science University of Twente Enschede Jan. 2008

Acknowledgement

First of all I would like to thank my supervisors; for their guidance, support and kind consideration through out the duration of this work. Secondly I would like to thank my wonderful husband and my precious daughter for their unconditional love and support which has been my major motivation all through this time. I am also highly indebted to all the women who participated in the interview session, most especially for the useful insights they provided for this work. I want to also express gratitude to all my friends and families, in particular my parents who continually encouraged me through out the course of my study. Finally I would like to thank God for giving me the strength and well-being to fulfill this dream.

Abstract

It is widely believed that technology has the potentials to improve people's life. In addition current societal trends claim that Information and communication technologies (ICT's) have implications, good or bad for the organization and management of everyday life, more so the mobile phone considering its present day pervasiveness. The aim of this paper is to investigate how female parents integrate mobile phones into their daily lives and also the effects it produces on their parenting roles. The method of research involved interviews with 20 mothers residing in the Netherlands. Illustrations drawn from interviews with some of these mothers were used to provide multi-dimensional descriptions of mobile phone use within the context of everyday life. Consequently research questions were answered concerning the effect of mobile phone on the daily practices, routines and social structures of diverse categories of women. It was concluded that majority of these women use their mobile phones in ways that not only impact their family life, but also shape how they fulfill their parental obligations.

Table of contents

1.	INTRODUCTION	7
2.	BACKGROUND OF STUDY	9
2	2.1 EXPLORING SOCIOLOGICAL PHENOMENOM OF MOBILE PHONE	9
2	2.2 EXPLORING THE USE OF MOBILE PHONE BY WOMEN	10
2	2.3 SCOPE OF STUDY: FOCUS ON MOTHERS	.11
3.	RESEARCH QUESTION AND METHODOLOGY	13
3	3.1 RESEARCH QUESTION	.13
3	3.2 INTRODUCING DOMESTICATION THEORY	
	3.2.1 Background	15
	3.2.2 Dimension of domestication	16
	3.2.2.1 Commodification	16
	<i>3.2.2.2 Appropriation</i>	17
	<i>3.2.2.3 Conversion</i>	
-	3.3 BEYOND DOMESTICATION: MUTUAL SHAPING OF TECHNOLOGY	
3	3.4 ON TECHNOLOGY MEDAITION	
	3.4.1 Mediating effect of technology	
2	3.5 METHODS	
	3.5.1 Data collection	
	3.5.1.1 Interview structure	
	3.2.2.2Participants3.3.2.3Analyzing data	
4.	RESULTS	26
2	4.1 CASES OF DOMESTICATION BY VARIOUS MOTHERS	26
	4.1.1 Case 1:Mary an employed single mother, Almere	
	4.1.2 Case 2:Sally an unemployed married mother Almere	
	4.1.3 Case 3:Helen a married mother, Enschede	
	4.1.4 Case 4:Carol, a working, Amsterdam	
	4.1.5 <i>Case 5:Julie, mother and grandmother Almere</i>	
	4.1.6 Case 6:Susan, single working mother Almere	
	4.1.7 Case 7:Paige, unemployed mother Almere	31
5.	ANALYSIS OF RESULTS	~~
	ANAL1515 OF RESULTS	33
5	5.1 MOBILE PHONE AND COMMODIFICATION PROCESS	
5	5.1 MOBILE PHONE AND COMMODIFICATION PROCESS 5.1.1 How mothers identify with the mobile culture	33 <i>34</i>
	 5.1 MOBILE PHONE AND COMMODIFICATION PROCESS	33 <i>34</i> 35
5	 5.1 MOBILE PHONE AND COMMODIFICATION PROCESS	33 <i>34</i> 35 36
5	 5.1 MOBILE PHONE AND COMMODIFICATION PROCESS	33 <i>34</i> 35 36 <i>3</i> 6
5	 5.1 MOBILE PHONE AND COMMODIFICATION PROCESS 5.1.1 How mothers identify with the mobile culture 5.2 MOBILE PHONE AND APPROPRIATION PROCESS 5.3 DOMINANT VALUES ATTACHED TO PHONE 5.3.1 Facilitating mothering 5.3.1.1 Mobile phone as a support system 	33 34 35 36 36 36
5	 5.1 MOBILE PHONE AND COMMODIFICATION PROCESS 5.1.1 How mothers identify with the mobile culture 5.2 MOBILE PHONE AND APPROPRIATION PROCESS 5.3 DOMINANT VALUES ATTACHED TO PHONE 5.3.1 Facilitating mothering 5.3.1.1 Mobile phone as a support system 5.3.1.2 Working and babysitting at the same time 	33 34 35 36 36 36 37
5	 5.1 MOBILE PHONE AND COMMODIFICATION PROCESS 5.1.1 How mothers identify with the mobile culture 5.2 MOBILE PHONE AND APPROPRIATION PROCESS 5.3 DOMINANT VALUES ATTACHED TO PHONE 5.3.1 Facilitating mothering 5.3.1.1 Mobile phone as a support system 5.3.1.2 Working and babysitting at the same time 5.3.1.3 Empowering the children 	33 34 35 36 36 36 37 37
5	 5.1 MOBILE PHONE AND COMMODIFICATION PROCESS 5.1.1 How mothers identify with the mobile culture 5.2 MOBILE PHONE AND APPROPRIATION PROCESS 5.3 DOMINANT VALUES ATTACHED TO PHONE 5.3.1 Facilitating mothering 5.3.1.1 Mobile phone as a support system 5.3.1.2 Working and babysitting at the same time 	33 34 35 36 36 36 37 37 38

5.3.3	Complicating mothering	
5.3.3.	1 Over dependant mothers /frightful children	
5.3.3.	2 Increased responsibility	
	OBILE PHONE AND CONVERSION PROCESS	
5.1.2	Relating her experience	
	Borrowing a leaf from fellow mothers	
	EDAITING ROLES OF THE MOBILE PHONE	
5.5.1	Mediating social roles within the family	
	Mediated mothering	
6. CONC	CLUSION AND RECCOMENDATION	
NOTES		
REFERE	NCES	51
APPEND	IX	

1.0. INTRODUCTION

Studies within the field of sociology of technology have often shown that women use technology in interesting ways. A determinist approach to analysis on technology, with respect to the sexes may ultimately promote the stereotypical notion that men and women react to technology in gendered ways. While authors that adopt the mutual shaping/co-construction approach can easily counter this way of thinking by arguing that gender roles with respect to technology, are continually being socially constructed. This paper intends to extend work done under mutual shaping/co-construction approach by moving beyond general analysis on gender and technology and zooming in on motherhood and mobile telephony.⁽¹⁾ To achieve this aim, this paper will draw on empirical research involving 20 mothers residing in the Netherlands. Interviews and informal conversations were carried out with these mothers with the intent of exploring their experiences of mobile telephony in conjunction with their experiences of motherhood within the confines of their domestic settings.

This work is inspired in most part by work done by scholars who developed the "Domestication of technology" theory; a theory introduced by Roger Silverstone in the early 1990's to explain the general and symbolic consumption trend in modern society (Haddon, 2001). This theory has also "been used, to analyze the complex process by which information and communication technology (ICTs), enter and subsequently find a place within household routines and practices". (Silverstone et al, 1992)⁽²⁾ Furthermore in the course of this research I have come across a growing body of literature that seeks to explore what women do with mobile phones in their everyday life in the light of domestication theory. Useful insights from these types of work will be employed to help steer this work in desired directions.

The first point of departure for this paper will be to explore the general phenomenon of mobile phone. Following this the use of mobile phone by women will be explored. Afterwards this paper will go ahead to explain the research focus, which basically

concerns women with children. From there it will proceed to highlight the research question and describe the methodology. Under the methodology section, this paper will describe in more details the domestication theory and then move ahead to point out possible areas of limitations. Consequently to counter the shortcomings, ideas will be borrowed from work done by philosophers of technology in areas of technology mediation, after which all relevant theories will be employed to analyze results from field work. Domestication will be shown to distinguish three dimensions; commodification, appropriation and conversion.⁽³⁾ Live illustrations of various mothers daily mobile telephony experiences will be adapted into each of these dimensions. The first dimension to be considered will be commodification. This is the level wherewith the artifact is constructed as a desirable object, first of all by those involved in its production and promotion, and subsequently by the prospective consumers. This level will seek to explore the necessity of a mother to own a mobile phone. Subsequently the appropriation dimension will be considered. Appropriation is the stage whereby the artifact leaves the market shelf and ventures into private spaces, where it is familiarized. This heading will survey how a mother integrates the mobile into her daily routines, and how the phone helps her joggle between the boundaries of public and private spheres. In addition this section will showcase several "most genuine" meanings the phone assumes in these mothers life. At this juncture I would like to mention that the core of this work will focus on appropriation, because under this dimension three categories were created that summarized the effect of mobile phone on female parenting roles. Lastly the conversion stage will be surveyed, which basically tries to explain the outside world involvement in inward practices with respect to mobile telephony. Afterwards a philosophical reflection will be made on the mediating effect of mobile phone on these women's lifestyle. Finally this paper will conclude by reflecting on the manner of investigation and point out areas of limitations while making recommendation for future research.

2.0. Background of study

2.1. Exploring the sociological phenomenon of the mobile phone

Mobile phone pervasiveness has risen to skyrocket levels in recent times. The extent of its pervasiveness is evident in the fact that various countries have actually recorded more mobile phones than people (Katz, 2005). In addition statistics show that non-mobile phone owners are a minority in various countries. (International Telecommunication Union, 2004). One can hardly overlook this high level of mobile phone pervasiveness; neither can one deny its effect. This effect showcases itself in various societal incidences. One incidence that stands out is the constant modification and re-modification of societal norms and values in a bid to accommodate the mobile phone. Various societal institutions, organizations and even individuals have set out to define appropriate mobile behaviors in public and private spaces.

Another occurrence that ardently illustrates the mobile phone effect has to do with the types of meaning people attach to their mobile. Individuals have been discovered to attach high sentimental values to their mobile phone. Consider some of these views expressed by various individuals on BBC news 'Have your say' (23 July 2004), in response to the question; "do you depend on your mobile phone"?

I can't leave the house without my mobile phone. I find it an unhealthy habit. Amy Marmot, Erfurt, Germany

I could live without it, but I can't remember how I managed without. It's a security blanket for me, meaning I'm never far from my fiancé, the police or an ambulance should I need any of them. Lucy, Oxford, UK

It's an alarm clock, it's a to-do list, it's an address book, it's a remote dial-in to work, it's my way of keeping touch with everyone I know. Why would I want to live without it? **Richard Worthing, UK**

These views go a long way to show the extent to which the mobile shape real lives. Crabtree et al (2003:39) pose this very vital question "How can such a small thing mean so much"? They attempt to answer this question with results from their ethnographic studies which demonstrated that the phone symbolizes for many people diverse experience life styles and outlooks of the world. (Ibid) Some other studies show that the pervasiveness and idiosyncrasy of mobile phone usage have ardently given rise to a "cell phone culture". ⁽⁴⁾ This is clearly revealed in the fact that an increasing number of works from various authors seeks to examine patterns of cell phone usage among various socially defined members of society. Women constitute a major segment of society and many works have tried to throw more light on the ongoing relationship between the woman and her mobile. The next section will develop more on this last note.

2.2. Exploring the use of mobile phone by women

A number of studies on mobile phone usage have offered useful insights as concerning how women adapt the mobile phone into their daily life. In addition, a couple of researches have been geared towards the observation of women's actions and behaviors in relation to their mobile phone. Authors like Plant put forward that women use their phones in a manner that fulfills social obligations. "Indeed, it is often found that women tend to use their mobile phones as instruments of expression and sociability, while men tend to display them as the symbol of their social status and virility, as well as instruments of business" (Plant, 2003). Authors like Rakow and Navarro's (1993:155) imply that the context of women's mobile use differ from their male counterpart. "The cellular telephone, because it lies in that twilight area between public and private, seems to be an extension of the public world when used by men, an extension of the private world when used by women⁽⁵⁾. Fox (2001) provides this imagery of mobile phone use by women "... in our fieldwork observation studies we found lone females increasingly using the mobile itself as a form of 'protection' from the potentially threatening world around them..... Women on their own in cafes and bars and on trains now use their mobiles as 'barrier' signals in the way that they used to hold up a newspaper or magazine to indicate to predatory males or other intruders that they were unavailable," thus also instigating that there is variation between men and women's mobile use patterns.

Evident in all of these works is the acclamation that women have found valuable uses for their mobile phone. However, what is missing in these types of studies is the lack of mention of the profile of the woman user in question. For this reason statements trying to point out differences in men and women's mobile use patterns come off sounding deterministic. It is necessary to take into account that there are various groupings (for example single or married, mothers or non-mothers) within the category of women and for this reason the specific profile of the user may affect her mobile usage. Nonetheless society has preconceived images of mobile phone use patterns by women. Katz (1999) gives a picture of some of these types of preconceptions "The advertisements for mobile phones, which have defined and reflected the social usage of the new technology, have displayed women's mobile phones as instruments of security and relation-maintenance". These writer's accounts show that women are using their mobile just like the media suggests. Therefore women presented in such a context appear as subject who submit to the dictates of societal preconceived images of female mobile phone use patterns. In the course of time, this paper will display the contrary, that "People are not merely malleable subjects who submit to the dictates of technology" (Mackay and Gillespie, 1992;698) This research will try to emphasize that the way a woman chooses to use her mobile is dependant on factors like her societal role, age, lifestyle, family obligations, personal needs e.t.c. The next section brings to lights the aspects of womanhood that will be considered for this study.

2.3 Scope of study: focus on mothers

The previous section has tried to point out the defects in various authors' explanations of women's mobile phone use pattern, which has to do with how they make their evaluation based on the generality of women. However, this paper will recognize that there are various divisions within the category of women and will subsequently focus on mothers.

The word 'Mothers' is used in the literal sense of the word to depict women with children. The ages of the children are of no consequence, they may be grown up or still residing at home. However, the motivation here is to instigate the idea that each mother may have her own impression of what a mother is or should be, and this impression will reflect in how she chooses to use her mobile. Furthermore specific circumstances surrounding her existence may have impact on her phone usage. Therefore it would be necessary to point out some of these factors, including employment status, marital status, age, and number of children. Nevertheless, the aim is not to make any form of generalization on the basis of these factors as the scope of this research does not permit that, rather the motive is to acknowledge that these factors exist and that they shape how women use their mobile phone. Crabtree et al(2003:24) make this statement about technology and real lives, which is also in line with the direction of this work: "technology does not exist in a vacuum, it enters the busy lives and household of people looking after children, making arrangements, juggling work and home lives and maintaining relationships". In a similar manner the mobile penetrates deep into the mental, spiritual, physical and social activities that surround female parenting roles.

3.0. Research questions and methodology

3.1 Research questions

This paper will examine how mothers are using the mobile phone within familial settings and also the effects of this use on their parenting roles. To achieve this end, attempts will be made to answer the following two main research questions;

- 1. In what ways does a mother use her mobile phone with respect to family life
- 2. How does this use accentuate or challenge her lifestyle and shape her parenting responsibilities

As has previously been highlighted, the aim of this research is to explore the relations between women's mobile phone use patterns and their parenting obligations. The theory of domestication will be employed to ascertain what mothers are doing with the mobile phone in their domestic settings and vice versa. As a sequel to the main research questions, posed above, the following sub-research questions will be considered which will also aid thorough navigation of the research area; (1) how does a mother interpret her ownership of the mobile phone as well as the role it plays in her life, (2) how does she integrate the mobile phone into her domestic culture, (3) what meanings and dominant values does she assign to her mobile phone. Explication of these questions will feature under findings in each of the domestication dimensions. This research will exhibit domestication theory as a valuable tool to explore the adaptation of technology into everyday life. More so this research will direct the spotlight towards areas of limitations of domestication while incorporating a second theoretical framework namely; technology mediation to make for a more wholesome study.

3.2. Introducing Domestication theory

Domestication is a theory that was introduced by Roger Silverstone in the early 1990's to explain the process by which new technology gets adapted into everyday life. Domestication concerns itself with the incorporation of new technologies into the domestic culture and the 'moral economy' of the household (Silverstone et al., 1992;16). Most artefacts undergo the process of domestication in order to be fully accepted and properly embedded into people's everyday life. Domestication goes beyond analyzing the technicality of an artifact, and instead narrows in on the social processes whereby the artifact undergoes adoption by the user concerned. A simple definition of the word 'adoption' as used in this context is "acceptance with approval"⁽⁶⁾ which can also be used ultimately to embody the domestication process. Lie and Sorenson use the phrase "making technology our own"⁽⁷⁾ as their own embodiment of domestication processes.

Domestication tries to capture what happens in the household during and after the adoption of the technology; that is the adjustments that are made in household rhetoric in other to make room for the new artifact. Furthermore adjustments are also made to the artifact, so that it suits its owners liking. A few more descriptions of Domestication from other authors are provided below.

"Domestication deals with how ICT's become integrated into people's daily lives or how ICT "find a place in people's life" (Haddon 2003;43)⁽⁸⁾.

"The concept of domestication refers to the capability of individuals, families, households and other institutions to bring new technology and services into their own culture, to make them their own. (Frissen and Punie, 2001)⁽⁹⁾

Domestication deals with the cultural, social and technological networks of the everyday life of households. The meanings and significance of all our media and information products depend on the participation of the user (Silverstone, 1996)⁽¹⁰⁾

All of the above different definitions show that Domestication can be viewed in various lights. However, all of these interpretations make mention of similar key concepts such as daily life, household, and culture.

3.2.1. Background

The word 'Domestication' has been traditionally used to depict the process whereby plants and animals are brought under human control and supervision. This is also evident in many dictionary definitions. The Britannica Concise Encyclopedia provides this definition "In its strictest sense, it refers to the initial stage of human mastery of wild animals and plants" <u>http://www.encyclopedia.com/doc/1B1-362942.html</u>. Silverstone and Haddon verify this type of supposition when they use the word the word domestication to depict the following act "a taming of the wild and a cultivation of the tame."⁽¹¹⁾ (Silverstone and Haddon, 1996;60)⁽¹²⁾. 'Taming the wild' depicts the process of "taming technology to make it fit with everyday routines and rituals" (Sleatemeas, 2006) For these authors the word domestication conveys the feeling of making effort towards changing something that is part of the wilderness into an acceptable member/accessory of the home or society. "This effort involves removing the violent or aggressive elements of behavior and replacing them with a milder and tamer, co-operative attitude or appearance." (Habib and Cornford, 2001).

Domestication of technology has its roots in sociological studies of technology, where it occupies a position amongst theories and methods that deal with the social aspects of technology. "Seen among a larger family of ideas regarding the relationship between technology and society, the concept of domestication represents a vital extension of social constructivism into the field of technology use" (Bakardjieva, 2006;64) The model of domestication of technology was originally developed in order to shed light onto the processes of consumption of home technologies, such as the telephone, the television, the VCR or the home computer (Silverstone et al., 1992; Silverstone, 1994; Silverstone and

Haddon, 1996; Lie and Sorensen, 1996)⁽¹³⁾ Although many writings on domestication focus attention on the implementation and adaptation of new ICT's in the household, "the term 'Domestic' suggests a house hold environment" Sorenson et al(2000) ⁽¹⁴⁾. Nevertheless domestication is gradually being used to explore the adoption of technology within various other spheres.

3.2.2. Dimensions of domestication

Domestication theory distinguishes three main dimensions namely; commodification, appropriation and conversion. (Silverstone and Haddon, 1996) These dimensions are the different phases a user goes through when confronting new technology.(Hynes and Rommes, 2006;125) Every new dimension tries to build up on the preceding dimension, thereby illuminating the step-by-step process by which the domestication of a technology is achieved. Authors like Ward (2006;146) suggest that there is a close relationship between these various domestication dimensions, which eventually results in overlapping, thereby "highlighting the fluid nature of the process". It's important that this issue of overlapping be mentioned before attempting to provide descriptions of each of the dimensions concerned.

3.2.2.1. Commodification

define Commodification Silverstone and Haddon. (1996;63)follows; as "commodification refers to the industrial and commercial processes that create both material and symbolic artifacts and turn them into commodities for sale... it also refers to the ideological processes at work within this material and symbolic artifact". This is the stage at which an innovation is conceived, designed, or produced, or is being created as a 'commodity' (Frissen and Punie, 2001)⁽¹⁵⁾ The "creation of commodity" in this light depicts the process by which designers present the artifact as an object to be desired by the consumers. That is to say that in the first place a certain image is ascribed to the artifact before it transition into society. The commodity in question is firstly defined by an existing notion of its alleged functionality and symbolic claim, subsequently it is defined by the dominant expressions or values assigned to it, as it emerges into public space. "Commodification involves establishing a metaphor, a myth about the artifact that will seduce the consumer to purchase and become a user" (Bratteteig, 2006). After the object gets into the hands of its user, it is further re-constructed and the dominant meaning it assumes becomes a function of the users' perception of the extent to which is satisfies their needs.

3.2.2.2. Appropriation

This is the second dimension of the domestication process. It is at this point that the artifact enters the household and begins to find acceptance and eventually acquires some form of genuineness. "In the appropriation stage, a consumer buys a technology, brings it into the home and tries to make it familiar by giving it a physical place in the home but also a symbolic and social place by integrating it into the pre-existing routines of everyday life." (Huijboom, 2005). Appropriation encompasses two stages namely; Objectification and incorporation.

Objectification; at the objectification stage, the artifact is awarded a space within the environment that it find itself in. This space is created within the structures, routines and values of the household. "It must be made to fit into a pre-existing culture" (Silverstone and Haddon,1996; 64). At this stage "users design ways in using the technology based on their own preference" (Zhao, 2005)

Incorporation; at the incorporation stage the artifact may loose the alleged functionality that was ascribed to it before it entered the domestic sphere. The artifact goes ahead to assume other customized functions and symbolic meanings. That is to say that the functionality of the artefact is subject to various forms of modification, as well as made to fit into patterns that intermingle with the domestic culture. "An object becomes incorporated when it starts being integrated into temporal structures, both formally in

form of schedules and rules and informally in form of routines and habits. The object reaches a 'taken for granted' status as it is given a function (or a series of functions) that may be different from those that were intended by the designers of the artefact or even from those that the buyer had in mind when acquiring it". (Habib, 2005)

3.2.2.3. Conversion

This is the final dimension of domestication; conversion is used to depict the process whereby the users relate personal experiences with the artifact back to the outside world. At this level the bigger audience is invited to be a participant of the consumption culture within the household. "The act of consumers displaying their competence and ownership of the artifact legitimates their involvement in the consumer culture" (Silverstone and Haddon, 1996; 65). Users activate the conversion process in various ways, such as showing off the artifact's physical features or stimulating discussions around it. It's almost as if the user becomes dissatisfied with experiencing the artifact alone and is eager to let others into the space of her personal practices. "In this case it is not so much the incorporation of ICT into the specificities and diverse practices of the household which is important, but rather being part of a collective value system shared with others outside the household" (Huijboom, 2005). Conversion activities make the artifact visible, by showcasing what it can do, not necessarily in terms of what the designer intended but in terms of what the user does with it. Consequently, the potentials of the technology are brought into the spotlight and designers and fellow users alike learn a lot about the possibilities of the artifact. Accordingly, designers may alter or modify subsequent products based on what they have learnt.

3.3. Beyond Domestication: Mutual shaping of technology

So far domestication theory has showcased itself as a very useful "analytical tool" ⁽¹⁶⁾ for describing and analyzing patterns of acceptance and use of (ICTs), in the context of the everyday life. Crabtree et al express this view as "any picture on the impact of a technology on society is incomplete without an understanding of the everyday situation in which the technology is used" (Crabtree et al, 2003;6). These comments from Crabtree et al draw attention to the significance of a theory like domestication because of the tactical tools it offers for analyzing technology and everyday life. However, in the course of this research it became clear that domestication theory was lacking in certain areas and this opened up avenues for dialogue in other areas. A close look at domestication theory shows that it centers on the human aspect of the technology shaping process, in that it provides step-by-step details of users shaping activities. In the process it tends to neglect the active role technology plays in the shaping process. Therefore I suggest it is important to adopt a mutual shaping perspective - a perspective that advocates that technology and social changes are mutually shaped. A mutual shaping approach will emphasize that a complete understanding of socio-technical dynamics can be better achieved by incorporating studies on technology's impact on users into studies that focus on user's impact on technology. "Users and technology are seen as two sides of the same problem as co-constructed" (Oudshoorn and Pinch, 2003:3). Also with respect to understanding technology in the context of everyday life, Lie and Sorenson (1996:4) pose this two-fold question "what is the role of technology in human action and how does human action shape socio-technical relations"?, thus also emphasizing the importance of employing a mutual shaping perspective to analyzing socio-technical dynamics.

This paper will forge ahead by incorporating work done by philosophers of technology on the concept of 'technology mediation'. This concept starts with the premise that technology help shapes the way people relate to one other and also the worlds around them. "Things, therefore are not neutral "intermediaries" between human and world, but *mediators*, they actively mediate this relation" (Verbeek, 2005:114). In essence, the concept of technology mediation will throw the much needed light on the active role technology plays in the shaping process. The next section provides a more in-depth description of technology mediation.

3.4 On Technology mediation

The term 'technological mediation' was used by Verbeek to embody the idea that people's engagements and interaction with the world around them is constantly being mediated by technology "Technological artifacts mediate how human beings are present in their world, by helping to shape their actions and existence; and how the world is present to human beings, by helping to shape human experiences and interpretation of reality". (Verbeek, 2007) The mediating role of technology is showcased in the experiences it allows. Verbeek (2005;123) uses the example of the eyeglasses to personify mediated perception; "when I wear eyeglasses, I do not look at them but through them at the world". Therefore a person accustomed to wearing glasses may easily forget that she is wearing an artifact. The attention of such a user is not with the glasses itself but with the world all around. The pair of glasses, her vision may be blurred and she would experience the world differently.

Don Ihde puts forward two sets of relations with artifact that mediates people's relations with their world. ⁽¹⁷⁾ The first refers to what he calls embodiment relations, while the second involves hermeneutic relations. However, hermeneutic relations will not be elaborated further as embodiment relations are most applicable for this study. The above example of the glasses provides a good example of embodiment relations which Ihde schematizes as follows ⁽¹⁸⁾

Embodiment relations: (I - technology) ----- world

"In the embodiment relation, our experience is organized through a technical mediation

and our identity merges with it" (Feenberg, 2006:107). The mobile phone can be characterized as an embodied technology. "Self-expression through embodiment is a familiar experience from speaking on the telephone. We do not feel the telephone to be an external tool; it becomes an extension of ourselves as we talk through it to our interlocutor" (Ibid). Adopting the notion of mediation of technology, we can highlight how the mobile phone is an active actor in mediating people's relation with their world.

3.4.1. Mediating effects of the mobile phone

Mobile phones are portable devices, destined to be carried almost anywhere and everywhere by its users. This is evident considering the fact that clothing and accessories such as jackets, handbags, and rucksacks are continually being designed with an extra compartment to house the mobile phone. In addition, nowadays the mobile phone acts as a multi-purpose gadget including a time piece, an alarm clock, a calculator, a camera, a music player and a host of many other things. All these features and more are packaged in this small unit which in turn is able to fit into a trouser or jacket pocket. The mobile phone affects its users in so many ways that it transcends its' mere functionality. It has a distinctive mediating effect that showcases itself in diverse ways. I for one often experience on train rides how many people engage in phone conversations from the minute they get into the train till the moment they step out. Such people are usually disengaged from their environment, in such a manner that they may fail to notice simple things like the kind of people around them or specific details of the environment, such as the passing scenery or the people that enter or vacate the train at subsequent stops. Thus mobile phone opens or closes up opportunities for new experience by translating the actions of its users from interacting with the surrounding environment to doing other things. "When one uses the mobile phone in public settings, one removes oneself from his/her surroundings, in a sense prioritizing the absent other over those who are physically present".(Campbell, 2007:739)

Recent studies show that with respect to mobile phone conversations and driving; "users of hands-free and hand-held cell phones are equally impaired, missing more traffic signals and reacting to signals more slowly than motorists who do not use cell phones" (science daily, Jan. 29 2003) thus reinforcing Verbeek's (2006) notion that "technologies help to shape how humans are present in reality, by mediating human action and practices"

3.5 Method

Below, I provide a detailed account of my research approach and also a reflection on my empirical methods.

3.5.1 Data collection

The empirical research involved 20 participants. The purpose of this empirical research was to explore the connection between the mobile phone and female parenting from a mutual shaping perspective. Domestication theory on one hand is used to explicate the role mothers play in the shaping process, while technology mediation would highlight the role the mobile phone plays in turn. The method of research consisted of *formal* and *informal* interviews with 20 women residing in the Netherlands. It is necessary that I make a distinction between these two methods of interviews because they each produced distinctive results. The interviews were conducted over a time period of four weeks.

Formal interviews: The formal interviews involved 9 participants. The interviews sessions were usually pre-planned, that is to say that the participants had already given their consent to participate and subsequently time and venue for the interview sessions were agreed on before hand. The interview sessions were methodical, most times during questioning the women would have to reflect a short while before providing answers to

questions posed. Data collected in these sessions were both structural and voluminous. The resulting responses were directly in tune with my line of questioning.

Informal interviews: The informal interviews can be better termed 'conversations' because they were not pre-planned. 11 Participants were involved and the method of interview was as follows. Firstly a couple of times during unrelated discussions with fellow mothers, I would bring up the subject of mobile phone usage and while we were on the subject, these mothers would relate interesting stories concerning their mobile phone use patterns and how it impacted their daily life and family. Secondly I would deliberately instigate discussions on mobile phone usage with women I had already determined were mothers. At some point in the discussions I would make it known that I was carrying out a research on the subject of discussion, this was eminent considering that I usually pulled out my pen and writing pad to collect notes. More so I needed a basis to ask these women for their ages, employment status and number of children. Data collected during these sessions were of great value to this research. The data were rich in quality, largely because the stories women narrated in the conversation session were spontaneous and they built up on one another, that is to say that each story would incidentally provoke other stories thereby divulging useful information. However, because of the nature of the interview, it was cumbersome to collect data, therefore only the necessary details were recorded.

3.5.1.1 Interview structure

A series of questions ⁽¹⁹⁾ were developed which were subsequently employed to carry out the formal interviews, which also served as guideline for the conversations. The lines of questioning adopted for the interview were developed based on relevant theories for this study. In the course of the interview, the questions were sometimes modified based on the response of the interviewee. The first point of departure for the interview was to establish the profile of the interviewee, in terms of age, occupational status, marital status and number of children. The formal interviews were conducted mostly in houses and offices and they usually lasted between 30-40 minutes. Interviews conducted in house settings with young children usually took more time, because the mothers had to juggle between attending to the children and answering my interview questions. One interview was rescheduled because of a baby that would not stop crying. The informal interviews were conducted everywhere possible, including social gatherings, public arenas and in three cases, by telephone conversations and they usually lacked time limit. All results from the interviews were documented in writing.

3.5.1.2 Participants

The primary characteristic of participants in this research was that they were all women with children residing in the Netherlands. The ages of their children ranged from infancy to adulthood, three of the participants had grand children. These women were of various age groups, ethnicity, and occupational status. The age range was between 20 and 67, although the bulk of the women fell in the 30-40 years age range. As a result of oversight I missed collecting the ages of two of the participants. For the formal interviews, the selections of the participants were based on "convenience sampling".⁽²⁰⁾ A method which is based on choosing the most accessible individuals, in this case friends, neighbors and acquaintances. As for the informal interviews, individuals were chosen haphazardly or accidental, by this I mean that these women were chosen based on their willingness to participate in discussions that involved mobile phone use and female parenting. Another characteristic of all my interviewees, which I found quite interesting, was that they seem to enjoy relating stories about their mobile and family life. This was evident in the enthusiasm that they showed, especially when narrating stories about the children. During interviews carried out in home venues, some mothers would point out the child they were making reference to, if he or she were physically present. In the office and some other settings, I would be shown wallet or desk pictures of children. Table 1 below provides a very brief profile of interviewees for reference purposes.

Names of respondent	Age	Number of children	Employment Y/N
Mary	43	3	Y
Sally	30	3	Ν
Helen	38	2	Y
Carol	42	4	Y
Julie	67	2	Ν
Susan	39	1	Y
Paige	32	1	Ν
Mandy	43	2	Y
Jessica	37	4	N
Holly	53	3	Y
Jane	32	1	Y
Judy	19	1	Ν
Lisa	-	1	Y
Diana	37	2	Ν
Stacy	49	3	N
Evelyn	36	3	Y
Yvonne	30	2	Ν
Trisha	56	4	Y
Pat	32	2	Ν
Cara	-	1	Y

3.5.1.3 Analyzing Data

The data from the interviews were analyzed firstly against the backdrop of Domestication theory and secondly against the backdrop of technological mediation as presented by Verbeek and other writers in the field. Certain concepts in both theoretical methods were brought to play when scrutinizing the data. Under Domestication, it was eminent to find out the commodification, appropriation and conversion process of the mobile phone under the umbrella of female parenting. Therefore attempts were made to adapt the daily experiences of these women and their mobile phone into the main thoughts behind each of this dimension. In order to ensure a suitable fit, these women's experiences were measured against findings of similar studies. Furthermore it was necessary to also examine the role the mobile phone plays in mediating relations amongst family members.

<u>4.0. Results</u>

4.1 Cases of Domestication of mobile telephone by various mothers

The next series of discussion will provide a narrative of 7 interesting cases of domestication of mobile phone by mothers in their familial settings. These accounts are not intended to represent the generality of all the women interviewed rather they are presented so that the readers can appreciate some mothers day to day experiences with their mobile phone and how it impacts their family life. These accounts were selected based on the diversity they bring to the discussion, such that sundry experiences of being mobile within the context of female parenting and everyday life will be fully comprehended. All cases featured, with exception of the last are derived from transcripts of the formal interviews. My motivation for this line of action is basically that the formal interviews provided methodical details directly in line with the empirical research questions formulated for this study. Nonetheless this is not to say that results from the informal interviews will be lightly estimated, as they also provided fascinating insights.

4.1.1. Case One: Mary an employed single mother, Almere

This tour of mobile domestication begins with Mary, a forty something year old single mother of three; Jane (15), Paul (13) and Tom (11). Mary engages in full time employment. A typical day for Mary starts out like this: as early as 5.00am, she gets up from bed, gets dressed and heads for work. All through her morning rituals, her children remain fast asleep. Mary is usually out of the house by 5.45am, in other to catch the 6 o' clock train ride that conveys her directly to her work place. This train ride last 45 minutes.

Mary's mobile phone starts out its day by exactly 7.00am. By this time Mary has arrived at her working place. Unfailingly at about that time she rings up Jane, her only daughter and the oldest of her three children. This ring is in the literal sense of the word a "wake up call". She comments "the children have their alarm clock set for around that same time, but who is to tell they won't fall right back at sleep, my mobile helps me to be doubly sure they stay awake". This call is aimed at ensuring that the children are up from bed in time to do their chores, eat breakfast and get ready for school. After this call Mary's phone becomes dormant for the next couple of hours because she usually doesn't take personal calls at work. At about 3.30pm Mary's mobile becomes active again because she engages it with a series of calls to family and friends. Mary has closed from work by this time and is well on her way home. Considering that her journey home takes quite a while she checks in with her children via phone. They usually close from school at about 3.00pm and she always call to find out if they are okay and to make sure they head straight home and not hang around aimlessly. Her mobile enables her to keep them in check. Mary reflects that this afternoon call was sometimes bothersome to her children but she couldn't care less and deep down her children understood her need to know that they were okay. She narrated that her middle son had once gotten into serious trouble after school and it came to her knowledge mainly because her kids were still on the street when they were supposed to be home.

Once Mary is home her children are allowed to do whatever they desire, which includes going out. She usually doesn't bother them with calls when she's home and they are out because they usually give details about their whereabouts before leaving the house and they know to come home in good time. More so, if they ever had any need to stay out later than usual, they would be the ones to call in.

4.1.2. Case 2: Sally, an unemployed married mother, Almere

Sally is a stay-at- home mother of three children, ages 5, 3 and 11 months. She confessed to being a heavy user of the mobile phone. She made this remarks "*I felt empty the day my baby broke my phone*". She said twice she had left her five year old home alone for half an hour to an hour so she could quickly run some very important errands. It was her cell phone that enabled her to take such bold steps because she was able to keep track of his activities during that short time. She would call him on the house phone every 15

minutes to make sure he was still in front of the T.V watching his favorite cartoon. Stationed at the entrance to Sally's living room, is double baby stroller. Sally points to the direction of the stroller as she explains her motivation to dash out and dash in. The stroller can only accommodate her last two kids and with the kids confined in the stroller they are easier to manage and consequently her speed and efficiency when carrying out errands increases. She further explained that allowing her five year old tag along in such instant would mean that she would have to combine running those errands as well as managing him which might be too cumbersome, hence her reasoning to leave him at home. Hopefully she asserts "such incidences are isolated cases, I have no attention of making it a habit till he's much older".

Sally has a daily mobile use pattern, which involves daily calls to certain friends, her sister and her husband. She remarked that her mobile is handy for keeping track of her husband's movement when he's out of the house. Her husband runs his own business and spends a considerable amount of time out of the house. She says taking care of the kids all day sometimes takes its toll on her and she usually finds it relieving to interact with other adults partly via her mobile on days she stays home all day. She also narrated that she had made it a habit to call her husband everyday to tell him something interesting the kids did during the day. Obviously everything Sally's children do is interesting to her, because she gave some examples of 'interesting' stories she related to her husband which include events like the children napping for a longer or shorter period of time or laughing really loud when watching a particular cartoon, or eating too much or too little during the day. She said she knew that her husband enjoyed hearing her stories "*I actually think, some of these stories make up the high point of his days, because he chuckles whenever he hears them and is always eager to hear more*"

4.1.3. Case 3: Helen, a married mother, Enschede

Helen a working mother of two little girls Rose (3) and Linda (1) confesses that she has a very inactive mobile phone. The reason is that only a limited number of people have

access to her phone namely; her partner, the children's day care and the children's grandparents. Every other family member, friends or associate usually reach her via her office or home fixed line. Most days her phone remains silent all day, which for her is a relief because she remarks "*each time my mobile rings my heart startles a little, I immediately begin to hope all is well with my kids*". She refers to her phone as an "emergency line", because it's never use for pleasantries. Her major reason for owning a mobile was mostly about the kids. It was important for her that she was easily reachable any time there was an emergency involving her kids.

Helen said she usually keeps her mobile in the pockets of any attire she's wearing and never in her handbag, except the attire had no pocket. Twice during the interview she patted her pocket and reflected that the mobile was the one thing that made her feel connected to her kids. As long as it remained silent, she knew her kids were doing just fine. She said a few times she had received calls from the kids day care to pick them up because they were ill. She narrated one particular case of her 3year old breaking out in a bad rash because of allergies, she said when she got the call she panicked and probably that was the incidence that made her coin her mobile as "*emergency line*".

4.1.4. Case 4: Carol, working mother Amsterdam

Carol, a woman in her forties and also a married mother of four, reflected that the ages of her children made all the difference. When they were little she felt this strong feeling of empathy for them because they were young and helpless and totally dependent on her. Therefore it was important that she should be accessible at all time in case they fell ill at the crèche or school. However as they grew up, the mobile phone became a tool which she used to empower them. As soon as her children reached 8 years she provided them with a phone for three basic reasons, to be able to reach their parents, and emergency numbers, in case of danger. Considering that she had four children and her last child was age 10, she said her house was streaming with mobiles. The mobile is an essential part of Carol's life. She said that between the four children at least 8 mobile phones had gotten lost, stolen or damaged for good. Each time that happened she found herself replacing the phones. However things had been stable for the last one year particularly because her two oldest children, 16 year old twins were working part time and would be responsible for replacing their phones in case of any mishaps. She said her last child; ten year old Matt, was given access to his phone only when he was out unsupervised, while her middle child 12year old Jane had full access to her phone. She also said that although it cost quite a bit to keep the mobile phone circulating in the family, yet she was happy with the results and would advise everyone else to do the same. She ended the interview on this note "*It gives me peace of mind to know that my children are never alone*".

4.1.5. Case 5: Julie mother and grandmother, Almere

Julie, a mother of two and grandmother of five, also the oldest interviewee attached little significance to owning a mobile phone. She narrated the story of her childhood which involved growing up in boarding school. She said her parents paid her visits only twice a month and in her own view she turned out successful in life. However these days she reflects "some children can hardly get away 10 meters from the home without an overly zealous mother ringing to find out if he or she is okay," She believed that this trend of keeping in touch with children at all times resulted in the children being, timid and intimidated and eventually low achievers. Although she had a mobile, she admitted she seldom had any cause to use it. She said that apart from two of her grandkids spending most weekends with her; she was always busy babysitting the other three once or twice a week, which meant she was constantly in touch with her immediate family. She emphasized that being in constant touch with her family was not the major reason she seldom used her phone. It was just a habit she had cultivated through the years; to be less dependant on her mobile and find other creative ways to navigate her life's journey.

4.1.6. Case 6: Susan, working single mother Almere

Susan a working mother of one daughter also saw no big deal in owning a mobile. She said she was a very busy person and hardly had any time for herself, how much more her mobile. Most days she even forgot she had a mobile because she rarely received any call on it which was partly her fault because she hardly gave her mobile number to anyone. She disclosed that her 15year old daughter was a mobile fanatic. She admitted giving her the mobile and also footing most of the bills, yet she couldn't understand why her daughter attached such high sentimental values to it. In her view a reasonable explanation would be that it was just part of youthful exuberant.

Susan also admitted that at that point in time she had no idea where her mobile was. "*Probably in my hand bag*", she commented as that was its permanent abode. But it made sense to her, because she always left house with her handbag and in case of any emergency she was reachable by those closest to her. She gave a vivid description of her mobile phone; an old Nokia handset which she had inherited from her daughter 3 years ago. It was the very first handset she purchased for her daughter. She said at fifteen years of age, her daughter had already gone through three mobile phones, mostly because her daughter had a way of asking for the latest mobile phone for every birthday. She narrated that she had advertised and sold of the last two of her daughter's mobile phone on the internet. Although she was not a fan of the mobile yet she felt it was a handy device to have around, even if it was for the sake of it. She also recalled that there were few times she made deliberate efforts to keep it within reach, at such times she already had prior knowledge that she would need to use it.

4.1.7. Paige, unemployed mother, Amsterdam

Paige is a mother of a two year old. Paige story is a little bit different from all previous illustrations, because she drew attention to another aspect of the mobile's functionality, namely the camera function. She related the story of how her son's first step was captured

on camera phone, by her boyfriend while she was out. She said it was very exhilarating to see the footages when she got home and would be forever grateful to the camera phone; it enabled her to be part of what she called a "*magical moment*". She said she attached such high sentimental values to that image to the extent that her boyfriend had no choice but to exchange phones with her. That was a little over a year ago but she still had the camera and footages from that event which she shared with me.

5.0 Analysis of results

The seven cases featured above have provided some typical examples of domestic everyday use of the mobile phone by mothers. What insights do they give in combination with other evidence about how mothers domesticate their mobile phone? In addition how is the experience of female parenting mediated through the mobile phone? These will be the subject of discussion for this chapter.

5.1 Mobile phone and Commodification process

Empirical findings for this work showed that the commodification process featured on two levels. The first level was more conventional, based on the fact that it directly supported theory on commodification, that is: commodification process begins at the designing, advertising and marketing stage where the artifact is constructed as an object to be desired by the prospective user. One of the most important reasons for mothers owning a mobile was the idea that they could be accessible at all times. This finding also complements findings by Frissen, (2000:72) "in the Netherlands, the introduction of cellular telephony on the consumer market, leaned heavily on a presumed need by consumers to be accessible at all times, a user's image that was already familiar in the business market"

The second level featured that objects not only becomes desirable by the action of designers marketers and advertisers, but also by the very essence of the mobile phone itself. My findings showed that the pervasiveness of the mobile phone triggered of the commodification process. The mobile presence was felt almost anywhere and everywhere, consequently many female parents felt the need to identify with the culture, even if it was just for the sake of it and nothing else. "More generally, mobile telephony has undergone a change in symbolism moving from the exclusivity of its early days associated with "yuppies" to a "must have" attitude……" (Haddon, 2001:51) Also based

on observations and experiences of diverse mobile consumption practices, some of these mothers created their expectations of the mobile's contributions to their daily situation.

5.1.1 How mothers identify with the mobile culture

The first obvious finding from the empirical research was that most of the mothers felt the need to own a mobile phone so that contact could be maintained at all times. For Sally the mobile was the tool whereby she maintained social relations with family and friends. As for Helen she had already established a pattern of maintaining contact with friends via her office/home landline and reserved her mobile line for being easily accessible in cases of emergency. For Carol it was necessary that as soon as her children reached the age of eight they were awarded their own mobile phone so they could reach help if the need arose. All of the above illustrations made it clear that the mobile phone's capacity for enabling people to keep contact as well as be contacted at all times is a fundamental reason that attracts many mothers to the device.

5 mothers admitted that they became part of the mobile phone culture mainly because of the popularity of the device. Susan gave these words "*I think I did it simply to fulfill all righteousness, because I hardly ever use it*". Susan believed that the invasiveness of the mobile phone would pressure even skeptics to own one, even if it was just to have a feel of what it was like to own a mobile. Pat a 32 year old married mother of two children age 8 and 10 said she had actually gone a whole year without owning a mobile however her friends used to make fun of her that she was old fashioned. So after much ado she decided she was too young to be outdated, and subsequently went with the flow of owning a mobile, beside she felt the mobile was handy to have around. Trisha, a fifty six year old mother of four young adult children said the major reason she used a mobile was because it seemed to be the only language of communication people of these days understood. She explained that when her mobile got lost a few years ago, she decided she was time she re-identified herself with the mobile culture. She said she was tired of hearing the excuse that she was hard to reach, as if the mobile was the only means of

reaching people. However she did it mainly because her kids made similar complaints and it was important for her to be accessible to her kids when they needed her. These developments seem to instigate the presupposition that owning a mobile phone is synonymous with existing in a modern world. In the book 'Heidegger, Habermas and mobile phone', George Myerson verifies this presupposition because he sees the mobile phone as the object of the millennium "... If you want to assure yourself that you belong to the new century, this is the object to have in your hand". (Myerson, 2001;3) Therefore one can conclude that the mobile phone in many ways symbolizes the mark of modernity in any society.

Also, to such causes like Pat's, Susan's and Trisha's, Haddon(2000) rightly poses this question "What effect might there be in terms of social exclusion for those unable or unwilling to partake in the adoption and use of particular ICTs?⁽²¹⁾

5.2. Mobile phone and Appropriation process

The previous discussion has shown that the pervasiveness of the phone instigates a mobile culture and mothers become a part of that culture when they acquire it. However in the course of utilization the mobile begins to mean much more to a mother, beyond the more general meaning of facilitating her ability to maintain contact. She awards it an appropriate space within her domestic setting. This space may be physical, social or symbolic.⁽²²⁾ Hynes and Rommes(2006) suggest that "the main advantage of domestication concept is the explicit attention it brings to the symbolic meaning of technologies". The appropriation phase of domestication usually throws the most light on symbolic meanings attached to artifact, therefore this stage of the analysis will focus on the symbolic space a mother awards the phone. This symbolic space will be found to ultimately stem up from the most genuine meanings she attaches to her mobile, based on her use experience within the context of her female parenting roles. Mackay and Gillespie provide this notion of appropriation. "…people may reject technology, redefine their

functional purpose, customize or even invest idiosyncratic symbolic meaning in them" (Mackay and Gillespie, 1992 ;698)

5.3. Dominant Values Mothers attach to their phone

Based on my research I have distinguished 3 dominant values mothers attached to their phones; facilitating, complication and complement. By this I meant that each mother's experience with their mobile phone fell under at least one of these categories. These categories are worthy of mentioning because every mother had something to say about how the mobile impacted their daily lives, thus they also emphasized that the mobile phone was far from being a neutral object, even if they choose not to use it.

5.3.1. Facilitating Mothering

The majority (11 out of 20) of mothers interviewed felt the presence of the mobile strengthened their mothering roles. First of all the mobile phone provided a platform whereby they could continue carrying out their mothering activities, when there was physical distance between these mothers and their children. They were able to monitor their children's activities at a distance via their mobile phone. In addition the mobile phone enabled a good number of these mothers to multi-task; that is they could combine mothering with some other activities such as work. The next section provides more details on some of these mothers' experiences.

5.3.1.1. Mobile as a support system

Mary is very appreciative of the role the mobile phone plays in helping her organize her family life. The mobile phone has become a support system for Mary and has also defined how she carries out her daily routines. As a single working mum, Mary plays the
role of a nurturer as well as a financial supporter for her three children. Mary believes that without the mobile phone she may not have been able to take on such a job as she did which pays quite well and also enables her to provide for her children, which in her opinion is one of the duties of a good mother.

5.3.1.2. Working and babysitting at the same time

Mary's mobile phone enables her to also fill up gaps created by her absence. Even though she has to be away at work, she can still keep track of her kid's activities. Cornford (2001) conceptualized domestication as "taking it home" and appropriation as "taking it into private cultural space, making acceptable and familiar". This is exactly what Mary does with her mobile; she brings it into her private space where she tries to make a balance between working as well as taking care of her children. Her mobile enables her to fulfill this dual duty. Some writings exist to this effect including this one by Rakow and Navarro(1993: 153)⁽²³⁾: "The cellular phone permits them to exist in their domestic and work worlds simultaneously... Women are now working 'parallel shifts' rather than what has been described as the 'double shift'. Mary story fully abets this claim because she is able to engage in full time employment as well as keep an 'eye'(or in this case an 'ear') on her children's activities, as she would have if she were physically present. This sort of experience was also observed with some other mothers, the presence of the mobile phone produced this dichotomous effect of being far away and yet close to home at the same time. Rakow and Navarro's (1993)⁽²⁴⁾ make a statement about the mobile phone that offers some form of explanation of this phenomenon; "Women tend to use it to take their family lives with them wherever they go"

5.3.1.3. Empowering the children

Many of the women interviewed made comments on the mobile's contribution to their parental roles. Cara, mother of 1, expressed how she didn't have to worry so much when her 14year old daughter was out, because she could check in on her at anytime and also in case of emergency the daughter could easily make contact. Also reflecting back on Carol

closing remarks; "*It gives me peace of mind to know that my children are never alone*", I find it quite intriguing, in the sense that she portrays the mobile phone as a living entity, a kind of companion or bodyguard that goes about with her children. Carol's words give a whole new meaning to this popular idiom "There is safety in numbers", obviously 'numbers' here refers to a collection of people. In Carol case, 'numbers' may well mean people and mobile phones.

Lisa, mother of one, told the story of how her 12year old son immediately called home when he fell of his bike on his way to school. She further related how appreciative she was of the mobile at that instant because it meant a lot for her to be the first at her son's side in times of mishaps.

5.3.2. Complementing Mothering

6 out of the 20 mothers interviewed felt that that their mobile phone use harmonized with their lifestyle. The aspect of their lifestyle that readily projected itself was the social aspect. These mothers believed that the mobile phone fitted in comfortably within the social structures surrounding their daily life.

5.3.2.1 Maintaining social ties

Three stay at home mothers made similar comments with respect to how the mobile adapted into their current lifestyle. All three mothers spoke on how they enjoyed socializing and how the mobile preserved this lifestyle. One of these mothers, Jessica with 2 children talked about how she, her sister and both of their kids usually spent time together everyday because they were neighbors. Eventually her sister moved away and this created a social gap for her and her kids. However, in the course of time she found out she had used the mobile to fill up this gap, this she said was evident in the high mobile bills she started incurring when her sister moved away. Jessica was so used to asking her sister's opinion for even the smallest matter, that she overlooked the fact that mobile to mobile communication was quite expensive. Jessica had a fixed line phone, but her sister didn't have one in her new location, therefore her mobile paid the price of keeping the flow of communication going. In any case her daily custom of relating with her sister was preserved. Geser(2004) comments on such types of occurrences that are instigated by the presence of the mobile. "Thus mobile phones may support tendencies towards social closure rather than tendencies to open up to new acquaintances......mobile phones are very often used to strengthen already existing intimate relationships, not to enlarge social interaction to wider circles. It's interesting to note that stay-at-home mothers like Jessica placed emphasis on the mobile's ability to preserve the social aspect of their life. Jessica had incorporated daily socializing with her sister into her full-time parenting lifestyle. Perhaps if Jessica was employed or otherwise engaged, her lifestyle would have taken a different turn and the effect of the mobile phone may have been felt differently. However the emphasis here is that she employed the mobile phone to preserve an already existing lifestyle.

Another of these mothers, Stacy, 49 talked about how she had been a stay-at-home mum almost all her life and how there was hardly any course for her and the kids to be apart. Therefore when her first son went off to live closer to his university, it was a big challenge for her and the mobile enabled her to continue her lifestyle of talking with him everyday. This mother's experience falls in line with Geser(2004) use of the metaphor "umbilical cord" to conceptualize the process whereby mothers meet their need to maintain contact with their children in times of spatial distance via mobile phone. Jessica and Stacy's story bear similitude in the sense that they highlight the mobile's ability to maintain certain daily rituals that they were already accustomed to.

5.3.3 Complicating Mothering

3 women (Helen, Julie and Pat) felt it was not a big deal to own a mobile phone, and that it only complicated their mothering roles.

5.3.3.1 Over dependant children/frightful mothers

Mothers like 67year old Julie believe that the mobile phone presence produces negative effect on children's development. In her view children have become overly dependant on its presence and take it for granted that the mobile phone is always near. Geser (2004) comments similarly on mobile phone effect on individuals: "Given the constant availability of external communication partners (as sources of opinion and advice), individuals may easily unlearn to rely upon their own judgment, memory and reflection: thus regressing to a state of infantile dependency from always the same narrow circle of "significant others" - even in cases where they are 10,000 miles away". Also these words from Klammer et al, (2000) directly underline Julie's concern "Even users can perceive ICTs as leading to a lifestyle which they feel to be questionable, for instance in terms of enhancing dependencies on the technology or adding stress".⁽²⁵⁾

Also reflecting back on Helen's story, the mother who restricts her mobile number access to only those connected to the children. Helen appreciates the fact that the phone is handy for being easily contactable, yet she comments on how it sometimes controls her thoughts throughout the day. Each time Helen's phone rings her thoughts instantly go to her children and she wonders if the call is about their well-being. Thus the mobile interferes with her peace of mind during the day, hence she uses the word "emergency line" to conceptualize it.

5.3.3.2. Increased responsibility

Evident in Pat's (mother of two) response was the notion that the mobile places unnecessary demands on mothers. She commented that although her mobile enabled her to multitask yet it placed a burden on her to always stay in touch with her kids and partner. She said that even when she was out with friends and knew that her children were in safe hands with her partner, yet there was this pressure on her to call home at least once to find out how her partner was faring with the kids. It was almost as if she didn't she was less than an ideal mother. Therefore her so-called "me" time was never really a "me" time because she had to squeeze some time out during that time to communicate with her family. She admitted that although the young ages of her children would keep any mother worried; however her partner was just as capable as she was in caring for those children, and if there was no mobile phone there would be no pressure to call home.

5.4. Mobile phone and Conversion process

Conversion is the last stage of the consumption process, whereby the technological practices within the household are made visible to the outside world. Conversion activities open up opportunities for the larger audience to become a part of the domestic consumption culture. The concept of conversion fully reflected itself in the field work in the context of diffusion of information. This happened in two major ways which are described below.

5.4.1. Relating her experience

In the first place many mothers admitted that they had related their experiences of mobile telephony with family, friends and work colleagues. Most times such experiences were related during unrelated conversations. At other times, there was a mutual exchange of experiences with other mothers. For instance if two mothers were discussing and one of the mothers had a need to call any member of her immediate family, after the call, the other mother may reflect on the usefulness of the mobile in reaching her children at any time and may also be instigated to narrate her own encounters.⁽²⁶⁾ Carol also indicated that she had encouraged two or three of her friends to equip their children with a mobile just as she did when her children turned 8 years. She said one of her friends had adhered to her advice.

5.4.2. Borrowing a leaf from fellow mothers

Many mothers also admitted that they learn a lot of mobile skills from fellow mothers. For instance Sally, the mother who leaves her five year old at home once in a while, got the boldness to carry out this act from another mother who had done it with a 6 year old. A number of mothers also admitted that they had often tried to replicate creative ways that other women maintained good conversations and humor with their partners via mobile. Evelyn, a mother of three, (13, 10 and 2) drew my attention to the internet; she said that there were a lot of stories to borrow a leaf from. One thoughtful one that came to mind was the story of a mother who tracked her lost 9 year old son in a crowded arena simply because he had on a mobile. This story gave this mother food for thoughts and she decided it was useful to give her children access to mobile phone particularly when they were on vacation abroad. Sorenson (2006:40) offers some useful insights in his work which also supports these findings. He employs domestication theory to analyze human's performance with technology, his argument starts from the supposition that people technology practices, are constructed in conjecture with other people's practice. That is to say that some people's technological practices have a ripple effect on other people's practices, which was also my observation with these mothers.

5.5 Mediating roles of the mobile phone

The previous section took an in-depth look at the active roles mothers played in domesticating their mobile phone such that it adapts into their everyday lifestyle. We saw how mothers incorporated the mobile phone into various aspects of their lives including how they raised and cared for their children and how they balanced their public and private affairs. However domestication failed to account for the active role played by the mobile phone in shaping these mothers's daily experience. Verbeek (2000:123) talks about how technology plays an important role in our daily lives by mediating our experience. The mediating role of the mobile phone was a very important issue for investigation for this study. The aspect of technology mediation that projected itself the

most was the opportunities for new experiences opened up by the mobile phone. These new experiences were a by-product of the new spaces opened up for maintaining communication. The next series of discussion develops more on this last note.

5.5.1 Mediating social relationship within the family

Verbeek (2002:88) offers some useful insights on the mediating roles of communication technology and its impact on human relations "..... Communication technologies do not only constitute ways of being present, however. They also establish new spaces in which humans can be present". Sally story fitted quite well into verbeek's explanations. The presence of the mobile phone in Sally's family setting highlighted the specific ways in which the mobile mediates the relationship amongst family members. Sally habit of making daily calls to her husband in other to tell him something about the kids, is a way of including her husband into the children's daily activities. In a way she reconstructs her husband's parenting roles by using her mobile phone to create new avenues that will enable him to participate and also contribute to what happens in his family while he is physically away from home. Sally's action with her mobile brings a whole new momentum to the phrase "out of sight is not out of mind", because despite the fact that her husband is physically absent from his kids, yet he is hardly mentally absent because through Sally's information he is able to carry a mind picture of ongoing events in his household while he is on transit. Without the mobile phone Sally will experience her world differently, for one she may fail to notice the interesting things her children do during the day because her husband is not available to hear it, or she may try to document it down and relate it to him when he gets home, in that case she may choose to document only relevant things. However because of the mobile phone her husband becomes readily available when she needs him, therefore she is free to pay meticulous details to anything and everything so that she always has a story to tell. For even more interesting stories she may instigate certain activities. This illustration is aimed at showing how the mobile phone mediates how some mothers may choose to daily manage their family affairs.

5.5.2 Mediated Mothering

A simple dictionary definition of the word 'mothering' would be the act of raising or nurturing children by female folks⁽²⁷⁾. Results from the empirical research of this study shows that the presence of the mobile has redefined the way in which women perform these mothering duties, like we saw in the case of Sally above. Nevertheless let us also consider this simple logic; as far back as the 70's, less than 25% of women in the Netherlands were working.⁽²⁸⁾ This would imply that those with children were engaged in more or less full time mothering. However this soon changed as the figures for working women began to rise substantially. Statistics of women in the labor market rose to 52% by 1997⁽²⁹⁾. Frissen (2000:1) draws attention to some after effect on family life as an increasing number of women begin to enter the work fold in the Netherlands. "As more and more women are entering the labour market and because of a growing flexibilization of labour, this time order is quite changing spectacularly, causing all kinds of small and big problems and coordination of everyday life". The mobile provides the platform whereby other forms of mothering occur. This is evident with Mary's case; here we see the mobile play an active role that also defines how she caries out her mothering activities. Rakow (1993)⁽³⁰⁾, uses the phrase "mothering at a distance" to personify what women did with their mobile phones as they began to enter the work force. Rakow phrase also applies to stay-at-home mums like Sally who would leave her 5 year old home alone simply because in her view she is able to monitor his activities via her mobile phone. Viewing the situation from outside lead to the conclusion that a five year old is left by himself; however in Sally's mindset, her son is not without supervision because she's constantly keeping touch with him via her mobile. "Communication mediating technologies help shape how humans can be present for each other" (Verbeek, 2002:88)

6.0 Conclusion and recommendation

This research has been concerned with investigating mobile phone use patterns among female parents of diverse sorts and its implications on their everyday life. Domestication theory constituted the major theoretical framework employed to carry out this analysis. Central to domestication theory was the notion that users exert a defining influence on the final outcome of the technology. The model features three major dimensions; commodification, appropriation and conversion. Each of this dimensions were used to explore the relationship between the mobile phone, the mother and her everyday situation. Commodification was the first stage of domestication and it featured that mothers opted for the mobile phone firstly because it facilitated their ability to maintain contact and secondly because of its invasive nature. Conversion was the last stage of domestication and it featured that conversion activities took place via diffusion of information. That is, many mothers directly or indirectly related their mobile telephony experiences with fellow mothers. Appropriation being the middle stage of domestication became the highlight of the analysis because under appropriation three categories were created that summed up the effect of mobile phone on female parenting roles. Empirical data involving 20 female participants featured that the mobile phone assumed three dominant values in the lives of these mothers. 55% of the mothers involved in this research felt that the mobile phone facilitated their abilities to carry out their parental roles, 30% felt the phone harmonized this role, while 15% of mothers felt that the presence of the mobile phone only complicated how they functioned as parents. Table 2 provides an overview of the different dimensions of domestication and the active roles mothers play in the domestication process.

Table 2. The various stages of domestication process with respect to mothersfamilial setting

		Individual mothers +Physical environment	Individual + social environment (lifestyle and daily rituals)	Designer/ advertiser/marketer of product
Commodificati on		The mother in question constructs an image of the mobile application based on what she sees, reads or hears from numerous sources.	The highly pervasive nature of the mobile implies that it will feature severally in diverse context, and therefore the mother is able to construct images of the potentials of the mobile and the effect it may have on her parenting roles.	The product is constructed and advertised as a desirable object with specific claims of its functionality, in line with their conception of what the social group of mothers may find desirable.
Appropriation		The mother accepts to use the mobile in her physical environment	Her parenting roles defines the particular type of space she awards the mobile. This space is situated within the confines of her lifestyle and daily routines	
	Objectificatio n	The mobile finds a physical place within her public and private environment	The mobile is awarded a symbolic space within her daily rituals, structures and routines.	
	Incorporation	The mobile assumes customized functions.	The mobile assumes symbolic expressions and meanings based on her perception of the extent to which it impacts her domestic culture.	
		The mother directly narrates her use experience and	Learn about patterns of usage either directly or indirectly	
Conversion		competencies to the outside world.	The mother's environment defines the nature of conversion activities: Mothers may directly share their experiences with other mothers based on factors that define their existence (e.g. children, husband, home, work) - mothers may also indirectly share their experiences by exhibiting behaviours that draws attention to her parenting roles. (for instance carrying out a phone conversation with a child in presence of others)	May modify products based on information gathered from various mothers

Moving ahead, it was determined that for a well rounded analysis it was necessary to examine the active role the mobile phone played with respect to how these women functioned as parents. Therefore work done by scholars on technology mediation was incorporated into this study. Technology mediation embodied the notion that people's engagements with the world were continually being mediated by technology. Therefore this paper demonstrated that the mobile phone mediated how mothers organize family life as well as function as parents.

This paper went a long way to demonstrate that women use their mobile phone in ways that are exclusive to their particular situation in life. It also showed that the presence of the mobile phone had diverse impact on the very essence of these women's parenting roles. In addition the field study featured its share of interesting findings; one that readily comes to mind was the peer pressure placed on non-mobile phone fans to own a mobile. In those cases the women possessed a mobile phone not necessarily because of its usefulness, but because of societal expectations, thereby seemingly portraying the non-user's position as awkward and difficult to maintain. We also saw some form of pressure placed on the children by some parents to be mobile phone users, to the extent that some parents readily replaced lost or damaged mobile phones in other to keep the mobile communication cycle within the family going. Also in other cases we saw pressure on mothers to use the mobile phone even when it was not necessary, in other to escape any labeling of being a less than ideal mother. Therefore the mobile phone in many of these cases seemingly appeared to be an "unnecessary evil" that one could hardly escape from.

For another group of mothers the mobile became an enthusiastic connection to the world around them. Think about the stay-at-home mums who felt that the mobile phone maintained their ability to socialize. In addition consider the other mothers who had rest of mind when their children were outside the homes armed with a mobile phone. Another fascinating finding was the idea that the mobile phone does not have to fulfill its functional obligation before its effect was felt. We learnt from a few mothers that a silent mobile phone spoke volumes, mostly it spoke that all was well with the kids. Another finding that also stood out was the idea of parents inheriting children's old mobile handset. This finding contrast with the more traditional notion of old technology such as the Television set being moved from the living room to the children's room in other to make space for the new. In the case of the mobile phone it was vice versa.

At this juncture I would like to make a reflection on the theoretical approach employed for the analysis; consequently I would like to say that the combination of domestication and technology mediation made for a well-rounded analysis. Domestication provided insights into the diverse ways mothers use their mobile phone with respect to different spheres of their daily life. Whereas technology mediation provided us entrance into some experiences that cropped up from these diverse ways of uses. Amongst these experiences was the new spaces created by the mobile phone whereby family members related with one another. A father miles away from home, was able to participate in family activities at the instant they were happening, while the mother at home organized home activities such that she would have something interesting to tell the father. Also the mobile phone opened up opportunities for new platforms whereby mothers could nurture their children.

After all said and done, it is my conclusion that this paper is only a good scratch to the surface, more so it is a call for a more detailed empirical exploration of female parents' relationship with the mobile phone. My reasoning is that although this paper was able to take into account that women have patterns of using the mobile phone which draw from specific circumstances surrounding their existence, such as the number and ages of their children, marital status, occupational status and a host of all others, yet due to the limited size of the empirical research, it failed to establish any patterns. Also at present, it is scarce to find empirical research highlighting mobile phone use patterns among mothers while making reference to their specific profiles. Consequently, for the purpose of appreciating some of the textures of mother's lives that are pertinent to mobile phone, I wish to make recommendation for an in-depth ethnographic study in the following areas;

- Role of the mobile phone in the lives of women with paid jobs
- Role of mobile phone in the lives of stay-at-home mothers
- Role of mobile phone in the lives of women with young children/older children
- Role of the mobile in the lives single mothers/ double parent homes

Notes

- 1. The phrase 'mobile telephony' is borrowed from the title of Haddon's (2000) seminar paper. I get the sense that the word is used in a manner that describes any action with respect to the mobile phone. Therefore for this paper it was used to summarize in brief any occurrence with respect to mobile phone and society.
- 2. This extract was cited in Haddon, 1998
- 3. Domestication dimensions are found in Silverstone and Haddon, (1996)
- 4. The phrase 'cell phone culture' appeared as a title in Katz and Wang's (2005) talk on mobile phone and society
- 5. Cited in Lemish and Cohen, 2005
- 6. The phrase "acceptance by approval" is the Free online dictionary definition of adoption
- 7. This phrase is used as the title of a book: Making technology our own; *Domesticating technology into everyday life*' Lie, Merete, & Sørensen, Knut (Eds.). (1996). The manner in which the phrase appears in the title leads one to the conclusion that the phrase is an embodiment of domestication.
- 8. Cited in Zhao, S. (2005)
- 9. Cited in Punie, 2005
- 10. Extracted from this website <u>http://www.tcw.utwente.nl/theorieenoverzicht/Theory%20clus</u> ters/Media, %20Culture%20and%20Society/Domestication.doc/
- 11. Silverstone conceptualized domestication in a manner that displays an interesting play of words, which at first glance resemble an address to plants or animals.
- 12. Cited in Huijboom, 2005
- 13. Cited in Habib, 2005
- 14. Cited in Hynes and Rommes, 2006
- 15. Cited in Huijboom, 2005
- 16. Hynes and Rommes (2006) describe domestication as an analytic tool
- 17. See Verbeek (2005):125 for a full explanation of Ihde's relations of mediation
- 18. Ibid
- 19. see appendix

- 20. See Schonlau et al(2002) for a full explanation of convenience sampling methods
- 21. cited in Haddon 2001;47
- 22. Huijboom (2005) talks about how the people make attempts to familiarize n artifact which include awarding it a physical, social or symbolic space within the household environment as well as household daily routines.
- 23. Cited in Geser(2004)
- 24. Cited in Lemish and Cohen (2005)
- 25. cited in Haddon, 2001:47
- 26. This Illustration was provided by an interviewee, Mandy 43, 2 kids
- 27. For this definition of mothering check www.answers.com/topic/mothering 59k
- 28. Statistics found in Frissen (2000)
- 29. Ibid
- 30. Cited in Turnbull, 1996

References

- Bakardjieva, M. (2006), 'Domestication running wild; from the moral economy of the household to the mores of a culture', in T Berker, M. Hartman, Y. Punie, and K.Ward,(Eds.), 'Domestication of media and technology', Open University Press. pp 62-79
- BBC News/ 23 July, 2004, '*have your say: do you depend on your mobile phone*', http://news.bbc.co.uk/1/low/talking_point/3914695.stm
- Bratteteig, T. (2006), 'Inventing use: on complexities of design-use relationships', Paper presented for 'Informal Learning and Digital Media: Constructions', Contexts, Consequences' Sept 21-23 2006 University of Southern Denmark, Odense, Denmark http://www.dream.dk/uploads/files/Bratteteig%20Tone.pdf.
- Campbell, S.W (2007), 'Perceptions of Mobile Phone Use in Public Settings: A Cross-Cultural Comparison', Internal journal of communication 1, 738-757
- Crabtree, J. Nathan, M. Roberts, S. (2003), '*Mobile UK. Mobile Phones and Everyday Life* <u>http://www.ideasbazaar.com/pdfs/MobileUK.pdf</u>
- Cornford, T. (2001), 'A proliferation of platitudes: Thinking about implementation', a publication in Erasmus research Institute of Management research seminars 2001.www.sociotechnical.org/archive/cornford.pdf
- Feenberg, A. (2006), 'Active and Passive Bodies: Comments on Don Ihde's Bodies in Technology,' Techné: Journal of the Society for Philosophy and Technology, vol. 7, no. 2, winter 2003, <u>http://scholar.lib.vt.edu/ejournals/SPT/v7n2/feenberg.html;</u>
- Fox, Kate (2001), 'Evolution, Alienation and Gossip', The role of mobile telecommunications in the 21st century Social issues research center, Oxford <u>http://www.sirc.org/publik/gossip.shtml</u>
- Frissen, V.A. J (2000), '*ICTs in rush hour of life*', The information society, Volume16, number 1 pp 65-75, Taylor and Francis.
- Geser, Hans (2004), 'Towards a Sociological Theory of The Mobile Phone', <u>http://socio.ch/mobile/t_geser1.pdf</u>

- Haddon, L. (1998), 'The Experience of the Mobile Phone', XIV World Congress of Sociology, Social Knowledge: Heritage, Challenges, Prospects, Montreal, 26 July-1 August.
- Haddon, L. (2000), 'The Social Consequences of Mobile Telephony: Framing Questions', paper presented at the seminar Konsekvenser av Mobiltelefoni (Telenor), Oslo, 16 June.
- Haddon, L. (2001), 'Domestication and mobile telephony', in Katz, J.E (eds.), 'Machines that become us: The social context of personal communication technology', pp 43-54 New Brunswick, NJ, Transaction Publishers: pp43-54
- Habib, L.(2005); 'Domesticating learning technologies in a higher education: A tale of Two virtual learning environments', paper presented at the IADIS Virtual Multi Conference on Computer Science and Information Systems (MCCSIS 2005), April 11-29. http://home.hio.no/~laurence/publications.html
- Habib, L. and Cornford, T. (2001), 'Computers in the Home: Domestic Technology and the Process of Domestication,' Proceedings of the 9th European Conference on Information Systems (ECIS), Bled, Slovenia, June 27-29.
- Huijboom, N. and M. Van Staden(2005), 'The Domestication of ICTs in Government', and M. van Staden. TNO Research Institute.
- Hynes, D. Rommes, E (2006), 'Fitting the internet into our lives: IT courses for disadvantaged user', in T Berker, M. Hartman, Y. Punie, and K.Ward,(Eds.), 'Domestication of media and technology', Open University Press. pp125-142
- International Telecommunication Union. (2004, May). *ICT free statistics home page*. Retrieved June 2, 2004 from http://www.itu.int/itu-d/ict/statistics/
- Katz, J. Wang, J., '*Cell phone culture*', appeared in *MIT Tech Talk* on November 30, 2005. <u>http://web.mit.edu/comm-forum/forums/cell_phone_culture.htm</u>

Katz, J. (1999), 'Connection: social and Cultural Studies of the Telephone in American Life', New Brunswick, NJ: Transaction Publishers,

- Persson, A (2001), 'Intimacy among strangers: On mobile telephone calls in public spaces', Journal of Mundane Behaviour http://www.mundanebehavior.org/issues/v2n3/persson.htm
- Plant, S. (2003). On the mobile; "The Effects of Mobile Telephones on Social and Individual Life ", <u>http://www.motorola.com/mot/documents/0,1028,296,00.pdf</u>

- Punie, Y. (2005), 'The future of Ambient Intelligence in Europe: The need for more everyday life', In: Silverstone, R., Sørensen, K. (Eds.), 'Media, Technology and Everyday Life in Europe: From Information to Communication', Ashgate Publishers, London.
- Lemish, D. Cohen, A.A (2005), 'On the gendered nature of mobile phone culture in Israel,' Sex Roles: A Journal of Research, April, 2005 findarticles.com/p/articles/mi_m2294/is_7-8_52/ai_n13815576 - 31k
- Lemor, R.M.A (2006),'Making a home: The domestication of information and communication technologies in single parent household', in T Berker, M. Hartman, Y. Punie, and K.Ward,(Eds.),'Domestication of media and technology', Open University Press. pp 165-184
- Lie, M. and Sørensen, K.H., (1996), 'Making technology our own? Domesticating technology into everyday life', In Lie, M. and Sørensen, K.H. (Eds.), 'Making Technology our Own? Domesticating Technology into Everyday Life', Scandinavian University Press, Oslo, pp. 1-30.
- Oudshoorn, N. and Pinch, T. (2003), 'How Users Matter: The Co-construction of Users and Technology', in Oudshoorn, N. and Pinch, T. (eds.), 'How Users Matter: The Co-construction of Users and Technology', MIT Press, Cambridge
- Pierson, J. (2006), 'Domestication at work in small businesses', in T Berker, M. Hartman, Y. Punie, and K.Ward,(Eds.), 'Domestication of media and technology', Open University Press. pp 205-228
- Mackay; H. Gillespie, G.(1992), 'Extending the Social Shaping of Technology Approach: Ideology and Appropriation', (in Discussion Paper) Social Studies of Science, Vol. 22, No. 4. (Nov., 1992), pp. 685-716. StableURL:http://links.jstor.org/sici?sici=03063127%28199211%2922 %3A4%3C685%AETSSOT%3E2.0.CO%3B2-5
- Myerson, G.(2001); 'Heidegger, Habermas and the Mobile Phone', (Postmodern Encounters), Cambridge: Icon books limited
- Schonlau, M. Fricker, R.D and Elliott, M.N(2002), 'conducting research survey via email and the web,' Santa Monica, CA:RAND.

- Science daily, (Jan. 29 2003), 'Cell Phone Users Drive 'Blind'; Study Explains Why Hands-Free Phones Just As Bad As Hand-held', http://www.sciencedaily.com/releases/2003/01/030129080944.htm
- Silverstone, R. Hirsch, E. and D. Morley, (1992) 'Information and communication technologies and the moral economy of the household,' In: R. Silverstone and E. Hirsch (editors), 'Consuming technologies: media and information in domestic spaces', (pp.15-31) London: Routledge
- Silverstone, R. and Haddon, L. (1996); 'Design and domestication of information and communication technologies; technical change and everyday life' In R. Marshal and R. Silverstone (eds.), 'Communication design; the politics of information and communication technology', (pp. 44-74) Oxford University press
- Silverstone, R. and Haddon, L. (1996) 'Design and the Domestication of Information and Communication Technologies: Technical Change and Everyday Life', in Silverstone, R. and Mansell, R (eds), 'Communication by Design. The Politics of Information and Communication Technologies', Oxford University Press, Oxford, pp. 44-74
- Slettemeas, D.(2006), 'Identity formation and the construction of home in diasporic household; the impact of media technologies, Position paper based on data from the project Consuming Digital Adventure-Oriented Media in Everyday Life Contents and Contexts, Presented at the workshop Entertainment media at home looking at the social aspects, April 22, 2006.
- Sorenson, K. H. (2006), 'Domestication; the enactment of technology', in T Berker, M. Hartman, Y. Punie, and K.Ward,(Eds.), 'Domestication of media and technology', Open University Press. pp40-57
- Turnbull, S.(1996), '*Getting connected; gender and the future of online services in the home*', <u>http://www.latrobe.edu.au/teloz/reports/turnbull.pdf</u>
- Verbeek, P.(2007), '*Technology and matters of morality*', Abstract of research proposal of ongoing NWO (Innovational Research Incentive, 'veni' grant) project www.gw.utwente.nl/wijsb/medewerkers/verbeek/technology.pdf -

Verbeek, P. (2006), 'Persuasive technology and moral responsibility: towards an ethical framework for persuasive technology', Paper for persuasive06, Eindhoven University of technology <u>http://www.gw.utwente.nl/wijsb/medewerkers/verbeek/verbeek_persuasiv</u> <u>e06.pdf</u> Verbeek Peter-Paul (2005), 'What Things Do: Philosophical Reflections on Technology Agency, and Design', Pennsylvania State University Press

Verbeek, Peter-Paul(2002), 'Devices of Engagement: On Borgmann's Philosophy of Information and Technology,' Techné 6.1 (2002): 69 - 92.

Ward, K. (2006), *The bald just ate an orange: Domestication work and home*', in T Berker, M. Hartman, Y. Punie, and K.Ward, (Eds.), *Domestication of media and technology*', Open University Press. pp 145-164 http://www.itu.dk/people/barkhuus/chi2006workshop/slettemeas.pdf.

Zhao, S. (2005). Working paper; '*Theoretical review on technology mediated communication; Influences on social structure'*,. Center for mobile communication studies Rutgers, New Jersey State University

Web resource

www.thefreedictionary.com/adoption - 35k

www.answers.com/topic/mothering - 59k

http://www.encyclopedia.com/doc/1B1-362942.html

Appendix

Questions used for interview sessions

- 1. Why was it necessary for you to own a mobile phone?
- 2. What is your daily use pattern?
- 3. What is your most valuable use of the phone?
- 4. How many children do you have and what are their ages
- 5. What is your own personal interpretation of your duties as a mother?
- 6. Does this interpretation have any bearing on your use pattern?

If so, explain

7. So in your opinion does your mobile phone reinforces/complicates/compliments/ has neutral effects e.t.c on your parenting roles (depending on her response, may elaborate further)

8. Do you attach any symbolic meaning to your phone with respect to being a mother?

9. How do you embed the phone to fit your daily life, for example the dichotomy between public domain (work e.t.c) and private domain (home, children e.t,c)

10. What is the most significant role of the phone in your life with respect to motherhood?

11. Are there any new usage patterns you have learnt from fellow mothers or any tips you have given out?

12. If so, were your tips welcomed

13. On a scale of 1 to 10, how do you rate the significance of mobile phone in your life?

14. Explain