The digital home: Exploring the communicative experiences of contemporary mothers

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Abstract

Increased appropriation and use of digital media in the domestic setting is changing the communicative landscape of the home and the everyday practices of family life. The reconstructed 'digital home' contains portable devices like smartphones, laptops and tablets that are increasingly relied on for entertainment, paid work, domestic tasks and children's learning. This study explores how digital media's presence in the home, and its use by mothers and their children, shape the contemporary mothering experience. Domestication and mediatisation theory underpin this research, aiding understanding of how mothers construct meanings about digital media. The study bridges the gap between feminist communication critiques of mothering and motherhood vis-à-vis mothers' own use of digital media and parental mediation literature regarding the impact of children's use on parenting practice.

Qualitative interviews within a social constructivist framework were conducted with 17 mothers with children aged 9–16 years living in Adelaide, South Australia. Interviews explored the constellation of digital media in their homes and examined how digital media are appropriated, perceived, used and managed by mothers. Three themes emerged about the contemporary mothering experience: appropriation of digital media is shaped by good mothering constructs; mothers' time poverty impacts their use of digital media; and children's use results in an intensification of mothers' unpaid care work in the home.

The findings show digital media are appropriated by mothers based on their perceived potential to support or challenge communicative practices in the household. The smartphone provided a 'digital umbilical cord' that supported and empowered mothers to feel connected to children, thus increasing their appropriation. By contrast, school mandated acquisition of digital media for children's homework created an unwanted presence and challenged mothers' authority about how and when children use digital media in the home. Nonetheless, as good mothers facilitate opportunities for children's learning, they acquiesced to the communicative expectations of schools.

Mothers' own use of digital media was influenced by constructions of time. Controlling when interactions take place through digital media was considered beneficial by time-poor mothers. Greater time efficiencies were achieved from multi-tasking and coordinating personal, work and familial activities via digital media use in the home. Conversely, for others, some uses

were perceived as time-consuming and potentially disruptive to family life, particularly digital gaming. Overall, digital media use was judicious, carefully managed and inextricably tied to notions of ideal mothering.

Digital management of children's use intensified mothers' experiences by expanding the breadth and depth of their unpaid digital care work in the home. Concerns about children's use are entwined with perceptions of good mothering where mothers feel responsible for protecting children from harm but feel guilty when failing to do so. Equally, mothers recognised the indispensability of digital media use for children's social and cognitive development and facilitated opportunities for their access.

This research reveals the paradoxical experiences of 'digital mothers' who constantly negotiate their role in the digital home. The study problematises contemporary mothering as interceded through interactions with digital media in the home – as users, as facilitators of children's use and as part of a mediatised society.

Declaration

This thesis presents work carried out by myself and does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university; to the best of my knowledge it does not contain any materials previously published or written by another person except where due reference is made in the text; and all substantive contributions by others to the work presented, including jointly authored publications, are clearly acknowledged.

Fae Heaselgrave

Signed:

Date: 24 February 2021

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Of course, the true heroes of this research are the mothers who invited me – a stranger – into their home. What struck me most about these women was how genuinely grateful they were to be researched. Although we often struggled logistically to find a suitable time for interviews to take place, several mothers mentioned that they had moved their schedule around because they really wanted to be involved. As a result of my study, I realise just how unnoticed mothers' everyday experiences are in scholarly research, particularly in relation to how they perceive and navigate the use of digital media in the home. Hopefully, the personal accounts offered by mothers in this study will bring attention and renewed focus to the topic of contemporary mothering and path the way for more research about their complex communicative experiences.

Defining terms

This study is concerned with the personal and subjective nature of mothers' experiences in relation to digital media in the home and thus I preference the term 'mothering' because, as maternal feminist Andrea O' Reilly (2020, p. 20) points out, 'the word "mothering" refers to women's experiences of mothering and is female-defined and centred and potentially empowering to women.'

This study is concerned with the presence and use of digital media in the home and thus requires clarification about how digital media is conceived in this project. A detailed exploration of media and how it has been studied in relation to the home is provided in chapter 3 of this thesis but briefly, the term 'media' is commonly used in reference to media institutions or media producers, to refer to media texts or content and to the medium or device that content is consumed through. The polysemous concept of media means that it/they is/are often referred to in a singular and plural tense. As Couldry (2020, p. 6) observes, media 'are many things, and many types of thing'. 'Digital media' further expands these conceptualisations of media to include screen-based devices that are connected to the internet via wi-fi and mobile networks. Devices such as laptops, tablets, smartphones and personal computers, in addition to media content streaming devices (like a Roku plug in device), gaming consoles and platforms like YouTube or Netflix are encompassed within the umbrella term of digital media. It is this broad definition of digital media that I adopt for this study.

CHAPTER 1: Introduction

The presence and use of digital media in workplaces, schools and households is transforming the way people interact and perform routine communicative actions. As digital media become more accessible and indispensable for daily life, the separation between the public realm and the private home becomes less defined. This narrowing of public and private spheres was magnified during the Covid-19 pandemic when the home became the primary workspace for economic, social and educational endeavours. Facilitated by high levels of digital media ownership in the home, many institutions were able to activate a mobile workforce in response to mass quarantining measures. Formal education also transferred to the home where children's schooling was undertaken via online delivery. Among other issues, the pandemic brought into sharp focus how digital media use in the home sustains societal functions. It also highlighted the challenges of these changing social circumstances for mothers who are primarily responsible for balancing the demands of paid work and children's schooling and via digital media. Although these effects were unfolding during the completion of this study, they bring added veritas to the central concerns of this investigative research.

Situated within the discipline of communication studies, this study was undertaken between 2015 and 2016. Its primary aim was to understand how the presence and use of digital media in the home shapes the contemporary mothering experience. The home, as Silverstone (2006, p. 242) points out, 'is performed on a daily basis through interaction rituals both with other individuals and with the technologies that enable those interactions'. A central argument that runs throughout this thesis is that neither contemporary mothering nor the contemporary home can be understood as separate to the digital contexts in which they exist. Rather, as my study shows, both have become symbiotic with digital media resulting in what I refer to as a contemporary state of 'digital mothering' that is reinforced by living in a 'digital home'.

In this research, the digital home is revealed as a complex communicative figuration which is influenced by the changes in social practices and attitudes regarding digital media, and by the values shared by family members (Hepp 2020). Now a site of 'polymedia', the digital home has become an 'environment of communicative opportunities that functions as an "integrated structure" within which each individual medium is defined in relational terms in the context of all other media' (Madianou & Miller 2012, p. 171). With such a media rich space to negotiate,

the current generation of digital mothers find themselves embroiled in daily interactions with digital media either directly as users or vicariously when managing children's digital media use. Lim (2020, p. 4) has described the role of raising children in a digital age as one of transcending 'every offline and online environment their children transit through'. My study highlights how the experience of digital mothering in the home – which is embodied by the digital media use of mothers and children – is shaped by perceptions and aspirations of 'good' mothering as mothers negotiate digital media interactions around the anticipated needs of the family.

Section 1.1 provides a brief background of the circumstances and personal interests that led to this research project. This section also introduces the study's epistemological and theoretical standpoint by illustrating, with an example from my own childhood, how meanings about (digital) media are socially constructed and negotiated in the home. Section 1.2 outlines the scope of the project in relation to existing knowledge about mothers' experiences as users of digital media and the impact that children's use of digital media has on parenting. Section 1.3 outlines the research approach adopted in this study and explains how theories of domestication and mediatisation form the theoretical foundation for analysing how mothering is experienced in relation to digital media. The final Section 1.4 provides an overview of each of the chapters contained within this thesis.

1.1 Background to the study

As a child growing up in England in the 1970s, I had access to various media technologies like the Sony Walkman, an Acorn Electron computer and later, a Sega Mega Drive that my father brought into the family home. My father saw potential in these technologies to offer new ways of thinking, learning, socialising, and working – perceptions I also later developed. I would spend hours listening to music on my personal cassette player and spent many more exploring the functionalities of the computer or playing the games console with my father. To us, these technologies provided individual and collective experiences that changed how we spent our time, and used space in the home, how we interacted with other members of the household and, eventually, with other people online. These media became an important part of our daily interactions.

My mother, meanwhile, had no interest in the devices my father appropriated. This subsequently changed, but at the time she was, in some ways, a traditional mother who focused her energy on her family by providing sustenance and a clean home, as well as contributing to the workforce. It was unusual for my mother to enjoy even more established media like the television because she was often in another room attending to domestic tasks while the rest of the family sat around the TV set. The first time I remember her showing any real curiosity is when she won a video recorder in a competition. I recall my mother fending us off as she removed it from the packaging saying she would figure out how to set it up herself. My mother went on to use the video recorder more than anyone else in the household.

As a researcher in the communication and media space, I now realise my mother perceived the video recorder very differently from the other devices we had in the home. Although she had not purchased it as my father had the other technologies, she subsequently appropriated it as something of value that could enhance her life. She saw no benefit in using her time to play computer games or walk around with a headset listening to music. Other technologies simply did not appeal to her or 'fit' around her unpaid work in the home. The scheduled nature of television programming at the time meant she missed opportunities to sit and watch her favourite shows, but the presence of the video recorder changed all this as my mother could control the temporal and spatial arrangements of her media consumption.

This brief vignette about my childhood home serves to illustrate how the different meanings my family assigned to media were shaped by their perceived compatibility and indispensability for our everyday lives. It also draws attention to the fact that mothers and fathers experience the presence and use of media in the home differently and in accordance with how social roles are constructed in the household. This social constructivist viewpoint reflects the theoretical and epistemological position of this study, which is underpinned by domestication theory (attributed to Silverstone, Hirsch & Morley 1992) and mediatisation research (for example, Couldry & Hepp 2013; Hepp & Krotz 2014; Hepp, Hjarvard & Lundby; Jansson 2015) and is a point I return to in Section 1.3.

Growing up around media and having positive associations about its impact on my life provided the initial seed from which my interest in this topic grew. It was, however, my interest and experiences as a mother of two children (aged 6 and 8 years at the time) that prompted this research endeavour. The topic of children's digital media use would often dominate

conversations I had with friends who had children of the same age. Some of these friends shared concerns about children's excessive use and were frustrated by the need to extricate children from devices at mealtimes or before school. These mothers worried about the content that children were accessing and the defiant behaviours they exhibited when told to put down a device. During these encounters our children would often be playing in the background on their own devices whilst sat next to each other in the same room. Clearly there were significant changes happening in the way children interacted with each other through digital media.

As the regularity of these kinds of conversations increased, it became apparent that the meanings associated with children's use of digital media was quite different to how mothers perceived it for their own use. As is still the case now, I realised that our smartphones or tablet devices would always be close by and that we would often become distracted by incoming notifications. We would show each other holiday photos on our devices, discuss films we had seen or social media posts we had added or recently read. Such talk, as Silverstone, Hirsch and Morley (1992, p. 23) describe it, was a demonstration of the symbolic value these digital media represented to us and signalled a conversion in the way we see and connect to our social world. It was this disparity between these two points of interaction – mothers as users and as facilitators of digital media use – that fuelled my research interest in contemporary mothering and digital media.

1.2 Problematising contemporary mothering in a digital home

In this study, I use the word 'contemporary' in relation to 21st century mothers who are living with and raising children among a range of multi-modal portable devices compared to previous generations of mothers. As I illustrate in this thesis, the complex and diverse interactions that contemporary mothers have via digital media in the home has brought forth an experience of 'digital mothering'.

To understand how contemporary mothering has been theorised in relation to digital media, this study first draws on feminist communication scholarship. Much of this research elucidates important connections between mothers' digital media use and their sense of mothering identity, highlighting how mothers' communicative actions are often influenced by perceptions of 'intensive', 'good' and 'ideal' mothering (cf. Abetz & Moore 2019; Anderson & Grace 2015; DeGroot & Vik 2019; Lopez 2009; Orton-Johnson 2017). Intensive mothering, a concept

attributed to Sharon Hays (1996), is a practice that arises from mythologised beliefs and cultural expectations about 'what it means to be a mother, what behaviors and attitudes are appropriate for mothers and how motherhood should shape relationships and self-identity' (Johnston & Swanson 2003, p. 21). The practice of intensive mothering, which has become the cultural normative standard by which middle-class mothers are judged in western societies, requires 'nurturing the child, listening to the child, attempting to decipher the child's needs and desires, struggling to meet the child's wishes, and placing the child's well-being ahead of their own convenience' (Hays 1996, p. 75). Although these idealised expectations of intensive mothering are unrealistic, mothers expend considerable efforts trying to meet these conditions to avoid being perceived as a bad mother. As Huppatz and Goodwin (2010) point out, mothers who continuously have children's needs in mind and resolve to meet those needs are considered 'good' because they conform to socially accepted conventions about mothering.

Several feminist communication scholars have emphasised the effects of mothering ideologies on mothers' digital media interactions, highlighting these experiences as paradoxical in nature. 'Mommy' blogs and Facebook community groups, for example, provide opportunities for mothers to seek advice or affirmation from other mothers about their maternal experiences, or to subvert intensive mothering tropes by sharing ugly truths about the challenges of modern mothering (Abetz & Moore 2019; Anderson & Grace 2015; Archer & Harrigan 2016; Lopez 2009; Rogers 2015). However, these sites can also provoke feelings of inadequacy or competition among mothers who judge their own experiences and those of others against the standards of ideal mothering (Abetz & Moore 2019; DeGroot & Vik 2019; Orton-Johnson 2017). A similar dichotomy exists in research about mothers' use of smartphones. On the one hand, working mothers feel empowered that they can extend remote care to children from the workplace, yet on the other hand, this 'double-work' (Lim 2014) can enslave mothers and make them feel pressured to be always available (Madianou & Miller 2012; Pascaul 2016, p. 151; Sowon et al. 2019). In both instances, digital media use implies an intensification of the mothering experience.

These studies have been influential in problematising contemporary mothering and for informing my own research project because they offer insights about how mothering is culturally constructed and constituted alongside digital media. However, what this literature does not establish is the role that mothering ideologies play in the appropriation and

incorporation of digital media in the context of the home. Rather, feminist communication research tends to focus on how identities are constructed in online rather than physical spaces and via use of individual devices rather than a plethora of digital media. Furthermore, its focus on mothers' own use of digital media has overlooked that mothers' management of children's digital media use may also be influenced by notions of intensive or good mothering. These omissions are surprising considering the density of digital media in the home where much mothering takes place and where ideological practices are reproduced (Lim & Soon 2010, p. 213).

The digital home, as previously alluded to, has undergone significant communicative change and mothers' experiences of digital media are thus also impacted in relation to these vicissitudes. In Australia for example, 97% of households with children under 15 years have access to the internet and own 7.8 digital media devices are owned. These statistics compare to an 82% internet access rate in households without children where fewer devices (5.4 devices, Australian Bureau of Statistics [ABS] 2018b). These figures indicate that children's presence in the home may drive up digital media appropriation. What effect children's digital media use has on mothers' experiences, however, cannot be determined by focusing only on the devices that mothers use. To explore this phenomenon, this study employs research predominantly from the fields of children, family and media (e.g. Nikken 2019; Shin 2018; Van Petegem et al. 2019) and communication (e.g. Clark 2011; Jiow, Lim & Lin 2017; Lim 2018; Warren & Aloia 2019) which emphasise the strategies parents deploy to manage children's digital media use.

These strategies are commonly referred to as parental mediation and emerge from a theory originally developed to assess different parental approaches adopted in the management of children's television viewing (Valkenberg et al. 1999). The theory has subsequently been refreshed to make it more relevant to digital media contexts with various frameworks introduced that illustrate how parents restrict and enable opportunities for children to use digital media (e.g. Jiow, Lim & Lin 2017; Livingstone et al. 2017; Zaman et al. 2016). Some parental mediation research has highlighted gendered differences in the strategies used by mothers and fathers (Brito et al. 2017; Festl & Gniewosz 2019; Livingstone et al. 2017; Warren 2017), yet the consequences or implications of these differences concerning mothers' experiences in the home have often been overlooked. Rather, the management of children's digital media use has been homogenised as a gender-neutral experience involving two parents equally. Yet, as census

data and time use studies indicate, the unpaid labour and care work that mothers provide in the home is significantly higher compared to fathers (ABS 2020; 2018a; Australian Institute of Family Studies 2016; Craig 2007; Longhurst 2013; Ortiz-Ospina, Tzvetkova & Roser 2018). At present, the additional responsibility mothers assume for parental mediation is not included in this work.

As already prefaced in the opening section of this chapter, the Covid-19 pandemic emphasised the important role digital media plays in the education of student, but even prior to this global crisis, schools' expectations about online learning had been increasing. In Australia, changes made to the curriculum in 2016 resulted in many schools implementing a 1:1 digital policy that would enable every child to have access to a digital media device in the classroom. Responsibility for providing a device may be assigned to parents however, and this can have possible social and financial implications for families as well as ramifications for how digital media are domesticated in the home. Furthermore, use of these devices is also expected in the home where children are required to undertake homework. Digital homework policies serve to further embed the practices of digital learning and tasks might be performed in addition to or instead of traditional paper-based homework. For mothers specifically, the increased reliance on digital media for school-related work requires of them a renegotiation of existing rules and arrangements around children's digital media use.

The lack of differentiation in mothers' experiences of parental mediation, or what I prefer to term digital management, highlights a gap in understanding about how this responsibility intensifies mothering. The use of 'parental' in relation to mediation masks the voices and experiences of mothers who undertake most of the digital care work in the home, leaving their experiences largely underrepresented. In addition, the issue of how children's use of digital media for homework impacts digital management has not been fully explored in parental mediation research or communication studies more broadly. This research project fills a gap in the literature but, more importantly, it contributes a fuller and more nuanced understanding of contemporary mothering in the context of a digital home.

1.3 Research question and approach

The literature reviewed in this study and summarised above reveals gaps in knowledge about how mothering is experienced holistically in the context of a digital home and in relation to

how gendered factors and social practices shape mothers' use and management of digital media. To understand the implications of these issues for contemporary mothers, this study asked: *How does the presence and use of digital media in the home shape the contemporary mothering experience?*

The study adopts a social constructivist approach because this perspective presupposes that the meanings mothers make about digital media are negotiated through their interactions in the home, and as members of society. The resultant co-constructed meanings constitute a social reality for mothers about how mothering is experienced in a digital home. As Vera explains, 'What people consider to be real is the product of the society they inhabit, and the society in which people live is constructed by their own activity' (2016, p. 7).

As Chapter 3 sets out, the domestication of technology theory (attributed to Silverstone, Hirsch & Morley 1992) and the concept of mediatisation (c.f. Hepp 2020; Hepp, Hjarvard & Lundby 2015; Krotz 2007; 2017) are combined to explore media-related transformations vis-à-vis contemporary mothering. Domestication theory provides an established analytical framework for assessing the meaning-making processes mothers undergo in relation to digital media adoption and use, in addition to how these meanings are (re)negotiated with others in the household. Explaining the concept of 'process', Krotz (2007, p. 256) says that it:

> …describes developments, but is usually defined as a temporal, linear sequence of different states, which are assumed to belong together; a process thus takes place in a well-defined dimension, has a clearly defined starting point and a direction.

This definition of process is reflected in the domestication framework which identifies distinct phases of appropriation, objectification, incorporation and conversion in the domestication of media in the home. In contrast, mediatisation is theorised as a meta-process because it considers broad-scale, longer-term changes in socio-cultural, economic and technological conditions. According to Krotz (2007, p. 258), these factors are associated not only with 'the rise of new forms of media but also with changes in the meaning of media in general'.

At a theoretical level, mediatisation considers how the ongoing transformations in society and culture coalesce with changes in communication and media (Hepp, Breiter & Hasebrink 2018; Couldry & Hepp 2017). Mediatisation has been adopted as a research approach to explore media-related social change in different domains, such as in politics, education or the family.

Mediatisation also refers to the processes and conditions in which media have become naturalised, embedded and ubiquitous in society and for everyday life. Ekström et al. (2016, p. 1091) elucidate the broad research agenda of mediatisation, saying:

> It [mediatisation] serves as a synthesizing formula to cover interrelated processes such as the growth in number, diversity and reach of communication media; their multiplying efficiency in terms of speed, storage and penetrating capacity; the increasing portion of people's daily lifetime spent on media uses; the growing influence of media institutions and industries and the allegedly growing general significance of media texts and technologies in widening spheres and fields of life, society and culture.

Scholars have noted that the elusiveness of mediatisation and its function as a meta-process makes it difficult to operationalise (Ekström et al. 2016; Jansson 2018; Nowak-Teter 2019). In my study, mediatisation is embraced as a phenomenon of contemporary life that is experienced and negotiated by mothers via their interactions with digital media in the home.

This study adopted a qualitative methodology and used an interview method to explore the lived experiences of 17 mothers from Adelaide, South Australia. Interviews took place between October 2015–November 2016, which included a piloting phase, and were conducted in mothers' homes. The interview method is commonly used in both domestication studies (e.g. Lim 2010; Matassi, Boczkowski & Mitchelstein 2019; Scheerder, van Deursen & van Dijk 2019; Sujon, Viney, Toker-Turnalar 2018) and mediatisation research (e.g. Hasebrink & Hepp 2017; Klein, Walter & Schimank 2018; Linke 2011; Müller 2019; Peil & Röser 2014). As a reflexive researcher, and a mother myself, I thought access to participants would be made easier by my insider status – assumptions that were tested and found to be incorrect in the pilot study. The methodological challenges I encountered are addressed in Chapter 4.

1.4 Thesis overview

This chapter has established the need for a more nuanced understanding of contemporary mothering by examining how the presence and use of digital media in the context of the digital home shape mothers' experiences. I argue that this phenomenon can only fully be known by understanding how changes in social practices and attitudes concerning digital media's salience for everyday functions in the home and in society, intersect with mothers' use of digital media and their management of children's use.

The rationale for this proposition is presented through a review of literature in Chapter 2 relating to the two central points of interaction that mothers' have with digital media in the home (as outlined in Section 1.2) – mothers' own direct use and the role they have in managing children's use. Gaps in knowledge are identified in this literature about how these two points intersect holistically to influence mothers' experiences in the digital home. Chapter 3 charts historical developments in the study of media in the home by reviewing seminal and contemporary literature about the meaning-making processes that occur among members of a household, and in tandem with communicative changes in society. The theories of domestication and mediatisation are critiqued in this chapter and identified as providing a solid theoretical foundation upon which to explore contemporary mothering in a digital home.

Chapter 4 provides the methodological details of this study and outlines the interpretivist and social constructivist perspective I applied to the qualitative interviews with mothers. The chapter includes details of a pilot study that was conducted with 3 participants between October – November 2015 and identifies how the outcome helped refine the research design and procedure. Interviews for the main study occurred August–November 2016 and data were analysed in accordance with Braun et al's (2019) thematic analysis using a combination of automated and manual coding techniques.

Chapters 5, 6 and 7 present the empirical findings from this research. Each chapter combines the analysis and discussion of mothers' experiences in alignment with the scholarly literature and theoretical framework set out in Chapters 2 and 3. Collectively, they highlight how mothers' interactions with digital media as both users and facilitators are paradoxical in nature. Chapter 6 provides quantitative and qualitative evidence of how the digital home has been constructed by mothers' appropriation practices and vicariously through school's digital pedagogical practices. This chapter sets the context for understanding how the spatial reconfiguration of the home intensifies mothers' experiences. Chapter 6 highlights how mothers perceive and use digital media in the home and reveals how their interactions are influenced by their perceived capacity to reduce or exacerbate time poverty. Chapter 7 emphasises how children's digital media use implicates mothers with intensive mothering practices and highlights the range of unpaid digital care work mothers perform in the home.

Chapter 8 brings together the findings and discusses how a state of ‘digital mothering’ – a condition that explains the contemporary mothering experience – continues to be influenced by perceptions of good mothering.

CHAPTER 2: Mothering and digital media

The previous chapter provided contextual background for this study and outlined its theoretical underpinnings as an illustration of how and why this research was undertaken. The aim of this chapter is to elaborate, firstly, what is already understood about mothers' digital media use and the impact of children's use on parents and, secondly, what remains unknown about contemporary mothers' experiences in the digital home. This is the first of two literature review chapters to outline the theoretical fields most relevant for understanding the intersection between mothering and digital media.

Section 2.1 explores how mothering has been researched by feminists working predominantly in the field of communication, highlighting how issues of identity and ideology relate to mothers' own use of digital media. Much of this research highlights how smartphone and social media use produce paradoxical experiences of empowerment and enslavement for mothers, offering support to the mothering role whilst also intensifying it due to greater expectations about mothering from a distance. This section argues that when feminist scholarship focuses solely on mothers' own use of digital media, it overlooks the significant impact that children's use has on mothers' perceptions, responsibilities and experiences of mothering.

Section 2.2 thus considers how mothers' perceptions, practices and experiences regarding digital media's presence in the home are shaped by factors other than their own use. Children's use of digital media can disrupt family routines and cause mothers' concern about children's safety and privacy online. To ameliorate such issues, parents deploy specific mediation strategies that guide children towards appropriate use of digital media. Literature about parental mediation theory from scholars working in family studies and communication and media studies dominate research in this area. However, use of the generic term 'parenting' masks the specific impact and role that mothers have in socialising children in a digital context, which also includes facilitating and supervising children's use of digital media for education and homework. To develop a more nuanced understanding of contemporary mothering and the complex communicative experiences proffered by a digital home, this chapter argues for a more holistic approach to research to capture mothers' experiences as both users and mediators of digital media in the home.

2.1 Mothers' use of digital media

Over the last forty years, knowledge about how women are positioned in relation to technology has been advanced by feminist scholars working in the fields of feminist technology studies, science and technology studies, and communication studies (e.g. Faulkner 2001; Lohan 2000; Rakow 1988a; Wajcman 2004). Across these areas of scholarship is an underlying assumption that neither gender nor technology can be fully comprehended without understanding how each influences the other (Faulkner 2001; Lohan 2000). Feminist communication research in particular explores how 'gender is constructed through communication and how gender informs communication' (Foss & Foss 1988, p. 9). This social constructivist view also privileges contemporary studies that highlight how mothering identities are, in part, negotiated through digital media interaction.

However, not all feminist research has been conducted from the same epistemological position. As some feminist scholars have observed (e.g. Bray 2007; Lagesen 2015; Wajcman 2009), research in the 1970s and 1980s tended to adopt a more deterministic view of women and technology by focusing principally on agricultural, military and domestic technologies, emphasising how they are controlled by men to assert power over women. In the home, studies showed that the microwave, washing machine and the fixed line telephone are gendered appliances that, far from saving women time as manufacturers and marketers proclaimed, enslaved them by increasing expectations about household management[1] (Cowan 1983; Leto 1988; Rakow 1988a; 1988b). In the main, early debates about women's relationship to technology perpetuated the notion of technology as 'patriarchal, malignant and fostering exclusion of women' (Lageson 2015, p. 724) which served to oppress women in the home and in society more broadly.

Many of the issues identified by early feminist scholars regarding power relations and patriarchal ideology in relation to women and technology remain at the heart of much feminist

[1] In the first study to 'directly examine whether domestic appliances actually save labour time in particular tasks' Bittman, Rice and Wajcman (2004, p. 412) analysed data collected by the Australian Bureau of Statistics (ABS) about time spent engaged in household labour. Their study confirmed the ideas of early feminist scholars that domestic technologies do not generally save time for women and can actually increase the time they spend on some household activities. Although my study does not focus on domestic technologies, the impact and issue of time in relation to mothers' interactions with digital media is a feature that emerged in the findings (see Chapter 6) and is related to the broader issue of unequal distribution of domestic management for women.

research. However, its essentialist perspective had a 'tendency to portray women as victims of technological change' (Wajcman 2009, p. 6). By the late 1980s scholarship began to adopt more constructivist perspectives about how women negotiate meaning from their interactions with technology. The prevailing perspective of later work, as this section will illuminate, recognised that technology 'is not only shaped in design, but is also shaped or reconfigured at the multiple points of consumption and use', particularly in light of new and emerging digital media (Wajcman 2009, p. 6).

Much like my own research, some of the literature reviewed in this section is not necessarily feminist by design but rather it adopts a communicative lens to understand how contemporary mothers are navigating their roles and identities in a digital home. Feminist principles are nonetheless evidenced in the way these studies give mothers a voice to articulate their experiences of digital media, expose issues of gender and power inequities associated with mothers' use of it, and explore the extent to which mothering ideologies are subverted or reinforced through digital media use. What is surprisingly absent from the broad corpus of literature reviewed in this section, however, is a focused analysis on the situated context in which mothers engage with digital media, particularly in regard to how changes in the communicative space of the home may contribute to mothering identities. This gap is explored in Chapter 3 when I review seminal approaches to the study of media in the home and argue the case for studying mothering and digital media within this rich media context.

The review of literature that follows shows that scholarship concerning mothers' use of digital media has been occupied by the consequences, implications and affordances of two primary technologies for liberating or constraining identities: smartphones and social media. This section concludes by highlighting the limited range of studies that have explored mothers' use of digital media for gaming.

2.1.1 Remote mothering through mobiles

The mobile phone has been widely researched by feminist communication scholars because of its potential to both support and exacerbate the work of mothering. This competing narrative is reflected in the first widely known qualitative study about the role gender plays in the acquisition and use of the mobile phone. Rakow and Navarro's (1993) study of middle-class American mothers showed that male partners generally insisted upon and purchased a phone for their partners to use to ensure women's safety whilst travelling, despite initial reluctance

by mothers to use it. The researchers posited that the phone was a symbol of male power through which gendered behaviours were reinforced insofar as women need protecting by men (Rakow & Navarro 1993, p. 152). However, the study also showed that mothers adapted their perception of the phone's utility once they realised its benefit for 'remote mothering' (p. 153) regardless of their physical proximity to children. Mothers who worked outside the home found that the phone supported them 'to bridge the space and time gap between the domestic and work worlds' (Rakow & Navarro 1993, p. 153). The phone for these women fulfilled a desire to stay connected with children and became important for supporting their mothering role and identity.

In many ways, much has changed in the twenty-five plus years since Rakow and Navarro first published their findings and predicted that 'the cellular telephone could remain primarily a technology associated with men and under their decision-making' (1993, p. 155). The technological, economic, social and cultural infrastructure that was required to enable the development of fast, wireless and cheap access to digital information on small, handheld devices highlights the vastly different communicative environment in which contemporary mothers live. A marked difference between the early cellular phone and the smartphone, for example, is that where the former enabled mothers to maintain familial or everyday interactions via verbal conversations, the latter also enables multi-modal communication via text messaging, email, social media and video. Nevertheless, Rakow and Navarro's (1993) study did illuminate an issue that remains relevant today – the invisible labour that mothers undertake when they use the mobile phone for mothering. Rakow and Navarro's (1993) argument that mobile phone use by mothers reinforces social norms and gendered parenting practices whilst also strengthening mothering identities, highlights an empowerment/enslavement paradox that has been foregrounded in subsequent mobile phone research.

Transnational studies about mothers' migration practices, for example, highlight the dichotomous experiences of mothers who use the phone to perform remote mothering whilst working away from home. Studies have examined the role digital media have in supporting mothers to assert a consistent and authoritative influence on children's lives (Kim 2017; Madianou 2012; Madianou & Miller 2012; San Pascual 2016). Notwithstanding the physical, emotional and social challenges of transnational mothering, these studies show how the phone is empowering to mothers because it enables them to 'micromanage their households and control their children's upbringing' (Madianou 2012, p. 290) from any location. The added

benefit of video-calling children further enhances mothers' experiences of virtual mothering as reported in Madianou's (2012) study with Filipino mothers living in the UK. In some cases, mothers spent hours on video-calls watching as children engaged in routine activities and helping them with homework to recreate a sense of co-presence between mother and child (Madianou 2012; see also San Pascual 2016). Whilst these behaviours may enhance emotional ties with children, their response 'to expectations that they perform well both at home and at work and that they will always be online and available' (Lupton, Pedersen & Thomas 2016, p. 736) also suggest an intensification of mothering practices (Madianou 2012; Kim 2017).

Kim's (2017) study with Asian mothers living in France also found that migrant mothers were expected to nurture children intensely through their phone, irrespective of their location or work commitments. Pointing to the additional demands that migrant mothers face in an era of mediated communication, Kim (2017, p. 203) contends that cultural expectations about what it means to be a mother, albeit from a distance, limits opportunities for empowered mothering:

> …while the perpetual connectivity of digital media in family life may appear to serve as an instrument of intimacy and empowerment for migrant mothers, it can also become new sources of digital fatigue and morality, double burdens and anxieties about the uncertain consequences of transnational communications. Women's transnational migration does not necessarily change the gender division of care labour in the family but still forces migrant mothers to continue the traditional roles of mothering, now intensively performed by the practices of transnational communications.

This potential for mothers to use their phone to micromanage everyday family life and perform 'intensive mothering' (e.g. Arendell 2000; Hays 1996) also relates to mothers who co-habit the home with children. For example, studies in the US and Australia show mothers regularly text or call children to confirm after-school travel arrangements and to check up on their safety and whereabouts (Livholts & Bryant 2013; Longhurst 2013; Rakow & Navarro 1993; Wajcman, Bittman & Brown 2008). Mothers also think about which mode or method of communication best conveys or conceals their emotions to children, with studies showing that mothers choose text messaging to avoid conflict with children and select voice calls to assert authority or express compassion (Longhurst 2016; Livholt & Bryant 2013; Kang 2012; Madianou & Miller 2012). As Longhurst found (2016, p. 127):

> … mothers are strategic in choosing which media to use in different contexts. They are attuned to the emotional responses of their children and often tend to choose very deliberately what mode of communication might best fit the social and spatial situation.

These studies demonstrate that mothers' interactions with digital media involve intuitively managing their own emotions in addition to those of children.

Aside from using the mobile phone for mothering, mothers also maximise its use for employment-related tasks. Sowon et al.'s (2019, p. 100) study of employed mothers' use of smartphones found that being able to access work emails and related tasks whilst attending to children's needs in the home can empower mothers to feel in control of both domains. However, the persistent merging of professional and private time can also leave mothers feeling encumbered by expectations of being available 24/7 which can destabilise the work–life balance (Lim 2014; Rose 2017; Sowon et al. 2019). Whilst smartphones were found to support mothers' participation in the workforce, the study revealed that their use for work-related purposes also impinged on the quality of time they spent with children in the home, thus producing an additional empowerment/enslavement paradox for mothers (Sowon et al. 2019). As other research shows, mothers who use the phone for parenting whilst engaged in paid work undertake a 'parallel shift' (Rakow & Navarro 1993) or 'double-work' (Lim 2014) in their attempt to balance professional and maternal roles.

2.1.2 Developing identities on social networking sites

A second body of feminist communication research related to mothers' use of digital media concerns their interactions with social networking and social media sites. A large body of work has examined how these platforms help mothers to create, inform and learn from others, and to renegotiate motherhood identities and ideologies (Abetz & Moore 2019; Anderson & Grace 2015; Archer & Harrigan 2016; Kang 2012; Lopez 2009). In an early study about the emerging and disruptive potential of blogging for mothers, Lopez (2009, p. 744) wrote:

> Mothers who blog about their children are transforming their personal narratives of struggle and challenge into interactive conversations with other mothers, and in so doing, are beginning to expand our notion of motherhood, women bloggers and the mother's place within the public sphere.

Blogging was initially conceived of as a 'radical act' (Lopez 2009) in which mothers could dispel the myth of intensive or ideal mothering by sharing honest accounts of the trials and tribulations of being a mother that had not previously been made public. The term, 'mommy blogger' emerged to demonstrate the resistive power of women to challenge patriarchal assumptions about mothering and to stake a place in the blogosphere. The issue of

nomenclature for mothers who blog is a concern for feminist research because, aside from being used to empower mothers who blog, the term mommy blogging also has derogatory connotations by implying that mothers who blog only do so to complain about mothering work (Lopez 2009, p. 730). Whilst some mothers do use blogs to publicly vent about maternal challenges, they are also motivated by a desire to feel connected to other mothers, to offer and seek parental advice and strive to have their experiences heard and validated (Archer & Harrigan 2016, p. 1028). Some mommy bloggers also seek financial reward through their commercialisation of blogs and emergent status as social influencers (Archer 2019).

Instead of the term 'mommy blogger', Rogers (2015) suggests use of 'maternal essayist' to emphasise how mothering is connected to broader societal concerns. In extending the notion of blogging as a radical act which subverts mothering ideologies, Rogers (2015, p. 258) says it is the ability to 'shape and structure a blog post so that it highlights the intersection between the personal and the universal which truly lifts the mask of motherhood'. Other researchers agree that blogs provide a source of political and social activism. Blogs, for example, 'provide a forum for mothers to contemplate and reflect upon the cultural conditions of motherhood and their own interactions with other mothers' (Abetz & Moore 2019, p. 264), which, for readers of blogs, fosters a sense of community and shared experience (Orton-Johnson 2017, p. 4).

However, blogs and social media also can constrain mothering identities and practice. In her qualitative study of mothers who read blogs, Orton-Johnson (2017) found that the judgements and criticism made between and about mommy bloggers undermine efforts to disrupt dominant mothering ideologies and build a sense of solidarity and connection with followers. Orton-Johnson (2017, p. 8) determined that the social surveillance of mothers who blog, and their public responses to other bloggers' assessment of their experiences, influences readers' interpretations of what constitutes 'good' and 'bad' mothering:

> While blogs are commonly positioned as potentially transformative spaces for new articulations of motherhood, the tensions expressed by the readers suggest that they may in fact serve as another platform in which articulations and struggles around long-held normative ideas about the nature, identity, and role of motherhood are being reinforced and reified.

Other studies show that the effects of social surveillance on mothers who write and read blogs is linked to combative mothering – a 'mothering ideology that normalizes constant competition between mothers, especially in terms of parenting philosophies, practices, and choices' (Abetz

& Moore 2019, p. 268). In a qualitative analysis of blog posts by mothers, Abetz and Moore (2019, p. 276) found competitive and judgemental behaviour among mothers who write about their choice to work and those who blog about choosing to stay at home with children. The authors claim that dominant views about mothering, based on unrealistic expectations of intensive and ideal mothering, induce feelings of guilt and shame in mothers on both sides, causing them to deflect their emotions onto others thus leading to a state of combative mothering (Abetz & Moore 2019).

Social media sites like Facebook can also be a site of restraint for mothers when they compare their experiences to those of other mothers. Anderson and Grace's (2015) study identified the contradictory experiences of pre- and post-natal mothers who were members of a Facebook support group that the researchers had established. At the end of the three-year project, Anderson and Grace (2015) analysed the comments and posts of members, along with data from online surveys and face-to-face interviews. They found evidence of agency and feminist activism among many members of the group wherein mothers supported one another through consciousness-raising of social and structural issues related to mothering. Nonetheless, the study also identified that some mothers left the Facebook group early because the comments shared by other mothers made them feel inferior, inadequate and reluctant to share their experiences in fear of saying the 'wrong' thing (Anderson & Grace 2015, p. 11).

A later study by DeGroot and Vik (2019) concurred with Anderson and Grace's (2015) discovery that some mothers feel constrained by their judgement of other mothers' experiences. Using quantitative survey research, they investigated how mothers present themselves in online and offline contexts and considered how portrayals of mothering by other mothers influence their own front-stage presentation. Using Goffman's notion of dramaturgy, DeGroot and Vik (2019) found that despite the personal challenges of mothering, mothers only want to present their best selves on social media because they believe this is the performance that other people want to see. Yet this curated presentation of self conflicted with participants' desire to see honest and candid exchanges about the challenges of contemporary mothering. DeGroot and Vik (2019, p. 13) describe this anomaly as a 'double-bind' wherein mothers 'reject the flawless performance of motherhood, yet succumb to the social pressure to perform motherhood flawlessly'. The pressure to portray themselves as good (socially-acceptable) mothers on social

media is one example of the invisible mothering work that is conducted on a routine basis (DeGroot & Vik 2019, p. 9).

Just as these studies show the limiting effects that social networking can have on mothers' identities, they equally illustrate opportunities for genuine engagement and expression that can liberate mothers from ideological constructs of mothering. Facebook has been the centre of much research in this regard, with studies showing that mothers use the platform to connect with other like-minded mothers to share parental advice, collective experiences, and find answers to specific parenting challenges (e.g. Anderson & Grace 2015; Archer & Kao 2018; Chalklen & Anderson 2017; Frizzo-Barker & Chow-White 2012). Like blogs, Facebook can offer a site of resistance for mothers and provide 'more opportunities than ever before to voice their lived experiences of motherhood and dialogue about what constitutes ideal mothering' (Abetz & Moore 2019, p. 264). However, as this literature review highlights, both platforms can have an empowering and constraining effect on a mother's sense of self.

2.1.3 Gaming 'moms'

As the literature reviewed here shows, mothers' interactions with blogs and social media are often tied to identity formation, leading either to empowerment as mothers connect with others and express themselves in diverse ways, or to inhibition due to insecurity or maternal competition. Another area of relevant research relating to mothers' use of digital media concerns digital gaming. Although scholarly research on this topic is scant, data from the gaming industry and feminist communication research reveal opportunities to learn more about how mothering is experienced and negotiated in this digital space.

A three-year research project by Scandinavian scholars, Enevold and Hagström (2009), entitled 'Gaming Moms' claims to be the first to study mothers who game. Their study used multi-methods to undertake discourse analysis of advertisements, news articles and blogs in addition to qualitative interviews with mothers and participant observations concerning mothers' online gaming behaviour. Their study also categorised gaming mothers into those who played themselves and those who did not game but who supported and facilitated children's gaming. This important distinction highlights how mothers' interactions with digital media are often vicarious as they assume management of children's use in the home (see Section 2.2.2).

Enevold and Hagström (2009, p. 7) observe how the cultural practice of gaming in the home is entrenched in idealised constructions of gendered parenting and expectations of intensive mothering which excludes and vilifies mothers who game: 'Thus, a mother who plays computer games challenges cultural norms, claiming time for an unproductive activity only for her, acts in contradiction to what the concept of "mother" implies'. Here, the 'gender-power system' (Enevold 2012, p. 6) of a household is highlighted wherein the mother is expected to be a 'domestic guardian', providing sustenance to her family before indulging in gameplaying activities (Enevold & Hagström 2009, p. 7). The aim of Enevold and Hagström's (2009) study as they later explain, was to 'raise the consciousness among the interviewed female players that they too are gamers – a vital recognition in the struggle for access to, and visibility in, contemporary gaming culture (Enevold & Hagström 2017, p. 36).

However, more than ten years after Enevold and Hagström (2009) first published their study, scholarly knowledge about mothers' participation in game culture remains relatively unknown. Some attention has been given to exploring how digital gaming devices like the Nintendo Wii are domesticated and contribute to the shaping of the home and family cohesion (Harvey 2015; Nash, O'Malley & Patterson 2018). Feminist game studies have also examined how use of the word 'mother' or 'mom' is appropriated by the gaming industry to distinguish between the genres of masculine hardcore action games and feminised casual soft games that pass the 'mom test' (Vanderhoef 2013, para 5; Vermeulen & Van Looy 2016) – a point that shall be returned to shortly. Whilst these studies do not shed light on mothers' gaming behaviour, they do highlight that mothers take more responsibility than fathers for managing children's digital gaming (Harvey 2015, p. 63) and feel guilty when they are unable to spend more time interacting on gaming devices with children (Nash, O'Malley & Patterson 2018, p. 2013).

Knowledge of mothers' gaming practices has also been overlooked and underestimated in the gaming industry, despite some studies demonstrating gendered differences in use that could prove useful for exploring mothers' gaming practices. Industry research shows that, on a global scale, female game enthusiasts – women who regularly watch or play interactive and role-playing video games online or on mobile phones – are almost equal in number to men who game (46% for women and 54% for men) (Bosman 2019; Newzoo 2017; Zenn 2018). Overall, women tend to play games on smartphones and more regularly (64%) than men (38%) (Zenn 2018) but for shorter periods due to women having less free time (Winn & Heeter 2009).

International consumer research conducted by NewZoo, a gaming and esports market research company, confirms the casual status of women's gameplay in its report about gamer segmentation (Bosman 2019). Eight gaming personas were identified following a survey that collected data about the gaming behaviour and consumption of people aged 10–55. The results show that 'the top persona among female game enthusiasts is the Time Filler. These are people who play games, typically on mobile, to pass the time' (Bosman 2019, para. 3). Thirty six per cent of women were found to be Time Fillers compared to 17% of men. These figures are comparable with Australian consumer research that shows 46% of women identify as game enthusiasts but have a greater tendency toward mobile gaming (31%) than men (22%) (Deloitte 2017; Brand, Todhunter & Jervis 2017).

In a rare and recent industry study about mothers' use of digital games, Activision Blizzard Media (2020, p. 11), a global interactive entertainment company, dismisses assumptions that mothers predominantly play games on mobile devices and asserts that gendered stereotypes about gamers are inaccurate. In its opening gambit, the report recognises the purchasing power and diverse gaming practices of mothers and recommends marketers target new games and devices to them (Activision Blizzard Media 2020, p. 5). Self-reported data was collected from more than 4000 'gamer moms' and 3200 non-gamer moms via online surveys from participants across four countries to compare attitudes and behaviours about gaming. 'Gamer moms' are defined as mothers who play across multiple platforms, including mobile devices, consoles and computers (Activision Blizzard Media 2020, p. 6).

The study found that more than two thirds (71%) of all mothers (n = 7200) are gamer moms, who play multi-player and action games daily on smartphones (74%), laptops and computers (38%) and games consoles (33%). In addition to providing statistical data about mothers' gaming preferences, the report also offers qualitative insights about why mothers choose to game. Whilst some gamer moms did identify casual modes of mobile play to 'pass the time', they also indicated gaming as a mood enhancer and source of entertainment that helps them relax and increases the bond with children with whom they sometimes share in gameplay (Activision Blizzard Media 2020). This industry research goes someway to combat gendered notions about mothers' use of gaming as casual, simple, short and 'soft-core' (Enevold & Hagström, p. 9). Nonetheless, its principal aim is to outline the commercial benefits of

marketing games to mothers rather than to research the complex communicative experiences of mothers who game.

The literature reviewed in this section has examined mothers' diverse uses and experiences of digital media and has highlighted opportunities for further exploration in the quest for a more nuanced and holistic understanding of contemporary mothering in a digital context. In the next section, I turn attention to how mothers experience digital media indirectly as part of the unpaid care work mothers undertake in the home.

2.2 Mothers' digital care work in the home

Global time use data and research about paid and unpaid labour consistently reveal that women contribute more substantially to domestic work and childcare in the home than men, even as women's participation in the labour force continues to increase (ABS 2018a, 2020; Australian Institute of Family Studies 2016; Ortiz-Ospina, Tzvetkova & Roser 2018; United Nations 2020). A report about gender gaps in unpaid care work among OECD (Organisation for Economic Cooperation and Development) countries confirms that, on a daily basis, '[a]cross all regions of the world, women spend on average between three and six hours on unpaid care activities, while men spend between half an hour and two hours' (Ferrant, Pesando & Nowacka 2014, p. 2). The three elements of unpaid care work are defined as: 1) *unpaid* because 'the individual performing this activity is not remunerated', 2) a *care* role that includes providing 'what is necessary for the health, well-being, maintenance, and protection of someone or something', and 3) *work* that 'involves mental or physical effort and is costly in terms of time resources' (Ferrant, Pesando & Nowacka 2014, p. 3). Management and support of children's digital media use for leisure and learning constitutes a large portion of the unpaid care work that contemporary mothers undertake in the home. However, it is unclear from the OECD report (Ferrant, Pesando & Nowacka 2014) how much of this work has been accounted for.

Craig's (2007) research about the impact that children have on parental time and the division of household labour in Australia highlights the home as a site of ambivalence for some mothers. By comparing the experiences of women raising children with partners to couples without children, Craig (2007) found that domestic work was distributed more equally in childless households which afforded them more free time. Mothers, however, reported losing time due to their care responsibilities, which meant that 'a great deal of child-rearing is done

simultaneously with other tasks' as a means of maximising and quarantining time' (Craig 2007, pp. 132–133). Rose (2017, p. 120) found similar results in her study with working mothers, also in Australia, who chose to work night shifts, to reduce their work hours or negotiated working from home so that they could fulfil their duties to the domestic domain. Rose found evidence that mothers are creative in meeting multiple responsibilities, often merging time by participating in paid employment whilst 'simultaneously doing housework, childcare and volunteer roles at the school' (Rose 2017, p. 120). That mothers need to deploy such strategies to manage their limited time does, however, illuminate how deeply entrenched society's perceptions and attitudes are about a mothers' role in the home.

One area of mothers' unpaid care work that seems to have been overlooked, or at least not distinguished in time use studies, is the impact of digital media devices in the home on mothers' time and domestic and emotional work. The presence of digital media in the home requires the 'rules, roles and boundaries' of family life to be renegotiated (Hertlein 2012, p. 375; also Hertlein 2018; van Kruistum & van Steensel 2017), such as instituting new rule-based systems for appropriate use. Children, for example, use digital media for an expansive number of purposes and for increasingly longer periods of time which can invoke concern among mothers about children's physical and psychological well-being and online safety. The sub-section that follows outlines research regarding such impacts, demonstrating the range of issues contemporary parents face in a digital home. Because of the paucity of research pertaining specifically to mothers' experiences in relation to children's use of digital media the literature reviewed centres more broadly on the experiences of parents.

2.2.1 Concerns about children's digital media use

Evidence that children's changing communicative practices may be impacting mother's time is seen in national and international statistics about childrens' and adolescents' use of digital media. In Australia, children aged 8–13 years spend 19 hours per week (which equates to 2.7 hours per day) and teens aged 14–17 spend 33 hours per week (4.7 hours per day) posting comments and content on social media, streaming videos and completing school work (Australian Office of the eSafety Commissioner 2016). Figures in the US show similar levels of daily use among children aged 8–12 years (4.7 hours), whilst teenagers aged 13–18 years spend much longer per day (7.3 hours) engaged in screen-based activities, which include

watching streamed or online video, gaming, using social media and surfing the web, with time allocated for digital homework tasks (Rideout & Robb 2019).

With this increased use comes heightened anxieties among parents about the potential impact extended digital media use has on children's interpersonal skills and physical health (Blum-Ross & Livingstone 2018; Dias et al. 2016) and their capacity to concentrate and think critically in offline contexts (Page Jeffrey 2020b). Communication and media literature and cyberpsychology studies highlight that the risks parents perceive about children's online interactions include exposure to inappropriate online content or engagement in risky behaviours like sexting or giving out personal and private details (Gabriel 2014; Livingstone, Kalmus & Talves 2013; Mascheroni 2014). Cyberbullying and issues of protecting children's online data and privacy are also highlighted as areas of key concern for parents and researchers alike (Caivano, Leduc & Talwar 2020; Stoilova, Nandagiri & Livingstone 2019).

A recent study by the Pew Research Center (Auxier et al. 2020, p. 25) about the experience of parenting 'in the age of screens', found that, of the total parents surveyed[2], 73% are concerned about children under 11 years encountering inappropriate content on YouTube, with heightened levels of anxiety among more educated parents. In comparison, 46% of parents reported instances where children had been exposed to inappropriate YouTube videos (Auxier et al. 2020). Although this figure is substantial, the differential between perceived and actual threats highlight how anticipated fear may be much higher than instances of actual harm.

Parental concerns regarding children's use of digital media are often inflated and confounded by public rhetoric about the negative consequences and threats to children's physical and psychological health. Livingstone, Kalmus and Talves (2013, p. 197) emphasise how 'media hyperbole' and political deliberations about children's use of internet technologies frame parents' fears and anxieties, pointing to:

[2] The survey data was collected from more than 3500 parents in the US with children aged 17 years and under. The research explored how children engage with digital media, what concerns parents have about these interactions and how parenting is affected by children's digital media use.

> … the too-common policy discourses that reproduce moral panics (e.g. online pornography is inevitably harmful; lots of children are meeting strangers online) and popular myths (e.g. porn is more common online than offline; media-savvy kids know how to cope with online risks).

The potential for social media to spread news of deviant, unwanted or inappropriate behaviour on a global scale does, however, provide an ongoing source of such discourse that perpetuates parents' anxieties and fears. In a recent example, Australian parents were advised to supervise children's social media use by the nation's eSafety Commissioner (2020a) after it was revealed an American had live streamed their own suicide (Chrysanthos 2020). Although schools were also implicated as having a role in supporting this mandate, it is to the parents, and predominantly mothers, that this responsibility befalls.

Influential organisations like the American Academy of Pediatrics (AAP) offer parents some guidance about how to manage children's digital media use. Up until 2016 the AAP recommended screen time limits for children aged 3–18 years of no more than 2 hours per day as a way of reducing some of the issues and concerns outlined above (Licata & Baker 2017). These recommendations were subsequently revised to 1 hour per day for children aged 2–5 years with recommendations for parents to create a media plan with older children based on the circumstances and contexts of media use which should include appropriate time restrictions (Blum-Ross & Livingstone 2018, p. 181). Examples that are offered include thinking about where in the home digital media devices can be used, when and for how long children should be online in given contexts, with recommendations that parents share in the media experiences of children. As Licata and Baker (2017, p. 2) illustrate: 'Parents must be aware of the media that their children consume and to be able to create an open dialog with their children about what they experience on the Internet'. These sentiments are also reflected in other policy research which emphasises how the quality of the media interaction should take precedence over concerns about quantity or duration of engagement in order to build healthier behaviours both on and offline (Blum-Ross & Livingstone 2016, 2018; Livingstone et al. 2018).

Whilst the AAP may have modified earlier screen time recommendations, Blum-Ross and Livingstone (2018) found that parents in the UK are still intensely influenced by these legacy guidelines and feel guilty when children spend long periods on devices, regardless of the context of that use. In their study, Blum-Ross and Livingstone (2018, p. 185) concluded that:

> …simple time limits are not actionable when screen time can mean homework, shopping, time with friends or video calls with parents or relatives far from home. So we are, first, concerned about the considerable pressure placed on parents to focus on limiting children's screen time, given the limited evidence of harm, and we find it troubling that although the old time limits are somewhat relaxed, parents still cite the "two hour rule" as if it were set in stone.

The AAP and other such policies contribute to a 'discursive construct of the "good parent"', defined as 'one who understands, assesses, guides, monitors, and regulates their children's online activities' (Willett 2015, p. 1072). This idealised version of parenting is difficult to realise especially when dealing with the digital media practices of adolescents[3] whose use tends to be more discreet and contained to private spaces or on mobile devices (Page Jeffery 2020a, pp. 11–12).

In her focus group research about parents' knowledge and management of children's digital media use in Australia, Page Jeffery (2020a) found numerous challenging and contextual factors specific to parents of adolescents. She discovered that parents initially restricted teens' digital media use but soon receded these rules because the infringements imposed on children's budding autonomy caused parent-child conflict. Parents therefore reduced regulatory measures to build trust and resilience in children. Furthermore, the decision to relinquish regulatory measures was often a pragmatic one for parents who worked outside the home, as they were unable to provide parental monitoring. Such a manoeuvre, however, often raised concerns regarding the issue of 'good' parenting (Page Jeffery 2020a, p. 13):

> …contemporary discourses of child-empowered ideal parenting exist in tension with the discursive construction of the good parent as one that monitors their child's online activities. Thus, practices of trust and dialogue co-exist in tension yet contrast with practices of monitoring and surveillance. These discourses, and the near impossibility of fulfilling the competing and contradictory expectations placed upon the good parent in the digital age, produced a tension and apparent anxiety amongst parents in this study.

Children's digital media use induces many concerns for parents about children's safety and welfare which can be exacerbated by public discourse and policy expectations regarding good parenting. As the next section shows, parents mitigate these anxieties by deploying digital management strategies that help them feel more in control of children's digital media use.

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3 The World Health Organisation (WHO) categorises adolescence as occurring during puberty and between the ages of 10–19 years: https://www.who.int/health-topics/adolescent-health#tab=tab_1

2.2.2 Parental mediation of digital media

An extensive body of literature from the field of communication and media explores the range of parental mediation techniques parents use to regulate children's digital media use in the home. Originally conceived in the early 1980s in relation to children's television viewing practices, parental mediation is now 'widely seen to capture the parental management of the relation between children and media' (Livingstone & Helsper 2008, p. 581). Parental mediation has become a 'hybrid communication theory' (Clark 2011, p. 323) due to the contributions made by scholars from multiple disciplines, including psychology, sociology, communication and family media studies (see Clark 2011 for an historical and critical review of parental mediation literature in these fields).

Early research about parents' mediation practices identified three main strategies as they applied to children's television viewing: instructive, social co-viewing and restrictive mediation (Valkenberg et al. 1999). An instructive style of parental mediation, now more commonly referred to as active mediation, involves parents discussing the dangers of media consumption with children, but does not extend to joint action or shared exposure to content (Kucirkova, Littleton & Kyparissiadis 2018; Shin 2015; Valkenberg et al. 1999). Social co-viewing however, does involve sharing media experiences with children and may involve high or low levels of parental involvement in children's media practices, such as watching a television program together or singing along to a theme tune (Uhls & Robb 2017, pp. 331–332). Although co-viewing can engender more positive parental attitudes about children's media consumption (Clark 2011; Valkenberg et al. 1999; Zaman et al. 2016), some research suggests that parents who deploy this strategy engage in little or no discussion about media content (Cingel & Hargittai 2018; Valkenberg et al. 1999). Restrictive mediation is the third strategy that was identified in the original parental mediation framework and is used by parents to limit children's exposure to media by setting rules about its access and use (Valkenberg et al. 1999, p. 53). Of the three commonly used strategies, active mediation is considered the most beneficial as it 'emphasizes the need for positive parent–child relationships rooted in dialogue' (Clark 2011, p. 334).

Parental mediation theory continues to influence studies about children's media use, however, the vastly different contexts and circumstances in which digital media are consumed required adaptations to be made to the original framework to address 'new manifestations of parental

mediation' (Zaman et al. 2016, p. 1). In their study about children's and adolescents' (9–17 years) internet use, Livingstone and Helsper (2008, p. 589) supplant the strategy of co-viewing, choosing instead the more accurate term of co-using in response to the interactive dimension of internet use. Their study found that instead of using this strategy alone, parents exhibited active co-using strategies through their discussions of online safety with children whilst also watching and participating in children's online activities. Furthermore, Livingstone and Helsper (2008) found that restrictive strategies, such as banning access to certain websites or applications, were administered in conjunction with active co-use, thus emphasising the nuanced differences of parental mediation in an online context.

In a later study about the internet use of younger children (aged 6–14 years), Livingstone et al. (2017, p. 98) found just 'two broad strategies' are used by parents: enabling and restrictive approaches which combine elements of the three strategies outlined in the initial model. However, as they explain:

> Enabling mediation is more complex than the 'active' mediation found for television viewing, reflecting the greater complexity of supporting children's Internet use. It encompasses "active" mediation along with safety mediation and activities that might seem restrictive (use of technical controls and parental monitoring) but are better interpreted as building a safe framework precisely so that children's positive uses of the Internet can be encouraged (Livingstone et al. 2017, p. 98).

Strategies that involve using software to block children's access to certain apps or parental monitoring of media content, are considered enabling because they reassure parents of children's online safety which increases their opportunities for internet use. Restrictive strategies, by contrast, can limit opportunities for children to engage online 'and may even create a negative dynamic whereby children with restrictive parents learn not to draw parental attention to their Internet use' (Livingstone et al. 2017, p. 98).

Alternative frameworks for understanding parental mediation in the context of digital media have also been proposed by other scholars who deem the 'broad monolithic categories' (Jiow, Lim and Lin 2017, p. 315) of active, co-viewing and restrictive too constraining. Jiow, Lim and Lin's (2017, p. 315) study about how parents mediate older children's (12-17 years old) access to digital games identifies 'variable composite activities' based around four key strategies: gatekeeping, discursive, investigative and diversionary strategies. As Livingstone et

al. (2017) found, these strategies do not occur chronologically or independently but rather in combination and in response to different contexts of use (Jiow, Lim & Lin 2017).

Jiow, Lim and Lin (2017) found that parents who use gatekeeping strategies impose limitations and rules around game playing (e.g. restrictive strategy), but, when this strategy is used alongside a discursive approach, parents may also discuss the consequences and implications of game playing with children before determining suitable guidelines for interaction (e.g. active and restrictive). The investigative role may engage all three strategies as parents explore the suitability of children's digital games. For instance, the information they discover can be used to inform their decisions about what rules to impose or permit (e.g. restrictive) as well as provide opportunities to discuss with their children the rationale for these decisions (e.g. active strategy). Parents who are investigative about their children's use of digital media may also play the selected games with children (co-playing is used here in place of co-viewing) as a way of understanding more about their desired media content, therefore engaging in 'participatory learning', which Clark (2011, p. 325) and Zaman et al. (2016) argue, is an important yet mostly absent component of parental mediation theory. In her explication of participatory learning, Clark (2011, p. 335) emphasises the important role parents play in socialising children's digital behaviour through co-use. Participatory learning, she says, 'encourages parents to be listeners and co-creators who invite their young people to serve as leaders and guides into experiences with gaming, mobile phones, and social networking, among other things' (Clark 2011, p. 335).

The final approach that Jiow, Lim and Lin (2017) offer in exchange for traditional applications of parental mediation is what they call diversionary strategies – tactics that are used by parents to direct children towards offline activities. Although not strictly a parental mediation practice, parents that attempt to divert children's attention away from video gaming in favour of outdoor activities perceive physical pursuits to be 'more positive and edifying' than gaming (Jiow, Lim & Lin 2017, p. 322). Contrary to this latter technique however, several studies show that parents actually encourage children to use digital media, employing it as a digital childminder, to distract children when patience is required, such as waiting for an appointment, or to enable parents to carry out other duties (Dias & Brito 2018; Haddon & Holloway 2018; Holloway, Green & Love 2014; Kucirkova, Littleton & Kyparissiadis 2018; Nikken 2019; Zaman et al. 2016). This less restrictive style of parental mediation enables parents to set parameters around

the contexts of children's use whilst supervising it from a distance, adopting what Zaman et al. (2016) refer to as a strategy of distant mediation.

These studies illustrate that parental mediation in relation to digital media use is a dynamic and fluid process that parents adapt to suit different contexts of children's use. Van Petegem et al.'s (2019) research contributes to the field of parental mediation research by demonstrating how restrictive mediation is deployed to different degrees according to the communication style of parents. In their study about parental attitudes towards younger (3–9 year old) children's gaming practices, Van Petegem et al. (2019, p. 1380) discovered that parents adopt either an autonomy-supportive or controlling style of communication when restricting children's use and that this style affects the outcomes of parental mediation on children. Parents who use an autonomy-supportive style of parenting are empathetic to children and explain why rules are in place (Van Petegem et al. 2019, p. 1380). This style of parenting enables parents to implement restrictions in a supportive way and in discussion with children, which leads to a greater sense of autonomy in children and lower levels of risky online behaviour. Parents who use higher degrees of restrictive mediation (e.g. setting more rules) but adopted an autonomy-supportive communication style perceived positive outcomes from children's digital media use and experienced less resistance to the rules that were agreed with children (Van Petegem et al. 2019, p. 1386). In contrast, parents who use a controlling style may use threats to elicit obedience which can disempower children and increase the likelihood of defiant behaviour and parent–child conflict (Van Petegem et al. 2019, p. 1380). One example of this parenting style is seen in the relatively recent phenomenon of 'digital grounding', wherein parents temporarily confiscate or ban children's access to digital media (Auxier et al. 2020, p. 41). Van Petegem et al.'s (2019) study highlights that parents who perceive more negative perceptions about children's digital media use tend to adopt a more controlling style of mediation, whereas the converse is true of parents who have more positive attitudes and are thus more supportive of children.

An important contextual factor that can also influence the style and frequency of mediation is parental gender and is an important element that relates to my own study. Mothers are shown to be more involved in children's internet use and talk with them more about their interactions compared to fathers (Festl & Gniewosz 2019, p. 1778; Warren 2017, p. 496) and more regularly mediate children's internet practices, using active and restrictive strategies (Livingstone et al.

2017, p. 92; Warren 2017). Mothers also practice what Livingstone et al. (2017) refer to as parental monitoring of children's digital media use, such as getting siblings and relatives to friend and follow their children on social media or friending children themselves (Page Jeffery 2020a, p. 6). Some research shows that mothers deploy restrictive and controlling strategies, such as limiting the number of friends that children can have on social media, requesting the removal of anyone they consider to be unsuitable (Symons et al. 2017) and setting up children's social media accounts without revealing passwords to children (Mascheroni et al. 2014, p. 449). Although the findings pertaining to mothers in these studies were incidental to the broader focus on parental attitudes and management of children's digital media, they nonetheless highlight the need to explore more fully how gender and parental mediation intersect.

Beyens and Eggermont's (2017) study for example, highlights important factors specific to mothers that may affect the way they manage children's digital media use. Although their study did not consider parental mediation specifically, the researchers adopted a life-logistics perspective to understand how structural constraints impact mothers' mediation of young children's television use (Beyens & Eggermont 2017). They found that when mothers experienced time pressure resulting from the demands of paid work and parenting, children's consumption of television increased. Conversely, when they felt more in control of work, children's media consumption decreased (Beyens & Eggermont 2017, p. 711). As other research has noted, these findings suggest that mothers' mediation of children's media use is influenced by levels of stress and restrictions of time caused by multiple roles and responsibilities (Warren & Aloia 2019).

As this review of literature shows, children's digital media use is redefining the way parental mediation is theorised and performed by parents in the home. However, Lim (2016, p. 28) highlights that parental mediation research tends to focus too much on media content and children's patterns of consumption instead of considering a broader set of circumstances that entangle families with media. She recommends researchers 'adopt a more encompassing approach that captures the high level of connectivity and persistent media consumption environment that families and young people increasingly inhabit' (Lim 2016, p. 28). Arguing that the home is densely 'littered' with digital media that influences all aspects of family life (Lim 2016, pp. 21–22), Lim calls for a renewed focus on what she terms 'transcendent parenting', a contemporary condition that describes how 'parenting duties are on an endless

loop, where parents parent relentlessly, with little or no chance for a meaningful respite' (2020, p. 5). According to Lim (2018, p. 36–37), modern parenting transcends making decisions about how, when and which digital media children can consume, to include being attuned to the online and offline dynamics that children have with friends and the symbolic role that digital media play in forging and threatening these social relations. Furthermore, transcendent parents are expected to be always available to children by phone and to manage children's affairs, such as coordinating playdates by text or corresponding with teachers by email. Transcendent parenting has thus been 'enabled and exacerbated by the rising use of mobile media and is a parenting practice of the mobile age' (Lim 2020, p. 5).

Lim's (2016, 2018, 2020) work on transcendent parenting highlights complex issues for parents raising children in a digital home. It extends the lens of parental mediation theory to consider how children's contextual use of digital media impacts the parental experience. However, use of the verb parenting to describe the expansive responsibility of overseeing and being engaged in all aspects of children's lives implies that this work is gender-neutral. As with much parental mediation research, the focus is on how parents, in a plural sense, manage children's digital worlds. Much less is known from the mother's perspective about what this new digital socialisation or transcendent parenting role means for them, or to what extent it constitutes mothers' unpaid care work. Generic use of terms such as 'parents' or 'parental' mask the mothering work that mothers do (Smythe & Isserlis 2002) and leaves unexplored the experiences of mothers who are most likely to manage children's digital media use in the home.

One area of digital care work that is almost absent[4] from the burgeoning field of parental mediation is the issue of how mothers negotiate children's digital media use for educational purposes. It is to this issue that I now turn.

2.2.3 Mothers as digital pedagogues: an Australian perspective

Over the last two decades, digital media have become widely integrated into pedagogical practices as governments around the world implement policies to increase children's access to digital technologies in the classroom. These changes are also having spill-over effects in the home as schools extend their focus on digital learning to homework tasks.

[4] Lim's (2020) work on transcendent parenting and Lim and Soon's (2010) study of how mothers' domestication practices are shaped by children's media use are exceptions.

As alluded to in chapter 1, digital pedagogy became headline news in 2020 as the Covid-19 pandemic swept the world. Schools quickly initiated distance learning programs in a bid to minimise disruptions to children's formal education and a wealth of policy resources were made available to support teachers and parents in these new pedagogical practices[5]. The assumption that many families would already own digital media devices on which children could learn on from home demonstrates how deeply embedded digital media are in contemporary life.

Prior to the Covid-19 pandemic, international research was already indicating high use of digital media for educational purposes. Self-reported data from 15-year-old students in 42 countries indicate 72% of adolescents use computers, laptops and tablets in school and 48% use devices for homework in addition to using email and collaborative platforms to share information with other students (OECD 2015, pp. 51–59). More recent international survey data collected from more than 20,000 students aged 12–19 years and teachers from 100 countries (Cambridge Assessment International Education census 2018) shows that 48% of children use computers in schools, in addition to tablets (20%) and smartphones (42%), with a further 65% of school children reporting use of a laptop for homework.

The increased use of digital media for homework represents an additional layer of unpaid care work for mothers that appears to have been unexplored in literature concerning parents' interactions with digital media in the home. Mothers' responsibility for supporting children's learning and monitoring children's homework is not a new phenomenon as it relates to what Smythe and Isserlis (2002, p. 2) describe as 'mothering as pedagogy', a discourse that positions women 'as "natural" nurturers who are therefore "natural" teachers of their children and thus responsible for their academic, social and emotional competency'. The work of supporting children's digital learning, which can take place on various devices that also provide access to internet-enabled content and multi-media platforms, can problematise and intensify a mother's pedagogical role.

The increased reliance on digital media for educative use requires mothers to invest time and resources, both financially and emotionally, in researching and purchasing devices for school-

[5] See for example, Australian Institute for Technology and School Leadership 2020; e-Safety Commissioner 2020b; UNICEF 2020

related work and in supervising children's appropriate use. This work is time and labour intensive. Hays (1996), in her seminal and often quoted work about mothering, describes this type of mothering as intensive because it is 'child-centred, expert-guided, emotionally-absorbing, labor-intensive and financially expensive' (Hays 1996, p. 8). Intensive mothering became the dominant parenting ideology after World War II which framed child-rearing as a gendered practice, best performed by biological mothers who have the capacity to invest considerable time and emotional labour in socialising children (Hays 1996, p. 9; O'Reilly 2020, pp. 23–24). Although intensive mothering sets unrealistic expectations on mothers, and has been found to cause anxiety, guilt and stress among women who feel unable to meet these ideals, especially among mothers who work (Castro, Brady & Cook 2020; Prikhidko & Swank 2018), many mothers nonetheless perceive this approach as 'proper' mothering (Hays 1996, p. 9; Romagnoli & Wall 2012, p. 285).

Goodwin and Huppatz (2010, p. 6) explain that good mothering discourses such as these 'shape the activities of mothering, constructing and defining what mothers *do*' (original emphasis). In contemporary terms, good mothers are those who contribute to the workforce, complying with neoliberal norms about the 'ideal worker' whilst also fulfilling intensive mothering practices (Castro, Brady & Cook 2020; Goodwin & Huppatz 2010). Nevertheless, as this chapter has already highlighted, good mothering now extends to supporting and supervising children's use of digital media for pedagogical purposes, in addition to more traditional forms of learning.

In Australia, the digital pedagogical policies of many schools are intensifying mothers' experiences and reshaping the communicative practices of families. Australian schools have the highest ratio of computers to children (0.9)[6] among all OECD member states (OECD 2015). Children spend the most amount of time (more than twice the average) using devices during lessons (58 minutes) than any other OECD nation and computers are used for homework by 79% of students (the second highest nation to Denmark) (OECD 2015). This significantly higher access to digital media in Australian schools may be due to increased investment in digital pedagogy by the country's government. In 2008, a 1:1 laptop learning model was

[6] The OECD report, 'Students, computers and learning: Making connections', is a report of comparative data collected from 15-year-old students from the 34 OECD countries and 30 partner countries between 2009 and 2012: https://read.oecd-ilibrary.org/education/students-computers-and-learning_9789264239555-en#page29.

introduced as part of a $1.4 billion investment in a Digital Education Revolution (DER) initiative by the Federal Labor Government. Under the DER, every public and private school child in Years 9–12 was furnished with a personal laptop to use at school and home. In 2013, funding for the DER program ended and fiscal responsibility was devolved to state government departments to continue the program (Barrett 2013; Parliament of Australia n.d), resulting in varying levels of financial commitment and success.

In 2016, shortly after this research study commenced, the Australian Government (Liberal National Party of Australia, 2013–2015, 2015–2018, 2018–current) announced a digital transformation of its national curriculum by introducing a Technologies program with two subjects –'Digital Technologies' and 'Design and Technology' – aimed at developing children's computational skills, development of design and systems thinking and data coding skills (Australian Curriculum Assessment and Reporting Authority 2016; Ministers for the Department of Education and Training 2015). The new curriculum was applied to all school year levels from reception or foundational year (4 years old) through to Year 12 (18 years old) and was framed as empowering students 'to shape change by influencing how contemporary and emerging information systems and practices are applied to meet current and future needs' (Australian Curriculum Assessment and Reporting Authority 2016). The curriculum thus teaches children how to use digital media technologies and to facilitate innovative and creative ways of thinking, problem-solving and communicating (Australian Curriculum Assessment and Reporting Authority 2016). To help harness these skills, schools were required to incorporate digital learning and teaching practices into classroom activities and, by extension, these interactions were applied to homework tasks.

To help facilitate this process, federal government funding for education was devolved to each of the country's six states and two territory governments to invest in schools according to local need. As a result of this devolution of power, each state and territory has been able to institute their own approach, ranging from optional bring your own device (BYOD) schemes – where parents provide children with a pre-owned device – to mandated programs that require parents to purchase a laptop or tablet based on school specifications (Maher & Twining 2016; Selwyn et al. 2017; Selwyn & Bulfin 2016; Stavert 2013). Describing the differences between these two initiatives, Maher and Twinning (2016, p. 74) state that:

> BYO simply allows devices that students already "own" to be used in school and is more equitable because the device does not have to be purchased or meet specific requirements but may have social implications for children who feel their device is not as good as others.

Many schools have adopted a 1:1 laptop policy which means, 'a school expects students to bring in a specified device, which they may have to acquire in order to meet this school requirement' (Maher & Twining 2016, p. 74) which has obvious financial implications for families. Although some schools do provide laptops at no or subsidised costs, both BYOD and 1:1 programs offload the cost and management of digital media devices onto families and are usually implemented due to government cuts in school funding (Jannsen & Philipson 2015).

To take one example, in January 2018 in the state of South Australia, where the current study is set, the former government (South Australian Labour Party 2002–2006; 2006–2010; 2010–2014; 2014–2018) committed $70 million to support the implementation of 1:1 laptop initiatives that entitled each public school child in Years 10–12 to a free personal laptop for the duration of their high school studies (Coyne 2018; Williams 2018). In March of the same year, a new State Government was elected (Liberal National Party of Australia 2018–current) and by September 2018, the initiative had been cut from the state budget (see Puddy & Scopelianos 2018). This reduction in state funding forced many schools in South Australia to implement their own local policies that would facilitate equitable digital learning opportunities whilst upholding the requirements of the Technologies Curriculum.

Some of the policies that emerged following this change in government are explored in Chapter 5 but, to date, no known studies have focused on the impact that digital pedagogical practices have on parenting or, specifically, on the experiences of mothers, despite their socio-economic impact. A few communication scholars have recognised that 'more needs to be known about the broader influences of BYOD on family life and school practices and vice versa' (McLean 2016, p. 3) and have called for greater attention to be given to understanding what these changing practices might mean for parents (Keane & Keane 2018, p. 1447). However, scholarly research continues to focus on how digital policies have been implemented in schools and how efficacious BYOD and 1:1 policies are for student outcomes from an education perspective (cf. Byers, Hartnell-Young & Imms 2018; Jannsen & Philipson 2015; Maher & Twining 2016; McLean 2016; Selwyn et al. 2017).

Notwithstanding the financial, social and parental burden of digital pedagogical policies, the legitimacy of using digital media for educational purposes remains a widely contested topic, particularly in the public domain. Polarised views in Australia concern the potential for digital media to: enhance and innovate ways of learning or cause unnecessary distractions in the classroom; support or impair children's concentration and cognitive ability; increase cyberbullying or anti-social use in the playground; and, deliberate about how device use correlates with learning outcomes (Baker 2020; Jannsen & Philipson 2015; Johnson 2019; Keane & Keane 2018; also see Hu 2017 for a critical review of some of these concerns from a global perspective).

Studies that adopt a more utopian view of digital pedagogy emphasise the important life skills children acquire through use of digital media, including new and creative ways of socialising. Children who game with friends online as well as in the same room, for example, collaborate on joint tasks, develop and coordinate game strategy skills and follow instructions to complete in-game tasks (Mascheroni & Vincent 2016; OFCOM 2017; Papadakis & Kalogiannakis 2017). Games like Minecraft have commanded some scholarly and policy attention due to their potential to build skills in programming, architectural design, problem-solving and numeracy and literacy (cf. discussion of how Minecraft is perceived by parents and used for learning in schools and in the home in Balmford & Davies 2020; Karsenti & Bugmann 2018; Willett 2015). YouTube is also heralded as a space for learning new skills and for exposing children to different cultural contexts (Auxier et al. 2020).

However, research that focuses on parents' perceptions of children's digital media use for learning highlight more negative connotations centred around the contemporary problem of monitoring homework on digital devices. For example, Keane and Keane's (2018) longitudinal study with parents of children aged 12–17 years who use digital media for 1:1 learning in the classroom identified challenges for parenting that has not been accounted for in policy development regarding digital pedagogy. Parents in their study perceived laptops and iPads as distracting children from completing school-related tasks rather than harnessing learning potential. The study found evidence that 'the use of computers in general, and iPads in particular, have blurred the lines between what is homework and what is not, making life more difficult for many' (Keane & Keane 2018, p. 1462). Page Jeffrey's (2020b, p. 8) qualitative research with parents of adolescents also uncovered concerns about children's ability to

concentrate when using digital media for homework and raised questions about the long-term capacity of children to focus attention on a given task:

> The requirement that homework be completed on digital devices creates new challenges for parents concerned that their children lack the self-discipline to successfully manage their workloads on devices that also provide access to YouTube and social media.

Research in other countries identify different challenges for digital parenting. Dias and Brito's (2018) research explored the digital media use of children aged 6–7 years in Portugal and the mediation practices of parents in response to these uses. Of the 10 families interviewed, Dias and Brito (2018, p. 275) found that: 'In most cases, parents have a rather limited perception of the tablet or the smartphone, regarding them as toys or sources of entertainment, overlooking their pedagogical potential'. As with Dias and Brito's (2018) research, studies that focus on mothers' experiences of digital technologies suggest the age of children influences their perception of digital media for learning, but the extent to which mothers identify with the role of educator, and the value their culture places on technology's use for learning are also influential factors (Lim & Soon 2010; Teichert 2017; van Kruistum & van Steensel 2017).

Lim and Soon's (2010) study of Chinese and Korean mothers' incorporation of digital media into everyday practices demonstrates that cultural perceptions regarding the potential for computers to support children's digital literacy and academic outcomes is an influential factor in their appropriating technologies, regardless of mothers' own low levels of digital competence. Nevertheless, the same research (Lim & Soon 2010, p. 211) highlighted the intensive mothering practices of mothers who negotiate children's access and use of computers for school-related learning:

> …mothers found supervising computer and Internet use the most challenging as both Chinese and Korean students use IT for academic as well as recreational purposes. Hence, they had to facilitate the former, while preventing their children from going overboard on the latter.

Significantly, Lim and Soon's (2010, p. 211) study showed that the high cultural value placed on children's pedagogy required mothers 'to meet societal expectations of "good parenting" vis-à-vis regulating their children's ICT use, while bearing the burden of their children's academic achievement'.

The literature reviewed here, set against the backdrop of Australia where the current study is situated, demonstrates that compliance with digital pedagogical policies is necessary to

maximise children's learning potential. As this educative role often falls to the mother such policies reinforce intensive mothering practices by perpetuating a discourse of good parenting. As Lim and Soon's (2010) study highlighted, this discourse leaves little choice but for mothers to meet the expectations of schools, and society more broadly, to avoid feelings of inadequacy and shame about failing to provide a pedagogical role to children.

Despite the numerous implications that digital education policies have for families and mothers specifically, there is little scholarly insight about how these changes are redefining the activities of mothering. There is also a paucity of knowledge about how school mandates that require acquisition of digital media devices and how children's subsequent increase in access to these for homework tasks is reconfiguring space and time in the home. Yet, these shifting practices and priorities place greater expectation on the role of mothers as pedagogues.

It remains to be known what impact the Covid-19 school closures will have on mothers as the pandemic was ongoing at the time of writing. Some researchers speculate that gender inequalities could be reduced as traditional social roles become subverted by both parents spending more time working from home (Alon et al. 2020; Hand et al. 2020, p. 4). In other cases, however, mothers are shown to bear increased responsibility for children's pedagogy and care which, for employed mothers, may require a reduction in work hours or putting careers on hold (Heggeness & Fields 2020; Savage 2020). Certainly, early research indicates 'that it is women who have suffered most loss of employment and earnings during the pandemic' as childcare centres closed or costs became prohibitive during the health and economic crisis (Craig 2020, p. 6). The full extent of these implications for mothers may take some time to become apparent but the assumed role of mother as pedagogue contributes to these issues. In Chapter 5, I explore mothers' experiences of digital pedagogical practices in schools and provide the first known account of how this digital care work influences the home and contemporary mothering in Australia.

2.3 Chapter summary

This chapter began by reviewing dominant approaches to the study of mothers who use digital media and highlighted a tendency to focus on mothers' own use of individual devices from a predominantly feminist communication perspective. This body of research provides invaluable knowledge about the paradoxical experiences of digital interaction for mothers and identifies

ramifications for mothers who are found to both subvert and reinforce mothering ideologies. Its focus is generally limited to mothers' own direct use however, and so parental mediation research was also drawn on to understand what implications children's digital media use might also have for contemporary mothering.

As I have argued in this chapter, the nomenclature used in parental mediation literature reveals a masking of the mothering role that downplays mothers' involvement in thinking about, facilitating and regulating children's digital media use as part of their daily unpaid care work. The role of mothers as digital pedagogues emphasises just one aspect of this overlooked work.

The next chapter shifts focus to review literature that may shed light on how contemporary mothering is being transformed in the context of digital media's presence and use in the home. It reviews seminal and contemporary literature about the study of media and technology use in the home, charting changes in the way media has been conceptualised and how it is incorporated into everyday life. Chapter 3 thus outlines theoretical and epistemological approaches that are useful for exploring mothers' digital experiences as members of a household and as participants in a digital society more broadly.

CHAPTER 3: Media at home and in society

The review of literature in Chapter 2 identified gaps in knowledge about how contemporary mothering is experienced holistically in relation to the presence of digital media in the home, and its use by both mothers and children. In this second literature chapter, I introduce core theoretical concepts that are integral for understanding mothers' experiences through these three points of interaction. Specifically, Chapter 3 examines the seminal and contemporary approaches of domestication theory and mediatisation theory to explore how meanings about digital media are constructed and negotiated by mothers according to different contextual factors.

Section 3.1 charts theoretical developments in the study of media consumption in the home and highlights how gendered roles can influence adoption and use of new technologies and innovations. The section draws particular attention to the domestication of technology theory (Silverstone, Hirsch & Morley 1992), which considers how media are perceived, used and incorporated into household routines. Although the theory was originally developed to understand the significance of television for family life, the literature shows how it can be adapted for digital media contexts. Opportunities are identified for applying a domestication perspective to the current study to understand how mothers negotiate meaning about the presence and use of digital media in the home.

The literature reviewed in section 3.1 provides insight about the media consumption practices of family members at a micro-level and the role media play in forging household identities. To understand what other factors contribute to mothers' meaning-making processes, Section 3.2 draws on mediatisation research. Mediatisation theory explores how changes in communication and media interrelate with transformations in socio-cultural practices. Described as a meta-process (Krotz 2007), mediatisation is a contemporary condition that explains how media have become indispensable for everyday communicative actions on a macro-scale. The review of literature in this section suggests a synergy between mediatisation and domestication research as both are concerned with how meanings about media are produced, negotiated and resisted. However, a mediatisation approach enables changes in contemporary mothering to be explored in relation to media's perceived role in society. The chapter argues that contemporary mothering can be better understood by pairing the

methodological rigour of the domestication framework with the theoretical concept of mediatisation.

3.1 Situating media in the home

This section reviews literature about how media were studied in the home from the end of the 20th century when the mothers in this study were growing up. The seminal work of media scholars and cultural theorists who guided the development of television studies (Brunsdon & Morley 1978; Williams 1974) and domestication research (Silverstone, Hirsch & Morley 1992) highlights media as culturally situated in the home, playing a key role in defining or reshaping the family household. Although mothers were rarely a focus, gender nonetheless emerged as a significant factor in how family members experience media in the home, with some studies emphasising that media is constructed, adopted, managed and used according to gendered patterns of participation (Lim & Soon 2010; Livingstone 1992; Silverstone 2006).

The literature reviewed in this section demonstrates the seminality of this media work and outlines its currency for exploring and analysing the experiences of contemporary mothers in the context of a digital home. It also contextualises the study's focus on the domestic environment where much mothering takes place and where meanings about media are often formed and negotiated.

3.1.1 Television studies

By the 1960s and 1970s, televisions had become a common object in many households. Their size and weight required sets to be placed in a fixed position in a communal room, around which families would gather to watch the same program (Hiniker, Schoenebeck & Kientz 2016). Compared to the diverse viewing options of the 2020s (see Section 3.2.5 for a discussion of these differences), only a handful of channels were available, and programs were only broadcast during limited periods of the day and evening. Television research during this time was prolific, particularly among mass communication scholars in the US who positioned audiences as passive victims of television content and explored the potential for television to influence consumer behaviour (Neuman & Guggenheim 2011; Newman & Levine 2012, p. 156).

In Britain, however, a different approach was emerging. Raymond Williams (1974), a British cultural theorist, began theorising the television as a cultural form that is embedded within the fabric of the home. Challenging the canons of media effects research, Williams' (1974, pp. 7–8) reframing of the study of television attempted to move researchers away from technologically determinist perspectives that technology drives social processes. Williams (1974) recognised the inherent power structures at play in the research and development of technologies, such as the economic benefit of using TV advertisements to increase profits by bringing the products closer to the consumer (Laing 1991, p. 163; Williams 1974, p. 34). However, as Silverstone (p. xi, in Williams 2003) notes in his introduction to Williams' republished work, Williams also believed consumers have 'the power to disturb, disrupt and to distract the otherwise cold logic of history and the one-dimensionality of technology'.

Williams (1974) considered television, and the ideologies and hegemonic messages it communicates, as a site for negotiating meaning by audiences based on various socio-cultural factors and contexts at macro-, meso- and micro-levels. His research emphasised how family members actively negotiate meaning from the media they consume in the home, and that these meanings are interpreted via a myriad of contextual factors. Emphasising the embodied nature of media technologies like television to become culturally connected to the home and the world outside, Silverstone (p. x, in Williams 2003) explains that Williams' work provides:

> …a technologically and institutionally discrete form of cultural framing and expression, one which can only be understood in situ, as it were, as in turn an expression of wider social, political, and economic forces.

Following Williams' ideas about audiences and the culturally-situated experience of watching television was the work of British scholars from the Centre for Contemporary Cultural Studies (CCCS). Under the directorship of Stuart Hall, audience research studies were being conducted to explore how social, cultural and economic variables impact the television viewing practices of households (Morley & Brunsdon 1999). Hall's (1973) seminal work on audience reception theory and encoding/decoding was hugely influential in changing the focus of media research from an effects-focused model to one that stressed the active role of audiences in constructing meaning from and through the act of watching television (Morley & Brunsdon 1999). The television set, for example, was promulgated as symbolic of the 'family hearth' (Morley 1988, p. 2) – a centre-piece around which members would come together to co-view programs in the comfort of the home. Because television viewing was considered significant for constructing

family life, the home was emphasised as an important research site in which to observe peoples' lived experiences with television media. Put simply, as Morley and Silverstone so emphatically state, 'we watch television in our homes' (1990, p. 33).

The first major study by the CCCS that demonstrated how audiences make meaning from their media consumption was a longitudinal ethnographic study that observed and interviewed audiences who watched the British current affairs and vox populi show, *Nationwide* (Brunsdon & Morley 1978). The *Nationwide* program was thought to capture and symbolise the ordinary, mundane and everyday lives of people living in 1970s Britain. It thus provided an opportunity for the researchers, Charlotte Brunsdon and David Morley, to analyse how audiences, with different political affiliations and cultural and socio-economic backgrounds, responded to the ideological messaging of the show.

The *Nationwide* project was conducted in two parts. The initial study (Everyday Television: *Nationwide*, Brunsdon & Morley 1978) examined the textual content of the program and provided the theoretical framework for the subsequent empirical study of audiences, The *Nationwide* Audience (Morley 1980). The textual analysis revealed that representations of minority groups were excluded from the show and that women were portrayed as home-keepers and men as wage-earners (Brunsdon & Morley 1978, p. 110–113). Although the program projected dominant ideologies about race and gender in British culture, the audience analysis, which was based on Hall's (1973) reception theory, identified that audiences accept, negotiate or oppose the dominant ideological interpretation (or reading) of the program based on the different characteristics of the audience. This seminal study was significant in highlighting how different contextual factors influence the meaning-making processes of television audiences, thus emphasising media as socially constructed. Nonetheless, as Morley and Brunsdon (1999, p. 9) acknowledged, the *Nationwide* project, and the studies that followed, did not adequately address the implications that gendered patterns of media use has for women, nor did they give credence to the contested meanings of the home by different family members:

> For the world of *Nationwide,* as ETN [Everyday Television: Nationwide] reveals, although addressing the viewer at home, is a world in which home is the place of leisure. This, as feminist work of the period insisted, is not how the home seems to the domestic labourer. Thus, although the shift to *Nationwide* did involve an interrogation of the constitution of the political, we were perhaps not fully in command of some of the implications of this move.

3.1.2 Technology constructs and gender

Some researchers started to turn attention to the gendered implications of technology use. Morley (1988, p. 140) was among these scholars who, following interviews with families about their television habits and program choices, found media consumption was attributed to domestic power relations in the home. His study explored the gendered dimensions of television viewing and discovered that gendered roles are reinforced in the television habits and program choices of family members through the 'moral economy' of the household:

> … the home is primarily defined for men as a site of leisure – distinction from the 'industrial time' of their employment outside the home – while the home is primarily defined for women as a sphere of work, whether or not they also work outside the home. This simply means that, in investigating television viewing in the home, one is by definition investigating something which men are better placed to do wholeheartedly, and which women seem only to be able to do distractedly and guiltily, because of their continuing sense of domestic responsibility.

Morley (1988) implicates the home as a gendered space by highlighting it as an environment that limits women's opportunities to engage in leisurely use of technologies, a point that is pertinent to the current study's focus on mothers. Morley points out in later work (1992, p. 219) that technology use in the home is gendered not because of any biological or essentialist attributes but because technology use is incorporated into 'culturally defined patterns' of male and female.

Livingstone (1992)[7] also explored the different ways men and women construct meaning from technology use in the home. Livingstone's (1992) qualitative research considered how a range of media and domestic technologies in the home, including the television, telephone and washing machine, are incorporated into daily routines. Livingstone (1992) interviewed heterosexual couples about their attitudes towards these technologies and found that four constructs were most relevant to their understanding of media and domestic technologies: *necessity, control, functionality* and *sociality* or social interaction (1992, pp. 117–122):

- *Necessity* concerns the level of perceived indispensability that a technology represents

[7] Livingstone's (1992) work was published in *Consuming Technologies: Media and Information in Domestic Spaces* (edited by Silverstone & Hirsch 1992), the same book in which Silverstone, Hirsch & Morley's (1992) work on domestication appeared.

- *Control* relates to the sense of either losing or gaining control of family or domestic life via use of technologies
- *Functionality* is constructed from perceptions about a technology's utility
- *Sociality* refers to a technology's potential to enhance or limit interaction with others (Lim & Soon 2010, p. 209; Livingstone 1992, p. 117–118).

Livingstone (1992) found that women and men's patterns of interacting with technology are socially constructed based on perceived levels of relevance and usefulness to their lives, perceptions that are intrinsically tied to gender roles. The telephone, for example, was considered a *necessity* by women because it connected them to the outside world and provided opportunities for *social interaction.* The *control* construct was identifiable in the way women spoke about domestic technologies as enabling them to regulate household tasks and were perceived as *functional* because of their potential to support household management. Women thus constructed technology as situated and symbolic, and as connected to and reflective of their sense of self (Livingstone 1992, p. 121). As Livingstone (1992, p. 120) noted about her findings:

> Their [women's] concern is how the object allows them to function in their everyday lives. They thereby acknowledge the contextual meaning and value of objects for them: they tend to refer outwards to domestic practices when justifying object use rather than pointing out its inherent properties, its modern features or its price tag.

By contrast, men constructed meaning about technologies in terms of the level of control they had over access and consumption of media, such as control of the television remote or use of headphones to block out their surroundings, and engaged with technology as a form of stimulation or substitution for human interaction instead of seeking sociality. For men, as Livingstone (1992, p. 120) points out, 'meanings seemed to lie within the object, not within their lives, and were thus presented as obvious and natural'.

3.1.3 Domestication of technology theory

Livingstone's (1992) work on technology constructs was published in a seminal text (edited by Silverstone & Hirsch 1992) that foregrounded the domestication of technology theory (herein referred to as domestication) (Silverstone, Hirsch & Morley 1992). The term 'technology' has broad connotations but was most frequently used in relation to how media technologies, such as the television and telephone, are consumed in households. One of the legacies of

domestication theory was the double articulation of media, defined as: 1) a material object or artifact that is researched and then purchased, and 2) a symbolic text or content that is consumed by households (cf. Hartmann 2009; Livingstone 2007; Silverstone 1994; Silverstone, Hirsch & Morley 1992). This original conceptualisation of media was later expanded to include a third articulation that reflects the diversity and complexity of media use in digital contexts, a point I return to in Section 3.1.5.

First proposed and developed by Silverstone, Hirsch and Morley (1992), domestication theory considers the process of adapting to or domesticating (taming) new (media) technologies in the context of the home. In their seminal work, Silverstone, Hirsch and Morley (1992, pp. 18–23) produced a domestication framework which comprised of four elements: *appropriation, objectification, incorporation* and *conversion*, where each element indicates different (but not mutually exclusive) stages of the domestication process. These elements provide an 'integrative frame for the consideration of household practices and relations and the consumption and use of information and communication technologies, as objects and as media' (Silverstone, Hirsch & Morley 1992, p. 14). The domestication framework allows examination of the media's role in the 'rituals, rules, routines and patterns' of everyday life in the home (Berker et al. 2006, p. 1) and provides a helpful tool for exploring how mothers make meaning from media.

According to domestication theory, media find their significance in a home when a transaction of meaning has occurred among family members regarding how media will be appropriated and used (Silverstone 1994; Silverstone, Hirsch & Morley 1992). *Appropriation*, the first element[8] in the domestication process, refers to the planned acquisition of media, such as the act of researching and deciding what to purchase (Haddon 2011; Matassi, Boczkowski & Mitchelstein 2019; Scheerder, van Deursen & van Djik 2019) and its actual acquisition. Because this process does not always lead to the acceptance but rather the rejection of new technologies, appropriation also 'includes the discourse and imagination about an artifact' (Matassi, Boczkowski & Mitchelstein 2019, p. 2185). External influences, such as advertising

[8] Although there are four distinct elements in the domestication framework, the concept is processual and constantly changing based on different meanings about media and the contexts in which they are used. Not every element is necessarily experienced for domestication to take place, especially *conversion*, although the process always begins with appropriation (Haddon 2011; Peil & Röser 2014).

and marketing campaigns about the latest media device, for example, can contribute to consumer decision-making and appropriation practices (Silverstone 2006, pp. 233–234) and may also be influenced by the collective meaning that household members assign to those media. As Bober, Hynes and Lau (2016, p. 324) observe:

> The reasons for acquiring a technological device are a critical part of the domestication approach as they constitute the first phase of meaning making even before the device is purchased, with future owners imagining how they could use a device and how it would enhance their lives.

In addition, societal changes that have contributed to media technologies becoming indispensable for everyday tasks can increase their appropriation. As Hynes and Rommes (2006, p. 132), discovered, awareness about the importance that internet use has for things like employment or children's education is a key factor that motivates appropriation and use of computers in the home:

> It seems that the increased visibility of ICTs in all aspects of daily life, from work environments to domestic spheres, has generated a perceived pressure for people to gain technological competencies and computer literacy in order to maintain a grip on society.

The second element in the domestication process is *objectification* which occurs when media are placed and used within specific locations in the household. This domain also relates to the time people spend familiarising themselves with an artifact's functionality, actions that reflect their symbolic value in the home (Haddon 2006; Lim & Soon 2010). Objectification reveals the status or cultural capital that media technologies represent and the shared meanings they invoke across households (Lim & Soon 2010; Livingstone & Sefton-Green 2016; Silverstone 2006), meanings that might be expressed through their overt physical display in the home or by their concealment. Haddon (2006, p. 197), for example, found that in the 1990s: 'Some, mainly middle-class, households resisted large screen TVs or satellite dishes because of the potential message it would give to outsiders: "They'd think we're the type of people who watch TV all day!"'. Where and which media are placed in the home can therefore reflect how they are perceived by family members. Haddon (2006, p. 197) further elaborates this point by reminding us that:

> …domestication research has demonstrated time and again that both individuals and households develop strategies to control technologies, in the sense of both controlling the use by others and controlling the place of technologies in one's own life. This, in turn, relates to the type of life, and indeed identity, to which people aspire.

Putting in place measures that help control the presence and use of media in the home is thus one of the hallmarks of objectification.

Incorporation occurs when technology use becomes ritualistic, forming an integral and interconnected part of the household. This domestication process is most concerned with how people fit digital media 'into their temporal routines and why they use them at certain times' (Haddon 2020, p. 16). Conversely, technologies that are not perceived as supporting or enhancing routine life will not be incorporated into individuals' use and may even be de-domesticated (Morley 2003; Watulak & Whitfield 2016). Because of its connection to routinised practice, incorporation concerns 'the temporal patterns of domestic life' (Silverstone 2006, p. 234) wherein people use media technologies around their own needs and those of the household. People who work from home, for example, might quarantine time for work-related computer use to when children are at school or cease using the computer when a partner returns home, thus establishing these routine interactions as temporal markers of (dis)use (Ward 2006, p. 156). The incorporation process is thus negotiated according to how compatible technology use is perceived to be in relation to existing roles, rules and routines in the home.

Conversion, the fourth element of Silverstone et al.'s (1992) domestication framework, reinforces incorporation processes. Conversion occurs when people convert media into something useful and applicable to their lives by recognising it as an extension of self and as something that reflects their values and beliefs (Haddon 2011, p. 313). Conversations with people outside the home about a favourite TV show for example, or a demonstrative display of the functions on a new device are examples of how technologies are converted into something of value and connects the private self with a public self (Lim & Soon 2010; Morley 2003; Scheerder, van Deursen & Dyjk 2019; Silverstone 2006; Silverstone, Hirsch & Morley 1992). Bakardjieva (2006, p. 67-68) points to the obscurity of this dimension compared to the other elements of the domestication framework but highlights blogsites as 'the best expression of conversion of private meanings into public items'. Using Bakardjieva's (2006) example, mothers who use blogs to externalise their personal experiences of mothering, as the previous chapter explored, reveal they have reached the conversion phase of domestication because blogs are interceded with their mothering identity. 'Such "talk"', as Silverstone, Hirsch and Morley (1992, p. 23) point out, 'provides a mechanism for the individual to become a member of a peer-group culture' that extends beyond the private bounds of the home whilst remaining

symbolically connected to it through media. In essence, conversion occurs when media use is so deeply embedded that users 'display their ownership and expertise in a public context' and thus contribute to the domestication processes of others (de Schutter, Brown & Abeele. 2015, p. 1172).

In summary, domestication theory illustrates how members of a household negotiate meaning about technologies and highlights the processes people go through when determining how technology use fits into their lives (Haddon 2020, p. 15).

3.1.4 Technology acceptance and diffusion models

The review of literature about media in the home thus far contributes to our understanding about different factors and reasons why people adopt and incorporate technology in the home. Two theoretical approaches that further strengthen this understanding derive from Rogers' (1962; 2003) diffusion of innovations theory and Davis' (1989) technology acceptance model.

Principally a behavioural science theory, diffusion of innovations explains how people accept (adopt) or reject new innovations according to five perceived characteristics of that innovation: *relative advantage*, *compatibility*, *complexity*, *observability* and *trialability* (Rogers 1962; 2003). Rogers posits that new ideas, products, technologies or initiatives – such as the introduction of health or educational programs – are diffused or spread among members of a social system through discussion and adoption of the innovation (Rogers, 2003, p. xvii; also Min, So & Jeong 2019, p. 772). Diffusion occurs following acceptance and adoption of the innovation by a social group in a similar way to the conversion stage in the domestication process.

The technology acceptance approach is a user behaviour model that was developed at a time when computer use was increasing in the workplace. To understand what motivates employees to accept or resist technological and systems changes, Davis (1989, p. 319) devised measures to ascertain 'key determinants of user acceptance'. Two attributes, *perceived usefulness* of an innovation to support or enhance one's performance and *perceived ease of use* regarding the amount of effort required to learn and use a new system (Davis 1989, p. 320) were identified as 'the specific determinants on intentions and use frequency (or adoption)' (Aitkin, Hunt & Lin 2015, p. 631). The synergies between the technology acceptance model and diffusion of

innovations theory are highlighted in Davis' (1989) own work and other more contemporary studies (Aitkin, Hunt & Lin 2015; Min, So & Joeng 2019).

The discussion that follows explicates the five attributes of innovation in conjunction with its corresponding constructs from the technology acceptance model, which provide additional depth for interpreting how mothers experience life in a digital home.

Relative advantage relates to the extent a person perceives a technology to be superior or more useful than earlier versions of the innovation (Aitkin, Hunt & Lin 2015; Ilie et al. 2005; Min, Fung So & Jeong 2019). A particular model of smartphone that enables enhanced messaging features or provides a better broadband deal with a faster and more economical internet connection may be perceived by mothers as offering greater advantage over other models because it enables them to coordinate family life more efficiently. In terms of the technology acceptance model, its *usefulness* for performing and achieving everyday communicative tasks may be influential in mothers' decisions to appropriate and use a particular model of phone.

Compatibility is 'the degree to which an innovation is perceived as consistent with the existing values, past experiences and needs of potential adopters' (Rogers 2003, p. 241). Rogers (2003) observed that early mobile phones were perceived by adopters as an extension of existing fixed-line telephones which had already been incorporated into users lives. Meaning about the telephone and its existing compatibility was therefore transferred to the mobile phone, along with perceptions about its additional benefit for expediating communication. As other studies with mothers who use mobile technologies have found (Livingstone 1992; Longhurst 2016; Rakow & Navarro 1993), the ability to engage in paid employment, household management and social interaction with children, family and friends makes the phone compatible to mothers' needs.

When an innovation is considered too *complex* in its design or use the adoption process can be inhibited. Keeping with the example of the mobile phone, when users perceive difficulty in navigating the various functions of the latest model and anticipate an exertion of effort, they are likely to reject it due to a perceived lack of self-efficacy (Aitkin, Hunt & Lin 2015; Ilie et al. 2005). Conversely, the technology acceptance construct of *perceived ease of use* can positively influence adoption of new innovations. Whether mothers perceive digital media as

complex or easy to use may therefore influence how and to what extent they are domesticated in the home.

The characteristic of *observability* concerns 'the degree to which the results of an innovation are visible to others' (Rogers 2003, p. 258). This attribute has two elements – the first correlates with perceptions about how popular (visible) an innovation is based on its widespread adoption in a social system and the second corresponds with the outcomes associated with those levels of adoption (Ilie et al. 2005, p. 16). Observing the pervasive diffusion of a social media app, for example, may be a motivating factor in mothers' adoption of the technology, which they relate to enhanced opportunities for social interaction.

Trialability relates to the testing of an innovation on a temporary basis prior to its adoption (Rogers 2003, p. 16). Contemporary examples of how digital media technologies become adopted include trying out a friend's mobile phone or accepting a seven-day free trial for new software or to a video streaming platform. In the context of mothering, trialability may also apply to their experimenting with digital media technologies and content prior to allowing its adoption by children.

Digital media that are promoted as compatible, useful, popular and easy to use, supported with a strategy of trialability, can mitigate a potential adopter's perceptions about their complexity, thus increase their adoption in society. Because of its potential to predict and influence consumer decision-making, the diffusion of innovations theory, and associated technology acceptance model, has been widely adopted by marketing and advertising industries (Rogers 2003, p. 83). However, a limitation of the diffusion of innovations theory is that it 'does not focus on actual use in everyday reality, but on the process an innovation diffuses within a social system' (de Reuver, Nikou & Bouwman 2016, p. 349). Domestication theory, on the other hand, centres attention on users' ongoing interactions with media and can 'reveal the complicated cultural dynamics in which users come to own, use, modify and appropriate technology' (Sovacool & Hess 2017, p. 715).

In the final part of this section, I return my focus to domestication theory and outline how contemporary shifts in digital media production and consumption means the original domestication framework has required a broadening of its focus to account for media convergence and the diversity of digital contexts in which digital media are experienced.

3.1.5 Domestication in times of media convergence

In the early days of domestication research, the television became a central source of interest to scholars who recognised how family practices are organised around the presence and consumption of television (Morley 1988). In the decades since Silverstone, Hirsch and Morley's (1992) seminal work was published, the TV has undergone a significant transformation in its form and function and has created new meanings for households. The contemporary television experience is not restricted to watching content on a single set or device according to a broadcast schedule. Rather, television viewing can occur on demand via subscription to media streaming services through an internet connection 'on different platforms and technical devices' (Mikos 2016, p. 155). As early as 2003, Morley (2003, p. 444) reflected on changes in the consumption practices of households, noting how television was being redefined across all aspects of its content, materiality and viewer experience:

> It is in this context that we need to address the long history of TV's domestication, as we trace its journey from its initial position as a singular 'stranger', allowed only into the most public/formal space of the house (in the living room), through the development of the multiset household and TV's gradual penetration of the more intimate spaces of our kitchens and bedrooms, to the point where the new individualized/personal media delivery systems, in their latest portable and miniaturized forms, might more properly be conceptualized as 'body parts'.

The fact that TV is symbolically connected to people's identities, seen here as 'body parts', demonstrates how meaning about the social world continues to be constructed through an ethereal or perhaps nostalgic experience of television. But Morley's comment, even in 2003, also draws attention to how domestication research is shifting its focus in response to media convergence.

The term media convergence is used as a metaphor to describe the complex set of 'technological, industrial, cultural, and social changes' that have occurred in the production and consumption of converged media (Jenkins 2006, p. 2; also Mikos 2016, p. 155). The concept of media convergence has been paralleled with Castells (2010, p. xviii) work on the 'network society' (see Thimm 2017), which emphasises how publics and institutions are connected via a multifaceted system of media and communication:

> The shift from traditional mass media to a system of horizontal communication networks organized around the Internet and wireless communication has introduced a multiplicity of communication patterns at the source of a fundamental cultural transformation, as virtuality becomes an essential dimension of our reality.

Although power struggles are identified in convergence studies around the potential for media institutions to monopolise more control over consumer choice, attention is also given to the positive affordances of living in a networked society (Castells 2010) as Thimm (2017, p. 104) points out:

> Media convergence has empowered users to produce and distribute their own content, with on-demand and mobile services open access to millions of websites, and users can engage with one another or with many others via peer-to-peer technologies.

Recognising the complex media network connecting societies, Morley (2003, p. 445) called for a 'move beyond media studies' historically rather exclusive focus on TV so as to also address the contemporary significance of a broader range of communications technologies'. Further to this recommendation, some scholars have called for a revision to the double articulation of media, discussed earlier as object and content, to include a third articulation that accounts for the multiple contexts in which digital media are constructed, consumed and embedded in people's lives (Courtois et al. 2011; Hartmann 2006). Domestication scholarship has thus extended the focus and scope of research to examine differences in domestication processes in times of media convergence. The smartphone, for instance, 'transcends spatial and temporal limitations' associated with media use in the home and thus requires more nuanced analyses of domestication by users (de Reuver, Nikou & Bouwman 2016, p. 351; Haddon 2020).

Several studies demonstrate how the domestication framework has been adapted to digital contexts, particularly in relation to the smartphone. The domestication dimensions of appropriation and objectification for example, can be observed in the way people acquaint themselves with the functions of a newly acquired device (de Reuver, Nikou & Bouwman 2016), or the time they spend using devices or social networking applications for specific tasks (e.g. Matassi, Boczkowski & Mitchelstein 2019; Watulak & Whitfield 2016). Incorporation is reflected in the way that in-built smartphone functions, such as alarms, calendars and SMS messaging, are used to create new routines and to support the organisation and micro-coordination of everyday life (Bober, Hynes & Lau 2016; de Reuver, Nikou & Bouwman 2016).

The conversion dimension is harder to reify in studies about the smartphone and digital media more generally (e.g. Matassi, Boczkowski & Mitchelstein 2019; Schutter, Abeele & Brown 2016). Bakardjieva (2006, p. 67-68) points to the obscurity of this dimension compared to the

other elements of the domestication framework, proffering blogsites as 'the best expression of conversion of private meanings into public items.' This example of conversion bears some symmetry to the literature reviewed in chapter 2 about how mothers who blog engage in a display and negotiation of mothering identities. If conversion of media indicates a sense of 'membership and competence in public culture' (Silverstone, Hirsch & Morley 1992, p. 23), it may be that the conversion process vis-à-vis mothers is also evident in acts such as recommending parenting websites or apps to other mothers.

Few domestication studies have, to date, focused on the issue of domestication in the context of mothering, even though gender has previously been identified as an important factor in shaping how meanings are constructed about media (e.g. Livingstone 1992; Morley 1988). As alluded to in Chapter 2, Lim and Soon's (2010, p. 213) early study about the domestication practices of mothers in China and Korea emphasises how appropriation processes are tied to mothers' unpaid care work in the home:

> …mothers played a significant role in technology domestication because they typically ran the household, were their children's primary caregivers and were thus heavily involved in raising and nurturing them. Principally, they had some influence over product acquisition and were mainly responsible for supervising the children's ICT use. Notably however, cultural conceptions of motherhood and maternal responsibility, the premium placed on academic achievement by children, as well as the two societies' highly positive outlook on technology greatly influence how Chinese and Korean mothers use and supervise their children's use of ICTs.

Lim and Soon's (2010) study has been influential in my own research as it highlights how children and perceptions of good mothering can influence the appropriation practices of mothers. Importantly, it emphasises how mothers negotiate different meanings about media when they use it themselves as opposed to those they construct about children's use. By adopting this fluid approach, Lim and Soon (2010) also combat one of the problems associated with domestication research – that it is principally a media appropriation concept (Hartmann 2009) that focuses on 'what happens with media and technology when they are acquired and used' (Berker et al. 2006, p. 1). Furthermore, rather than focusing on the use of individual media devices or platforms, as many domestication studies have, Lim and Soon (2010) emphasise the role socio-cultural factors have in shaping mothers' domestication practices.

Hartmann (2009) recognises the need to focus less on how technologies and texts are consumed and more on examining how changes in social attitudes and media's perceived role in society can influence media practices in the home. As Haddon (2006, p. 199) points out:

> …domestication analysis tends not to try to prove the existence of social trends in ICT consumption and lifestyle, such as the extent to which people's time use is altering, changes in their ability to range over space, the way they maintain social relationships, etc.

In his later writings, however, Haddon (2011, p. 319) comments that to understand the centrality of media in people's lives and how it has become so indispensable for everyday life, domestication research would benefit from 'a more macro-analysis of trends over time'. In this study, I propose, as others have (see next section), a fusion between domestication theory and mediatisation theory to better understand how issues of media convergence, context and media-related social change contribute to mothers' communicative experiences in the home. The study adopts a 'transmedial' or 'non-media centric' perspective (Deacon & Stanyer 2015; Hepp & Krotz 2014; Hepp, Berg & Roitsch 2014; Jansson 2013) to acknowledge that 'different media are in their entirety involved in our changing communicative construction of culture and society' (Hepp 2013, p. 627). The next section critically reviews the burgeoning field of mediatisation theory and further illustrates the benefits of combining this approach with domestication.

3.2 Media in society: perspectives on mediatisation

Mediatisation research seeks to understand how social worlds are formed through human interaction with objects, institutions and other actors (Andersson 2017; Couldry & Hepp 2016; Hepp & Krotz 2014; Jansson 2015; Knoblauch 2013) and 'how social practices change when they are entangled with media' (Hepp 2020, p. 8). Domestication and mediatisation scholars have observed the complementary agendas of these two approaches, noting how domestication theory provides a pre-condition for examining mediatisation processes at the micro level of everyday life (Hartmann 2009, pp. 238-239; also see Andersson 2017; Ekström et al 2016; Hartmann 2014; Peil & Röser 2014). The domestication approach, for example, with its focus on routinised use of media in the home, 'helps to analyze the manifestations of cultural change within the mediatized world of the home' (Peil & Röser 2014, p. 246).

This section explores scholarly explications of mediatisation from the last two decades, highlighting its abstraction as both a theoretical approach and a meta-process. Literature about mediatisation is expansive but it generally corresponds to two prominent theoretical traditions – institutionalist and social constructivist approaches (Couldry & Hepp 2013; Hepp 2020; Hepp & Krotz 2014; Rocamora 2017). Section 3.3.1 reviews literature pertaining to the institutional perspective by highlighting how media logics are thought to shape the media processes and

practices of social institutions like politics, religion, education, and fashion. Research in this domain demonstrates how deeply embedded into the structure of society and culture media have become. Section 3.3.2 reviews literature that considers the impact of mediatisation from a social constructivist position at the micro level of everyday life. Here, mediatisation processes are considered to be highly contextual and often observed as changes in communicative practices as people accommodate or adapt to new ways of living with digital media (Hepp 2013, p. 618).

Section 3.3.3 reviews critical arguments by media and cultural theorists about the strengths and limitations of mediatisation as theory and process. Contentions are revealed about how to bridge the two traditions and make more visible its abstract diffusion in society and everyday life (Deacon & Stanyer 2015; Ekström et al. 2016; Jansson 2018). An amalgamation of mediatisation with domestication is identified as a possible analytical solution.

In Section 3.3.4 the chapter concludes by drawing attention once more to the micro-context of the home, emphasising it as a mediatised space. Although scholarship in this domain is still emerging, opportunities exist to witness and comprehend moments of mediatisation in mothers' lives by exploring the family as one of many communicative figurations that mothers belong to, and in which digital media entanglements occur. No studies have, to my knowledge, been applied to mothers but, as the following review of literature demonstrates, mediatisation suggests great scope for examining the symbiotic relationship between media in society and the role and experience of mothering in the home.

3.2.1 Mediatisation and media logics: an institutional perspective

Institutionalist approaches to mediatisation theorise that media organisations project a certain logic through the form, structure and presentation of mediated information (Althiede 2013; Hjarvard 2008). Hjarvard (2016, p.6), a proponent of the institutionalist approach to mediatisation, describes the process as one in which 'the various institutions of culture and society (family, politics, religion, etc.) become increasingly influenced by the media and their logics'. For example, social actors such as politicians need to adapt to the logic or rules of the media if they wish to be represented through media institutions (Hepp & Krotz 2014, p. 3). Mediatisation within this paradigm considers the effects that media formats have on shaping society and culture (Couldry & Hepp 2013, p. 196). As Strömbäck (2008, p. 238) articulates:

> …the media have become so important that their formats, content, grammar, and rhythm—the media logic—have become so pervasive that basically, no social actors requiring interaction with the public or influence on public opinion can ignore the media or afford not to adapt to the media logic.

Because of the influence politics and religion have on shaping societal norms and practices, mediatisation researchers have given most attention to analysing how these domains are themselves shaped by the logics of media (Driessens et al. 2017, p. 5). Research has examined speeches by political leaders to ascertain whether their delivery style, context and content are 'governed by media logic' (Johnston & Forde 2017; Strömbäck 2008, p. 235). They have also considered how political debate is managed and sometimes curated on television programs, ensuring politicians, studio audiences and online participants conform to the format and tone of a show (Flew & Swift 2015). Research about religious institutions has analysed how services, events and other religious activities respond to media logics by using cameras and social media to build a community of followers on and offline (Hjarvard 2016; Knoblauch 2013).

Education is another social domain to have received some attention from mediatisation scholars and is a locus of particular interest for my study because of its connection to mothering work. In Australia, studies have focused on how pedagogical policies and outcomes (such as school test results) are presented to appeal to parents via mass media channels, as well as shape teachers' perceptions and practices (Doolan & Blackmore 2018; Fenech & Wilkins 2019; Rawolle & Lingard 2014). A few mediatisation studies have considered the extent of digital integration in schools (Breiter & Ruhe 2018; Livingstone 2014) with less known about its impact on or connection to digital media use in the home.

Breiter and Ruhe (2018) examined the media ensembles of schools in England and Germany to understand how learning and teaching practices are shaped by the integration and use of digital resources. Stark differences were found in the constellation of media used in schools across the two countries due to differences in legal governance frameworks and the value placed on digital media for pedagogy. German schools, for example, where privacy laws prohibit use of personalised or social media, had far fewer digital resources available and teachers tended to rely on email or paper-based communication with staff and parents. Teachers in English schools, however, used the online learning management system to connect with parents and to post student grades and messages, and used social media in addition to pen and paper to communicate (Brieter & Ruhe 2018, p. 328-329). The media ensembles of these

schools, which are in themselves influenced by the educational policies of each country, were found to be a 'moulding force for changes in the communicative practices within the actor constellation of schools among staff, students and administrators as well as in contact with parents' (Brieter & Ruhe 2018, p. 314). Some studies suggest that instead of education policy triggering changes in communication processes, it is parents who are creating shifts in communicative dyads by putting pressure on teachers to interact via email and social media (Livingstone & Sefton-Green 2016; Zhang et al. 2018).

In addition to the institutionalised practices of politics, religion and education, the fashion industry provides an alternative view of mediatisation through the concept of media logics. Rocamora's (2017, p. 509) study found that the industry is much less concerned with the production of clothes or how they are modelled, instead outfits are being designed to conform to the 2-dimensional format of Instagram:

> Fashion shows are increasingly designed with social media in mind; they have become mediatized events—that is, events produced and staged with a view to being consumed online, on a digital screen.

Both high end and retail fashion outlets are responding to the logics of marketing through digital media by embracing augmented reality technologies that enhance consumer's offline experiences (Rocamora 2017). To this end, 'fashion practices have adapted to, and been transformed by, the media' and designers have become dependent on digital media to diffuse their collections (Rocamora 2017, p. 510).

Rocomora's (2017) work also extended to a brief analysis at the micro-level by considering how consumers style themselves with a 'camera-ready' attitude, offering insights about how fashion is mediatised at the point of production and consumption. Her findings illustrate how fashion consumers are adapting to the algorithmic logics of social media sites (Andersen 2018), curating a version of themselves based on what they perceive a mother should be (Archer and Kao 2018; Lopez 2009; Orton-Johnson 2017).

3.2.2 Mediatisation and the everyday: a social constructivist perspective

Social constructivist approaches to mediatisation are rooted in symbolic interactionism (Andersson 2017), an epistemology that emphasises how meanings are constructed through social interaction and a 'process of interpretation' (Blumer 1969, p. 133). Where institutional perspectives consider the influence of utilitarian or media logics on institutional practices,

social constructivist approaches emphasise the subjective experiences of actors and the constantly negotiated meanings they create about media following interaction with others (Couldry & Hepp 2016). Mediatisation research conducted within this tradition concedes that individuals have alternate and unique interpretations of reality and breaks away from the concept of media logic, fixed meanings, and assumptions that media are static and unchanging (Hepp 2020; Knoblauch 2013). Instead, the study of mediatisation from a social constructivist perspective focuses on how digital media have become indispensable to modern life (Jansson 2015; 2013) and how people's interactions with them are influenced by technical, cultural and social experiences, or what has been referred to as 'social worlds' (Couldry & Hepp 2016; Hepp & Krotz 2014). Couldry and Hepp (2016 p. 16) explain the concept of a social world in relation to digital media in their book entitled, 'The mediated construction of reality', emphasising the role communication plays in the formation of these social worlds:

> Because communication is the set of practices through which we 'make sense' of our world and build arrangements (simple or complex) for coordinating our behaviour, the communicative dimension of our practices is critical to how the social world becomes constructed.

This point is critical for the current study's focus on mothers as it identifies an opportunity to explore how mothering is experienced through communicative dimensions, or how mothers' interpersonal and digital interactions contribute to their social world. Couldry and Hepp's (2016) work repositions the concept of socially constructed worlds within a contemporary digital context, where the construction of reality is mediated through communication and media technologies. However, they distinguish the fluid and organic process of forming social worlds through and with media in direct contrast to the linear or structured approach that institutionalist perspectives of mediatisation purport:

> '[M]ediatization' is not just one type of thing, one 'logic' of doing things; indeed it is best understood as not a 'thing' or 'logic' at all, but as the variety of ways in which possible orderings of the social by media are further transformed and stabilized through continuous feedback loops (Couldry & Hepp 2016, p. 4).

Here the authors allude to the moulding forces of media (Hepp 2013) not as a causal relationship where social action is the consequence of media interactions, but where media use and social relations become intertwined in a process of interpretation and evaluation through which people construct their realities and, therefore, their social world. Andersen's (2018, p. 1139) interpretation of moulding forces from a social constructivist perspective is similar to Couldry and Hepp's (2016) explication:

> When media are appropriated and put into action by people, they can become a molding force. Media in themselves are not a molding force but depend on how they are contextualized and appropriated in given local forms of activity, culture, and by given groups of people.

The ideas of these mediatisation scholars are seen in the work of others who have concluded that meaning, and therefore interpretation and use of technologies is produced from multiple sites of interaction and through social interaction with others (e.g. Blumer 1969; Livingstone 1992; Silverstone, Hirsch & Morley 1992; Wajcman 2004), rather than prescribed or motivated by a media agenda or specific formats.

A study by Pink and Mackley (2014), for example, demonstrates the moulding forces that Couldry and Hepp (2016) speak of through their video-ethnographic study in participants' homes. Their research explored the role that technologies play in family life and found that digital media are embedded within daily rituals and routines to such an extent that they contribute to a contemporary 'sense' of home. Daily habitual interactions with different media are moulded by the different sensory benefits they are perceived to offer – the television, for example, was used as an aid for sleep, the radio as a morning wake-up call, and the mobile phone was checked in bed first thing in the morning or last thing at night. Pink and Mackley's (2014) research offer insights into the way digital media are interwoven into family practices and contribute a tacit experience to the everyday practices of the family as media become 'embodied and sensory' in the construction of home (p. 682). Pink and Mackley's (2014) study was not conducted from a mediatisation perspective, but the results reflect how meaning about media is negotiated, socially constructed and tied to routine use.

3.2.3 Criticisms of mediatisation research

Both theoretical approaches to mediatisation research acknowledge that media does not and cannot be considered as separate from the societal forces that create it, use it, commercialise it and sustain it. There is, however, some contestation about the duality of these mediatisation traditions, with some scholars calling instead for empirical research to adopt multi-disciplinary approaches that show how socio-cultural conditions trigger mediatisation processes over time (Ekström et al. 2016; Jensen 2013; Krotz 2017). Some scholars claim systematic or reductive conceptualisations (Krotz 2017; Jensen 2013) of mediatisation that compartmentalise culture as either a societal (institutional) or everyday (constructivist) phenomenon creates 'deadlocks within the field', as Ekström et al. (2016, p. 1098) explain:

> We thus find the commonplace opposition between constructivist and institutionalist perspectives on mediatization counter-productive because it tends to reproduce a dichotomized view of cultural and social life.

Another related criticism arched at mediatisation research is its emphasis on causal relationships. Deacon and Stanyer (2015; 2014), for example, have postulated extensively that mediatisation be conceived as something that occurs *with* a phenomenon, rather than *causing* an outcome. They point out that:

> It is far more common to encounter work that declares the 'Mediatization of' assorted social, political and cultural domains and processes. This is clearly revealed in the lexicon of the literature, with its abundant references to the media as 'moulding forces', 'constitutive', 'key', 'transformative', able to 'force responses' and so on. It is in these 'Mediatization of' arguments that work in this area tends towards media-centrism and causal explanations (Deacon & Stanyer 2015, p. 656).

Marcinkowski (2014, p. 9) agrees that the 'consequences of mediatisation must be thought of as unintended effects, since social change is not determined consciously or in detail'. Yet, the lexicon used in mediatisation research that Deacon and Stanyer (2015) point to emphasises the tensions in the two theoretical traditions.

Rather than adopting an *either/or* situation where mediatisation is observed from an institutional and therefore causal perspective or a socially constructivist and therefore mutually shaping approach, this thesis argues that both constituents apply to the study of contemporary mothering. For example, increased reliance on digital media use in social institutions is changing the way women mother as they face greater pressure to manage children's use of digital media in the home and become more dependent on it themselves to perform everyday functions. This process suggests a moulding of mothers' communicative experiences from an institutional perspective. At the same time, however, mothers' adoption of digital media for a greater range of communicative practices and social interactions are shaping the way they engage in certain activities and interact with others, highlighting how mediatisation is a socially constructed experience. Hepp (2020) highlights the need to converge mediatisation perspectives to better understand the current state of media-related changes in society. He argues that 'the original social-constructivist arguments need extending by, among other things, giving greater consideration to the role of institutions in the "making" of deep mediatization' (Hepp 2020, p. 9), a process he and Couldry explain has emerged as 'more and more aspects of our daily practices are saturated by new forms of mediated communication' (Couldry & Hepp, 2016, p. 16).

The question of how both institutional and social constructivist perspectives of mediatisation apply to contemporary mothering is not addressed in current literature. This inquiry provides an opportunity to contribute a critical perspective to mediatisation, as others have called for (e.g. Ekström et al. 2016; Jansson 2018), and to explore the enabling and constraining processes of mediatisation (Müller 2019) experienced by mothers in a digital home. Jansson (2018, p. 3) for example, urges that:

> Mediatization research should try, in a more elaborated way than has so far been the case, to unveil the inner tensions, ambiguities and contradictions of a society in which media technologies have become taken-for-granted parts of everyday life (to different degrees in different groups) and in which social autonomy is at risk. This is not to say that mediatization is something inherently negative; just that the concept may assist the social sciences in framing, naming and specifying the social discrepancies that evolve over time in relation to media change.

Other criticisms of mediatisation research point to the need for greater clarity about the form and function of mediatisation, highlighting that: '[b]ecause of its character as a meta-process it is indeed difficult to say exactly where mediatization "begins" and where it "ends"' (Jansson 2018, p. 3). To combat the inconsistent and contested nature of mediatisation research, some scholars recommend 'working out operationalizable elements suitable for researching mediatization in its various forms and scopes' (Nowak-Teter 2019, p. 3). Ekström et al. (2016), for example, have proposed three directions for operationalising mediatisation research that may help concretise the concept. They suggest: 1) historicising studies to demonstrate changes in communication practices over time; 2) specifying the exact conditions, circumstances and contexts in which mediatisation processes occur; and 3) measuring mediatisation by quantifying the level and type of media ownership, and how widely dispersed and indispensable media is in society. Whilst specific and measurable examples of mediatisation may be easier to identify, historicising communicative changes is a lengthy and complex process. Recognising the challenges of this latter directive, Pentzold (2018) proposes temporal scaffolding as an alternative method. Pentzold (2018, p. 929) argues that:

> …studies into the development of mediatisation have overlooked how evolving media technologies and texts have always impacted and transformed people's capacity to set temporal frameworks and perform their routines of scheduling and recalling, which have arguably been a key of everyday occupations at all times.

The notion of temporal scaffolding, 'underscores the status of time as an integral layer of social reality' (Pentzold 2018, p. 932) that can be observed through people's daily interactions with

digital media. Pentzold's (2018) ideas incorporate principles of domestication theory to show how digital media use is sequenced into the patterns and rhythms of everyday routines (p. 928).

Notwithstanding the criticisms aimed at mediatisation, both critics and exponents of the concept (e.g. Ampula, Kovisto, & Valiverronen 2014; Corner 2018; Deacon & Stanyer 2015; 2014; Ekström et al. 2016; Hepp et al. 2015) agree that researchers should conduct more empirical research from a media-centred rather than media-centric position to examine how 'non-media factors', such as political, economic and social drivers, impact society and culture (Deacon & Stanyer 2014). For Andersson (2017, p. 48), mediatisation research should be a bottom-up approach that puts the phenomenon at the centre of scholarly inquiry rather than allowing media – whether that be content, technology or institution – to guide the research agenda:

> The basic idea is that the best prerequisite for grasping the taken-for granted meaning of media in everyday life—that is, the nuanced layers of the mediatization—is to focus on everyday life rather than media. Hence, the social phenomenon or sphere of interest should be the starting point.

My study addresses some of these contentions by focusing not on which digital media devices or platforms mothers use per se, but rather the circumstances and contexts that lead mothers to interact with digital media in the home. In so doing, it de-centralises media as the foci of study as Morley (2003) suggests and re-orientates attention onto the everyday experiences of mothering through digital media.

The study unifies mediatisation and domestication to reify or make visible mediatisation in relation to contemporary mothering. According to Andersson (2017, p. 50), 'relevant research frameworks where mediatization studies are fruitfully combined with other approaches … [enable] … double theorization and let mediatization be part of a mutually reinforcing relationship with another theoretical tradition'. The domestication framework enables examination of mothers' own use and thus domestication of digital media, while mediatisation provides a wider lens through which to explore changes in mothers' communicative experiences due to media-related transformations.

3.2.4 Mediatisation in the context of family

This final sub-section concludes by reviewing literature about mediatisation processes in relation to the home and family. Empirical studies about mother's experiences of digital media are absent from mediatisation literature, but scholarship has recently started to emerge about

the communicative practices of households. Some literature for example, emphasises the increased use and reliance on digital media by families to support the functioning and organisation of the household (Hasebrink & Hepp 2017, p. 366):

> Mobile phones and digital platforms mean a lot for families, when it becomes possible to locate family members wherever they are, when family members can be reached at all times, and when family members have reference to mediated representations of themselves as a family on a continuous basis. These material possibilities of contemporary media and related infrastructures not only offer better chances of sustaining the family figuration in a particular way; they also mould our practices of communication (Couldry & Hepp 2016, p. 48).

Digital media use for 'routine communicative actions' has become a taken for granted and normalised practice (Andersen 2018, p. 1147) in households. Such transformations in the structure of family communication represent a process of deep mediatisation (Andersen 2018; Couldry & Hepp 2016; Hepp 2020). The ways that digital media have been incorporated into the household and blur the boundaries of public (work or school) and private (home) life – altering communicative practices both within and outside the home (Peil & Röser 2014) – is one example of how contemporary families experience a state of deep mediatisation.

In elaborating indispensability as an example of deep mediatisation, Hepp (2020, pp. 104–105) explains how interdependencies between culture and digital media are forged in 'communicative figurations' (also Couldry & Hepp 2017 who follow Elias's 1978 work). These figurations, says Hepp (2020), are socially constructed networks comprised of people (constellation of actors), the values shared by members of that network (frames of relevance) and the communication practices that occur within those networks. This complex networked arrangement is evidently influenced by other overlapping figurations (Hepp 2020, p. 102):

> The various institutions that make up society only exist in and through the social practices of individuals, and the individual only exists in light of the social relations in which he or she engages. Society does not consist of entities external to and independent from the individual. All social institutions are made up of individuals who are oriented to and linked with each other in diverse ways.

Hepp's (2020) quote exemplifies the need to explore a wider set of contexts and socio-cultural factors when examining the nuances of contemporary mothering in a digital setting. The family, for example, is one of many communicative figurations in which its members share a set of values and communicative practices, such as the rules, behaviours and routines that govern family life in a digital home. However, these figurations are not static but are 'constituted in the continuously changing pattern of interaction between all of those involved', and the

ubiquitous integration of digital media in different domains of everyday life means that these interactions are connected to and via digital media (Hepp 2020, p. 103). The family figuration is therefore constantly subject to communicative change as parents and children, who are members of other communicative figurations (the workplace and school, for example) bring the influence of new communicative practices into the home, reshaping the space once more. By viewing digital media as embedded within and across everyday contexts like work, school and the home, a mediatisation perspective can examine the contexts in which people interact with each other, and via digital media, and the social conditions that may influence these interactions.

The concept of communicative figurations in relation to family life links to the notion of media convergence and Madianou & Miller's (2012, p. 170) ideas about 'polymedia', a condition that describes an 'environment of proliferating communication opportunities and its consequences for interpersonal communication'. How such an environment is navigated, the authors say, 'becomes inextricably linked to the ways in which interpersonal relationships are enacted and experienced' (Madianou & Miller 2012, pp. 170-171). Polymedia may play a role in mothers' experiences in the digital home where they navigate interactions via a plethora of digital media.

The literature reviewed in this section highlights opportunities for exploring how mothers' communicative practices are shaped by the large-scale adoption and integration of digital media in society. It also identifies gaps in knowledge about how the larger project of mediatisation relates to contemporary mothering.

3.3 Chapter summary

This chapter has reviewed seminal theories and contemporary approaches to the study of media over the last 60 years to illustrate how the theoretical, technological and social landscape has changed. Its purpose has been to ground the current study's focus firmly within the context of a mediatised society by emphasising how meanings about media have been transformed, not only by or because of their change in material form but through our ever-changing interactions with them.

The groundwork laid by early media and cultural scholars has paved the way for emerging theories about how people make sense of themselves and their social worlds through digital interactions and participation in a networked society. Although the critique of work in this

chapter is by no means exhaustive, the contrasting and complementary approaches that have been reviewed highlight converging points of scholarship that raise more questions than they answer about the impact of media's indispensability for individuals, communities and for family life. Especially missing from these debates is a focus on mothers who, as already discussed, have a significant relationship to digital media in the home as both users and mediators of it. The theories of domestication and mediatisation enable a close examination of the social conditions that shape mothers' experiences in the home. My study therefore intends to contribute new knowledge about the contemporary mothering condition. The next chapter lays out the methodological approach that was undertaken to investigate this phenomenon.

CHAPTER 4: Methodology

In the previous two chapters I surveyed the research territory pertaining to mothers' use of digital media (Chapter 2) and examined some of the theoretical traditions of studying media in the home (Chapter 3). This chapter details the philosophical, theoretical and methodological approach adopted to explore, from a communication perspective, mothers' experiences in a digital home.

Section 4.1 details the research approach used in this study. It begins by positioning the research inquiry within an interpretivist paradigm and emphasises its social constructivist underpinning. Understanding how meanings about digital media are socially constructed is the domain of interest in both domestication and mediatisation scholarship – the two principal theories applied in this study. As explained in Chapter 3, these two theories are central to problematising contemporary mothering as interceded with digital media. This section thus explicates how social constructivism shaped the theoretical framework and accentuates the need to practice reflexive research when operating from this epistemological standpoint.

The qualitative research methodology is outlined in Section 4.2 and explains why and how an interview method was adopted and conducted in participants' homes, allowing mothers to verbalise and contextualise their experiences in situ. This section begins by describing the pilot study process and highlights how issues were identified with the sampling technique, recruitment strategy and interview questions. Attention then turns to the conduct of the main study which illustrates how the research process was modified in light of the pilot study findings and how I reflexively negotiated my insider/outsider status. Procedural details about how I carried out the research are also included in this section, including a breakdown of socio-demographic factors among participants and an explanation of how the guiding interview questions aligned with the research question.

In Section 4.3 I discuss how reflexive thematic analysis (Braun et al. 2019) was used to interpret the data and inform the discussion of findings. This style of analysis provides a systematic framework for coding and evaluating datasets to observe patterns and themes that cut across the data. This section includes an example of a coding frame I developed to support the management and analysis of data, and provides details of the manual and automated coding methods I used as I immersed myself in the data.

The final section in this chapter addresses issues of reliability and validity in this qualitative research project and how these were addressed to ensure the trustworthiness of my data and the project's credibility and authenticity.

4.1 Research approach

In this study I adopt the ontological position of social constructivism to understand how mothers' interactions with digital media in the home are shaped by and are shaping their experiences of contemporary mothering. Such a perspective presumes reality is subjective and internalised through processes of socialisation and 'in individual consciousness' rather than objective or 'institutionally defined' (Berger & Luckman 1966, p. 167). Those who adopt this position aim to 'address the processes of interaction among individuals' lives' (Cresswell & Poth 2018, p. 24) and acknowledge that meanings and perceptions of reality are interpreted in and through such interactions (Knoblauch & Wilke 2016; Vera 2016). As Vera (2016, p. 6) explains:

> The processes that shape our definition of reality are collective; whatever a person considers to be real is something that this individual shares with other members of their own society (i.e. members of their reference group, community or culture).

Social constructivism is a concept that has been widely debated, adopted and extended by various disciplines (see Knoblauch & Wilke 2016 for a critique of this literature). In the field of mediatisation research, for example, scholars have developed communicative constructivism to emphasise the central role communication plays in constructing social reality (Andersen 2018; Couldry & Hepp 2016, p. 30; Hepp, Breiter & Hasebrink 2018, p. 4; Knoblauch 2013, p. 306). As Chapter 3 illustrated, when mothers think about, use or manage digital media in the home, they engage in communicative action which, as Couldry & Hepp (2016, p. 13) state, 'is inherently "social": it is a practice of interaction'. It is through these social interactions that mothers forge meaning about digital media and the social world of mothering.

By positioning my study within an interpretivist paradigm, I could explore 'the meanings by which people understand their own experiences, behaviours and communication' (Daymon & Holloway 2011, p. 102), elements that I have already identified as crucial for understanding contemporary mothering in a digital home. This research tradition does not lay claim to absolute truths but recognises and respects the distinctiveness of individuals' accounts (Ritchie

2003, p. 17). By choosing an interview method, mothers were assured the opportunity to articulate their lived experiences and 'the meaning they make of that experience' in their own words (Seidman 2013, pp. 8–9).

Analysis of data that is generated from an interpretivist perspective inevitably includes the experiences and assumptions of the researcher (Ritchie 2003) and the potential for subjectivity increases when participants are interviewed by researchers who are also part of the same social group. In the case of my study, I am a researcher who is also a mother to two children living together in a digital home. The maternal status I shared with participants and my own experiences as a contemporary mother meant I had insider knowledge about the kinds of issues I was exploring through my research. This '"insider" role is a powerful reflexive position used to gain deeper engagement and insight into participants' understanding of lived experience' (Cooper & Rogers 2015, p. 2). Indeed, acknowledging one's own position in a research project is one of the attributes by which qualitative research is assessed, as Holmes (2010, p. 101) explains:

> A personal connection to research can produce passionate and worthy work and knowledge of that connection can help assess the quality of the questions asked and the answers obtained. In all research, no matter how objective it claims to be, the quality of the questions and answers are significantly dependent on researchers' relationships with their subject and participants. Making those relationships more transparent is important for rigorous qualitative research and involves considering whether the researcher is an (equal?) insider or (powerful?) outsider.

Regardless of my insider status as a mother, I was cognisant that, as a researcher, I had more power and authority than those I was researching (Sprague 2005, pp. 64–65). To offset this power differential, I borrowed feminist principles and techniques of interviewing by welcoming opportunities for reciprocity and interactivity in the interview process (Cooper & Rogers 2015; Davies 2012; Roulston 2010; Sprague 2005). Examples of how this was achieved are demonstrated in the form of entries I include in this chapter from my researcher log, and in interview extracts that highlight my disclosure of 'personal information or a willingness to reveal research interests' to participants (DeVault & Gross 2012, p. 214).

Disclosing such details can enhance trust and rapport and help reduce inequities of power for participants (Hesser-Biber & Piatelli 2012; Sarantakos 2005). However, the assumptions I had made regarding easy access to mothers at the recruitment stage or about developing a relationship by virtue of my own mothering role were re-examined following the outcomes of

the pilot study (see Section 4.2.1). That I identified with the role of contemporary mothering in my personal life – in which I was living what I researched – did not necessarily mean that participation rates or the rapport-building process would be expedited. Indeed, it was on deep reflection following the pilot study that I realised my role in the research process oscillated between insider and outsider status, as others have observed (Cooper & Rogers 2015; Holmes 2010). There were opportunities to identify and connect with the stories participants told in their interviews. But there were also times when I needed to be an outsider who listened rather than shared participants' experiences, particularly when mothers spoke about managing children's use of digital media. My reading about mothering ideologies identified that mothers at times feel guilt and judge themselves against the parenting prowess of others. As the interviews progressed it was apparent that for the participants these feelings also transferred to their parental mediation role, with some participants speaking candidly about how they navigated this responsibility. My role as researcher was to listen attentively to these accounts and not indicate any judgement or affirmation of their actions or attitudes. I was aware of the need to separate my personal views as a mother from my research interests whilst maintaining the integrity of my chosen approach to be open and responsive to participants' interactions.

Feminist approaches to reflexive interviewing concede that knowledge about the research phenomenon is created through a mutual and reciprocal process in which the researcher and participant learn from, and reflect on, the experiences shared (Hesser-Biber & Piatelli 2012, p. 561). As I listened to mothers' narratives about how they negotiated life in a digital home I discovered insights that impacted not only on the research itself but also on my own worldview. For example, some mothers spoke about how they had purchased mobile phones for children so that they could keep in contact with their offspring at all times. I considered my own children's use of digital media and realised I had similar motivations for granting them access, prompting me to reflect on and research what kind of ramifications this forced co-dependency might have on mothers' communicative experiences. Feminist scholars point out that: 'by reflexively listening and engaging in dialogical relationships with our participants, we can bring the blind field into view and radically change the way we know and what we know' (Hesser-Biber & Piatelli 2012, p. 567). By engaging in reflexive practices, I not only positioned myself within the research but also brought forth mothers' voices and experiences of life with digital media.

As foregrounded in Chapter 3, I used the concepts of domestication and mediatisation to bring attention to mothers' communicative experiences in the home. This combined theoretical framework supports the philosophical underpinnings of social constructivism and interpretivist research, allowing examination of media-related social transformations in mothering. As the previous chapters have explicated, the conditions under which contemporary mothers live should be assessed by the interactions they have with digital media as both consumers and facilitators of use but also in the context of a digital home. This milieu is both shaping and shaped by the communicative practices of mothers which, in turn, are altered by mothers' interactions with family members and with entities outside the home.

I have already argued in chapter 3 that domestication provides a theoretical and analytical framework for comprehending how mothers construct meaning about digital media in relation to their own use in the home. Its focus on appropriation, however, means it has limited application for understanding how social attitudes about digital media's role in society, and its use by children in the home, might influence the way mothers interact with digital media. To complement domestication theory, I applied a mediatisation lens to gain a broader perspective about how social practices at a macro and meso level of society might influence mothers' communicative experiences at a micro-level. As a meta-process it is difficult to measure or reify and, so, by synthesising these two approaches, I adopted a sensitised perspective, as others have recommended (Ekström et al. 2016; Jensen 2013; Nowak-Teter 2019; Peil & Röser 2014), to operationalise mediatisation, documenting specific and measurable moments of mediatisation in mothers' lives.

Theoretical frameworks need to align with the epistemological and methodological approaches used in a study to be able to answer the research questions adequately and with credibility (Bloomberg & Volpe 2019, p. 104). In the case of this study, the research question asked: *How does the presence and use of digital media in the home shape the contemporary mothering experience?* The theoretical model of domestication and mediatisation enabled exploration of mothers' individual perceptions and experiences about the material presence of digital media in the home and their own use of this.

4.2 Research process

My philosophical perspective about how meaning is socially constructed invariably informed decisions about the research design, including the methodology and the methods. A qualitative

methodology was the most appropriate approach for exploring such an inquiry because researchers in this tradition 'want to make sense of feelings, experiences, social situations or phenomena as they occur in the real world, and therefore want to study them in their natural setting' (Kelly 2006, p. 287). In my research, the home provided an environment of theoretical and social significance in which to study mothers' interactions and experiences with digital media. A positivist perspective, by contrast, which seeks to obtain absolute truth from an objective position through methods that calculate and measure variables (Brinkmann & Kvale 2015; Croucher & Cronn-Mills 2015; Daymon & Holloway 2011; Lindlof & Taylor 2019) does not reflect my epistemological views about knowledge acquisition (Cresswell & Poth 2018, p. 21) and was not considered suitable for attaining the research goals.

Like other studies of mothers and digital media (Archer & Kao 2018; Frizzo-Barker & Chow-White 2012; Lim & Soon 2010; Longhurst 2016; Orton-Johnson 2017; Sowon et al. 2019) my research applies a qualitative methodology using an interview method. Semi-structured interviews with mothers individually favoured depth over breadth, allowing participants to 'symbolize their experience through language' (Seidman 2013, p. 8) and to reflect on life with digital media through the sharing of stories and recollections, revealing insights into their social world (Bowen 2016; Lindlof & Taylor 2019). Generating interview data from participants in the context of their home also aligns with others who have highlighted the corporeal nature of digital media and its potential to shape the communicative landscape in different ways (Bengtsson 2018; Peil & Röser 2014; Pink & Mackley 2014; Zaman et al. 2016).

This research project was subject to the University of South Australia's Human Research Ethics Committee. Approval was granted in 2015 with protocol number 0000034502. The real names of participants and their family members were redacted from interview transcripts and replaced with pseudonyms to retain anonymity. The use of pseudonyms nonetheless gave participants an identity whilst the inclusion of quotes by mothers in the data chapters helped give them a voice (see Table 1). All transcripts, recordings, memos and data analysis files were stored in NVivo and were saved on my password protected office computer at work.

4.2.1 Pilot study

Piloting a research design and interview technique prior to formal data generation is a recommended method of qualitative research, particularly for early researchers (Hermanowicz 2002; Sampson 2004; Seidman 2013; Silverman 2013). Yet the pilot studies and the lessons

learned from these are rarely reported in qualitative projects (Malmqvist 2019; Sampson 2004). van Teijlingen and Hundley (2001, p. 33) point out that a significant benefit of conducting a pilot study is to obtain 'advance warning about where the main research project could fail, where research protocols may not be followed, or whether proposed methods or instruments are inappropriate or too complicated'. They even go so far as to say that:

> … researchers have an ethical obligation to make the best use of their research experience by reporting issues arising from all parts of a study, including the pilot phase. Well-designed and well-conducted pilot studies can inform us about the best research process and occasionally about likely outcomes. Therefore, investigators should be encouraged to report their pilot studies, and in particular to report in more detail the actual improvements made to the study design and the research process (van Teijlingen & Hundley 2001, p. 36).

More recently scholars, such as Malmqvist (2019, p. 1), have noted that researchers who conduct pilot studies are 'better informed and prepared to face the challenges that are likely to arise in the substantive study and more confident in the instruments to be used for data collection.'

This section outlines the pilot study process and the assumptions I made as a researcher and provides examples of how my role and reflexivity evolved during the pilot phase. The outcome of the pilot study led to modifications being made to the sampling strategy, recruitment process and research instrument, and provided more clarity around the project aims. Moreover, I learnt the invaluable skill of active listening to better engage with and be sensitive to participants' individual circumstances and experiences.

Sampling and recruitment strategy

My review of the literature about mothers' everyday lives had identified how time-poor they are as they attempt to balance paid work or study (and sometimes both) with household management, childrearing responsibilities and more personal interests (Beyens & Eggermont 2017; Craig 2007; Rose 2017). I was conscious that gaining access to participants would be challenging and therefore tried to be as flexible as possible with my own time so that I could schedule interviews around participants' availability.

In addition to their busyness, however, I had to overcome the challenge of entering the home of mothers who did not know me and so I developed a recruitment strategy that would help ameliorate this concern. In October 2015, following ethics approval, I asked two close friends if they would be able to identify one or two of their friends who might be willing to participate in my pilot study. The aim was to build a pool of interview participants through snowballing

wherein each successful recruit I interviewed would circulate my contact details onto mothers within their networks to build second- and third-level contacts from the first. Lindlof and Taylor (2019, p. 148) suggest this snowballing technique 'is well suited to studying social networks, sub-cultures, or people with certain attributes in common' and is a common method used in studies with mothers (e.g. Chalklen & Anderson 2017; Kim 2017; Lim & Soon 2010; Prikhidko & Swank 2018; Rakow & Navarro 1993).

Snowballing does, however, run the risk of too few referrals being obtained before an adequate sample can be reached (Lindlof & Taylor 2019, p. 148). Sample diversity may also be limited where onward referrals come from a small personal network, and researcher bias may arise where there is a pre-existing relationship with participants (Ritchie, Lewis & Elam 2003, p. 108). To address these issues I initially selected friends (and later expanded this to professional colleagues), hereby referred to as 'recruiters', who did not know one another, and whose referrals did not know me, to increase the likelihood of a more diverse sample. In total, 5 recruiters put me in touch with 7 participants. Of these, 3 resulted in interviews for the pilot study which were held in November 2015.

The two recruiters I originally contacted were briefed face-to-face about my project and were emailed the participation background sheet (see Appendix A) along with my contact details which they were asked to forward to interested candidates. Unfortunately, no successful participants were identified in this first round of recruitment. The first recruiter informed me after two weeks that she had not found the time to approach any of her friends and the second recruiter had found two interested candidates but their children were outside the target age group (the selection criteria are discussed in Section 4.2.2 regarding the main study).

In the second round of recruitment, I approached three more recruiters each from different friendship groups. Of these, one recruiter identified two successful participants, the second put forward two candidates who both subsequently withdrew their interest when they realised the interview would involve a tour of their home (see *Research instrument and interview approach*). The third recruiter identified a potential candidate but sought further clarification from me about what constituted 'digital media' as she and the candidate were unsure. This query prompted me to amend the participant briefing sheet to include examples of digital media as laptops or desktop computers, smart phones, tablets or gaming devices. This person agreed to be interviewed. Unfortunately, the snowballing I had anticipated proved unsuccessful as I

received no onward referrals from pilot interviewees which meant access to participants was limited to first-level contacts only.

In addition to the issue identified above about defining digital media, the pilot study revealed a flaw in the recruitment approach. I had relied on my close friends to send the background sheet to their contacts. The intention was to preserve the privacy of potential candidates by getting them to contact me rather than me contacting them which may have resulted in feelings of coercion or discomfort. In doing so however, I placed an unintentional burden on my friends to share project details about something they themselves knew little about. This expectation led to some confusion and delay in recruitment as the information I had provided them with was not always passed on to participants. This lesson informed the recruitment process for the main study, insofar as I briefed recruiters verbally about the project and requested that those who were interested in participating should contact me directly so I could send them the project details. This modified approach reduced the level of involvement required of my friends and ensured participants understood the research aims and processes.

Research instrument and interview approach

As alluded to above, I had originally planned to conduct an ethnographic tour of participants' homes, in addition to semi-structured interviews to get a sense of how the home is communicatively configured in relation to digital media devices. Ethnographic tours represent 'an interview in movement, with artefacts and spaces serving as prompts for the exploration of everyday activities' (Mitchell et al. 2015, p. 8). In line with domestication research, I wanted to understand how the placement of digital media in the home, and the rules about where and when they can be used, might signify how meaning is constructed about their presence (Haddon 2006; Silverstone, Morley & Hirsch 1992). Of the three participants in the pilot, one had a games room, one had an office, and the other did not have either, but as the interviews progressed it became clear that the portable nature of digital media meant that devices were used in different areas of the home. Where they were physically located became less important than investigating how mothers felt about and managed their ubiquitous presence and use. Furthermore, as highlighted above, gaining access to participants in their homes had already proven challenging enough and so inclusion of an ethnographic tour was removed as a method in the main study along with the interview question relating to it (Q.4 in Figure 1). An interview

method alone was sufficient for enabling mothers to recount their stories about living with digital media through language instead of action (Seidman 2013).

I developed an interview guide for the pilot study with questions that reflected theoretical concerns relating to domestication and mediatisation as identified from the initial review of literature (see Figure 1). The bullet points represent the probes or operational cues I used to ascertain more about each of the topics.

Interview guide (including operational cues)

1. Can you tell me about the digital media devices that you have in your home and how this may have changed in recent years?
   - *Can participants recall what family life was like when fewer digital devices occupied the home?*
2. Can you give me some examples of the kind of digital media you personally use, and what sort of things you use these for?
   - *Explore times of day and frequency of use*
   - *Probe for examples of digital media being used for particular purposes e.g. for online shopping, paying bills, skype/texting, gaming, work).*
   - *Where is the device situated when the participant is using it?*
3. Do your children have their own digital devices?
   - *Explore how rules governing use for children is negotiated*
   - *Explore the role that children have in facilitating mothers' knowledge and use of digital media*
4. Can you show me where digital media devices are used in your home?
   - *Note locations and discuss frequency of use, preferences for locations and reasons for interacting in these locations*
5. How are decisions regarding the use and location of digital media made?
6. How important are digital media in your family?
7. How would you say family life has been influenced by the presence of digital media in the home?
8. Is your own use of digital media influenced by other members of your family?
9. Do you have anything else you would like to add?

Figure 1 Pilot interview guide

Questions 1, 5, 6, 7 and 8 aimed to understand mothers' perceptions and attitudes regarding digital media use, the meaning and importance attributed to their use in relation to family routines, and how digital media are negotiated and navigated in the home in terms of domestication processes. Question 2 explored how and why mothers use digital media while

Question 3 considered the role that children's use had in influencing mother's interactions with digital media. Question 4 related to the ethnographic tour that was subsequently removed from the research design.

Following analysis of the pilot study and the interview transcripts, some questions appeared closed in design, made too many assumptions about the phenomenon under examination, or were too abstract. For example, Question 5 implied that decision-making is a fully conscious endeavour, and Question 6 assumed digital media carry a quantifiable level of importance in participants' psyches. On reviewing the interview transcripts, it seemed these questions were not so easily interpreted. In my first pilot interview with Anita (pseudonym), for example, I asked, 'So how overall, considering all family members, how important do you think digital media devices are for your family?'. Anita answered:

> I wouldn't say they're overly important, not for what they use it for. But it's good for keeping in touch, I forgot to mention Skype, we use Skype probably every other weekend to parents back home. In that sense, it's important to keep in contact with others and emails and things like that but apart from that, that's all we use it for really.

As the interview progressed and as the findings' chapters (see Chapters 5–7) illustrate, digital media were of much more significance and were used more widely in Anita's household than this response suggests. Instead of asking direct questions that compartmentalised mothers' experiences, I needed to ask more nuanced questions about life with digital media (see Figure 3 in Section 4.2.2) and learn to infer meaning about how digital media are constructed by mothers.

As I listened to the recordings of these early interviews, I realised my interviewing skills required further honing. I was not attuned to the various peaks and troughs of the conversation, distracted instead by the next question to ask or by how participants' comments aligned with what I had found in the literature. Consequently, I missed many opportunities to go deeper into the conversation by encouraging participants to elaborate on their thoughts, as the following entry from my researcher's log demonstrates.

Researcher's log 17 January 2016

Reflections on the interview process – pilot phase

Instead of mentally ticking off the questions on my interview guide, I need to take a more grounded approach by allowing questions to evolve from the conversation. It was a little easier to listen more actively to the third participant as I had become more familiar with the research design and relevant literature, although I was conscious that I may have been leading the participant at times. I had very specific examples in mind that I had gleaned from the literature regarding types of uses mothers have for digital media (like for banking, shopping and social media) and so I used examples from my own mothering experience to elucidate the point or to rearticulate the question, as well as to reflexively position myself in the dual role of researcher and mother. In hindsight, however, and after listening back to the interviews, this may have been more persuasive than demonstrative.

Kim (2010, p. 202) found similar moments of researcher reflexivity in a rare study to report the processes and outcomes of a qualitative pilot research. In a study about the experiences of dementia caregivers, Kim (2010) found that the lexicon she used in pilot interviews was based on an assumption that carers perceived the ones they cared for in terms of loss as their loved ones succumbed to cognitive impairment. The lived experiences of these carers, however, revealed a different reality that focused more on how they dealt with these changes. Her pilot research, and the reflexivity she practiced as part of this process, led Kim (2010) to understand more about the phenomenon she was exploring. Failing to test and subsequently modify the interview questions as a consequence of her pilot 'might have led to either fragmented stories from the caregiver participants or to stories manipulated by the researcher' (Kim 2010, p. 202). My research may have encountered a similar fate if I had not piloted the research instrument and reflected on my pre-existing assumptions about the research topic.

In summary, the planning and implementation of a pilot study identified several challenges and issues with the research instrument that could be addressed prior to the main study. Technical flaws were identified in the research design, namely the sampling and recruitment strategy, that resulted in the removal of the ethnographic tour because it yielded little insight about the research problem. The pilot study also taught me to be more reflexive about the research process and my interviewing. The duration between the pilot research and the final collection of data (10 months) enabled ample time to reflect on these issues and to better sensitise me to the 'research environment' prior to the main study (Sampson 2004, p. 398). The experience also prepared me with the necessary confidence and skill to collect a larger sample of qualitative data that would generate more complex understanding of digital media's place in mothers' social worlds.

The pilot study data have been incorporated into this thesis because although interview questions were modified, the methodology and sampling frame went unchanged (Thabane et al. 2010, p. 6). The qualitative experiences of these three mothers were therefore important to include in the overall research.

4.2.2 Main study

Interview sample

In the months following the pilot study I continued to review literature and make modifications to the interview guide prior to arranging interviews for the main study. Recruitment of participants resulted in a further 14 mothers taking part in the study. Interviews took place between August 2016 and November 2016. All names were changed to a pseudonym which was alphabetised in the order interviews were conducted (see Table 1).

To recruit participants for this stage of the study, I elicited the support of 4 friends who had not been involved in the pilot which resulted in 4 interviews. I also approached 6 university colleagues to help increase the participation rate and demographic diversity. Their involvement resulted in a further eight participants taking part. One of these participants (Geraldine) referred me onto two of her friends (Hannah and Kitty) and were the only cases to have arisen from snowballing.

The sample was selected purposively based on several factors that fulfilled the sampling frame: women who raised children, the age of those children at the time of the study, and the willingness of mothers to invite me into their home. Participants also needed to live in the state of South Australia (SA) within a 50 km radius of the city centre. The total sample of 17 mothers were women who were engaged in 'the social practices of nurturing and caring for dependent children' (Arendell 2003, p. 1192), regardless of their biological status to children. Only one of the 17 participants was a non-biological mother.

Table 1 *Sample breakdown by socio-demographics*

Participant names (pseudonym)	Mothers' age bracket	Level of education	Employment status	No. & age of children	
				Boys	*Girls*
(Pilot) Anita	42–49	TAFE*	Part-time	7**, 10, 13	
(Pilot) Barbara	34–41	TAFE	Part-time	6**, 14	
(Pilot) Carol	42–49	Year 11	Full-time mother	11	8**
Danielle	42–49	Postgraduate	Part-time	14	
Emily	34–41	Year 12	Part-time	12, 14	
Frances	50+	Undergraduate	Full-time		14
Geraldine	42–49	Undergraduate	Full-time		10, 12
Hannah	42–49	Year 11	Part-time	9	
Isobel	42–49	Postgraduate	Part-time	13	11
Jemima	34–41	Undergraduate	Part-time	10	12
Kitty	34–41	Undergraduate	Part-time	9	2**
Louise	50+	Undergraduate	Part-time + part-time student	16	12
Margaret	42–49	Postgraduate	Part-time	1**	9, 10
Nicky	50 +	TAFE	Full-time student	10	12
Olivia	42–49	Undergraduate	Self-employed, part-time	12	13
Pat	50+	Postgraduate	Full-time	15	
Rhiannon	42–49	TAFE	Full-time mother	12, 16	
Overall trend	**42–49**	**Undergraduate**	**Part-time**	**12 years**	**11.5 years**

* TAFE is the acronym used in Australia for Technical and Further Education

** Data offered about children outside the sampled age range are not included in the findings.

Collectively, participants had 27 children within the sampling range of 9–16 years. Seventeen of these were boys and 10 were girls with an average age of 12 years and 11.5 years respectively (see Table 1). The selected age range of children was modelled on other datasets that collect information about household or children's use of digital media and factors that influence the media landscape of the home. The Australian Bureau of Statistics (ABS) (2018b), for example, collects data about digital media ownership and use in households with children aged 15 years and under. A multinational survey into the online practices of children and the mediation practices of parents (EU Kids Online) collects data about children aged 9–16 years (see

Ólafsson, Green & Staksrud 2018; Smahel et al. 2020; Talves & Kalves 2015). In addition, schools in South Australia that adopt a Bring Your Own Device (BYOD) or 1:1 laptop program tend to introduce voluntary schemes in upper-primary year levels (Years 4–6, with an age range of 9–12 years) with more mandated initiatives introduced in middle-high school years (Years 7–10, age range of 12–16 years).

Furthermore, this demographic is influenced by some relevant technological factors due to the time period during which participants' children were born. In 2001, when children in the top end of the age bracket (16 years) were toddlers, a new mobile phone was launched that enabled users to send emails with large attachments and to host videocalls in addition to pre-existing SMS capabilities (Jackson 2018). In 2007, when the youngest children in the sampling frame were born (9 years), Steve Jobs launched the iPhone – the first smartphone to enable internet browsing via a 3G network on a multitouch portable screen (Everything Apple 2007). In 2010 when these youngest of children were three years old, Apple released its first iPad. The selected age range of 9–16 years was therefore considered appropriate purposive criteria for exploring the experiences of the first generation of mothers to use these kinds of devices and who also negotiate their use by children.

Whilst this sample contains a range of professions and employment statuses, it only represents white, heterosexual women in established co-parenting relationships who have a higher percentage of university-level education than the national average for women aged 18–64 (30.8% according to ABS gender indicators data 2016). Almost 60% (10/17 participants) have a Bachelor's degree or above and most have secure employment. Four participants hold management positions, two work in technical or administrative roles, two work in childcare, two are nurses, two are self-employed, two were unemployed at the time of the interviews but were seeking employment, one is a teacher, one works in the hospitality industry and one is a full-time undergraduate student. Other diversity criteria were not represented, such as LGBTQI mothers, those with disabilities, or mothers raising children alone. The sample selection was based on, and was thus determined by, the diversity of my friends and colleagues as well as the friends in their networks.

Participants resided in 12 of the 17 local government regions in metropolitan Adelaide (see Figure 2). Nine participants lived in suburbs surrounding central Adelaide in the City of Unley (3 participants), City of West Torrens, City of Charles Sturt, City of Prospect, City of Norwood,

Payneham and St Peters, and the City of Burnside. One participant lived in the foothills of southern Adelaide in the City of Mitcham, two lived south-west of Adelaide in the City of Marion and City of Holdfast Bay and 4 participants lived in the largest and most southern metropolitan suburb of Adelaide in the City of Onkaparinga. One participant lived in the northern part of Adelaide in the City of Salisbury and another in the Adelaide Hills Council.

Interviews were arranged once participants had contacted me via their preferred medium (Facebook Messenger, SMS, phone call or email). They were sent an email with attachments of the consent form and participant background sheet (Appendix A) which contained details of the interview date and time. In order to obtain relevant 'socio-demographic and biographical data' (Daymon & Holloway 2011, p. 226) a simple table was appended to this email requesting details that would establish a participant profile ahead of the interview (see Table 2).

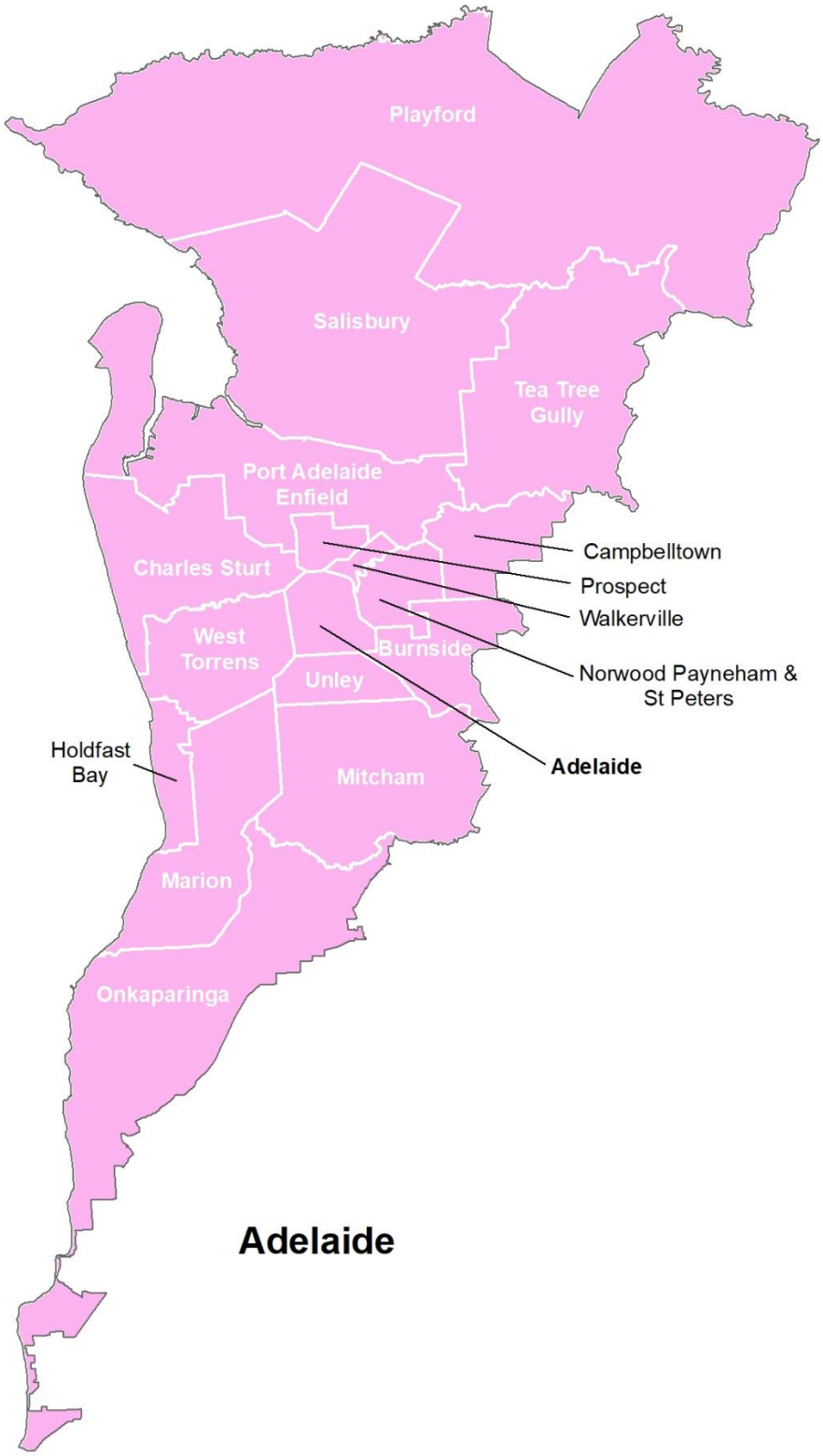


Figure 2 *Breakdown of participants by government region in metropolitan Adelaide*
Image credited to: Regional Development Australia, Adelaide Metropolitan Incorporated (2020)

Table 2 *Data collection of participants' demographic details*

What ages are your children?	**Girls** Age: Age:	 Age: Age:	**Boys** Age: Age:	 Age: Age:
Please highlight your highest level of education	High School	TAFE	University undergraduate	Postgraduate
Please highlight your age bracket	25–33	34–41	42–49	50+
Are you currently in paid employment (Y or N)? If yes, what industry?				

Interview procedure

Once signed consent forms were received from participants hard copies were filed away in a lockable cabinet in my office and stored electronically on a password-protected computer in accordance with university protocols about managing research data. As in the pilot study, I offered participants tea and biscuits as an ice-breaker or a 'getting to know you exercise' (Mitchell et al. 2015, p. 6) to help build rapport. As we prepared the refreshments, we exchanged stories of how we knew the recruiter and spoke briefly about my interest and involvement in the research. This pre-interview exercise aimed to ease any concerns among participants about my being a stranger in their home and helped establish some commonality in our interests and experiences as mothers.

Interviews for the main study lasted between 45–90 minutes except for one interview that lasted a full two hours. They were recorded following the ice-breaking exercise with a slim-line digital recorder that was placed close enough to the participant to capture the conversation but discreet enough not to concern or distract them. The time taken to interview each participant conformed to Hermanowicz's recommendation to keep interviews between sixty to ninety minutes, allowing for 'flexibility on both ends' (2002, p. 487).

As with the pilot study, an interview guide provided prompts about topics I wished to explore and is less rigid than an interview schedule which asks the same structured questions of each participant in the same order (Lindlof & Taylor 2019, p. 195). Because my study is exploratory in nature, it was important to use an interview technique that 'put fewer restrictions on how the interviewee answer[s]' and that allowed mothers 'to talk at length so that they give in-depth

information' about their experiences (Downs & Adrian 2004, p. 85). The interview guide that was initially developed for the pilot study and adapted for the main study provided thematic cues for collecting and analysing data about mothers' communicative experiences which, in turn, helped address the research question (see sub-section *Interview guide*).

Field notes were recorded immediately after each interview to capture observations about the process that could be reflected on during analysis. One example of how these notes proved useful is illustrated in the following extract from my researcher's log. The entry occurred following my interview with Geraldine (pseudonym) and highlights my reflexive positioning.

Researcher's log 13/08/16

Interview #7

I interviewed Geraldine on a Saturday as she works full-time during the week. She was in the midst of major renovations and seemed a little unsettled by the mess. To assist with the rapport building process prior to the recorded interview, I asked her how long she had lived at her address and the anticipated time it would take to complete the works, indicating my own interest in renovations as I was about to purchase a house. While the kettle was boiling, she keenly took me on a tour of the extension that was being built and talked me through some of the design ideas she had planned. This impromptu tour helped relax us both and made the formal interview process a more fulfilling one.

I had felt uneasy about intruding on her home on a weekend, but she said she had wanted very much to participate in the study yet did not have any other time she could do so. Instead of trying to ignore the background disturbance, I made the renovation work a part of the interview experience. As Geraldine talked me through her home design ideas, I too reciprocated with the plans I had for my own home. This ice-breaker helped us reach a place of mutual comfort and was followed by inquiries from Geraldine about what had motivated my interest in the research topic. Her questions provided an opportunity to share some of my observations about digital media as a researcher and a mother, further establishing my status as both outsider and insider. My disclosure reflects the subjective and reflexive nature of qualitative research and serves as a reminder that: 'Those carrying out qualitative research are an integral part of the process and final product, and separation from this is neither possible nor desirable' (Galdas 2017, p. 2). Although this encounter was not recorded and therefore excluded from the dataset, I remained aware of the need to balance my own experiences of living in a digital home with those of participants in order to minimise the potential for researcher bias in my interpretation of the findings (see Section 4.3.3 for a discussion of the values that were applied to this study). Nonetheless, the instinct to reciprocate with my own stories when they were solicited from

participants proved to be an invaluable asset in the research process, as this exchange with Pat illustrates:

Interview # 16 04/11/2016

Researcher: And have you always played games with him?

Pat: Yes, computer games. I enjoy it. It's my downtime and even before they were born I would play like Goldeneye, you know James Bond. Do you play games much?

Researcher: That's a funny story actually. I have never allowed games consoles in the house right?

Pat: Okay…

Researcher: Because when I was younger I was obsessed with them. So my 10-year-old, as I say he's been asking me for a PS4 and I said 'Look, you are old enough now for me to tell you this' and he was like 'What?' and I said 'You know your Mum, right, I was always on computer games when I was younger. When I was at Uni I never did any study because I was obsessed', Max Payne was my game…

Pat: Oh yeah [laughs].

Researcher: And my dad would play too at his place you know, and we would be swapping notes and he would always be one level ahead of me, so it was very, very competitive and I was never off the thing. So, I've always said to him [son] 'no you can't because it's not good for you', but actually if we get one I'm going to want to be on it all the time. And he just found it hilarious to think that his mum could be like that!

Pat: [Laughs] Obsessed about playing games!

Researcher: But he's the same you know, I wouldn't say he's got an addictive personality but when he is in the zone it is very hard to get him out of it. So I am really resisting, but I would love to have one!

Pat: No, I get that. I know that when they were little, when Lucas was five, so it would have been before then he'd be playing something before tea and he'd be going 'just one more level, just one more level' and I got pretty strict, so between Monday and Friday afternoon there was no gaming at all, no iPads, no computers, their school work you know, so from Friday night to Sunday 'I don't care what you do' [laughs].

By being honest about my own experience with digital media I demonstrated how I identified with Pat's love of gaming and, by sharing the challenge I had of extricating my son from his device, Pat was prompted to recall a similar experience with her own son. My position as an insider in this example helped us both make sense of our experiences through the mutual sharing of stories (Cooper & Rogers 2015, p. 6).

Interview guide

The interview guide (see Figure 3) that was used in the main study was adapted following the pilot study and further review of and alignment with the literature.

Revised interview guide

1. Can you tell me about the kind of media you had in your home when you were growing up? **[Media appropriation practices when young; previous perceptions, interest or experience with media devices]**

   1.1 Were computers, games consoles, TVs or portable telephones present in the home? How many and what were they? Were they used often?

   1.2 Did parents use these?

2. Can you tell me about the digital devices you have in your own home now? **[Current communicative environment]**

   2.1 Are there any media you or your family do not use? Why?

   2.2 Has the number of devices in your home changed in recent years? e.g. school expectations, work-related, children's interest

3. What kind of digital media do you personally use, and what sort of things do you use these for? **[Mothers' interactions]**

   3.1 How much time is spent on devices on average each day?

   3.2 Are devices used for domestic tasks such as online shopping, recipes, paying bills, school-matters?

   3.3 Are devices used for social interactions such as texting, social media, gaming – with whom?

   3.4 Is a computer/iPad/Tablet used for work-related purposes at home?

   3.5 Are there certain times of day these devices are used more or less (e.g in the evening/daytime)?

   3.6 Are notification sounds on devices turned on or off? Are devices used as an alarm, calendar or other form of organisation tool?

4 Do your children have their own digital devices? **[Children's interactions]**

   4.1 Explore if homework tasks have increased children's use of digital media [BYOD, 1:1 laptop program]; *where do children do homework?*

   4.2 Probe for examples of digital devices being used to communicate with children and the circumstances in which this occurred [e.g. security; safety]

   4.3 Are there are any rules about where or when children can use devices? [parental mediation strategies]

[OPTIONAL – if not addressed elsewhere]

5 What are some of the challenges of having digital media devices in the home?

6 Overall, what benefits or opportunities are there for having access to digital media in the home?

Figure 3 *Revised interview guide following pilot study*

The first question, Q1, was a grand tour question (Bowen 2016, pp. 195–196; Spradley 1979) that encouraged participants to describe their childhood experiences of media, creating a overall sense of the communicative environment they grew up in. This question enabled mothers to reflect on and recall how they and others in their household used media to help contextualise the study's focus on the home. The stories participants shared generated points for comparison and further exploration in Q2 which asked mothers to describe how their current family home is configured. Q1 also provided insight into how mothers' previous experiences of media may have shaped their current perceptions and later appropriation of digital media as mothers.

Question 2 sought to obtain rich descriptions about the type and range of digital media in participants' homes that supplemented qualitative accounts about how its presence impacts their lives. The follow-up question – asking if the number of devices in participants' homes had changed in recent years (Q2.2) – enabled exploration of other possible external factors, such as changes in working and pedagogical practices, that may have contributed to increased appropriation and use of digital media in the home.

Question 3 aimed to understand mothers' own use of digital media in the home milieu. The same question was also used in the pilot study but the follow-up questions (Q3.1−3.6) were modified to obtain more specific examples of how and why digital media were used and what these uses might mean to contemporary mothers. Question 4 explored the indirect interactions mothers have with digital media because of children's use. Further to the pilot study outcome and the additional review of literature, it became clear that children's use of digital media requires the deployment of parental mediation strategies. Thus, the follow-up questions for Q4 were adapted from the original interview guide to explore the different contexts of children's use and how mothers' management of these uses may have impacted their experiences and communicative actions. The last two questions (Q5 and Q6) were optional follow-up questions that were asked if participants had not addressed the challenges and advantages of living with digital media elsewhere during the interview.

Interviews were transcribed into a Word document soon after each interview had taken place and were proof-read for errors. The next section explains how these data were managed and analysed in relation to the theoretical framework and the steps I took to ensure the integrity and quality of the research outcomes.

4.3 Analysing the data

Thematic analysis is the most widely used method of analysing qualitative data (Liamputtong 2019, p. 20) and is commonly applied in research of mothers' use of digital media (e.g. Archer & Kao 2018; Orton-Johnson 2017; Pettigrew, Archer & Harrigan 2016). Braun et al. (2019) identify three common approaches to thematic analysis (TA): coding reliability and codebook TA which both use pre-defined themes and structured coding processes to drive analysis and summarise findings, and reflexive TA, a more commonly applied technique that allows identification and conceptualisation of themes to emerge from the coding process. Reflexive TA is the approach I adopted for my study and has six interconnected phases (Braun et al. 2019).

Phase 1: Familiarisation with the data

The first step in reflexive TA is to immerse oneself in the data and become familiar with the voices and words of participants. Transcribing the interviews myself helped bring me closer to the data as I played back the recordings and re-read the transcripts for errors. Braun et al. (2019, p. 852) describe the process of getting to know the data as a relaxed and casual process:

> It is not about attaching formal labels – that comes later – but about looking for what is interesting about the data and what you notice about possibilities, connections (between participants, data, and existing literature), and quirks, which may add depth and nuance to your later coding.

As I spent time listening to the interviews, transcribing and reading the transcripts I would highlight sections of the data or add comments about possible patterns or themes that became apparent as more interviews were transcribed. These reflections informed and shaped subsequent interviews and promoted further reading of literature to understand more about what mothers were describing.

Phase 2: Generating codes

The annotations I made as part of the data familiarity process contributed to an initial phase of inductive coding. The process of analysing data inductively allows researchers to 'find patterns, themes and categories directly from the data – instead of imposing themes on the data that you decided upon before commencing your analysis' (Daymon & Holloway 2011, p. 303). By approaching transcripts with an open mind, researchers enable the text to 'breathe and speak for itself' (Seidman 2013, p. 120) whilst also conceding that prior knowledge about the research problem inevitably shapes the way data are interpreted (Braun et al. 2019; Seidman 2013).

Manual coding techniques like annotations, asides or commentary recorded on transcripts, as well as field notes, contribute to in-process writing by enabling researchers to continuously reflect on and synthesise data as it occurs and to relate those ideas to other codes (Daymon & Holloway 2011; Lindlof & Taylor 2019; Maher et al. 2018; Richards 2021). Richards and Morse (2013) recommend early career researchers conduct manual coding as it helps them 'learn how to think when coding without the distraction of the software' (p. 165, original emphasis).

Data were coded and categorised according to broad topics and cross-referenced with the literature to identify and explore relationships between the two (Daymon & Holloway 2011, p. 303). For example, initial coding identified recurrent mention of excessive use of digital media by children which provoked anxiety and concern in mothers. These issues often led mothers to adopt certain strategies to help them limit children's access and use. I was not familiar with such approaches and so I conducted an extended search of multi-disciplinary literature that could explain this phenomenon. Returning to the literature in this way revealed a wealth of research on parental mediation theory that helped make sense of the data and assisted with generating codes (see Table 3).

Richards (2021) describes topic coding as an initial stage in the analysis process whereby fragments of data – participant comments in the case of this study – are labelled and sorted into different containers, or nodes, based on characteristics (topics) they share. For example, where mothers mentioned using digital media at specific times or for regular purposes, I highlighted the text and added an annotation to indicate how use was 'routinised, ritualistic and connected to time'. Similarly, where mothers mentioned children using digital media for school work I coded these comments as 'related to school and learning'. The creation of topic codes enabled me to see what was going on within and across the data. This process is explained by Richards and Morse (2013, p. 156) as:

> ...coding up from the data. It easily becomes analytic because you can review data coded for a topic in terms of dimensions or patterns, coding on from there to new, finer categories.

On completion of all interviews, I performed a second stage of analysis which helped further familiarise myself with the data as part of a larger dataset. This stage was computer-assisted using the qualitative analysis software program, NVivo 11. Clean copies of the transcripts were imported into NVivo where I annotated each transcript again, allowing for 'conceptual development' to occur through the emergence of new observations and insights, or to confirm

the presence of those already made (Lindlof & Taylor 2019, p. 311). Coding in NVivo provided a way of managing, storing and retrieving the data and by creating a framework matrix I cross-tabulated and compared the recoded data as a whole, looking for recurring patterns and themes (Richards 2021, p. 223). It also assisted with the organisation and categorisation of topic codes into three containers: mothers' own use of digital media, their perceptions and actions regarding children's use and their reflections about the home environment in relation to digital media.

Phase 3: Generating themes

The next stage in the reflexive thematic analysis process is to generate themes from the data that relate to the research question (Braun et al. 2019, p. 855). As NVivo enables the import of different materials it was possible to see how key themes that arose from the literature aligned with, were absent from or were contested in the data. Nonetheless, 'Data interaction is limited by software design and screen size to a mainly sequential and constrained visual format, therefore not fully supporting the analytic and interpretative research processes' (Maher et al. 2018, p. 12). Theme generation requires revisiting the data, spending time reflecting on it and looking for ways in which participants' narratives connect to each other to reveal patterns of shared meanings that relate to the research inquiry (Braun et al. 2019). Table 3 provides examples of topic codes that were identified and which generated initial themes.

Phases 4 & 5: Revising and defining themes

As analysis progressed and I continued to immerse myself in the data the themes developed further. Whilst themes became evident from within each of the three categories, it was during interpretation of the data and the write-up of findings that themes were revised and defined to 'tell the overall story' of the research (Braun et al. 2019, p. 856). These dual steps in reflexive thematic analysis acknowledge how meanings are socially constructed and subject to change as more knowledge is acquired and as theoretical ideas evolve.

Table 3 *Example coding frame*

Excerpt example	Topic codes	Themes
I do a lot of messaging, I love texting, I love that invention coz I hate talking on the phone and you can just text 'how you going?'… I've got a friend in Sydney and she's tried to call me a couple of times and I just think, I don't know, I don't have time to sit and talk for half an hour (Frances).	Avoiding phone calls Controlling communication Changes in interpersonal relationships	Temporal shifts in mothers' communicative practices
I'm usually in the car studying online while they're doing their activities or at night-time. I try and shut down at night and do as much as possible during the day (Jemima)	Compressing time Working around children	Digital media use is purposefully managed to support or preserve mothers' time and routines
I do like my Facebook feed so when I wake up in the morning I flip through and see what's going on. If I open my eyes or if it's in the middle of the night and I can't sleep that will put me back to sleep, so I flip through that' (Kitty).	Routine/ritualistic use Sensorial experience	
I can say 'I'm turning off the Internet, that's it', but then he can't do any homework because he might be on Google Docs with someone else, so it's really hard to say, 'that's it' (Louise).	Maternal conflict Pedagogical practices Indispensability	Children's use requires intensive digital care work by mothers
Jimmy is not allowed, under no circumstances is he allowed to go online unless he asks us first, and we have to unblock it first (Danielle).	Rules and restrictions Digital gatekeeping	Mothers' negotiate time and space for digital media use
My eldest at the end of the school day I always send him a message to say… 'let me know where you're waiting for me', just a little tag to communicate (Rhiannon).	Tagging children Safety Coordinating routine actions	

Phase 6: Analytical report

The final step in TA according to Braun et al. (2019, p. 857) is the act of writing up the findings, although they note that this occurs as an iterative process in tandem with other elements of the research process:

> Revisiting the research question, your notes from the earlier phases of familiarization and coding, your lists of codes, and theme definitions can be useful to ensure that the final themes remain close to the data and answer the research question well.

They state that it is only at this point of writing up the results of the thematic analysis that the analytical phase ceases (Braun et al. 2019). As the writing progressed, I continuously reflected on whether the key themes proffered insights about the contemporary mothering experience. By constantly comparing themes that emerged across the data and from the literature I was able to identify three overarching themes about mothers' experiences. Each of these themes are reflected in the three data chapters of this study.

4.4 Trustworthy and credible data

The rigour of data analysis in qualitative research is the subject of much debate. Quantitative researchers use tools to test the reliability of research instruments to replicate results, or to assess their generalisability, accuracy and rigour. The concerns of qualitative research rely more on subjective, interpretivist methods (Maher, Hadfield & Hutchings 2018; Sarantakos 2005) to explore and understand the intricacies of a phenomenon (Daymon & Holloway 2011; Lindlof & Taylor 2019). Guba and Lincoln (1985) point out that measures of validity and reliability traditionally used in quantitative research do not apply to qualitative studies and instead proposed alternative attributes of *credibility, transferability, dependability* and *confirmability.*

Credibility 'ensures the study measures what is intended and is a true reflection of the social reality of the participants' (Maher, Hadfield & Hutchings 2018, p. 3). One way this thesis demonstrates credibility is the inclusion of verbatim quotes from participant interviews in the findings chapter, as well as excerpts from transcripts showing the dialogue between participant and researcher. Another technique that was employed to authenticate the research was to send the transcriptions of interviews to participants for checking, what others have described as a process of 'member checks' (Cresswell & Miller 2000; Maher, Hadfield & Hutchings 2018; Silverman 2013). In this study, participants were offered the opportunity to read the full transcript with redacted personal details. No participants responded to this offer.

Memo writing enables researchers to illustrate and rationalise their decisions and interpretations about data, which brings further credibility to the findings (Hesse-Bibber & Piatelli 2012; Maher et al. 2018; Roulston 2010). By keeping a researcher log and including extracts from this in my thesis I have illustrated how different stages of the research process have been reflected on and incorporated into the research design. Furthermore, including the results of the pilot study increases the credibility and quality of my research (Malmqvist et al. 2019).

Because qualitative research is context-bound, study results are less easily replicated or transferable to other settings (Daymon & Holloway 2011; Maher et al. 2018). To increase *transferability*, I selected a sample (mothers with children aged 9−16 years) and research sites (the home) that have been used in other studies that explore parental perceptions of digital media use and mediation practices. The findings in my study regarding mothers' experiences of children's digital media use are therefore applicable to studies investigating similar circumstances and in international contexts (c.f. in Europe: Brito et al. 2017; Symons et al. 2017; Zaman et al. 2016; in Asia: Jiow, Lim & Lin 2017; Shin 2015; and, in the US: Uhls & Robb 2017; Warren 2017).

The attribute of *dependability* that Guba and Lincoln (1985) propose relates to how effectively other researchers can repeat the study if they followed the same data collection methods and 'whether the analysis process is in line with the accepted standards for a particular design' (Korstjens & Moser 2018, p. 122). I have carefully described the research process and included details of the errors I encountered with recruitment and methods during the pilot study and have disclosed entries from my researcher log. As Cresswell and Miller (2000, p. 128) point out:

> An audit trail is established by researchers documenting the inquiry process through journaling and memoing, keeping a research log of all activities, developing a data collection chronology, and recording data analysis procedures clearly.

By being transparent about the research process I have provided a blueprint that others can use to reproduce the study.

The *confirmability* attribute 'attempts to show that the findings and the interpretations of the findings do not derive from the imagination of the researchers but are clearly linked to the data' Liamputtong 2019, p. 20). This criterion is achieved when researchers illustrate their reflexive role in the research process to help minimise 'investigator bias' (Maher et al. 2018, p. 3). In this chapter, I have discussed at length how I demonstrate reflexive research practice and how I negotiated my insider and outsider status during interviews. However, as a white, working mother in the privileged position of being an academic and a researcher, I was aware of how I brought my own set of assumptions and biases about what it means to be a mother to the project. Guided by an ethical and 'methodological awareness' (Silverman 2013, p. 286) of these issues, I remained sensitised to the need to bring credibility, trustworthiness and authenticity to my analysis.

4.5 Chapter summary

This chapter has explained the research approach I adopted to ensure a rigorous exploration of the communicative experiences of mothers living in a digital home. In espousing a social constructivist perspective that is positioned within an interpretivist paradigm, my study acknowledges that mothers' meanings in this regard are multiple and engendered through interactions with digital media – encounters that form part of their social world.

By combining theories of domestication and mediatisation in addition to concepts of parental mediation I created 'a space for synthesized understandings of media-related social transformations' (Ekström et al. 2016, p. 1090) in contemporary mothering. This framework is operationalised in the subsequent three chapters, Chapters 5, 6 and 7 in which the empirical findings are presented and discussed. Chapter 5 focuses on how the home is communicatively configured with digital media and how this changing landscape contributes to an intensification of contemporary mothers' experiences. Chapter 6 turns to mothers' own use of digital media and highlights how these interactions are shaped by four temporal constructs that reveal implications for mothers' time poverty. These dimensions reflect 1) the ways in which mothers' control how and when digital interactions occur, 2) identify how digital media help them manage their time and, 3) reveal how time is allocated for digital gaming and shows how demands for constant connectivity are negotiated. Chapter 7 puts the spotlight on mothers' perceptions and management of children's digital media use. Again, issues of time are highlighted in relation to the digital care work mothers undertake, with participant accounts emphasising how this role is negotiated through a lens of good mothering.

CHAPTER 5: Configuring the digital home

This chapter is the first of three to present empirical findings about mothers' experiences living with digital media in the home. It considers how the home is configured in terms of digital media ownership, what factors contribute to this ensemble and how meaning about digital media is constructed by mothers. By examining the domestication practices of mothers, the findings in this chapter also highlight measurable moments of mediatisation in their lives. These markers are in part evidenced by the number of devices in the home but, in the main, they are also seen in the way digital media are perceived and promulgated to be important for everyday life. The chapter demonstrates how the presence of digital media in the home is negotiated in relation to how they might impact mothers' roles. Appropriation of digital media is highlighted as a complex process that is shaped through perceptions of mothering and thus nuanced by gender.

This chapter explores holistically how contemporary mothering is experienced as both users and facilitators of digital media, within the context of a digitally rich and mediatised home. Specifically, this chapter attends to the latter of these concerns by focusing on the material presence of digital media in participants' homes to understand the contemporary conditions under which mothering takes place. Section 5.1 focuses on how mothers' appropriate digital media to support homelife, highlighting how domestication processes are often influenced by the need to feel in control of family relations. The section underlines how mothers' desire to connect with children is increasing mobile phone appropriation and highlights how new modes of television viewing present fresh opportunities and challenges for family cohesion.

Where Section 5.1 considers the voluntary appropriation practices of digital media as part of their role in the household, Section 5.2 focuses on the compulsory appropriation of digital media in response to the digital pedagogical policies of schools. This section shows the significant impact these practices have on shaping the material and communicative landscape of the home and the experiences of mothers. The findings identify the negative responses mothers have to educational digital policies which are perceived as financial imposts that undermine their autonomy and decision-making vis-à-vis digital media in the home. Ultimately however, as the findings in this section show, mothers, driven by the ideals of good mothering,

adapt their communication practices to the requirements of schools in support of their children's education.

Domestication theory, and particularly the concepts of appropriation and incorporation, is applied in this chapter against the backdrop of mediatisation processes, to illustrate how participants' experiences of mothering in a digital home requires constant negotiation about the meaning of digital media, for themselves, for family functioning and for society more broadly.

5.1 Appropriating digital media for homelife

As previously discussed in Chapters 1 and 3, the rise in digital media acquisition and its use in the domestic sphere is changing the space in which families interact and how mothers experience parenting. In this section, I emphasise the extent of these communicative changes by reporting the range and number of devices owned per household. Digital media appropriation does not only concern the material purchase or use of devices, but also pays attention to communicative acts such as planning, researching, thinking of, discussing and making decisions about which digital media to acquire (Haddon 2011; p. 313; Matassi, Boczkowski & Mitchelstein 2019, p. 2185; Scheerder, van Deursen & van Dijk 2019, p. 2101). Appropriation is the first important step in 'inscribing meaning and value' to digital media, which leads to 'decisions about its appropriate place or use' (Watulak & Whitfield 2016, p. 183). This study proffers important insights about what motivates or restricts mothers' appropriation practices in the home.

Hepp (2020a, p. 9) points out that both the material (digital media device and use) and the symbolic (meaning about those media) need to be accounted for when studying the influence of mediatisation in actors' lives. The section therefore begins with an overview of digital media ownership to contextualise the varying levels of saturation in individual participants' homes as a starting point for exploring how mothers make sense of this mediatised space. Assessing the number of devices in a home is also one way of measuring and thus operationalising mediatisation (Ekström et al. 2016) in mothers' lives. High levels of smartphone appropriation across participants' homes for example, are representative of intensive mothering practices because they provide what I have termed a 'digital umbilical cord', reflecting the symbolic role that phones play in mothers' everyday lives. The findings show that mothers engage in complex

meaning-making processes during their navigation of the digital home and highlights varying levels of resistance and acceptance to changes in communicative practices brought forth by digital media.

5.1.1 Motivating factors in digital media ownership

As outlined in Chapter 4, interviews for this study were held in Adelaide, South Australia between 2015 and 2016. In discussing their use of digital media devices most participants (14/17) reported having 5 or more devices in their homes, including smartphones (the most common), laptops, tablets (iPads or Android devices), desktop computers and games consoles. In this sub–section, I illustrate the motivating factors influencing mother's appropriation of smartphones – the most widely owned device across households – and desktop computers – the least popular device. The distribution of digital media devices across households is shown in Table 4.

Participants' homes contain a total mean value of 8.9 digital media technologies. This figure is significantly higher than South Australia's average of 5.9 devices per household and the national average of 7.8 (ABS 2018b). This increase may in part be explained by the socio-economic status of participants as more than half (9/17) are from affluent suburbs in the eastern and central parts of the city, all but two are in paid employment and the majority (10/17) have a university degree. These factors afford participants greater access to digital media than average Australians (Thomas, Wilson & Park 2018), but the findings reveal other issues have also contributed to the appropriation of devices by mothers.

Out of all the digital media devices that participants own, smart phones are the most common (50 in total). The high number of children within the sampled age range (9–16 years) contribute to this figure as most children have a phone of their own. Eight participants reported giving each of their children a smartphone, three mothers (Anita, Geraldine and Jemima) said at least one of their children had a smartphone, three reported children having mobile phones without internet capabilities and are rarely used (Danielle, Kitty and Emily) and three mothers had not yet given children phones because of their younger age (9–11 years) (Carol, Hannah and Margaret).

Table 4 *Number and type of digital media devices per household**

Participant name	Number, age and gender of children		Number and type of digital media device per household					
	Boys	***Girls***	***Smart phone***	***Tablet device***	***Laptop***	***Desktop***	***Games console***	***Total***
Anita	10, 13		3	2	3	0	1	9
Barbara	14		3	1	4	0	2	10
Carol	11		1	0	0	1	0	2
Danielle	14		2	3	1	1	0	7
Emily	12, 14		2	3	0	1	3	9
Frances		14	2	1	0	1	0	4
Geraldine		10, 12	3	5	2	0	1	11
Hannah	9		2	2	1	0	0	5
Isobel	13	11	4	2	4	0	1	11
Jemima	10	12	3	4	3	0	1	11
Kitty	9		2	3	4	0	2	11
Louise	16	12	4	1	1	2	0	8
Margaret		9, 10	2	1	2	0	0	5
Nicky	10	12	4	4	1	3	1	13
Olivia	12	13	4	2	4	0	1	11
Pat	15		5	3	1	1	4	12
Rhiannon	12, 16		4	1	3	1	4	13
Total number of devices			**50**	**38**	**34**	**11**	**21**	**152**
Mean no. of devices per household in the sample			**2.9**	**2.2**	**2**	**0.6**	**1.2**	**8.9**
Mean no. of devices per household in South Australia (ABS 2018b)[9]**			**1.9**	**1**		**1.8*** **	**0.4**	**5.9**

* Household includes mothers, their partners and children inside the sample range (e.g. children older than 16 or younger than 9, along with the devices they use, have been removed from this table of analysis).
** ABS data includes all members of the household.
*** ABS data combines desktop and laptop computer.

[9] The Australian Bureau of Statistics (2018b) calculated a lower national (7.8) and state average (5.9) of internet connected devices with children under the age of 15 years compared to the research sample. Data were collected in the same period, 2016–2017.

Carol was among the group who had refrained from giving her children a phone because until very recently, she did not have one herself and could not imagine why her children would need one. Carol's modest inventory of only one smartphone and a desktop computer stands out as unusual against most other participants' high levels of ownership. She explained that although she had previously owned a basic model of mobile phone, she had intentionally chosen not to have a phone that could access the internet: 'I wanted to keep it for the computer, so if I was out, I didn't want it taking over my whole life'. Recently however, she had been given a smartphone by a friend and explained how she was consciously managing its presence and use:

> …if my phone goes off I might have a quick look and decide there and then if I need to reply or not and if I decide it's not important I'll go back in the lounge, so I'm not on it 24/7 or anything, so it's pretty controlled.

Her use of the word 'controlled' indicates the meaning Carol ascribes to digital media in the home. Livingstone (1992, p. 110) notes that for women, the notion of controlling technologies concerns 'keeping potential domestic chaos at bay, keeping things under control, having control over things'. Carol has constructed digital media within a frame of control, appropriating the smartphone to fit within pre-existing values about family interaction (Livingstone 1992; Müller 2019). However, Carol also exhibits a newfound enthusiasm for the affordances of the smartphone that indicates a sudden dependability:

> I might check my Facebook page or I'll just quickly Google something. If I'm out and about I might just look something up rather than wait until I'm home, I'll just do it there and then … Before I just used it as a phone, calling, texting and stuff but I've quickly adapted to this and I think I can't go back to not having this stuff now. So, it's funny how fast you adapt to something new.

Carol's reflections highlight how her perceptions and subsequent appropriation of the mobile phone are transforming her communicative practices as she incorporates its use into different areas of her life. She has extended its use beyond the home and constructs new meaning about its convergent possibilities. However, she also resists the influence of ubiquitous digital media by limiting its presence in the home and carefully controls the devices that do exist, designating specific tasks, time periods and zones to their uses (Bengtsson 2018). These strategies of control demonstrate how Carol is consciously negotiating and managing mediatisation in her life as Müller (2019, pp. 124-125) points outs:

> …media users are aware that media use needs to be practiced consciously and that they need to think about how to use media appropriately. Mediatization is not just practiced, but people try

> to manage its consequences in a way that is suitable for themselves as well as for their social environment.

Unlike Carol's home, the majority of mothers in my research reported having multiple smartphones that, as other studies have shown, are used to maintain an emotional connection with children when physically absent from them (Kim 2017; Longhurst 2013; Madianou 2012; Rakow & Navarro 1993). However, unlike some of this other research, my study highlights the empowerment mothers feel about being able to check-in with children and to coordinate routine activities like collecting them from school. Older children in particular are given phones when they start transporting themselves independently from school. Many mothers used emphatic or impassioned language to express their rationale for giving children mobile phones, pointing out how necessary they have become for contemporary mothering:

> I always send him a message to say, because I always have to pick him up later with driving between the two schools so I need a message to say 'hey, let me know where you're waiting for me', just a little tag to communicate (Rhiannon, sons aged 12 and 16 years).

> I had to give them a phone so that if I was running late, I could just send them a message (Pat, 15-year-old son)

> The bus picks him up a couple of minutes up the road so it [mobile phone] was to send a text message to say he was on the bus, pretty much all he would write, 'On the bus', so I knew he was ok (Barbara, 14-year-old son).

> My daughter had one of our old phones because she's recently just started catching the bus home so we'd given her that technology just so that we knew, and if we had to change plans for whatever reason we can give her a call at school (Jemima, 10-year-old son, 12-year-old daughter).

Lim's (2020, 2016, p. 27) work on transcendent parenting highlights how parents are constantly connected to children via 'digital tethers'. My findings too suggest that mothers have constructed the mobile phone as a digital umbilical cord to enable them to stay in frequent contact with children. However, phrases like 'I need to message', 'I had to give them a phone' and 'I knew he was ok' highlight how meanings about mobiles are connected to intensive mothering practices and engender feelings of good mothering.

Overall, my study found that mothers' appropriation of the mobile phone for daily interaction with children has become what some mediatisation scholars consider a naturalised communicative practice that contributes to the function and rhythm of family life (e.g. Andersen 2018; Couldry & Hepp 2016; Hasebrink & Hepp 2017). Chapter 2 highlighted

that the mobile phone can present a ‘double-bind’ to working mothers who feel they work a ‘parallel shift’ as they provide remote care to children in addition to undertaking paid labour (Rakow & Navarro 1993; Lim 2014; Sowon et al. 2019). In contrast, my findings indicate that the capacity to perform remote mothering (Rakow & Navarro 1993) via a smartphone enriches mothers’ experiences. The device appears to be indispensable for mothering, having ‘become socio-culturally ritualized to the extent that the removal of these media would imply a serious rupture to everyday life’ (Jansson 2015, p. 382). The effects of such deep mediatisation, as Hepp (2020) refers to it, is exhibited by Olivia who spoke of a recent incident in which her son had gone for a long bike ride but had forgotten to take his phone:

> …his chain fell off and so he had to walk back in the dark, and we were like ‘where is he?’ and we had to go walk in the streets to find him and I found him and I said ‘why didn’t you take your phone?’ and he said ‘I forgot’ and he was so upset and so angry. He knew his way, but he had to walk so it took him ages and it was dark by the time, he even got three streets away when I found him, and I was like ‘dude, your phone’.

By not taking his phone with him, Olivia’s son caused his family untold anxiety. But it was Olivia’s comment to her son to remember his phone that also highlights an interesting phenomenon emerging from mothers’ appropriation of the phone for children’s use. By restructuring communicative conventions in the family, and especially for children, these findings suggest that mothers are prescribing a certain logic to mobile phone use that conditions digital interactions in the home. Children are being encouraged to associate the phone with safety and affective ties as mothers’ own lives become more entangled with digital media for intensive mothering. These communicative changes signal a deep and complex process of mediatisation in contemporary mothering. However, it is not the mobile phone per se that is moulding mothers’ interactions with children or vice-versa, rather it is the ‘attributed – and therefore, imagined – functionalities’ of the phone (Hepp 2020, p. 66), such as mothers’ constructions of it as an umbilical cord, that reveal its logic.

The findings confirm that the smartphone holds a great deal of symbolic value for mothers and its perceived compatibility for mothering influences mothers’ appropriation of the device. In contrast to the large number of smartphones in participants’ homes, desktop computers were a rare feature. Computer use also differs dramatically from the phone which are generally reserved for social media, messaging and informal internet research. Rather, desktop computers have been assigned pragmatic uses that assist mothers with more formal household tasks, such

as online banking, emailing, collating and printing documents. The following extracts highlight how mothers' perceptions, objectification (or symbolism) and appropriation of the desktop computer are shaped by what Livingstone (1992) refers to as a construct of functionality based on convenience and perceived utility for managing domestic life:

> So, at home that [computer] normally sits on that desk over there, so if I want to do banking or studying – personal studying not anything else – then I'll jump on that. It's easier, it's got a mouse and a big screen, things like that (Pat).

> …to do the bills and stuff like that I use the computer […] I'm just a bit old fashioned, I like to be sitting there with everything and stapling and all that (Emily).

> …emails come through there [the computer] and the bills, I just pay them on there, so yeah, I do use it for that (Frances).

These mothers' strategic uses of the computer support theories of technology acceptance and adoption by demonstrating how attributes related to perceived ease of use and compatibility (Davis 1989; Rogers 2003) support its incorporation into their everyday routine actions.

Carol also uses her computer to undertake administrative tasks, but not for banking or paying bills because she perceives these activities as potentially exposing herself to online risks:

> I've got a funny thing about accessing things online, I know it's getting better and more secure and stuff but I'm still a bit old school in that way. I don't do BPay or anything like that. Occasionally I pay something online if that's the only other option but generally I don't do it that way, I just go to the shop. Even if I buy things online I'll actually go to the bank and transfer the money in myself rather than doing it online. I've just got a thing about people accessing information and stuff. I know it's quite secure and it's getting better but there's still that little doubt.

Although banking online is, for most of the mothers in this study, an easier option than physical banking, Carol has decided to resist this mediatised practice and continue to manage her finances in a traditional manner. In terms of the technology adoption process, Carol sees no relative advantage to moving her banking practices online, despite its mainstream diffusion in society (e.g. Aitkin, Hunt & Lin 2015; Min, Fung So & Jeong 2019; Rogers 2003). The risks she observes to her privacy and financial security means she has rejected this function, dismissing it as incompatible with her values. What might be considered an archaic concern, even at the time the interviews took place, is reinforced by Carol herself who repeatedly refers to her attitudes, and those of her husband (see Chapter 7), as 'old school'. She uses this phrase when talking about how her knowledge, appropriation and use of digital media is limited.

Carol's computer, which is situated in a spare room that is used as an office, is used at various points by her throughout the day. Her two children also share use of the computer before and after school, but her husband, she reports, rarely uses it. Carol is currently unemployed, looking for work and undertakes voluntary work which requires use of a word processing application, email and the internet for research. Because she is home most of the time Carol leaves the computer on all day and turns it off at night after a last check of her emails because, as she says, this helps her 'to keep on top of' her correspondence. Clearing her inbox and switching off the computer each day has become a ritualised communicative action that gives her control in her decisions about what it is used for, when and why.

For Carol, the computer is primarily a tool for everyday organisation and administration. She does however admit to also playing the odd game and has a Facebook account that she regularly engages with, use that seems incongruous with the risks she raised in relation to online banking. However, as Müller (2016, p. 113) points out, 'during the process of appropriation, users negotiate how a (digital) medium is integrated in activities in everyday life and how usage is molded according to the contexts it is situated'. As Carol's digital media uses diversifies then, extending beyond administrative to social, she is constructing new meanings about digital media and is negotiating different ways of interacting with them that work for her.

5.1.2 Redefining 'television' in a digital home

While the appropriation practices of mothers were easier to define and more identifiable in relation to smartphone and computer use, contemporary forms of television means that its appropriation and use is more difficult to discern. In part, this is due to the medium's familiarity and its ritualistic place and use in family life. Its somewhat innocuous presence in the home symbolises how deeply embedded the practice of television viewing has become, which Berker et al. (2006, p. 3) relate to sense-making:

> When the domestication of technologies has been "successful", the technologies are comfortable, useful tools – functional and/or symbolic – that are reliable and trustworthy. This is often the case with the phone, radio and television. They have all lost their magic and have become part of the routine.

In the digital home, however, the impact and meaning of television is further camouflaged by its ubiquity, wherein its presence or physical form is no longer confined to a 'set' 'but can now be used on different platforms and technical devices' (Mikos 2016, p. 155). Television has

transcended its original intent to broadcast scheduled network content at set times in the day on 'relatively small, standard-definition, picture tube sets' (Newman & Levine 2012, p. 3), to provide a constant stream of video-on-demand content through various devices (Mikos 2016). Perhaps because of its naturalised and taken-for-granted existence in the home and the simultaneous challenge of separating out television content that is consumed on the communal screen from that engaged in privately on portable devices, mothers seldom discussed their appropriation of television as a traditional, stand-alone device. Rather, participants spoke of how media content is accessed across multiple devices. Two cases are highlighted below because they demonstrate polarised perceptions of the way television is changing, not just in terms of hardware and content but also the way families are interacting in the home.

Nearly half (8/17) of the mothers interviewed for this study had redefined their use of television content by appropriating media streaming services like Netflix and Stan so that family members could watch different content at the same time on various devices. Scheerder, van Deursen, and van Dijk (2019, p. 2111) point to this process of redefinition as an example of conversion in the domestication process which occurs when people first change the way a device functions in their lives. For example, despite having a relatively high number of gaming consoles (such as a Playstation or Xbox) across households (21 in total), these were more often used as media streaming devices to access Netflix content on the TV screen than to play games.

Nicky illustrates the extent to which the role of television has been transformed in her home. She spoke extensively and with some enthusiasm about how streaming devices enable family members to curate content on individualised devices in different parts of the house, providing more flexibility around their consumption:

> In this room we've got the telly and we have a Mac mini attached to that as a media centre for watching our iTunes movies and those sorts of things and anything like that. And in the other room there is a smaller telly that's got the Xbox connected to it and it's also got you know, like an Apple TV, so the Mac mini is the base for that and so if someone, two people want to watch things at the same time, which doesn't really happen that often. But say Sam [husband] wants to watch a sports programme in here, it's only going to come through on this telly. The children can still watch something in the other room through the Apple TV. The Apple TV has YouTube on it as well and it has Netflix and Stan that can also be watched through the Apple TV, which means you can have things going on in two different places, but wirelessly.

Digital media are appropriated for their flexibility to entertain the family which, for Nicky, brings a sense of cohesion to the household. She perceives digital media as a positive addition

to family life and negotiates mediatisation by layering new patterns of media consumption (streaming media) over existing family values and communicative practices (Jansson 2013; Müller 2019). Her description of how devices are arranged in different rooms in the home also reveal how digital media contribute to the sensorial organisation of the home (Bengtsson 2018). Such perceptions, as Jansson (2013, p. 291) says, are at the heart of mediatisation processes:

> As the mediatization perspective indicates, the ways in which new media are appropriated depend on pre-established textures in households, public spaces, and so on. What is new today is that private media afford the possibility to "go with the flow", to amalgamate with pre-existing textures and assist their owners through all regions of daily life. What this means is that while the media saturate our daily experiences to an increasing extent, and extend our connectivities in time and space, they also function as social cement.

For Nicky then, the transient nature of digital television as it is experienced through multiple devices, provide the kind of social cement that Jansson (2013) refers to. Geraldine also acknowledges the affordances of multi-modal devices:

> The Apple TV's got games on it now so what we're finding is, the Apple TV now you can access the internet through it, you access your movies through it, you access your TV programs through it, there are games on it, so that's kind of replacing all the individual consoles. And we're streaming everything, we put our photos up through there you know, so, yeah that's where everything is sort of changing a bit really.

Both participants describe the embedded and integrated experience of technologies in their family's routine media practices. For Geraldine, however, new television practices, and the technologies that are facilitating these changes, also pose a threat to the family unit. Expressing concern about the centrifugal force of portable devices and streaming services, she said:

> …we don't watch as much TV anymore, nowhere near as much television and it was funny because we were talking about how we have to make a concerted effort with the kids to sit down and watch TV as a family coz it makes us actually sit together in the lounge as a family, otherwise we all go off to our own devices and watch via streaming and we never get together.

Consistent with early television studies, Geraldine's perception of family cohesion is based on physical co-location in the same room, set around a 'family hearth' (Morley 1988, p. 2), watching the same televisual content (Hiniker, Schoenebeck & Kientz 2016). Media streaming devices are perceived as potentially disruptive to family unity and so Geraldine attempts to control this influence by attempting to bring the family together. Livingstone and Sefton-Green's (2016, p. 167) longitudinal study of children's digital media use in the home and at school found a similar tension wherein 'Being together, in the media-rich home, is significantly

a matter of choice, involving more negotiation, some conflict, and a general openness to the possibility of sharing [attention]'. In Geraldine's case, her attempts to orchestrate family time around the television demonstrates resistance towards her family's changing patterns of interaction as individualised digital media use takes its hold in her home. At the same time, her comment that she is 'streaming everything' implies she is also adapting to these communicative changes which suggests she is negotiating mediatisation through her appropriation practices.

This section has illustrated how mothers construct meanings and uses for digital media that shapes how they are domesticated in the home. There is a natural alignment between the levels of digital media ownership and mothers' perceptions of and interest in using these, as contrasted in the cases of Carol and Nicky. However, the need for children to have access to digital media devices for school-related work is also a factor shaping appropriation practices in the home. The implications that school's digital policies have for mothers is the focus of the next section.

5.2 Appropriating digital media for schoolwork

As explained in Chapter 2, since the Australian government removed funding that entitled each high-school aged child to a laptop to use at school, state and territory governments have been responsible for ensuring schools have adequate resources to support digital learning initiatives. My findings suggest that even within those jurisdictions an inconsistent approach has been taken between schools. In this section, I explore how the digital pedagogical practices of the schools that participants' children attend have contributed to the appropriation of digital media devices and the communicative figuration of the home.

The findings show that an increase in ownership of laptops and tablets is directly attributable to school demands that parents provide children with a device to use at school and in the home. School policies that require students to undertake digital homework tasks increases the time children spend using devices, leaving some mothers feeling disempowered about their agency in managing children's digital media use. Mothers' experiences are further impacted by changes in school communication which require them to engage in online systems to stay abreast of children's school progress, although, in some instances, these practices were also perceived favourably as working around their busy lives.

The digital pedagogical polices of schools have been framed as beneficial to children's cognitive and social well-being – discourses that play to ideals of good parenting and intensive mothering. This section emphasises the pressures mothers feel to adapt their communicative practices to meet the expectations of such policies, actions that are shaped by ambitions of good mothering. The moulding forces of mediatisation are apparent in the way school's digital pedagogies have influenced the presence and use of digital media in the home, thus illustrating how appropriation is often negotiated through contention and conflict.

5.2.1 'We have to pay for a laptop; it's compulsory.'

The impact of school digital policies on participants' homelife varies across the 17 households, but in a majority of cases (12/17), parents were required to provide children with a device to use at school. These mothers indicated their children attended a school with a 1:1 policy, that is an initiative that enables each child to have continuous access to a digital device for learning. These programs range from parents being mandated to pay for a school-preferred but non-specified device, renting a device and returning it at the end of the school year, paying for a mandated and prescribed device, or providing a pre-existing device as part of a bring your own device (BYOD) initiative (see Table 5). Of the total number of laptops and tablets owned in participants' homes, more than one third (39%) were purchased because of 1:1 digital programs. In 65% of these cases (11/17), provision of a device was mandatory.

Seven mothers reported purchasing or renting 9 laptops for school-use which represent almost one quarter (24%) of all laptops owned. Four mothers had acquired 4 iPads, equating to 12% of all tablet devices owned. Of the remaining 6 participants, 4 had not been required to purchase or provide a device for school use because their children attended a school without a 1:1 digital policy[10] (Carol, Frances, Kitty, Margaret), one participant had a child who attended a BYOD school (Hannah) and provided her own device and one had a child who used a school provided device at school only (Pat).

[10] Although outside the scope of the current study, it was surprising to learn that not all schools had adopted 1-1 programs considering the Federal and state government's priority on increasing children's access to digital media in support of the Technologies Curriculum.

As these findings attest, the 1:1 digital programs that have been implemented in schools have contributed to the shaping of a digital home by driving up the appropriation of laptops and tablets (see Table 5).

Table 5 Appropriation of digital media devices according to digital pedagogical policies of children's schools

	Type and number of devices appropriated for school use		*School digital policy*
***Participants* (n=17)**	***Laptop (n=38)***	***Tablet (n=34)***	
Anita		1	Mandated
Barbara	1		Mandated, prescribed
Carol			No policy
Danielle		1	Mandated, BYOD
Emily	1		Mandated
Frances			No policy
Geraldine		2	Mandated, prescribed
Hannah			Optional, BYOD
Isobel	2		Mandated, prescribed
Jemima	1		Mandated, prescribed
Nicky	1		Mandated, prescribed
Louise		1	Mandated, rented from school
Margaret			No policy
Kitty			No policy
Olivia	2		Mandated, rented from school
Pat			School provided laptop
Rhiannon	1		Mandated
Devices purchased for school use %	**24**	**12**	**39**

Apart from their material implications, these policies also have communicative and financial ramifications for families, as Nicky highlights:

> We have to pay for a laptop, it is compulsory. It's about $1600 and it's a Dell laptop but what you're paying for mainly is access to all of the software on it so you get a laptop fully installed with all of the software on it that they want you to have**.**

Not only is the cost of purchasing a device significant, but Nicky also alludes to the fact that the school has control over the software that is installed on the laptop, regardless of its compatibility with how other devices are used in the household. For instance, Nicky and her

husband are Mac users who own a desktop computer each and have multiple iPads and iPhones. Yet, because Windows is the dominant operating system used at school they decided their children 'are just not old enough to switch between the two happily yet, so we opted to get them a Windows desktop earlier this year.' Even beyond the purchase of a prescribed school laptop then, the digital practices of schools are shown, in this example, at least, to influence the way digital media are perceived, appropriated and used in the home.

For the majority of mothers whose children attended a school with a 1:1 policy, the cost of purchasing devices was not identified as a major concern, possibly because they live in relatively affluent areas and in two income households. Danielle, however, did experience some inequity when she and her son moved to Adelaide from overseas. She explained that when he started school they were met with the prospect of digital pedagogy, and that this was not something they had encountered in their home country. Because her son did not have his own digital media device to learn on, Danielle described how she watched his educational opportunities diminish:

> The school required one [iPad] for him to be able to study with. They said they'd be more than happy to provide one but they never did. During the whole time he didn't have an iPad, they wouldn't provide him one, so even though they said they would, they never did … They [school children] get something explained and they do a lot of things through a whiteboard and scanner but also through the computers, so some of them have laptops with them, the kids, but some others only the iPad, so Jimmy was the only one that couldn't do the task.

Danielle realised that her son's access to a device was essential and that he would remain socially and pedagogically disadvantaged if she did not provide him with one, despite the financial hardship this imposed. Goodwin and Huppatz (2010, p. 14) point out that school policies like these are 'exposed not only as placing pressure on mothers, but actually dependent on mothers' engagement with this pressure'. Danielle's account highlights how this pressure is influenced though mediatisation at an institutional level, whereby her interactions are shaped by the logics of digital pedagogy and by social expectations about her educative role. Like other mothers in this study, Danielle's experience suggests that mediatisation is experienced and negotiated through perceptions of good mothering.

Even when schools' digital policies appear to be more equitable, such as bring your own device (BYOD) initiatives that allow any device to be used at school, there are implicit assumptions made about the quantity and range of digital media available in children's homes. Hannah, who

is the only participant with a child at a BYOD school, explains the benefit of the initiative in relation to her 9-year old son. Her account however, only tells part of the story:

> …in this particular school you could have any device, it could be a laptop, could be an iPad or any kind of tablet, it's not specific. I already had the iPad which was mine, so I basically donated it to him for that purpose.

When I asked her later in the interview what other digital media devices are used in the home, she mentioned she had purchased an iPad for her own use because her son's appropriation of the other one for schoolwork meant 'it was really hard to get back'. The original intention of BYOD initiatives then, to increase 1:1 learning for children in the classroom whilst eliminating the financial burden on parents (Jannsen & Philipson 2015; Maher & Twining 2016), is undermined when there are not enough existing devices in the home to spare.

Several mothers expressed their ambivalence and objection about providing a digital media device for school use, using phrases such as 'have to buy' (Barbara and Emily), 'compulsory' (Nicky), and having 'no choice' (Olivia, Isobel). Isobel explained that since her two children (son aged 12, daughter aged 13) were in Year 4 (8–9 years old), her family had been required to purchase a school prescribed device:

> We didn't actually get any choice in the matter. Like we couldn't have just gone out and bought one ourselves, they were all given a MacBook Air in Year 4 and there was no, 'if you want to take an iPad you can', it was 'this is what it is and its X amount over three years'.

Olivia too referenced how there was no choice in the decision to purchase a laptop for her daughter to use at high school:

> [Y]ou can't bring your own, you have to buy one of theirs. She has a much better laptop than all three of us so hers was a more expensive laptop and they try to make it last the whole five years – they get a good enough one so it can last.

These accounts by mothers illustrate how school's digital policies are moulding the appropriation practices of mothers by emphasising digital media as indispensable for children's learning and development. The process of appropriation usually occurs because members of a household ascribe meanings to a technology based on how they perceive it fits with the values or moral economy of the household (Morley 1992). In 65% of cases however, families were not given a choice whether to purchase a new device and, of these, 29% (5/11) of mothers reported having to purchase a device prescribed by the school. Furthermore, mothers'

perceptions of digital pedagogy as beneficial to children's education does not necessarily align with how it has been positioned by institutions. The outcome, as these findings show, is that these mothers are frustrated at not having more autonomy in decisions about which digital media to appropriate.

Martinez and Olsson (2020) found a similar power struggle in their recent domestication study, although their focus was on how teachers negotiate the use of digital media in schools. Because the acquisition of devices was controlled by school administrators, the study found that, for teachers, 'the limited agency in the appropriation phase could affect the domestication process in negative ways' (Martinez & Olsson 2020, p. 8) and revealed that appropriation had 'more to do with an expression of professional relations of power between employers and employees' (p. 13). For the mothers in my study, appropriation of digital media for school use appears to be negotiated through a similar set of power relations. According to Müller (2019, p. 116), examining this conflict is key to understanding how appropriation practices are influenced by mediatisation:

> As mediatization is based on the saturation of different social spheres with media, meaning production during the appropriation of technologies set the course for how media are integrated and used in everyday life. Thus, if and how media should be used is negotiated when a new medium is brought to the sphere where the users aim to utilize it in the future. Thus, appropriation as the background of mediatization means to analyze the area of conflict that arises if media users weigh their interests in appropriating new media against the demands of power.

In contrast to other mothers' accounts about the influence of schools' digital policies, and, in what seems like a contravention to the national focus on digital pedagogy, Louise explained how the headmaster at her son's school had 'deliberately not done the big computer switch in classrooms' which meant that 'a lot of other children are bringing in their own devices because the school system is not good'. For Louise and her son, the school's low-grade use of digital media for learning in the classroom suited them, although she had observed other parents expressing discontent that 'the equipment is terrible, it needs to be better'. Yet, despite the absence of digital media use in her son's classroom, teachers at his school still set digital homework, as the next section illustrates.

5.2.2 'Study keeps drawing them back to the devices'

The findings suggest that irrespective of the kind of 1:1 digital policy a school adopts or even if they choose to implement one, children's use of digital media for homework has increased.

The assumption by schools that children have the appropriate support, opportunity and space in the home to undertake school-related work using a digital media device has complex ramifications for mothers, particularly in challenging the rules and routines of family life and for increasing the burden of unpaid care work in the home.

As was discussed in Chapter 2, one of the many roles assigned to mothers in the home is that of educator who provides pedagogical support and facilitates opportunities for intellectual and social stimulation. Although mothers are already engaged in supervising children's traditional, paper-based homework, its digital equivalent presents technical and social challenges that require an additional investment of mothers' time and labour. Louise's testament illustrates these issues by highlighting two core challenges of mothering in a digital home: how to regulate the time children spend using devices when access is required for study, and how to prevent children becoming distracted from homework on devices that are also used for leisure:

> Hugo is very, very studious, he's a very hard worker but it's mixed up with the social media or YouTube being on the screen. I can say 'I'm turning off the Internet, that's it', but then he can't do any homework because he might be on Google Docs with someone else, so it's really hard to say, 'that's it'.

As mentioned above, her children go to a school that 'doesn't put a priority on technology', yet an expectation remains that students will use digital devices to undertake homework online. Louise expressed belligerence about the impact of digital homework on her homelife and the internal struggle she faces trying to balance her own parental values with the pedagogical needs of her son (16 years old):

> I think it is an ongoing battle and only yesterday I was thinking I want to cut them back, but Hugo is too studious and too distracted, like he spends too much time, he's not sporty. Their study keeps drawing them back to the devices and as we know, hours pass and we just don't know where the time has gone. That's really dangerous. But if I stop him then he gets stressed because he's not working, but in my mind, and he wouldn't realise it, half of the time he's on the computer is actually for pleasure and faffing around.

Louise emphasises the challenge of discerning between her son's use of digital media for homework and entertainment and highlights the conflict this arouses in her mothering identity. On the one hand, she self-imposes limits on her agency to regulate her son's internet access to avoid him becoming stressed about his studies. On the other hand, Louise perceives much of her son's computer use as 'faffing' instead of studying. Louise contests the legitimacy of her

son's computer use for learning yet she also feels obliged to support it because of the social forces of digital pedagogy and her perceived role as pedagogue and good mother.

Louise's experiences demonstrate, as other studies have (Dias & Brito 2018; Keane & Keane 2018), that digital homework is blurring the lines between children's use of digital media for leisure and education. Other mothers reflected a similar ambivalence about their children's use of digital media for homework and highlighted the extra effort that is required to ensure devices are being used appropriately by children:

> The problem is, they stay on the computers right up until dinner so I don't know, and this is the problem, why are they spending so long doing homework, is it all homework? That's what we're wondering…I can look at the reflection and see what Lincoln's [12] on, but I haven't been able to catch him doing anything but homework. Leah's [13] a bit different, I often catch her doing what she shouldn't be doing. She's a bit more easily distracted I think by her friends messaging and things like that (Olivia)

> Amanda [12] has a lot of friends who are obviously on their devices a lot of the time, a lot of the day, so they're always texting…So, she gets distracted is the upshot, and we make her come out here [kitchen] when we need to, we make her come out here and do her homework at the bench. So, we try to monitor it, but we can't physically see the screen, and we know that she gets distracted from time to time, so it's something we're constantly trying to manage all the time (Geraldine)

Both Olivia and Geraldine make interesting observations about their daughters' tendency to use the time that should be spent on homework socialising with friends. Both women have found strategies to help them manage this possibility, with Olivia looking at the reflection from the screen to see what content her children are accessing and Geraldine insisting her daughter does her homework in a communal room. These actions highlight how mothers' communicative practices are being altered by the impost of digital homework policies.

Hannah also illustrates how this cultural shift impacts her mothering experience, highlighting the challenge of regulating her 9-year-old son's use of digital media when it could interfere with his academic obligations:

> He loves it [iPad], and obviously he uses it for pleasure as well, so that comes into it, and we have to try really hard to set those limits … I can't complain that he doesn't do his homework, it's just that then it becomes more of a task for us as parents to say 'okay that's enough'.

Anita also identifies with Hannah's experiences. Her attempts at managing her 13-year-old son's digital schoolwork means compromising her rules about his device use and renegotiating her values regarding her children's physical activity against their educational needs. Having

asked Anita what strategies she used to help regulate the time her children spend on devices, she said:

> I always put a period of at least an hour in the evening when they've [sons] got to go outside to play, especially now it's summer. But Adrian's got to use his iPad for homework, things like that, so sometimes when I say, 'now's the time you're doing homework' or 'playing outside', well, Adrian's got to pick up his iPad to do his homework, so he's still on it. So that's a bit hard.

In addition to mothers' scepticism about how much time children actually spend on devices doing homework, the accounts put forward by these mothers also highlight how their authority to set limits around its access are challenged by digital homework policies.

Like Anita, Barbara has noticed physical changes in her 14-year-old son due in part to increased access to and use of digital media for schoolwork and reflects, as other mothers have, how essential devices are for a good education:

> Alex always played outside as a little kid but now, with technology, and it's becoming more and more um, needed, so that with his homework a lot of the time, he's in his room doing that rather than being outside.

Barbara's use of the word 'needed' again implies an indispensability about digital media use for learning. She is aware of the deep connection between the two constructs and tries to adapt her perceptions to accommodate the behavioural changes in her son, albeit with some remorse.

Other mothers also mention a remarkable change in the time their children now spend using devices for schoolwork, particularly in the transition from primary to high school:

> John [14 years] I've noticed is more on the internet, Googling and he's got his flash drive from school that he'll then bring home and then work on the computer here and Trenton [12-years] has got Mathletics and stuff like that on his iPad that he'll do so I have actually noticed just this last year that it has increased with their use of devices in school stuff (Emily).

> He's [13-years] on it a lot more I think coz they have to use it for research, so he uses it a lot, compared to before when everything was sort of written and yeah, everything is typed up. They're not handwriting as much as they were at primary school (Anita).

Digital media then, are requisite for maintaining an effective school–home nexus. Yet the pressure to provide access to digital media for school-based learning in the home is more challenging for mothers who do not have as much experience or interest in technology. Frances, for example, demonstrates the moulding effect school policies are having on her media repertoire, explaining that she had to acquire software on her computer for her daughter to

complete a school project. As one of the two participants with fewer than 5 digital media devices across households she admitted 'I'm not very good on the computer, I've only just learnt to do cut and paste.' Her husband, she said, 'is even worse because he doesn't even know how to email or turn the computer on'. Given the family's limited knowledge of computing Frances needed to draw on the expertise of a friend to help facilitate her daughter's homework requirements:

> An assignment was due on the Monday but we didn't have PowerPoint. We've got a friend that's very good at the computer, very good family friend who can fix computers, can build computers can do everything so we rang him and he was here for 10 minutes and PowerPoint's on. So, we rely on him a lot if there are any computer problems.

Again, the pedagogical practices of schools are shown to increase appropriation of digital media in the home and influence mothers' meaning-making processes by aligning ownership and use of digital media with a good education.

In the main, digital homework policies were perceived pejoratively as impacting mothers' agency regarding rules around how and when children can interact with digital media in the home. The temporal impact of children's increased use of digital media for academic purposes has been particularly significant in shaping mothers' communicative and domestication processes as they feel obliged to accommodate the demands of digital homework irrespective of their own ambivalence.

Alongside these perceptions, there were a few examples where mothers highlight the benefits of digital media for learning (these perspectives are taken up further in Chapter 7 where I outline the digital management strategies of mothers). Emily, for example, explained the educative benefit of YouTube for her autistic son:

> There is actually a teacher who's done a whole heap of YouTube videos around maths. One of the things for John is he finds it hard in the classroom when they're talking about how to do the actual sums so he'll come home and YouTube this teacher, find the lesson they're working on, put his ear phones on, listen, watch it, and he went from a D- to a B- in a term.

Similarly, Nicky has found supportive resources in YouTube and other online content to aid her dyslexic son's learning and Louise highlighted an instance where her son had used the internet to contact a US-based Professor about information he hoped to include in a school project. These examples emphasise mothers' positive perceptions about the potential for digital media to enhance educative outcomes. However, in each case, it was because of the initiative

mothers or children took themselves to find these resources that made them so valuable for learning, and not the formal routes to digital pedagogy that schools prescribe.

Digital homework tasks are shown in these findings to increase the time children spend on devices and provoke the need for additional unpaid care work by mothers. Although physical supervision was not indicated as a requirement of this work, there were concerns about children's capacity to focus on school-related tasks on a device that also offered unfettered access to more entertaining content. The challenge for contemporary mothers then, is to facilitate access to digital media for learning whilst discouraging excessive or inappropriate use. Even though homework has and continues to be a routine activity in family households, it is the fact that learning has become contingent on digital media use, due to mediatisation processes, that produces a site of struggle for mothers.

5.2.3 Communicative practices of schools

As other research shows (Brieter & Ruhe 2018), the media ensembles of schools, that is, the communication systems that schools use to distribute information to families, are found to be shaping mothers' communicative practices. Participants spoke, for example, of the expectation by schools that parents would install school apps to find out about sports results, assignments, grades and school news or to access parenting portals, social media pages and school websites. These systems can prove to be an efficient means of communication for busy mothers, however, they can also provoke low-levels of anxiety about the prospect of being ill-informed.

Noting the benefit of online school platforms Geraldine explains how her children's school pushes out information to parents:

> The school interacts with us via apps now so all Amanda's results, her timetable, her assignments, everything. Her details are online and on the app through the [School name] website which is installed on her iPad. And we can access that through the parent portal and some general parent stuff, but mainly Amanda's stuff which is good because we get to check the homework, assignments, results which has been quite often because they give us their results but also the class averages.

Whilst Geraldine finds the school's parenting portal useful now, her experiences were not always as positive. She explained that the school's expectation that parents would access the portal had not been clearly communicated when her daughter had started school. She had not received any reports from the school about how her daughter was progressing and so, out of

concern for her grades Geraldine contacted the school. It was then she was informed that parents are expected to check their children's progress on the portal.

Other mothers also mentioned that most of the school-related information they receive is via school apps. Isobel pointed out that 'all of our newsletters are online, that's emailed out to us, and all of the sporting results are all on apps on phones, and venues are all online as well'. Isobel's example highlights how mothers' experiences are becoming intensified by these new communicative practices. They are expected to have a mobile phone with the capacity to install various applications and to be efficacious with accessing information online and at any time. The consequence of not conforming to these prescribed methods of communication or not being able to access them, can lead to mothers missing out on important information, as Danielle explains, 'the school has an app which they made us download, but I couldn't download it coz my phone was full and within that app there are newsletters but there are other things.' The use of the words 'they made us' by Danielle indicates reluctant compliance with the school's preferred system of information-sharing.

In these examples, schools are promulgating a logic of communication practice by expecting parents to install mobile applications, regardless of the technical or possible financial implications. However, these mediatised practices are not only unidirectional. Following Geraldine's observations above, she reflected on the role of parents in shaping the communicative figuration of schools:

> As parents our expectations have changed too, so we expect information to be available to us now that wasn't before. We expect it all to be up immediately on the website or via the Facebook page. The parents forced [school name] to put a Facebook page up 12 months ago so they could communicate with them and the Principal didn't want to … because they've [parents] got social media they want the teachers to be putting blogs up for the class, they want teachers to be doing all that stuff and the teachers aren't comfortable doing it and don't have time to do it.

Geraldine was the only participant to remark on this reversal of mediatisation, reflecting, as others have, that parents can also influence the media ensembles of schools (e.g. Livingstone & Sefton-Green 2016; Zhang et al. 2018). She notes how parents expect immediate response times and more information from schools which is placing pressure on teachers and administrators to alter their communication practices. Digital media use has become so ubiquitous, naturalised and taken-for-granted that its presence and use is barely visible

(Hepp 2020, p. 58). Yet, as Geraldine demonstrates, its absence of use for routine communicative action – such as posting school news on a Facebook page – is almost palpable.

In Louise's case, it is not communication between parents and teachers that are moulding her communicative practices, rather it is the expectation of school administrators that children and parents will correspond via digital media. She gave the example of when her son had started high school a few years prior. He had forgotten to take his blazer and so she took it to the school office where she had the following encounter with the office manager:

> …she looked at me and she said "well how is he going to find out it's here?" And I said "Well aren't you going to tell him?" And she said "no" rather stiffly and said "No, you've got to tell him", But he didn't have a phone, so then we had to go and get a phone for him ...
>
> If you talk to junior school parents and they say "Well we're not going to get our kids phones", I say, "oh you might not want to but you might find that you will have to". And particularly as sports get later and later in the afternoon and sometimes the buses run late, so again, the school would expect the children to text their parents to say "we're 20 minutes late" or "the bus is stuck in traffic or has broken down". That might come through the school, but generally the school knows that that information will be filtered through the phone system to the parents from the children.

As noted in the previous sub-section, the school that Louise's children attend do not have a digital policy in place, yet it has imposed digital communication practices onto families. By expecting children to contact parents, the school is inadvertently driving up appropriation of mobile phones in participants' homes, regardless of their views on the matter, and highlights the extent to which digital communication is presumed to be natural between family members.

In summary, the changing communicative practices of schools frame digital pedagogy and parents' responsibility in supporting this as essential for 'providing "good education" to future generations' (Breiter et al. 2018, p. 316). As this section has illustrated, however, mothers' domestication processes can be negatively impacted by assumptions made about their capacity to meet the financial, technical, parental and communicative expectations associated with these policies. In their study with parents about digital device use in Australian high schools, Keane and Keane (2017, p. 1447) found that 'parents are often the silent stakeholder when 1:1 programs are initiated, with decisions being made at an institutional rather than a community level'. This claim is substantiated in my study and demonstrated in the experiences of mothers who appear to have been given little consultation or context about why the Australian

curriculum has a digital technologies focus or how 1:1 programs and digital homework tasks can support this agenda.

Nonetheless, these findings show that mothers are negotiating meaning about digital pedagogy and are trying to adapt to the logics of government policy and school practices by forming new patterns of communication. Hepp (2020, p. 71) notes how these kinds of mediatised experiences, in which communicative practices have become institutionalised, are evidenced by 'how we arrange ourselves in a media use situation, our forms of communication, that is, of interaction through media, and the organization of the technology and infrastructure'. Despite their obvious ambivalence, the mothers in this study have arranged their perceptions and actions to align with the demands of digital pedagogy in concert with good mothering practices.

5.3 Chapter summary

This chapter has surveyed the contours of participants' digital homes and identified a range of complex social factors that contribute to the appropriation of digital media in the home, including concepts of good mothering and mediatisation. In most cases, mothers are living among a myriad of digital media devices that have been voluntarily and compulsorily appropriated. Where mothers perceive digital media as complementary to family life, and specifically to their mothering identity, they have incorporated digital media into the fabric of the home where its material and symbolic presence is barely noticed. In contrast, the introduction of mandated 1:1 digital policies has made the presence of laptops and tablet devices more visible and imposed on families a rhetoric about their indispensability for children's learning, which influences mothers' sense-making and domestication practices.

During the global health pandemic of 2020, mandatory public health measures were put in place to prevent the spread of Covid-19. Among these was the closure of schools which, in Australia, required teachers, children and parents to adapt to online learning. At the time of writing, research was just emerging about the social, psychological and educational impact of this radical shift on each of these agents (see United Nations policy brief 2020). Given the attitudes and experiences of mothers in my study, I cannot help but wonder how quickly they may have adapted their role to meet the pedagogical needs of children.

The issue of how children's digital media use intensifies mothers' experiences in the home is returned to in Chapter 7. In the next chapter, I turn attention to mothers' own uses of digital media to understand what socio-cultural factors shape these interactions.

CHAPTER 6: Temporal dimensions of mothers' digital media use

Following the previous chapter that laid out the nature and scope of the contemporary digital home, this second findings chapter explores how and why mothers appropriate digital media for their own use. It brings together the theoretical framing of domestication and mediatisation to show how meaning about digital media and its incorporation into mothers' everyday practices are constructed in relation to how they affect mothers' time.

As discussed in Chapter 2, feminist communication research about mothers' use of digital media tend towards studies about how specific digital media technologies, such as smartphones and social media platforms, support or constrain mothers' roles and identities. In this thesis I adopt an holistic approach to explore how mothering is experienced in the 'polymedia' environment (Madianou & Miller 2012) of the digital home. By situating the study within the context of the home I was able to investigate not only which digital media mothers used and why, but how media are incorporated into mothers' daily routines and communicative actions as part of a household.

The chapter responds to criticisms that mediatisation research fails to reify and operationalise the concept in everyday life (as discussed in Chapter 3). It identifies specificities of mediatisation (Ekström et al. 2016) in mothers' lives through their domestication practices. Principally, it identifies temporal shifts in mothers' communicative practices as they negotiate their use of digital media around four dimensions of time, highlighting time poverty as a key issue that shapes mothers' digital interactions.

Section 6.1 highlights how mothers control the circumstances in which they use digital media to mitigate its impact on their time, suggesting the emergence of new patterns of communication with friends and family. For example, mothers spoke about rejecting lengthy phone conversations in favour of text messaging. Mothers are shown to protect their time and carefully manage their digital interactions so that they have minimal impact on the household.

In Section 6.2, the findings demonstrate how mothers use and perceive digital media as a purposeful tool to help them manage their time, relationships and responsibilities. Mothers use digital media habitually to organise and sustain personal and family time, to coordinate the collection and safe passage of children and to schedule social gatherings. Mothers scaffold their time, using digital media to create rhythms in their lives that allow 'temporal organisation of daily life' (Penzold 2018, p. 929).

The third construct of time is seen in the way mothers allocate time to leisurely use of digital gaming. Section 6.3 spotlights the diverse domestication practices of the few mothers in this study who interact with online games. The results reveal that mothers' perceptions and use of digital media for gaming are influenced by, and reflective of, how they perceive their mothering role in the home.

The final temporal dimension related to mothers' own use of digital media was evident in the pressure they feel to be constantly available online. Section 6.4 shows how their own expectations, as well as those of others, stimulate them to monitor and respond with expediency to messages and emails to avoid a sense of exclusion or missing out. Although their actions exacerbate their existing time poverty, mothers felt it was necessary to remain always connected to their family, to the workplace and to other members of their social world. It is through these moulded interactions with digital media that the effects of institutional mediatisation are most apparent.

The analysis of findings in this chapter identify the deeply 'entimed' interactions mothers have with digital media in the home, enabling 'a more fine-grained understanding of the temporalisation of mediatisation' (Pentzold 2019, p. 933) in mothers' lives.

6.1 Controlling timely interactions with digital media

As the previous chapter emphasised, many participants in this study have access to an extensive range of digital media in the home, but when asked about their own use of these it was the smartphone that was discussed most frequently. The phone was identified as a source of support and empowerment that enables mothers' control about how and when to engage in digital activity. The call function of the phone, however, was perceived pejoratively as wasting mothers' time and instead chose to send text messages at carefully selected times. Frances

explains how text messaging offers a more flexible method of communication that does not impose on her time the same way that lengthy phone calls might:

> I've only just recently got an iPhone and I love it. I do a lot of messaging, I love texting, I love that invention coz I hate talking on the phone and you can just text how you going, blah, blah, blah … I've got a friend in Sydney and she's tried to call me a couple of times and I just think, I don't know, I don't have time to sit and talk for half an hour … it is a time thing, I just can't be bothered.

Frances' recent introduction to a smartphone (only one of two participants in the study to have recently acquired one) has had a transformative effect on her digital interactions. She spoke emphatically about her daily use of text messaging, emphasising a strong emotional connection to texting that contrasts with an equally impassioned dislike of voice calls. Her appropriation of text messaging has altered her social and communicative practices, liberating her from the pressure of verbal exchange and allowing tighter control of her time and social interactions.

Frances was not unique in her perceptions that text messaging is more efficacious than phone conversations. Barbara, for example, highlighted the benefits of group communication on the Facebook Messenger app which, she says, eliminates the need to contact friends individually:

> For me I find it easier to organise things because I don't have to actually ring somebody and talk to them, so I can do just a group message or an event thing on Facebook, so I just find it easier to manage that side of things. I have a bit of a phobia about phone calls, so I tend to not use it, which is why I tend to use Facebook a bit more because I can just message.

Barbara's appropriation of Facebook for group messaging is two-fold. It represents a time efficient means of communication that enables her to reach more people simultaneously and therefore has a pragmatic purpose. However, she immediately qualifies this rationale by admitting to a fear of talking on the phone, which suggests an interdependence with texting that is shaping her social relations. As with Frances' preferred method of communication, Facebook Messenger offers an alternative way for Barbara to avoid verbal interactions, allowing her control over which platform she chooses to communicate through. In domestication terms, Frances and Barbara have rejected or de-domesticated the voice function of the smartphone and instead converted the text function into meaningful, embodied, communicative practice that reflects who they are and what is important to them (cf. Berker 2006; Haddon 2011; Silverstone, Hirsch & Morley 1992; Watulak & Whitfield 2016).

Kitty's choice to use text messaging instead of voice calls relates instead to perceptions about how phone calls might impact on recipients. Her actions are reflexive in nature as she considers the disruption a ringing phone may bring to bear on mothers:

> SMSs are good because I feel like I'm not interrupting people's day. I've got a little cluster of a Mum's group that have always been friends since our babies were little and we keep in contact and we organise things by text because everybody's crazy busy with the children and if you can send a message than they can get to it when they get to it without ringing. Night times are hard too when the phone rings, it wakes children up. Our phone never rings.

Kitty raises three points here that highlight moments of mediatisation and reveal gendered parenting practices. First, by referencing her reluctance to interrupt her friends' routine she recognises that phone calls can be intrusive and invade private space and so she adjusts her communication accordingly. Second, by acknowledging that her friends are 'crazy busy with the children' she not only implicates the dominant role mothers have in childrearing, she also highlights how text messaging reduces the time impact on mothers by enabling them to retrieve messages when it suits them. Third, by asserting that her own phone never rings, Kitty suggests that her friends instinctively know not to call her either. The mutual reliance on texting implies a new set of social practices among this group of mothers that are shaping but also normalising their digital interactions. Their unspoken rules about texting are characteristic of the media ensemble they share, highlighting the digital thread that connects them to their social domain (Hepp 2020, pp. 89–91).

Similarly, Geraldine and her mother friends have incorporated new rules about the way they communicate due to perceived restrictions on each other's time:

> Everything is pretty much by Facebook or occasionally one-to-one SMS-ing, so all the playdates are all SMS's now. I don't really ring anybody, and I've got one friend in particular who's told me – she's got a very busy job, incredibly busy who works weekdays and weekends and she just said she just doesn't like talking on the phone anymore coz it takes too much time for her and she's just not a fan of it … We've [mothers] got such a small window when we get home, do we really want to spend an hour on the phone every night when it means you just don't get to sit down? And maybe part of it is my lifestyle, I work full-time and I do a couple of volunteer roles that I do after hours as well, so I don't have a lot of time to sit around and talk on the phone.

Geraldine illuminates just how busy mothers can be and how incompatible voice calls are, especially for employed mothers who are juggling various responsibilities. Like Frances, she equates talking on the phone with a consumption of time she just cannot spare and has instead developed a new system of interaction with her peers.

The accounts of mothers reported here indicate discomfort about using the smartphone for voice calls and so they have all but eliminated this function from their interactions with other mothers. This de-domestication process has helped them feel more in control of their communication and the phone per se, enabling them to negotiate the impact of mediatisation on their lives. Moreover, the new communicative practices being adopted by mothers demonstrates the importance of shared meaning about digital media in relation to contemporary mothering experience, and how its use will be regulated to meet the needs of the social group. As Müller (2019, p. 119) explains, people:

> … make decisions and arrangements, in order to control mediatization and to integrate media technologies and media use into their life in a way that suits the context in which they are used. These practices of handling mediatization are expected to be accompanied by negotiations that define how people understand an appropriate way of media use and how they think that mediatization should take place in everyday life.

The mothers in my study demonstrate how they have negotiated use of the smartphone not only to limit its impact on their own lives but also as part of the communicative figuration they share with other mothers. Reflecting Livingstone's (1992) constructs of technology, these mothering experiences highlight that as texting becomes more indispensable (necessity construct) for maintaining interactions with friends (sociality construct) and for controlling how their time is spent (functional dimension), the more their 'social world becomes closely entangled with media' (Hepp 2016, p. 920).

Other strategies that mothers exercise to seek temporal control of digital media use include the sensorial management and self-imposed regulation of smartphones. As other research has shown (Bengtsson 2018; Frizzo-Barker & Chow-White 2012; Pink & Mackley 2014; Röser 2014), participants spoke of silencing phone ringers, deactivating audible and/or visual notifications and limiting contact and connectivity at night. Hannah mentioned that because she works for an overseas company attempts are often made to contact her at night. To manage the potential imposition of worktime on her private life she says, 'my phone stays out here [kitchen] at night and I have it on do not disturb between 10 pm and 7 am so even if someone rang, I wouldn't hear it'. Hannah has also 'turned off all of the notifications because I didn't want it, I'd rather be the one going to the phone myself and looking'.

Differences in time zones are also something that Danielle tries to navigate. As an expatriate she has family and friends overseas but finds it difficult to establish regular contact with loved

ones because they have different schedules. Admitting to having obsessive tendencies that make it difficult for her to ignore incoming messages, she decided to place her phone on silent and in a different room:

> I have to leave my phone here [kitchen] because it's constantly buzz, buzz, buzz, one message after the next because it's their evening, it's when they're off work but it's the middle of the night here. One day I woke up to 121 messages. One hundred and twenty-one messages! There's no way you'd find sleep, so I leave my phone in here at night now.

Danielle has found a solution to help her combat her instinctive desire to reply immediately and to regain some control over the circumstances and timing of her digital interactions.

This study shows that mothers have found ways to control the temporal impact of digital media on their lives by negotiating and adapting their interactions to different contexts. These adaptations are consistent with the domestication process by highlighting:

> … a mutual, reciprocal relationship between the user and the technology, in that the users adopt those functions of the technology which fit into their lives and which serve their current needs, rather than adopting the technology outright and fitting their lives around it (Bober, Hynes & Lau 2016, p. 329).

Participants' avoidance of phone calls, increased use of haptic functions on smartphones and modifying behaviours that enable greater control of time are examples of how mothers navigate use of digital media to support various responsibilities and changing social and communicative needs. The next section elaborates more specifically on the way mothers construct use of digital media as a means of managing time.

6.2 Managing time through digital media

Research about mothers consistently reveals that women with children experience intense time pressure as they try to balance multiple roles in and beyond the home, including those of ideal worker, intensive mother and domestic guardian (Castro, Brady & Cook 2020; Christopher 2012; Enevold & Hagström 2009; Prikhidko & Swank 2018; Rose 2017). Although digital media use can sometimes exacerbate time pressure for mothers (see Section 6.4), my findings suggest that mothers also use digital media to better manage their time and various responsibilities. Overall, participants demonstrated positive perceptions about how digital media help them balance different priorities and identified strategies to prevent further

intensification of their role, enabling them to meet workplace demands, study and social commitments and to undertake unpaid care work in the home.

Jemima, for example, is currently completing postgraduate studies online whilst also balancing part-time work with unpaid care work and illustrates how digital media use assists her with achieving her study goals:

> One thing that I am very grateful for with technologies being online is that I don't have to go to the library, everything is online, easy access to it. Just comparing it to when I left university and obviously having to attend all the lectures, being a part-time mum and all that means, as an adult, it's [online study] so flexible because you can watch lectures online and, it's not so much fun for the lecturer standing there and giving a lecture in an empty room [laughs], but I think students appreciate it because they are so busy. It's not just study anymore, it's study and work and family and all that sort of stuff, which [technology] allows people to be busier.

Jemima recognises how study has changed since she graduated from university due to developments in digital media which enable less static and more flexible options suited to her current lifestyle. Whilst she relies on digital media to study, Jemima is also cognisant of the time this consumes, and, even during a current critical stage in her studies, takes steps to limit its impact on her family by carefully managing her use:

> I'm usually in the car studying online while they're doing their activities or at night-time. I try and shut down at night and do as much as possible during the day. It's tough at the moment but normally that's it, once the kids come home from school my normal rule is no study, so I try really hard. Weekends I study because they don't care, but as soon as they get home from school you've got to drop everything.

Jemima scaffolds her time to be emotionally and physically present for her children once they come home from school and maximises opportunities for studying in the car on her laptop, or in the evenings or at weekends when her husband can support her with the children. Her comments and actions indicate an intensive mode of mothering wherein her children's needs come before her own requirement to study. In fact, her assertion that 'you've got to drop everything' when children return home from school implies an ideology of 'good mothering' that assumes self-sacrifice (Goodwin & Huppatz 2010; Johnston & Swanson 2006). But Jemima has also found a way of making intensive mothering work for her. For example, Jemima's comment that she studies at the weekend because her children 'don't care' suggests a mutual understanding across the household that she can spend less time and energy mothering and more time studying. This negotiation and management of time for study is inextricably tied to her perception and use of digital media in the home.

For Hannah, it is the demands of the workplace that engage her in negotiating how she uses digital media in the home. Paid employment represented a significant factor in most (82% or 14/17) participants lives with several mothers signalling that digital media help connect the two domains of private and public life. Being able to access work emails from home on days off has become a regular activity for Hannah and a perceived benefit of digital media that empowers her professional identity:

> I'm pretty invested in my work. I enjoy it and I am pretty responsible. I guess the boss leans on me a fair bit to know what is going on so I tend to, on my own terms, make sure that I do know what is going on. It does make you feel like you are a part of it. I only work four days so on Fridays I'm not physically there, but I still feel like I am mentally there, so *I still feel like I am a part of what's going on*. So, I just check throughout the day because there are obviously still emails between staff members, so I might not answer any of them, I just read them, "oh that person is doing that, great". So, I guess that's the good thing about having it …

For Hannah, having the option to monitor what is going on at work from a distance helps mitigate any anxieties she might feel about missing out. This strategy of email surveillance – keeping a virtual eye on what is occurring in the workplace – has become a routinised behaviour on her day off which helps her feel in control and connected. Hannah's experiences confirm that the presence and use of digital media in the home for work-related purposes is blurring the lines of private and public life (Klein, Walter & Schimank 2018; Peil & Röser 2014; Sowon et al. 2019). However, in her follow-up comment to the statement above, Hannah also provides evidence that easy access to the work domain via digital media can impose on family time:

> But sometimes it's not so [good] because when we were away on holiday I kept looking and I shouldn't have been. But it is very hard, that's the thing, because it is right there, instant, you can look at it any time and you shouldn't.

Hannah's reflections highlight the empowerment/enslavement paradox that many employed mothers feel when utilising digital media for work purposes, especially during non-work hours (Sowon et al. 2019). Although Hannah has deactivated incoming notifications across all her devices, her personal and family time continues to be shaped by an urge to check her work emails on her day off whilst also caring for her son.

Hannah's experience is resonated in Rose's (2017) study with working mothers in Australia who found that mothers merge time to help them manage multiple priorities. Rose (2017) found time intensity was an issue for mothers who, 'despite feeling time stressed or fatigued […] multitask across work and home boundaries in order to maintain a close connection with their

children, and to keep up with work-related communications' (Rose 2017, p. 121). Unlike Jemima who seems to confine her use of digital media for studying to times that will impact the least on her children, Hannah acknowledges how her unpaid interactions with the workplace may also have consequences for time spent with family. Jansson points out that, because 'mediatization is related to the normalization of mobile lives' its impact needs to be carefully managed (2018b, p. 18):

> Staying in control of mobility means that the individual must also learn how to handle media, and more precisely *connectivity*, in efficient and culturally appropriate ways, which in turn implies that he or she is exposed to the discomforts of stress, frustration and anxiety (original emphasis).

Hannah's experiences reflect a gendered dimension in the management of mediatisation as she negotiates the roles, identities and expectations of ideal worker with those of ideal mothering (Castro, Brady & Cook 2020).

Nicky also uses digital media to combine time and manage multiple tasks at once. Here, she speaks about her membership to a local book club, explaining the strategy she adopts to keep up with the monthly readings whilst also attending to other duties:

> I am studying and I'm reading lots of research papers. To sit down and then just read a book is too tiring. The next book club book is the Number 1 Ladies Detective Agency and so I can listen to that in the car, or with Bluetooth headphones if I am at home just doing housework or in the kitchen. I just put my headphones on, turn that on and I can listen to my book. So, it [iPad] just gives me the ability to do things that I just don't have time to sit down and do. I can't sit down and read 2 or 3 hours for leisure because I've got too much other reading to do but I can still listen to the story.

Nicky is not just talking about the convenience of an iPad but also the headphones that are connected to it that allow her to engage with an e-book whilst moving freely around the home. Nicky's recount highlights a sensorial and embodied experience of digital media use (Bengtsson 2018; Pink & Mackley 2014) where digital consumption and the peripheral accessories that facilitate this (e.g. the iPad, the headphones, audio book app) become a part of her identity. Nicky's adoption of digital media identifies the synergies between domestication and mediatisation by demonstrating how meaning is converted into everyday actions, as Müller (2019, p. 113) explains:

> During the process of appropriation, users negotiate how a (digital) medium is integrated in activities in everyday life and how usage is molded according to the contexts it is situated in.

Whilst time poverty is identified as a barrier to reading, Nicky has learnt to navigate this issue by multitasking via digital media, incorporating audio books and supporting technologies, seamlessly into other activities. By maximising time in this way, Nicky has forged new routines of digital media use and domestic practice (e.g. housework, kitchen work) that implies a symbiotic relationship between the social and technological (Hepp, Hjarvard & Lundby 2015, p. 318).

Nicky was the only participant to speak extensively about the apps and cloud-based systems she has in place to help organise household administration which she says brings efficiencies of time. She begins by explaining how she organises financial documentation:

> Most of our bills come in as an email now so I just take that file out of the email and just drop it straight into Evernote[11] so I've always got a record of things. Any paper bills that come in, I use Scanable [demonstrates app], so you can easily find a document [demonstrates app] save it into Evernote and then go back and read it.

Nicky spent some time showing me the apps she used on her iPad and talking about how they support her everyday practices. Her enthusiasm for explaining how each tool on her iPad assists her to organise daily tasks identifies various points in her domestication of digital media. Nicky researches and appropriates apps that she perceives will support her bookkeeping role and spends time codifying them on the home screen of her iPad, their objectification made clear by how long she spends learning to use them. Nicky has incorporated these apps into the routine of household management because they are perceived as functional and indispensable for the tasks they are employed to do. Her physical demonstration and discussion of their benefits reveals high levels of propinquity to these apps and the iPad more generally which she says, 'is pretty much my go-to device every day'. Having reached the conversion stage of domestication, Nicky's routine actions have become deeply embedded with significance and meaning about digital media use. The conversion phase, as De Schutter, Brown and Abeele (2015, p. 1172) remind us, occurs when:

[11] At the time of the interview in 2016, Evernote had been available for 8 years. Scanable is an image capturing app owned by Evernote that enables easy conversion and transfer of digital files. On its website the company claims: 'Our purpose is to give people the time and freedom to focus on what matters by helping them to live more organized lives' https://evernote.com/about

> …the personal meanings that a user has attached to a certain technology are incorporated and then reinforced into an ever-evolving public meaning, as users display their ownership and expertise in a public context.

Nicky's enthusiasm for using innovative communication tools for home management indicates a profound connection to digital media for organising family life. Specifically, the Evernote tool provides a competitive advantage for managing administrative tasks compared to other digital or more traditional (paper-based) systems of bookkeeping and is perceived as easy to use and compatible with Nicky's communicative needs based on observable time-saving benefits (Rogers 2003). Her demonstration of these apps and their functionality in her life during the interview reveals a very public ownership of expertise.

For other mothers, digital media are used to manage temporal relations with partners. Olivia, for example, spoke of how she and her husband use synchronisation features on their smartphones to coordinate daily schedules. Because they work together, joint access to one another's calendar has become relied upon for a coordinated and well-managed working relationship. Barbara relied on Facebook Messenger to manage virtual time with her husband when he worked away from home. She explained how her use of Messenger was 'like a constant checking in to see if he'd written and that sort of stuff, that was our way of communicating. It's become a habit really.' Barbara's use of Facebook facilitated a new way of communicating and connecting with her husband, upholding the findings of earlier research about how text and instant messaging helps to maintain intimate relationships (Biledo, Kerkhof & Finkenauer 2015; Linke 2011; Quan-Haase & Young 2010).

However, Facebook use, which was initially appropriated to maintain the distal relationship with her husband, may now be a disruptive force as Barbara continues to spend intense periods of time online despite her cohabitating with her husband again. After indicating that she used Facebook frequently, I asked her to elaborate. The following is an extract of our interview:

> **Researcher**: On the days you are not working, what would you say your consumption is like?
>
> **Barbara**: Probably pretty bad [big laugh]
>
> **Husband**: 1600 hours
>
> **Barbara**: There's a thing on Facebook where you can actually put on how much, it told you how many hours, and mine was really high [laughs]
>
> **Husband**: Yeah it was 1600 hours a year
>
> **Barbara**: Coz I just log in all day, so I log in from the morning and I don't log out.

Barbara seemed initially reluctant to tell me how long she spent using Facebook but her husband, who was seated in another room, did not hesitate to volunteer this information on her behalf. Although her husband seemed less than impressed with what he considered excessive use, Barbara has made strides in managing her time on digital media, trying to limit her Facebook use when engaged in care work in the home:

> I have a 15-minute period in the morning when I use my phone and then it goes away while I get ready and the kids ready. It's when Stefan is usually eating his breakfast and Jeff has already gone to school, so it's just that period when he's sitting down. And then we need to get going. But it can distract you and you lose track of time and you go, 'no, I'm late, I'm late now!

Barbara acknowledges how easily distracted she can become by digital media and recognises how she needs to consciously and constantly self-manage her use to prevent it from disrupting morning routines. However, she also proclaims with some joy and certainty that her excessive Facebook use means she has 'less time to do housework [laughs]', which suggests some resistance to traditional expectations about her role. Carol too identifies positive disruptions to domestic labour due to the computer's presence in her home which she admits to spending most of the day using while her children are at school:

> I'm sitting on there and I think 'I'll just quickly check my Facebook' and then it sort of snowballs … I'll just check my messages, then I play a couple of games like Words for Friends, I'll just quickly see if I've got a turn in here so by the time I get off it's been a lot longer than I thought. So I try to go on there for a bit then I'll go and make the beds and do the dishes and go back on there but I'm just not good at getting off there when I should [laughs]. Yeah, coz I prefer to do that kind of stuff obviously than housework or whatever. But I just need to try and find a balance a bit better.

These mothers' comments suggest a renegotiation of the moral economy of the household (Morley 1992) – particularly in relation to gendered roles in the home – as digital media use becomes more naturalised and integral to their identities. However, Carol's reflection that she spends too long on the computer and needs to balance her time more effectively suggests self-moderating behaviour based on what she perceives a traditional mother should be (Goodwin & Huppatz 2010; Johnston & Swanson 2003). She manages the time she uses the computer around her children's presence and household chores, acknowledging how she tries 'to go on it during the day so that when they come home I can do more of the housework types stuff so they can have their turns on there'. In this example, Carol's digital interaction is somewhat inhibited by her own expectation to provide unpaid care work in the home. As seen in Chapter 5, Carol foresees digital media use as potentially disruptive for family life and deploys

strategies to help ameliorate these concerns by controlling when and for how long she uses the computer. Although she still perceives an imbalance in how she manages her time between digital and non-digital (household) tasks, she has carved out a new routine for herself by relegating her computer use to school-hours.

Domestication research shows that for digital media to be incorporated into everyday communicative practices, their use must be perceived as strengthening familial relations and supporting everyday routine actions (Berker et al. 2006; de Schutter, Brown & Abeele 2015; Haddon 2006; Scheerder, van Deursen & van Djik 2019). Carol's appropriation and incorporation of the computer has been negotiated around the values she holds regarding family life and her mothering role.

The potential for digital media to support and reinforce daily routines was reflected on by more than half the mothers in this study, but it was the time-related affordances of digital media devices and unlimited access to internet services that most benefitted their busy lifestyles. Smartphones and tablets, for example, enable mothers to search for recipes, to order shopping online and to manage their finances at a time and in a location that suits them (Barbara, Emily, Geraldine, Hannah, Isobel, Louise, Jemima, Rhiannon). Banking could be done online in the evenings or at weekends without 'having to actually ring someone up and pay by credit card or go into the post office' (Emily). These online activities are examples of what Hjavard (2013, p. 20) describes as direct mediatisation whereby mothers' experiences of transacting money, have fundamentally and visibly changed due to the mediated form that banking now takes.

Several other mothers reported ritualistic use of digital media that signify specific temporal moments in the day. Pat, for example, has a weather app installed on her phone and uses it each morning 'to see if it's going to rain and whether I need to bring a raincoat'. Because she uses public transport to get to work she also uses a navigational app 'to see what time the bus is coming and if I need to run, and so I am checking real-time arrivals'. Her morning preparations have become reliant on her interactions with digital media. In addition, Pat indicates how social media use contributes to the rhythms of her day as she makes use of time on the bus to 'see what's happened overnight with [overseas] friends' and also isolates time at the end of her day to check her accounts:

> Facebook is more when I've finished dinner and I sit down and I catch up on the day, I'm not on it all day … it could be 10 minutes or it could be an hour depending on what's on there but that's between Facebook, Twitter or Instagram.

Kitty also associates social media use with set points in the day:

> I do like my Facebook feed, so when I wake up in the morning I flip through and see what's going on. If I open my eyes or if it's in the middle of the night and I can't sleep that will put me back to sleep, so I flip through that.

Kitty's use of Facebook has become associated with her morning routine which sometimes also acts a sleep-aid. Use of digital media in the evenings is also apparent in Margaret's household:

> I look at the news online every day on the ABC app so I read local and national news every day on my phone and that would be in the late evening before I go to bed (Margaret, 9- and 10-year-old step-daughters).

The specific time-bound interactions with digital media by each of these participants reflect purposeful use that signify important temporal markers for mothers during the day. Their specific uses show how deeply ingrained and indispensable digital media have become for mothers' daily functioning. The findings reveal how mothers' own use of digital media is curated to support the temporal challenges of contemporary mothering. When digital media afford mothers' control over their privacy and social interactions and provide functional benefits for family organisation, they are more readily incorporated into daily practices. Uses that are perceived as negatively consuming mothers' time are de-domesticated or at least reflexively managed to limit harmful effects on family life. Nonetheless, not all use of digital media by mothers is deployed pragmatically. As the next section highlights, they can also be used for more leisurely pursuits.

6.3 Allocating time for digital gaming

This section contributes to the scant field of knowledge about mothers' experiences using digital media for gaming. As Chapter 2 identified (see Section 2.1.3 *Gaming 'moms'*), little scholarly attention has been given to this interaction when considering mothers' use of digital media, even as research from the gaming industry identifies increased consumption by mothers (Activision Blizzard Media 2020). What is known about mothers who game is that the activity is mostly considered self-indulgent and time consuming, serving as a distraction from domestic duties (Enevold & Hagström 2009, p. 7). This study shows that the appropriation and use, and

equally the de-domestication, of digital games by mothers is related to how they and others perceive their role in the home and spend time with family members.

In my study, several mothers demonstrated a keen interest in and use of digital media for gaming, either on a regular or casual basis. Rhiannon was the most ardent user of a variety of gaming consoles and was an outlier in terms of her gaming experience and behaviour which was advanced compared to other participants. During our 2-hour interview (more than double the average time spent with other mothers), she frequently referenced her gaming prowess and spoke passionately about her identity as a gamer. As the youngest of four children, Rhiannon's interest in gaming began early as she watched and learned from the gaming experiences of her older siblings: 'that was probably my introduction to gaming, which was a slippery slope'. The basis for this self-deprecating comment will become apparent shortly, but when I asked if she still plays games she emphatically answered, 'Yes, yes. I still do it now – we are a gaming family. We have many consoles.'

Rhiannon was the only mother in the study who had chosen not to work or study and had been a full-time mother to her two sons (aged 12 and 16), one of whom has autism and to whom she often needs to provide additional support and care. Now they are in high school she admits to having more time for game play. When I asked how often she engages in gaming and other online activities she admitted 'It's daily and it's probably all day'. Although Rhiannon's initial interest in gaming was triggered by her early exposure to it, there are several other factors that have resulted in her reappropriation of gaming technologies. In this extended excerpt, Rhiannon explains how her perceptions and use of digital media have evolved through a co-construction of meaning with family members:

> It's something I didn't do for a long, long, long time and so when my eldest was quite young, that was when the original Xbox was released, my husband bought me one for my birthday – which I think was one of those shifty 'here is a good excuse to buy it!' – and the games came with it. I enjoyed them but I didn't necessarily connect to it. But I think as my kids got older we ended up getting, more games came out that were more kid friendly so I would play the games with the kids, or they would sit and watch because they would get to a bit that they would get stuck on and so I would help them get through it.
>
> And so as they've gotten older and been exposed to more grown-up games I've kind of got myself back into it again and it can be [laughs], it can be a bit of a pit that I fall into and I suddenly realise that I have lost many hours, many days or many weeks to games, and every member of our family is very guilty of that.

Rhiannon highlights that her husband and their children rekindled her interest in gaming, but it was the pre-existing meanings she had formed in childhood about the benefits of gameplay for family life that supported its incorporation into her everyday practices. The invocation of nostalgia caused from previous experiences of gaming can aid the incorporation process which, as Schutter, Brown & Abeele (2015, p. 1181) point out, 'refers to the way digital games are used; in particular, this includes their temporal integration into the routines of daily life'. Nevertheless, the comment about how each member of her family is prone to losing time to digital gaming resonates with her earlier remark about descending down a slippery slope of unregulated use.

For Rhiannon, digital gaming has become a pivotal interaction that she shares with family members and with others outside the home and highlights a conversion phase in the domestication process:

> [T]he game that I have recently been obsessed with is Fallout Four and a lot of my eldest son's friends are like 'have you played this bit yet?' And they would just come to me because they could have a conversation with me about it.

Disputing claims that women prefer casual use of 'soft' games that are 'mostly associated with femininity and are trivial, easy and fun' (Vermeulen & Van Looy 2016, p. 8), Rhiannon's experiences highlight that, on the contrary, she prefers action role-playing games that contain violence and other attributes associated with male gamers. In perceiving gaming as an opportunity for family togetherness (Nash, O'Malley & Patterson 2018, p. 2020), she rebuts stereotypical assumptions that mothers do not, or should not, claim time for such a leisurely pursuit (Enevold & Hagström 2009, p. 7). Instead, because her family share her enthusiasm for gaming, gameplay has become a deeply entrenched symbolic practice through which her '[f]amily members come to interact in both actual and virtual worlds at the same time and concerns of the two worlds become layered' (Balmford & Davies 2020, p. 13).

Reports of gaming by other mothers indicate a less profound effect on their daily interactions or identities, but they nonetheless highlight the highly contextual nature of gaming for mothers, offering new insights about this underexplored phenomenon. Pat, for example, like Rhiannon, enjoys playing games on consoles and also has fond memories of playing in her childhood. Having gamed since before she had children, Pat has continued to appropriate gaming technology, having purchased all four PlayStation consoles over the last 20 years. Unlike

Rhiannon, however, Pat offered few details of her gameplay but she did acknowledge how it enables her to spend time playing with one of her son's and affords her time on her own to unwind after work: 'I enjoy it. It's my downtime. Even before they [children] were born, I would play'. Emily also used to play before having children and reflects fondly on the kinds of games she once shared with a friend:

> Sharon and I used to play Crash Bandicoot like addicts before we had children, we were terrible and I do remember when the DS came out – I think it was the Lego um, what are those Lego games, was it Star Wars, no it was Raiders of the Lost Ark – and I even bought myself a book to learn how to get through the levels and stuff. But this was a long time ago, I just don't have time anymore.

For Emily, the time impact of working and raising a family has meant compromising her gaming time. Before children, Emily said she and her friend were 'looking for things to fill our time' but now, as she remarks above, she no longer has the luxury of leisure time. Where Rhiannon and Pat have found ways to negotiate their own interests in gaming around their familial commitments, Emily's experience suggests a loss or perhaps a relinquishing of a previously inhabited gamer identity due to what others have observed as the pressures of double-work (Craig 2007; Enevold & Hagström 2009; Fortunati 2009; Rose 2017).

Several other mothers mentioned playing games on a casual basis on their mobile phones or computers, especially online word games with friends (Olivia, Carol, Hannah). Unlike the more immersive experience of gaming on consoles, participants were able to dip in and out of mobile games at their convenience rather than exhausting intense periods of their time. Hannah dismissed her mobile game playing as an innocuous activity, choosing to play 'those ones where you change the colours, and they disappear, nothing'. When asked about the time she spends on her device for gaming she answered:

> A couple of times a week, just when I'm waiting for something to happen, like if am waiting for Simon [husband] to come before we go out, yeah. And I've done everything I think I can do, so I'm just waiting.

Hannah's use of mobile gaming whilst whiling away time is consistent with gaming profiles of mothers as 'Time Fillers' (Bosman 2019; Cunningham 2016) who prefer soft, feminised and easy to use games (Vanderhoef 2013; Vermeulen & Van Looy 2016). Her suggestion that she only interacts in this way once she has 'done everything' indicates some need to justify her gaming as a reward that is enjoyed only when other responsibilities have been attended to. This

view supports feminist literature about gaming wherein the household is conceptualised as a 'gender-power system' (Enevold 2012, p. 6) where mothers are expected to provide for their family before indulging time in game-playing activities (Enevold & Hagström 2009). In addition, stereotypical representations of gamers as mostly male players who prefer hardcore genres with strong masculine characters and themes may influence how Hannah constructs meaning about gaming (Vermeulen & Van Looy 2016, p. 6-9). Where Rhiannon repudiates this myth, it is possible Hannah underplays her digital gaming because of ideological perceptions about gamers and mothers and she therefore resists incorporating its use into her routine communicative actions.

Barbara's experience of mobile gaming is, however, a little different from the causal gamer behaviour of other participants. Like Rhiannon, Barbara's use can become excessive and she has imposed self-regulated behaviour in the past to reduce the time she spends gaming and to limit its disruptive impact on family life. Barbara found the design of real-time games, where missions needed to be completed in a certain time, interfered with her arrangements to arrive home in time and prevented her from carrying out other tasks:

> Those real-time games are terrible. They play with your mind, once you start, you're in the car and then I'm like 'I'll be 5 minutes' and I log in – I'm in the car on the driveway and I have to quickly check my restaurant, I have to quickly get my food on before it goes off! So those games I try and avoid because it becomes this thing where it's in your head … you realise you've been playing it for 2 hours and you haven't got anything done!

In this example, Barbara shows how she has modified her communicative actions in response to what she perceives is befitting of a good mother (DeGroot & Vik 2019; Enevold & Hagström 2009; Goodwin & Huppatz 2010), reassigning time otherwise spent on gaming to other duties. Barbara recounted where she believes her compulsive gameplay comes from, attributing it to the acquisition of her first mobile phone in 2009.

> Well, back when I first got it there wasn't really a lot we could play [husband asks, "what was that traffic game we used to play?"]. Yeah there was like a little traffic game where you just flung the cars, and paper toss, that's all it was. But on the day that I got that phone it became obsessive, like, those little games, I was like 'oh my god I have to do this game over and over again', and it did become really addictive. I've kind of learnt not to get caught up with it now.

As discussed in the previous section regarding her consumption of Facebook, Barbara feels she must consciously control the time she spends on her phone and deploys strategies to help her manage these online interactions. But she also negotiates domestication of mobile gaming by

allowing herself to play things like Paradise Bay and Candy Crush which she perceives as less immersive and thus less impactful on her time:

> I can just go on now and again and have a quick play, and you only have a certain amount of lives, so you have to wait and let the lives rebuild anyway.

Compared to the sustained commitment of time that more complex games require, Candy Crush allows Barbara more casual interaction, which fits more comfortably with other aspects of her life. The game design logic also acts as an enforced method of regulation as she has to wait for game characters to be rebooted before continuing her gameplay, a factor that illustrates how mediatisation influences her communicative experiences. As these findings show, mothers who interact with digital games do so with a reflexive pause about how their use will impact not only on their own time but also how it might affect the temporality and quality of family life.

6.4 Negotiating demands for constant connectivity

The fourth dimension of time to emerge from mothers' digital media use is the pressure and expectation to be always available online. Several mothers indicated that the need to remain constantly connected and engaged in other people's social worlds is motivated by fear of social exclusion or malignment in some way. As these findings show, mediatisation is most visible in these mothers' experiences as they feel compelled to conform to the social practices and norms of communicative figurations (Couldry & Hepp 2017; Hepp 2020). Danielle, for example, articulated just how deeply ingrained digital media use has become in everyday life by highlighting how its non-use can lead to feelings of anxiety and obligation:

> I believe the disadvantages and especially with the modern, the most modern technologies is that everyone expects you to be ready, and available 24/7 and this is something, when you wrote a letter back in the old days, when you wrote an email, no one expects you to reply right away. These days if you don't reply right away you get, scolded I think is the word, scolded for it and I'm like, excuse me, I'm not a machine!

Danielle's comparison with the past demonstrates a point of historicity in the mediatisation process (Ekström et al. 2016), pointing out that paper and pen resulted in controlled, measured forms of communication whereas the unfettered access to digital media burdens her to communicate immediately. Hepp (2020, p. 91) suggests that 'participation in many communities today goes hand in hand with the pressure on the individual to engage with their community's media and any associated rules of media use'. Such rules include expectations

that people be perpetually connected and accessible to one another (Mascheroni & Vincent 2016, p. 313). This pressure is evident in Danielle's experiences of digital media in the home. In continuing her reflections about digital media, Danielle shares how her communicative actions have been altered through her own use:

> I also learned that, maybe it's an addiction – checking your phone constantly in anything you do. If you concentrate at work, or you concentrate at cooking and you start thinking when you're cooking, 'oh my god I forgot to answer this and this email, oh I forgot to respond to this', right, that's what happens! And then you run off to do it and you have this almost burning … right? So that's what I mean. It's not the concentration span itself that lacks but we do too many things at once. I honestly see this as a negative.

Danielle's insights illuminate that it is not the presence of digital media per se that changes her communication practices, rather it is the ways in which digital media have been socially constructed as indispensable and thus incorporated into everyday life that lures her into perceiving and using it in this way. At the same time, Danielle reveals a compulsive side to her personality that also influences how she perceives and interacts with digital media:

> I'm not sure if I have OCD, I think it's called OCD, but I can't stand seeing on my apps these numbers 'you've got messages, you've got emails', I can't stand that so I have to click the button to see the notification whatever, and then I go back to the home screen and I spend an hour on it, or two, right, and I'm like, what?? Just want to get rid of the numbers.

Danielle's experiences of digital media use in the home illustrate an 'intensification of mediatisation' wherein many aspects of her life are interdependent on digital media (Hjarvard 2019, p. 245). Firstly, as described in Section 6.2.1, Danielle's immigrant status means she is persistently contacted by overseas friends and family at inconvenient times. This situation requires managing digital communication and the expectations of others to limit the impact on her privacy and time. Secondly, Danielle perceives potential consequences in failing to respond to mediated messages and so she replies immediately even at the risk of jeopardising other tasks (e.g. burning the dinner). Finally, Danielle's compulsion to remove all visual signs from digital devices that would otherwise beckon her attention pulls her more deeply into digital interaction. The intensified state of mediatisation that Danielle experiences 'not only allows for "more" digital interaction but also restructures the social conditions' under which those encounters take place (Hjarvard 2019, p. 245). It also has implications for mothers' time who, as Danielle exhibited, try to merge time by multi-tasking – such as cooking whilst checking emails – and has 'ushered in an era of increased time pressure and time-poverty' (Pentzold 2019, p. 930).

Among other mothers in my study, fear of missing out (Przybylski et al. 2013) on social news and events was a motivating factor in mothers' appropriation of digital media (see also Matassi et al. 2019, p. 2191). Geraldine, for example, described the pressure she feels to check social media accounts to stay informed of friends' lives and to ensure she does not miss any important dates:

> What I'm finding more and more is that I'm being forced into using Facebook and Messenger … I do check what my friends are doing but a lot of the mums in particular are using Messenger and Facebook now to send out invites and things, so I have to keep track of what's going on… The school has a Facebook page, and one of my best friends just sent out an invitation to her 50th to friends via Facebook last night and even the kids are doing that as well for their birthdays, so I either SMS them [the reply] or I'm on Facebook.

Facebook – when used as a means of recording, accessing and disseminating information about social gatherings – represents a third-time tool[12] that shapes the temporalities of mothers' social worlds (Fornäs 2016, p. 5214). In a similar experience, Frances, a relatively recent member of the Facebook community, describes the burden of expectation to communicate through the platform in case she misses information from her social network:

> I think until I was on Facebook, you're out of the loop a bit – if you're not on – because a lot of people organise things. For example, we've got a 21st in a couple of weeks but it's all on Facebook and you know, you've got to look in your events section, do you know what I mean? Or people organise a lunch and they've had to text me because I wasn't on Facebook, so I think that if you're not on it you do get out of the loop. Sometimes I take myself off for a while, you can just deactivate it, when I get a bit over it. But I find that's how a lot of people communicate with you now.

The experiences of Geraldine and Frances highlight changes in their communicative practices as they conform, albeit with some resistance ('I'm being forced into using Facebook' [Geraldine], 'sometimes I take myself off' [Frances]) to new social conventions, moulding the way they interact with digital media and with others. In Frances' final comment she indicates resignation about using digital media, recognising its necessity for human communication. Hepp (2020, pp. 91–91) describes the pressure to adapt to the mediatised norms of a social group in terms of how various media are constructed as part of a shared ensemble:

[12] Fornäs' (2016) work on third-time discusses Ricoeur's work about objective or cosmic time that concerns temporal mechanics and lived or subjective time relating to how people perceive time and applies these concepts, to mediatisation to identify a third-time; cultural time that is marked by tools that record and track time. Fornäs' (2016) sites Facebook as a good example of a third-time tool because it archives information including invitations, provides timelines and reminders of events and records previous posts as 'memories' that can be reposted.

> The innate human need for communitization is often a considerable driving force for engaging in 'new' media, namely those that are part of the media ensemble of a collectivity. We can see this as a moment of individualized pressure provoked by deep mediatization: there may be no other way to become part of and interact with a community unless you use certain media in certain ways.

Similarly, Müller's (2019, p. 116) account of how mediatisation is negotiated in the home, highlights that appropriation of digital media like Facebook is the result of 'socially shared guidelines that help the media users to orient in order to integrate and to use media in a way that is accepted by a wide range of people'. Frances' comment that Facebook is how 'a lot of people communicate now' indicates her albeit reluctant acceptance of the principles established by her social group and understands the consequences of disconformity. The media ensemble of mothers then, is representative of how they identify with and communicate within a social domain or community (Hepp 2020).

Fear of missing out was sparked in Emily's case due to limited access to social media when her family moved to a new house. Emily explained that due to a technical glitch they were left without wi-fi for three months, causing her anxiety and a sense of disconnection from her social world:

> …when I went to work I would go in early just so I could check my Facebook and catch up on what was going on so I did actually miss that quite badly … It's mad isn't it, we never had any of that available to us and then all of a sudden, it's like 'now what am I going to do, I don't know what I'm doing!' and that was tough.

Emily notes temporal differences between a pre-digital home and the current epoch that relies so much on wireless networks to feel connected. To mitigate concerns about social exclusion Emily altered her morning routine and extended the time she spent in the workplace to maintain a sense of 'connected presence' (Mascheroni & Vincent 2016, p. 311).

Hannah also recounted a time she went without digital media, although her experience was fleeting in comparison to Emily. She had forgotten to take her mobile phone with her to work one morning and described the instant anxiety this made her feel:

> I felt like my right arm wasn't there which is so weird because I think it shouldn't be like that. It should be 'I can deal with it, anyone can contact me, they just need to ring my work number'. And then you get your phone and all of these people messaged you throughout the day, but you've been unable to answer.

Hannah knows to rationalise her fear. Yet the comment about missing messages suggests she may be placing high expectations on herself to reply quickly to others, again implying

knowledge of the media ensemble she shares and the social norms expected from these digital interactions.

Following her earlier comments about how her own digital interactions have been moulded by the communicative practices of friends on Facebook Geraldine reflected on how her mobile phone use has also changed:

> **Geraldine**: I was thinking the other day I tend to get more messages from work now, it used to be a social thing but now it tends to be you know you drop a note to somebody if you know they are in a meeting or you know they might not be checking their emails for a while so I tend to send a quick message saying I've sent an email or something like that.
>
> **Researcher**: It's a more direct route isn't it, to just cut straight through, as you say, you may have already emailed anyway but just to flag it.
>
> **Geraldine**: Exactly. Or to say, 'I couldn't catch you and I need to talk to you' or something like that. I tend to do a text message now coz I know they have their phone with them so I do tend to check for messages a fair bit during the day.

Geraldine raises two interrelated points that identify how mediatisation influences her interactions with digital media and communicative practices. Firstly, she notes how she has adapted her use of the smartphone, extending her original appropriation of texting for social use to include workplace relations. Secondly, Geraldine's surveillance of her mobile phone has increased because she does not want to risk missing work-related messages. Both examples highlight a growing dependency on the mobile phone as perceptions change regarding its purpose and functionality. In Geraldine's case, text messaging is perceived as faster and more efficient among members of the workplace figuration. Jansson (2018, p. 7) points out that mobile phone use can be a paradoxical experience because it often oscillates between a sense of autonomy and dependency:

> Mobile devices have lowered the threshold for many people to become mobile, to feel safe and secure when they move about in familiar and unfamiliar environments. But at the same time the growing reliance on media to keep informed, stay in touch and carry out various transactions ties individuals and institutions closer to the technological infrastructure and institutional logic of media.

Geraldine's altered communication in regards her changing use of text messaging reflects the kind of institutional logic mentioned by Jansson (2018). However, her willingness to adapt also suggests that she feels reassured that her text messages are being delivered and attended to expediently.

Following Jansson (2018), Hjarvard (2019, p. 261) also acknowledges the duality of mediatisation in what he calls the 'Janus face of digital connectivity':

> The intensified mediatization of culture and society following the spread of digital and online media is often experienced as a Janus-faced development, simultaneously liberating for the individual and producing new forms of social dependency.

The findings in this section certainly suggest a level of social dependency among mothers that is sparked by greater appropriation and incorporation of digital media into an increasing range of everyday actions. To bring into focus the breadth and depth of mediatisation in contemporary society, I end with this quote from Hepp, Breiter and Hasebrink (2018, p. 4) which summarises many of the experiences shared by mothers in this chapter:

> If we reflect on how we maintain our family relationships, friendships and relationships with our colleagues, how learning, work and leisure, how politics, regulation and administration take place, everything is done nowadays with the use and help of technologically based communication media.

6.5 Chapter summary

This chapter has illustrated the diverse, dynamic and context-specific uses of digital media by mothers in the home. These interactions, simultaneously entangled with myriad other tasks and duties, are temporally scaffolded to enhance existing routines and support communicative practices with family members as well as those external to the household. The mothers in this study have maximised opportunities for incorporating digital media use into most aspects of their lives whilst also abating unwanted effects of their use on families. The way mothers use digital media has become a meaningful part of their social worlds that both influences and is influenced by how they think and feel, and by how they organise their lives. Not surprisingly then, mothers feel encumbered by communicative demands and expectations to be constantly connected to digital media yet nonetheless relinquish themselves to these mediatised interactions.

The findings in this chapter highlight how contemporary mothering is experienced by mothers as users of digital media, emphasising temporality as a considerable issue that influences how they construct meaning about digital media. These interactions, however, that are negotiated around how busy they perceive their lives to be, reflect how mothers' time is stretched across multiple domains, suggesting time poverty is a significant factor in shaping their communicative experiences in the home.

The next chapter reports how mothers' role as a facilitator of children's digital media use also has implications for how they spend their time, illustrating that digital management can intensify and constrain their experiences of mothering whilst also providing opportunities for deeper digital connections with children.

CHAPTER 7: Managing children's digital media use: the digital care work of good mothers

Chapter 6 outlined the temporal dimensions of mother's digital media use and highlighted the role of domestication and mediatisation in shaping these interactions. The findings illustrated that mothers utilise digital media to combat time poverty and to support everyday functions, but mothers can also feel an intensification of time when they feel pressured to meet the communicative expectations of others. In this chapter, I look beyond mothers' own use of digital media and consider how mothers' perceptions and experiences in the digital home are shaped by children's use. This shift in focus orientates the chapter within the realm of parental mediation research and illustrates the significant role mothers play in managing children's digital interactions whilst also maintaining the emphasis of the previous chapter concerning mothers' time. However, the term 'digital management' is used here in preference to the more generically used expression 'parental mediation' because, for mothers, children's digital media use involves a more extensive and complex set of communicative practices than 'mediation' implies.

The findings in Section 7.2 outlines how the meanings mothers' construct about digital media when it is used by children is influenced by their mothering identity. It identifies that gendered assumptions that are made about the role of mothers in guarding children's online safety, including the expectations mothers impose upon themselves, can increase anxieties and induce intensive mothering practices. The section also identifies contrasting perceptions whereby mothers facilitate children's increased use of digital media by brokering access with ambivalent husbands, emphasising one dimension of mothers' digital care work.

Section 7.3 expands the idea of digital care work by identifying the digital management strategies that mothers deploy in response to children's digital media use in the home. Digital management – the role of facilitating, regulating, supervising and negotiating children's use of digital media – occurs alongside the routine work of organising family life. The findings highlight the gendered nuances of this practice by emphasising the significant impact digital management has on mothers' time whilst elucidating how this pressure is reduced by the desire to be a good mother. This chapter provides evidence that mothers' management of digital media

in the home is interconnected with their sense of mothering identity and highlights an intensification of mothering due to the extended unpaid care work they provide in the home.

7.1 Constructing meaning about children's digital media use

The presence of digital media in the home presents challenges to mothers around how to negotiate children's increased use. Parental mediation literature shows that parents use different approaches to manage children's digital media use according to a range of factors, such as the type of digital media being used, a child's personality, a parent's physical availability to mediate and the digital literacy of parents (Jiow, Lim & Lin 2017; Nikken 2019; Shin 2015). Whilst some of these factors are evident in the way mothers in this study manage children's digital media use (see Section 7.3), the empirical focus on mothering in this study enabled a more nuanced investigation of issues specific to the role and lived experience of mothers. The findings in this section suggest that mothers' interactions with digital media vis-à-vis children's use involves much more than simply deploying mediation strategies.

Firstly, mothers expend considerable energy thinking about and mitigating the risks associated with children's digital media use. Managing risk, in particular, is associated with ideologies of good mothering because mothers feel responsible for protecting children from harm and feel guilty when they fail to do so. Secondly, the study shows that mothers invest time and effort in brokering access to digital media for children via their husbands. These mothers recognise the indispensability of digital media use for children's social development and exert parental expertise to persuade partners of their value. Two cases are drawn on to illuminate the level of negotiation and management mothers undertake to facilitate online opportunities for children. As this section demonstrates, the meanings mothers have constructed about digital media in relation to children's use are shaped in conjunction with how they and others perceive they should be as a mother.

7.1.1 Perceiving risks

The review of policy and scholarly research in Chapter 2 (see Section 2.3.1) identified a host of parental anxieties and perceived risks associated with children's digital media use, ranging from issues of privacy, misuse and psychological and physical health (Auxier et al. 2020; Blum-Ross & Livingstone 2018; Brito et al. 2017; Dias et al. 2016; Symons et al. 2017). These concerns, which are also 'circulated by the media and advertising', propagate a dystopian view

about digital media which influences parents' perceptions (Mascheroni 2014, p. 446) and causes them to adapt their parental style in accordance with this rhetoric (De Schutter, Brown & Abeele 2015). In my study, several mothers demonstrated how these discourses had shaped their view about children's digital media use, identifying cyberbullying, online safety and a loss of children's interpersonal communication skills as key concerns. As is often the case, the perception of these harms was greater than the lived reality (Auxier et al. 2020) as only three of the 17 participants in this research identified a risky encounter. Of these, Nicky and Isobel shared that their daughters had been affected by minor cyberbullying incidents on Snapchat and Instagram, although neither chose to divulge the details of these cases. In Hannah's case, however, she spoke extensively about an issue that had involved her son who, then aged 7 years, had used his iPad alone in his bedroom:

> I walked in the room and he kind of hid it and then he obviously got out of whatever it was, so I sort of quietly grabbed it and then brought up the history, which of course you can do, and he had typed the word "naked" in right? ... And of course on the Internet it's not just, you know I have no issue with the naked body in a picture but of course it was more than that, and I kind of had a mini meltdown at this point because I didn't realise that when you typed that in that that is what you could get either, you know, naïve as a parent … And then I ended up going to the school and having a chat to the school counsellor about it because I was just so scared that it was going to wreck him, do you know what I mean? And she was really supportive and said, 'obviously you need to supervise him' and I said, 'yeah I know that'.

Even though this incident occurred two years prior, the experience had clearly left an indelible mark on Hannah's sense of identity. The comment about being naïve and fearing that this incident might 'wreck' her son reveals concerns about 'bad' mothering as she contends with self-judgement and blame (Goodwin & Huppatz 2010). Hannah's guilt and shame demonstrates the burden of responsibility she feels about protecting and guiding her son (Rotkirch 2009), an expectation that is also reinforced in the school counsellor's implicature that she should supervise his online activity.

In other cases, mothers anticipated risks to children's online safety or physical and mental well-being. Margaret, for example, expressed concern about what the future holds for her stepdaughter who she thinks 'will be more swayed by people's opinion of her through social media':

> I'm concerned about social media because of the 24/7 nature of the bullying, how they get self-value from likes and from what people say on social media, so I'm concerned about that, more so Holly in that it might affect her confidence and she might be attached to the screen.

Emily also demonstrated anxiety about the prospect of cyberbullying in relation to her adolescent sons (aged 12 and 14 years):

> My concern is when they're older not being able to monitor them quite so much and them having access to people you don't necessarily know, you know, that does worry me. I mean, we've spoken to the boys and been quite open and frank with them about what can happen but you just don't know, that does worry me. You can't be watching over their shoulder every five minutes. I do worry about the bullying side of things too, that does worry me. It hasn't happened but it could happen and it seems that teenagers don't tend to share those things with mum and dad, so that does worry me a bit.

As other studies have shown, Emily is conscious of the difficulties she will face when monitoring and regulating her children's digital media use as they get older and seek more autonomous use in private spaces (Lim 2018; Page Jeffery 2020a; Symons et al. 2017; Uhls & Robbs 2017). Emily's use of the word worry occurs five times, revealing intense feelings about the potential harm her children could encounter online. Her concerns connect to intensive parenting discourses that emphasise the responsibility that parents, and especially mothers, have for ensuring positive developmental outcomes for children (Faircloth 2014; Hays 1996). In the context of a digital home, this intensified role also extends to supporting children's cognitive and emotional growth through positive digital media practices (Page Jeffrey 2020b).

Emily's anxieties reflect the (intensive) mother she wants to be whilst acknowledging how much more challenging it is to achieve this parenting style as her children grow older. This unchartered and imagined territory of harmful online interaction motivates her and her husband (by implication of the pronoun 'we') to use discursive strategies (Jiow, Lim & Lin 2017) to educate their sons about the dangers of inappropriate digital media use.

The experiences of Hannah, Margaret and Emily highlight their 'struggle with the tension between protecting their children versus giving them the freedom to explore, learn and grow independently' (Livingstone & Byrne 2018, p. 27). Furthermore, the testimonies they offer illustrate how they perceive themselves in relation to good mothering discourse and demonstrate the personal challenges they face trying to reach these ideals (Prikhidko & Swank 2018).

Rhiannon also reflected on the challenges of raising children in a digital home and made an insightful observation about how technologies have changed the way children are exposed to psychological harm and risk:

> I think in the good old days before the Internet if you wanted to harass someone you had to go to the post office and send them something or drop something on their doorstep. It was a bit of a harder process to do, but now, online, that sort of viciousness is really easy. And it does concern me that my kids might either be victim to it or may be participators in that, and that concerns me. And I guess that's why we talk a lot about online interactions and that sort of thing because it does concern me because it can be a really nasty, vicious place.

Like Emily, Rhiannon perceives risks in her children's use of digital media and cites the potential for venomous exchanges as the source of her 'concern'. Again, she and her husband engage their children in discussions about online safety to build their resilience and skill in handling any issues. Where her account differs from Emily, however, is in the acknowledgement that her own children might participate in inappropriate online behaviour. As she continues to speak, it becomes apparent that her insights are based on lived experience:

> I have caught the kids, particularly the younger one [aged 12 years] on the odd occasion, he'll watch a YouTube clip that might be about effectively picking on someone online and I sort of go 'yeah, okay, I can see just sitting back looking at it you could say that's funny but imagine being that person who is the victim of that, that person doesn't know what's happening' … Australia's funniest home videos things, I've always hated that show because I'd sit there and go 'so someone has smacked their hand into a metal pole and we're sitting here and watching and laughing' but how is that translated online? Anybody can post up onto YouTube and I just think, by watching it you are effectively buying a ticket for it and saying make more, so it does create some very interesting conversations.

Rhiannon is asserting her mothering role as a digital socialisation agent, educating and shaping her children's thinking and online behaviour (Shin 2015). The meaning she has constructed about digital media regarding her children's use is highlighted by her concerns about their potential maleficence but it is also reflected in the way she perceives these risks as opportunities for 'interesting conversations'. Geraldine also described an incident in which her 12-year-old daughter was a silent observer of online abuse during a fractious interaction between her daughter's friend and a boy:

> …the two kids that were interacting was pretty vicious sort of stuff, the language was appalling and the interaction between them. And Amanda and a couple of other friends were observers more than anything, they weren't participating but other kids were posting images of popcorn, like movie popcorn. And I initially couldn't work out what the hell it was and then I realised it was a signal for entertainment, sit back and watch the fight going on, 'good one guys, this is great entertainment'. And that concerned me just as much, that they thought it was entertaining to watch, and so I then had a conversation with Amanda about it to say, 'that's not on either'.

As in Rhiannon's case, Geraldine wanted to make sure her daughter understood that watching harm being done to others was tantamount to the inappropriate behaviour she had witnessed. As other research has shown, these mothers are seen instilling in 'children values, life skills,

and the concept of right and wrong, by using real or anecdotal experiences related to the internet to teach lessons about online behaviour' (Farrugia & Lauri 2018, p. 143). Children's use of digital media then, and the concerns and risks associated with it, contributes to the intensive digital care work of contemporary mothering.

At the lower end of risks associated with children's digital media use are issues concerning changes in children's communicative practices and peer group dynamics. Several mothers commented on differences in children's communication skills and social relations. Louise, for example, explained her bafflement at a recent interaction she had with her son's friend who had visited their home:

> I assume when somebody is on the phone and they're looking at it that they're engaging with the phone, but this boy would be talking to me, and, I'd stopped and picked up the paper because he was looking at his phone but he would keep talking and I was completely confused by the signal of the phone being between us. So, he was still wanting to talk to me but incidentally was also looking at the phone. He didn't see it as a barrier, whereas I read it as he wasn't interested.

This case demonstrates distinct differences in meaning about how communication is transacted and highlights variation in communicative conventions. Whereas Louise saw the boy's mobile phone use as an obstacle or 'barrier' that diminished their interaction, he felt able to maintain a foothold in both offline and online worlds. Page Jeffrey (2020b) found similar results regarding children's communication and social skills in her research with Australian parents about the potential for digital media to support children's development. The parents in her study framed contemporary children's social skills in terms of loss wherein traditional face-to-face play and interaction have been replaced with mediated forms that are 'less authentic than relationships cultivated offline' (Page Jeffrey 2020b, p. 11). Frances reflected similar concerns about her daughter's social relations saying that:

> The one thing that worries me is kids, they're just going to lose their ability to communicate because you know, sometimes she will have a friend over and they're both on the bed on their phone. There's no like talking, do you know what I mean?

This phenomenon of sharing an offline, physical space whilst engaged in an online, digital activity was also remarked upon by Kitty who said:

> Modern day play dates are interesting – you get four kids with an iPad each and they don't talk to each other, they just show each other things they're doing. We'll go to a friend's and meet with different mums and if it's school holidays the boys will be with us and they sit along the

> bench on their iPads and they're interacting but over the iPads – they see the games each other play. It's so different now.

As Balmford and Davies (2020) found in their study about children's engagement in the educational game Minecraft, gaming often occurs in 'copresent settings, in which players can be physically within the home and yet be electronically transported to other locations' (p. 13). Kitty's experience of digital playdates highlight how interpersonal communication is changing among children as digital media use becomes an integrative feature of their interactions.

Such a 'blending of virtual and physical spaces' (Hjarvard 2019, p. 252) represents changes in the social and communicative dynamics of friendships for children which have become entwined with and through digital media interaction. Kitty's reference to these social relations being 'different now' speaks to the temporal experiences she had in her own childhood and to the changes she has observed in her children's playdates as they have become more digitally networked. Compared to Frances, however, her comments exhibit less concern and more curiosity about how children's sociality is being transformed through the experience of digital media. Perhaps for Kitty, these changes are not perceived as risky to her children's development but as an opportunity for communicative growth.

7.1.2 Brokering opportunities

Whilst some of the digital care work mothers do in the contemporary home involves managing and mitigating children's online risks, my research shows mothers also negotiate access with partners who may be ambivalent or dismissive about the benefits of digital media for children. Carol, for instance, spoke about how her husband's disinterest in digital media and his 'old-school' attitudes about parenting, childhood and learning conflict with the meanings she has constructed. Despite her own limited digital literacy, she recognises the long-term impact digital media use proffers her children and lobbies her husband to change his thinking. In the following excerpt, Carol illustrates an expanding area of digital care work that involves her brokering access to digital media for her children:

> [B]ecause he's not up with technology, he doesn't understand how things work or the advantage they can be for them. He just sees another screen that they're sitting there looking at instead of being outside and I'm not quite as strict as that. I can see more of the benefits of them whereas I've gotta try and convince him of that coz he's not up, he's just very old school and he's not interested in technology, he likes to keep things simple and basic. But that's not the way the world is now and he's going to have to catch up at some point, and the kids you know, they're way ahead of him and I can't hold them back based on his thinking, so it's really difficult, so I've got to get it in my mind to try and convince him that they need it.

As with her own use (see Chapter 5), Carol has constructed digital media as a necessity and tries to impress upon her husband its indispensability for their children's future. Despite her own low levels of digital media consumption, her attitudes and style of mothering vis-à-vis children's use suggests mediatised practices as she tries to 'convince' him of the value of digital media for contemporary childhood. Carol's experience reveals an intensification of mothering that extends beyond simply managing children's actual use of digital media to include the role of arbiter as she influences the communicative practices of the household.

Olivia also identifies gendered differences in how meaning is constructed about children's digital media use. When asked what challenges she faces living in a digital home she said:

> Probably the biggest challenge is, Fred and I are staying on the same page because we are different you know … I'm stricter than other parents but he is even stricter and so it's making sure that I respect his wishes, but I don't sacrifice my own ideas about things. I think they have to use their devices, it's part of their social structure. I don't know if he's forgotten what it's like to be a teenager but friends are everything when you are a teenager and if you are out of touch with them even for five hours that can be disastrous, and so I think that you know, I am a bit more understanding of that psychological sort of side of things, so I am a little bit softer.

Olivia intimates that she understands the significance of digital communication to children's social worlds more so than her husband and is more instinctively and emotionally responsive to her children's social and communicative needs (e.g. Hays 1996). Her comments and actions also suggest that transcendent parenting (Lim 2016, 2018), which involves being cognisant of and engaged in all aspects of children's online and offline lives, is more specific to the mothers' role.

The experiences of Carol and Olivia reveal the key role mothers play in mediating children's digital media access in the home beyond traditional notions about parental mediation. For instance, instead of highlighting the parental actions of these mothers in direct response to children's use, these findings show mothers as lead negotiators in child-centred digital parenting.

7.2 Gendered nuances of digital media management

In this section I focus attention on mothers' experiences managing children's use of digital media in the home. As discussed in the previous section, parental intervention in children's digital media use is motivated by perceived risks about extended or inappropriate use in contrast to its potential to enhance digital learning and social interaction. Indeed, the backbone

of much parental mediation research (as discussed in Chapter 2) is based on the premise that parents use specific strategies to help them guide, supervise and regulate children's digital media use to mitigate concerns whilst also creating opportunities for positive engagement. To explore which factors influence the digital management practices of mothers, I adapted the original three model approach to parental mediation (Valkenberg et al. 1999) in which parents were posited as using active, co-viewing or restrictive strategies when managing children's television viewing, to combine ideas by contemporary scholars about the parental challenges and opportunities of mediating children's access to portable digital media. In the discussion of findings that follows I draw on Livingstone et al.'s (2017) ideas about enabling and restrictive mediation, Van Petegem et al.'s (2019) work on autonomous-supportive and controlling communication styles of parenting and Jiow, Lim and Lin's (2017) typology of mediation activities, namely gatekeeping, discursive, investigative and diversionary strategies.

The findings illustrate that participants use a combination of these parental approaches in their attempt to extend protection and autonomy to children when they use digital media. As other studies have shown, these strategies are influenced by different contexts and determinants, including the gender of children and parents, the disposition of children and the meanings parent's ascribe to digital media (cf. Jiow, Lim & Lin 2017; Kucirkova, Littleton & Kyparissiadis 2018; Livingstone et al. 2017; Nathanson 2018; Nikken 2019). In my study, the gendered assumptions that are made about parenting roles is illuminated as an important factor that shapes how mothering is experienced in a digital home.

The empirical accounts proffered by mothers in this section illustrate the extent and breadth of the digital care work they undertake in the home through the deployment of three key digital management strategies. Firstly, mothers experience an intensification of time and responsibility and deploy more restrictive or gatekeeping strategies when they perceive children's digital media use as disrupting routine life. The driver for this model of parenting was generally motivated by a mother's need to maintain control over children's digital media use rather than mitigate concerns about online risks. Secondly, and conversely, mothers invest considerable time and energy participating in children's digital media use when they perceive opportunities for learning about children's online activities, for engaging in digital activities alongside each other or for discursive and educative practice. These enabling strategies are usually discussed in parental mediation literature in relation to affording children more online experiences. The

findings in my study show they can also be beneficial to mothers, especially in the context of good mothering, as they build a sense of shared meaning about the importance of digital media in children's lives. These activities highlight the increased and changing nature of mothers' digital care work that has become so much a part of their contemporary mothering role.

The third digital management strategy highlights the way mothers utilise the time that children spend using digital media to relax or to attend to other tasks. Many mothers reported that when children are occupied in digital worlds, they claim time for themselves, engaging in what Zaman et al. (2016) define as a more distant style of parental management. This enabling strategy – which is again beneficial to both mother and child – provides mostly positive experiences for mothers who feel their own needs are met in addition to their children's. Whilst this parenting style appears to refute intensive mothering ideology that requires women to put children's needs ahead of their own, mothers' accounts also highlight the intense pressure they are under to fulfil multiple roles particularly during the working week.

7.2.1 The challenges of digital gatekeeping

According to parental mediation literature, digital gatekeeping (restrictive mediation in the traditional parental mediation model), as identified by Jiow, Lim and Lin (2017), is a mediation strategy that includes the setting of rules and parameters around children's digital media use, including limiting the time spent using them, the type of media content consumed and the temporal and spatial context in which they are used (also Nathanson 2018; Zaman et al. 2016). Parents who adopt the role of digital gatekeeper might endorse restrictive or controlling styles of parenting that can impact on children's growing sense of autonomy and negatively affect the parent–child dyad (Livingstone et al. 2017; Van Petegem et al. 2019). At the same time, the deployment of safety mediation in the form of monitoring of children's digital media activity and the establishment of security protocols not only protects children from online risks, it can also enable more opportunities for digital media use as parents feel assured of children's safety (Livingstone et al. 2017).

In my study, mothers are shown to use a combination of enabling and restrictive strategies (Livingstone et al. 2017) in their management of children's use to various degrees, often simultaneously, although restrictive forms of mediation tend to be more prominent. Nicky, for example, identifies with the role of digital gatekeeper, taking responsibility for organising permissions on her children's YouTube and Netflix accounts. Following an incident that

occurred some months earlier, Nicky explains how her 10-year-old son is now encouraged to watch streamed content on the family TV set instead of a portable device so that she can monitor what he is watching:

> We have had one incident, I think it was about 18 months ago, where *I* hadn't set up parental controls on the iPads properly and they were all set up under my name so no restrictions. So about 12 months ago *I finally sat down* and worked out how to do the family thing … so I can set specific restrictions so Kate's I think is actually 15 and below, she can't have anything 15+, and Jay can't have anything 12+ so, *if they want a new app they have to seek my permission first*, even for free apps, and that was the problem – I had that set at 'don't need permission for free apps' and he just went in and downloaded some really inappropriate adult content … of course *I'm panicking* thinking 'oh my God my child is looking at this sort of stuff and he's too young' but it didn't take too much searching to find out that that's exactly the age, 9–10 when they start becoming curious and things like that.

The words I have italicised in Nicky's narrative are illustrative of a variety of parental mediation approaches that reflect how she perceives her mothering role. First, she emphasises the lead role she takes in establishing safety protocols on her children's digital media platforms ('*I* hadn't set up'). This strategy, according to Livingstone et al. (2017, p. 98), corresponds with parental use of technical controls that, instead of being considered restrictive, 'are better interpreted as building a safe framework precisely so that children's positive uses of the Internet can be encouraged'. However, Nicky also maintains control of her children's digital media use by expecting them to ask her if they want to install or download anything new on their devices ('*they have to seek my permission first'*), which implies a more restrictive and controlling style of parenting (Van Petegem et al. 2019).

Yet it is her implicature that she had somehow failed as a mother by not setting up the controls properly that reveal much about her digital management role and how it relates to her mothering identity. For example, the fact that she assumes responsibility for her son's exposure to inappropriate content, even when it was he who took advantage of the lack of parental controls, demonstrates how deeply engaged she is in the process of intensive digital care work. The anxiety and guilt she felt is reflected in her reaction to the incident ('of course *I'm panicking'*) and in her subsequent efforts to seek reassurance in the normative experiences of other children ('it didn't take too much searching to find out'). Nicky's account highlights the combination of mediation strategies that she uses to support her mothering, which also help to valorise her role as a good mother. Nicky's intensive style of parenting requires her to take full responsibility for her children's online safety and well-being whilst also researching and

seeking expert advice about digital gatekeeping. Nonetheless, Nicky's efforts to be a flawless mother (DeGroot & Vik 2019) require substantial time and personal resourcing ('*I finally sat down* and worked out how to do the family thing'), which places additional pressure on her mothering role.

Gatekeeping activities were evident in other participants' rules about seeking permission to use digital media devices, to make app purchases, to sign up to websites or make online purchases and to log into digitally streamed content (Danielle, Anita, Barbara, Margaret, Pat). Pat referred to herself as a 'firewall' when explaining her involvement in setting up children's online accounts and establishing cyber security protocols:

> I set up pretty much anything that they want. They come ask and I go 'what do they want, what am I signing', they are asking for a credit card number and I go 'well let's have a look and see if this is a scam website' and so we go 'is this a scam' and they say 'yes it is' and we go 'phew'. Not that they have a credit card but there will be a time that they do and so they ask, which is all I can hope for at this stage. So they will learn one day not to put their credit card details into anything.

According to Livingstone et al. (2017), parents who require children to seek their permission before using digital media use a restrictive strategy of parental mediation that can limit children's agency and opportunities to engage in online activities. However, in Pat's case, her regulatory practices combine with educative or discursive strategies, as Jiow, Lim and Lin (2017) have described, to help build her children's resilience and autonomy in regard to cyber safety.

Pat also reported having access, along with other mothers, to children's social media passwords and followed their activities by friending them (Nicky, Geraldine, Emily). These arrangements were negotiated with children to allow them greater opportunities to engage in social media, as other studies have found (Mascheroni 2014; Page Jeffrey 2020a; Uhls & Robb 2018). Although these mothers indicated only infrequent monitoring of activity logs and private messages, they nonetheless perceived the possibility of viewing children's online interactions as a benefit of social media. Emily, for instance, spoke about how her children's social media activity gives her an opportunity to understand more about how her children (sons aged 12 and 14 years) form and manage social relations that she would otherwise be excluded from:

> I think in a way, it's [digital media] been a positive thing in that the kids have Instagram accounts. I am on their Instagram account so I can keep an eye on things so I can actually see his friends' stuff too. So, I've got an insight a little bit more into different relationships that they

> have that perhaps I wouldn't normally have if I wasn't able to access that. So yeah, that is a good thing.

Although Emily alludes to cautious observation of her children's social media activity, she also acknowledges how the public nature of such platforms enable her to know more about the dynamics of their various friendships. Parental monitoring, then, helps mitigate mothers' concerns about risky behaviour whilst enabling children to engage in social networking (Livingstone et al. 2017).

Olivia's account of gatekeeping activities in relation to her daughter's digital media use reveal a more complex set of issues that inhibit her from engaging in the more autonomy-supportive style of parenting (Van Petegem et al. 2019) that Nicky and Pat demonstrated. When asked whether she monitors her 13-year-old daughter's social media accounts she said:

> Initially, when she was younger, I thought I would, but she seems to be trustworthy enough. So if I get any hint that there is trouble I will demand those passwords and if she doesn't hand them over then, I'll just take her phone.

Olivia implies a level of trust that allows her daughter to be exposed to risk without exhibiting the same level of open surveillance that others indicated, whilst also emphasising her authoritative position by confiscating use if necessary. However, use of controlling language such as 'demand' and 'take' implies a controlling style of communication that is enforceable through restrictive gatekeeping and the threat of punishment rather than empathy (Van Petegem et al. 2019). As the interview progressed, it became apparent that Olivia's notion of trust did not extend very far:

> I sneak sometimes, I can't get onto her phone but I can look at the notifications, so sometimes I'll have a quick look at that and scroll through the messages just to see if there is anything to worry about. And if there ever is and she refuses to tell me, I'll dive in then.

Once again, Olivia exhibits an inclination to watch and wait before intervening but does so through covert means of digital surveillance. In conflict with her initial intention to grant autonomy to her daughter, Olivia's urge to monitor her daughter's online activities suggests a need to feel informed and possibly in control of her daughter's online interactions. Olivia illustrates this compulsion during our interview by taking the phone of her daughter (13 years), who is sick in bed, from the charger point and shows me the notifications on the screen. She becomes immediately distracted by what she sees:

> **Olivia:** So those are the messages on there that I can read. Oh crikey [Pause while she reads through the notification messages] Something's wrong, something's going on.
>
> **Researcher:** Oh really.
>
> **Olivia:** One of her friends has said to a whole group of them, 'I am leaving Hangouts for a while, no one add me back please', 'Are you angry?' 'No one talk to me in private chat unless it is an emergency or a homework collaboration or something'. Lily renamed this chat 'don't add Lily' and then one of her friends has messaged Leah separately to say something is wrong.

Olivia's use of the word 'sneak' implies that surveillance of her daughter's messages is a surreptitious activity that occurs without her daughter's knowledge which is confirmed by her actions in the example above. This behaviour produces conflicting feelings for Olivia regarding her daughter's use of digital media but also concerns her own style of parenting. Olivia wants to trust her daughter to manage her digital interactions but also needs to be informed about and, to some extent, in charge of these in order to feel like a responsible, good mother. This kind of parental monitoring seems to both alleviate and exacerbate Olivia's concerns about her daughter's digital relations, yet it has become a routinised part of her mothering role.

In her study about parental mediation and good parenting discourses Page Jeffrey (2020a) found parents of adolescent children often instigate trust-based systems around digital media use once they feel unable to enforce more restrictive techniques. She found that parents realise the 'impossibility of constant, or even regular, mediation and monitoring' and 'felt that they had no choice but to simply trust their children' (Page Jeffrey 2020a, pp. 7–8). The main challenge identified by parents in her study, and also evident in Olivia's experience, is how to facilitate and encourage children's independence in offline and online contexts whilst maintaining knowledge of and involvement in children's digital media use. This relinquishing of parental control was found to cause ambivalence among the parents in Page Jeffrey's (2020) study because of connotations that 'good' parents are those who monitor, supervise and regulate children's digital media use (also Lim & Soon 2010; Willett 2015). To compensate for this shift in parental role, parents found themselves adopting an alternative frame of good parenting based on notions of trust and autonomy, however:

> What parents referred to as trust-based strategies were somewhat paradoxically operationalized by parents as a governmental strategy, as many parents often disclosed their intent to randomly check their children's online activity to their children as a disciplinary technique, expecting that they would then 'do the right thing' (Page Jeffrey 2020a, p. 12).

Trust is also an issue for Geraldine, although her attitudes and restrictive parenting techniques in regard to her two daughters' online activities are perhaps more explicit. Geraldine explained

that she has denied giving any online account passwords to the elder of her two daughters (Amanda, aged 12 years) because 'we couldn't stop her downloading books and buying books. We tried a couple of times to work on a trust system and she just couldn't do it for whatever reason'. This blanket ban on accessing online accounts also extends to Amanda's use of the laptop at school which has been problematic for her school life:

> We still control the Apple ID account, we haven't given Amanda the – because we've had an issue with her buying things and spending money – we haven't given her the password and it's an issue for her because at school the teachers say you have to install this app but she can't do that at school, so she has to come home and remember to tell us. She can't do it on the spot so that's been a bit of a concern for her. At some stage we'll have to give her that flexibility, but she's got to earn our trust and she hasn't yet.

That her daughter needs to talk to Geraldine first about installing apps for school use signals a highly restrictive approach to digital gatekeeping that potentially limits her daughter's online learning at school. Yet her example also highlights how the communicative practices of families are being challenged and influenced by the assumption of schools that children have full access to online apps and tools. Geraldine acknowledges the issues this can cause her daughter and that she will need to one day grant her more autonomy ('give her that flexibility') but also awaits evidence that such an extension of trust is warranted. To prevent her daughter's errant digital media use from further impacting family cohesion Geraldine, for now at least, resists the pressures of mediatisation vis-à-vis digital pedagogy.

But as Geraldine continues to explain the impact of her children's digital media use on family life it becomes evident that the challenges she faces extend beyond her daughter's furtive online spending:

> The biggest challenge we've had with Amanda in particular, and Lucy [aged 10] a bit too, is that they just don't take no, they won't respect the request to take it away and they'll actually go out of their way to hide them and smuggle them, and they sneak out in the middle of the night and take them and things like that … we're at the stage where the iPads come to bed with us and we keep them under the bed, they're under John's [husband] side of the bed, and the phones and everything now.

Trust seems to have eroded to such a point that Geraldine and her husband now physically remove devices at night in a bid to curb their children's consumption. Such a prohibitive approach to gatekeeping was the most extreme of those reported by mothers in my study but appears to have been undertaken as a last, exhaustive effort to preserve routine family life. Nonetheless, the controlling style of restrictive mediation that she and her husband have

adopted means that her children's autonomy and ability to self-regulate is undermined, resulting in conflict and a power struggle as her daughters defy parental rules (Van Petegem et al. 2019).

Children's behavioural issues were linked to other cases where mothers felt the need to ban access to digital media, particularly where use was associated with impacting everyday routines. Kitty, for example, had taken the decision to impose a total ban on all media during the school week after her 9-year-old son's behaviour disrupted the morning routine:

> We'd been screaming [at each other] every morning so we decided to make a change. The rule is no screens in the morning, well, no screens during the week is our rule, except as decreed by Mum or Dad as family viewing time.

Since instituting restrictions around her son's use of digital media, Kitty said her household had generally become much calmer. She acknowledged, however, that during breaks in routine such as school holidays, her husband would say things like 'he's been a really good boy lately and were all very tired, perhaps he is allowed to have the iPad in his bed tonight'. Such as response required Kitty to assert her role as primary digital gatekeeper, as this excerpt illustrates:

> I had to re-educate my husband because he would reward by bending the rules and that would make it harder … so we're trying to reinforce you know, reward him absolutely but don't reward him by bending the rules because the minute we do, tomorrow night it's a carry on. He [son] does push back every now and again and come home and say 'it's not fair, everybody else is allowed to have two hours a night blah blah blah' but I'm steadfast with it because I can see the huge impact it's had on us – and I don't never let him have anything – but it is controlled by me during the week.

Kitty makes it clear that in their household, responsibility for managing her son's digital media use is part of her mothering role. It is she who experiences the consequences of any disruption to her son's newly established digital media routine and so she believes it is incumbent upon her to also manage her husband's expectations about parenting. In contrast to the experiences of Carol and Isobel who try to broker opportunities for children to have access to digital media via their husbands, Kitty's appeal to her husband is to support the restrictions she has in place around her son's use. Nevertheless, all three cases demonstrate the additional digital management role mothers play in negotiating these outcomes for children and highlight gendered differences in parental attitudes about children's digital media use.

The action of banning or removing access to digital media is particularly evident in households where mothers feel unable to adequately supervise children or, as in Kitty's case, where use is negatively associated with inappropriate behaviour. Danielle and her husband, for example, made the decision to block their 14-year old son's access to the home Wi-Fi network because they felt his aggressive behaviour was the result of too much exposure to digital content:

> Jimmy is not allowed … under no circumstances - is he allowed to go online unless he asks us first, and we have to unblock it first. So, at school he's been told what, or what not, to use. As soon as he enters the house he has no Wi-Fi anymore.

Louise took similar steps to limit Wi-Fi access after noticing an increase in data usage and what she considered to be an excessive amount of time that her children spent on devices:

> I have taken the modem out of the house and said, 'I'm having a coffee and it's going in my bag' and they'll say 'well nothing is working' and I'll say 'well no, that's because the modem is here in my bag' [laughs].

Louise admits that this kind of action is drastic and short-lived however because, as mentioned in Chapter 5, her son is studious and requires access to the internet to be able to complete his digital homework. Jansson (2015) notes that digital media have become so indispensable for everyday interactions that their removal causes ruptures to social worlds. By returning the modem to the house after a brief period it seems Louise understands the consequences of extricating her son from his studies. Her ability to enforce the kind of mediation strategy that she would like, however, is hampered by her desire to also enable online opportunities for her son. Mediatisation in this case, where Louise's son requires internet access for schoolwork, is experienced as an unwelcome force that restricts her capacity to be the kind of mother she wants to be.

These findings, that show how mothers deploy technical controls and parental monitoring (e.g. Livingstone et al. 2017), support other studies about parental mediation and the role of digital gatekeeping in limiting the duration of use and locations in the home where devices can be used (Balmford & Davies 2020; Jiow, Lim & Lin 2017; Page Jeffrey 2020). However, the accounts offered by mothers in my study, also highlight the often-arbitrary nature of these rules and identify specific challenges they experience when trying to enforce them. Carol, for example, whose children only have shared access to a desktop computer, indicated that the algorithmic logic of computer games (e.g. Andersen 2018) can make setting time limits around her children's use a misnomer:

> I had a timer that would go off in 30-minute blocks but that didn't always work because if they were playing games then they'd be like 'can I just finish this game first?' And it didn't always fit in with what they were doing on there like if he's playing a soccer game and it's not near the end of that half. Now I monitor it a bit but I don't have a timer, I might just think 10 more minutes but it might be 15 or whatever so. I do still monitor it but just not the time really.

Carol has been forced to reflect on and adjust her digital management in response to the temporal design of computer games.

For two mothers in the study, it was not simply the duration of time that children spend using digital media that caused them concern but rather how its use impacts on the morning routine. Following a point that Kitty alluded to earlier, Anita illustrates the ramifications that ill-timed use has for contemporary mothering, explaining that Adam, her middle son, is 'always the first one' to pick up his iPad in the morning:

> I'm like "put it down, you need to get ready for school, you need to have your breakfast, you need to get dressed". I should just take it off him but when I'm busy running around, three mornings a week I'm getting ready for work, trying to get them ready, packing bags and then I'm going out of the door and shouting to my husband "you need to get up and finish getting them ready!"

Anita indicates ambivalence about her digital management role which is problematised by what she thinks she 'should' do compared to what she can do given the competing demands she has on her time. Anita's reference to how she attempts to engage her husband in the morning routine also implies something about the gendered burden of parenting as she grapples with the responsibility of feeding her children, getting them ready for school whilst also preparing herself for paid work.

Isobel also faces challenges as she tries to curb the disruption caused by her son's digital media use. Her account, though somewhat unique among participants, highlights how the presence and use of digital media in even the most private areas of the home, have a shaping effect on the everyday functions and experiences of mothers:

> This is going to sound terrible but every day my son takes his iPad to the toilet and it drives me nuts! One, it's in the toilet so that's disgusting and two, it's just not the time, so we have words about that […] So that would probably be my biggest bugbear […] I will be getting lunches and trying to get myself ready and he's stuck in the toilet with his iPad!

Like Anita, Isobel tries to get herself organised for the day whilst managing her responsibilities to her children, which includes extricating her son from the bathroom where he plays on his

device. His behaviour, however, causes disruptions to routine family life and adds an additional level of intensification to Isobel's mothering role.

The findings in this sub-section show that mothers use digital gatekeeping activities akin to Livingstone et al.'s (2017) safety mediation to protect children from potential online harm and to prevent or curb risky behaviours. Yet, whilst some of these strategies support opportunities for children to have more positive digital interactions, others are more punitive in their approach, which can create trust issues between mother and child. Moreover, the findings highlight how children's digital media use can disrupt family routines, which has consequences for mothers who try to manage children's use in addition to performing traditional mothering work and paid labour.

7.2.2 The benefits of discursive and collaborative approaches

Not all digital care work relates to restrictive methods of managing children's digital media use. Several mothers expressed the desire to know more about their children's online interests and shared positive experiences about participating in digital media with, alongside or in response to children's use. This type of mediation approach is often referred to as investigative (Jiow, Lim & Lin 2017) and corresponds with instructive/active mediation from the original parental mediation framework. An investigative strategy involves 'researching into different types and forms of media content that they [parents] deem ideal for their children's developmental stage to identify positive and potential adverse effects' (Lim 2018, p. 33). Jemima, for example, is undertaking research into a social media platform that her daughter is interested in to inform her decision-making about whether or not to grant her daughter access:

> [M]y daughter wants to get Snapchat and other things which I think she's too young for so she hasn't been allowed to have it, but I need to get my head around it, so I am kind of trying to invest in it a little bit just to educate myself before she is allowed access to it. And I think it's important, as a parent, to know what they are looking at, know what they're looking into.

Investigative approaches are also motivated by a desire to support children's learning. Isobel illustrates this point by comparing her own experiences of academic research and referencing with her daughter's, recognising a need to refresh her knowledge:

> I remember studying at the library and researching stuff with microfiche, but they do everything online now. I didn't even know how to reference online so I had to go and learn to be able to help her, and so things like that have changed a lot since I studied.

Here, Isobel highlights a moment of mediatisation by demonstrating how changes in social practices, such as the use of digital technologies for learning, are transforming the way she interacts with digital media in the home. Jemima and Isobel's accounts suggest that learning about how different digital media function in children's lives is a crucial part of mothering and their unpaid care work.

Rhiannon also acknowledges the importance of being informed about children's digital media use and sees this role as an important risk mitigation strategy that supports her parenting:

> I think there is a danger in not knowing and not being involved in technology with kids because they will run rings around you if you don't have an understanding of it.

However, Rhiannon's attitudes and parenting style in terms of facilitating children's access to digital media are a little more unorthodox compared to the accounts of other mothers in this study. Rhiannon was the only participant to confess to having no limitations on her children's access to gaming devices and, as a self-identified gamer, actively participates in digital media activity with her sons. As discussed in Chapter 6 (see Section 6.2.3), gaming plays a significant role in Rhiannon's family and she expressed some concern about parents who seem unwilling to invest time in learning about children's gaming interests:

> I get frustrated sometimes when I hear parents, mothers in particular, complain about a game and the biggest one would be Minecraft, 'I wish my child would just stop talking about it' and I just think 'if you would spend a little bit of time to try and understand it you would understand that there is a lot to it and it actually has a lot of really good potential there'. And there wouldn't be that battle because it does, it becomes a battle when it comes to gaming, kids will say it's all they want to do, parents are like 'well, you will only have an hour of screen time' or something. That just doesn't work in the modern family anymore because technology is very much a part of kids' lives.

Rhiannon's own interest in learning about and playing computer games with her sons clearly influences the parental approach she adopts, and, like Jemima and Isobel, she recognises the salience of digital media in contemporary childhood. However, for Rhiannon, having two sons who, like her, enjoy gaming, bestows an additional level of parental responsibility that warrants considerable digital care work. She spoke, for example, about the need to instil appropriate gaming behaviours in her children by adopting a discursive mediation strategy (Jiow, Lim & Lin 2017):

> Because I love gaming and women in gaming is, is a contentious issue and there has been this whole gamergate thing[13], I at times talk to the kids about that sort of thing because I am aware that I have got these two boys, one of whom is about to become a teenager, one who is a teenager, who are very much part of the gaming community, and that testosterone and all that becomes an issue. And I don't want them to become those horrible people that are seen and read about that think that they have more right to play a game than a girl does, so we talk a lot about that stuff.

Rhiannon went on to explain that games like Fallout Four, for example, allow players to choose male and female characters that can flirt with other characters regardless of their gender. This genre of gaming can challenge normative ideas about gendered binaries and stereotypes and which can 'create some interesting conversations' with her sons. Rhiannon's identification with, and engagement in, game culture symbolises a conversion of her gameplay into social practice, thus indicating its importance in her life (e.g. Schutter, Brown & Abeele 2015). But equally important is the responsibility she accepts for socialising her sons, as a woman, a gamer and as a mother, to ensure they act appropriately and respectfully online. To achieve this objective, she adopts a digital management approach that encourages learning through discussion and collaborative use of digital media, combining strategies of co-use, participatory learning and discursive activities (e.g. Jiow, Lim & Lin 2017; Clark 2011; Zaman et al. 2016). Participatory learning in particular, as Clark (2011, p. 334) describes, allows for more empowered digital interaction and collaboration between Rhiannon and her children, not only from individual use of digital media but through:

> … learning that is facilitated by these media as the sharing of ideas, comments, and goals take place in everyday interactions. Thus, new technologies have made digitally enhanced collaborative learning possible just as interactions between adults and children have become more two-way, child-centered, and less defined by hierarchical authority arrangements.

Nicky's experiences also reflect the role that participatory learning plays in her digital management style as she creates opportunities to be engaged in and discuss online interactions with her children, and especially her daughter who is venturing into social media:

> I think you just have to keep an open discussion all the time, there is no end to it. We talk about what she is talking about on Snapchat and Instagram every day, she doesn't think it is unusual for me to ask what is happening because I ask all of the time … So yeah, constant discussion I think is really important for the children.

[13] Gamergate refers to an online harassment campaign that was targeted at female game developers in 2014 (Parkin 2014)

These discursive activities have become normalised in Nicky's household and their positive effect is evident in her experiences of co-using digital media, not directly with her children, as Rhiannon does, but alongside them:

> That's the thing I love about my iPad, particularly in the holidays when the kids are doing stuff and they don't want your attention all of the time but they really just want you in the same room. So, I can read my book, I can do my research, I can look at Facebook or my emails or anything, but I can be with them doing stuff. I'll often see things that I'll then show my daughter, or I'll come across something that Jay will be interested in and I'll talk to him about that. I know people pooh-pooh iPads a bit, that it means that you're focusing on that, but we use them quite differently I think, as a resource rather than as an entertainment thing.

Nicky's experience demonstrates, as other studies have (D'heer & Courtois 2016; Livingstone & Sefton-Green 2016), that individualised use of digital media that occurs in a shared space allows for autonomous use to take place whilst also enabling discussion and participation about each other's online activity. As D'heer and Courtois (2016, p. 11) observe:

> …the increased privatization and individualization of media use within the living room allows avoidance (social distraction), but at the same time it creates opportunities for interpersonal contact (affiliation) as family members do not have to dislocate themselves physically to consume their preferred content.

Nicky's willingness to share time together with her children in the same room whilst also separated by digital space contributes to a sense of family cohesion (Livingstone & Sefton-Green 2016).

7.2.3 'When you just want to sit down and go "eurgh" 'for 5 minutes'

In contrast with the more time-consuming activities of gatekeeping or collaborative learning approaches, the mothers in my study also tend to adopt a position of deference or what Zaman et al. (2016) refer to as distant mediation. Such strategies provide opportunities for mothers to claim time away from their maternal responsibilities by allowing children more permissive use of digital media. Although this strategy was used the least by participants due to the older age of children[14], several mothers indicated that children's use of digital media offers them some relief from their responsibilities in the home. However, these findings also suggest that these

[14] The age range of children in my study was 9–16 years whereas mothers of younger children (4–9 years) are shown to benefit the most from digital childminding practices (Nikken 2019).

seemingly agentic strategies are symptomatic of the pressure and expectation placed on mothers to provide intensive mothering to children.

Anita, for example, has three sons (aged 7, 9 and 13) and she said how the dynamic between her and her children has changed since appropriating digital media and incorporating its use into family practices. She described how 'before technology came into play' her middle son had 'always struggled to entertain himself', whereas now, 'if he's not on his iPad, he doesn't know what to do with himself'. Studies about the management of children's television viewing have highlighted that parents who are tired or stressed are more permissive of children's television consumption, deploying it as a childminding tool (Beyens & Eggermont 2017; Nikken 2019). Anita perceived the iPad as fulfilling a similar function, admitting that she more readily facilitates her son's access to it when she needs peace and respite in the home:

> I suppose sometimes you take the easy option, don't you? And I'm like, 'here have it', coz he's either interfering with what Oscar's [brother] doing, and causing trouble there or he'll just be [long pause] … I don't know … he was always full on and you had to sit down with him, and you had to do things with him. I'm not saying you had to, but he was constantly needing you to do things with him all the time. I know it shouldn't be like that, but it is when you just want to sit down and go 'eurgh' for 5 minutes, you know?

Her middle son's digital media use is encouraged and perceived as an opportunity for Anita to claim psychological space from the intensive work that is otherwise required to address his 'full on' needs. To prevent friction between her children and to avoid the demands of her son, Anita takes 'the easy option' and distracts her son by giving him his iPad. However, her final comment implies that there is somehow a right way to respond to such a situation ('I know it shouldn't be like that') and justifies her actions by pointing to her own needs. This honest admission is counter to mothering ideologies that claim good mothers are those who present themselves flawlessly as self-sacrificing and child-centred to avoid judgement by others (Abetz & Moore 2019; DeGroot & Vik 2019; Hays 1996). Her remark gives weight to the intensification of mothering that Anita experiences, but it also highlights how this feeling is somewhat ameliorated by the presence of digital media in the home. Where in Section 7.3.1 its use is shown to impact the morning routine and exacerbate Anita's role, here, paradoxically, it provides her short-term respite from routine care work.

Several other mothers commented on how regulation of digital media use was relaxed to support their own needs. Weekends and school holidays in particular were cited as off-duty

periods in which mothers could claim time-out from unpaid care work. Such permissiveness is often facilitated with a laissez-faire attitude (Brito et al. 2017) and in revolt to the mundanity experienced during the working week. Pat, for example, explained that when one of her teenage sons was younger, she had in place rules about digital media use on school days that were completely abandoned at weekends:

> …he'd be playing something before tea and he'd be going 'just one more level, just one more level' and I got pretty strict. So, between Monday and Friday afternoon there was no gaming at all, no iPads, no computers, there's schoolwork, you know. But from Friday night to Sunday 'I don't care what you do!'

The reason for allowing more flexible use of digital media at weekends seems to be associated with the need for physical and emotional repose. For example, when I asked Carol what she would do if her children did not have access to a computer on weekends she replied: '[Laughs] I'd be saying 'Sleep in! You can't get up yet!' [Laughs]. I don't know how these parents that say 'No TV in the mornings' do it [Laughs]. That wouldn't work for us!'.

Kitty who, as we saw earlier, imposes a complete media ban on her 9-year-old son throughout the week, admitted to also finding solace in relaxing her digital management approach during the weekends, saying that:

> I was trying to teach him that during the week it's about school and learning and the jobs you need to do and not playtime. But the weekend is a free-for-all! He is allowed whatever. If he wants to go in his room for 15 hours and watch whatever then he can.

Whereas weekdays are associated with the routine of school, paid work and enforcement of rules regarding her son's digital media use, the weekend is seen as liberating both Kitty and her son from these pressures. Her son's increased use of digital media at the weekend is associated with respite from the unpaid care work Kitty usually provides and is a ritual that has therefore become embedded into family life. Jemima also identified a need for additional respite as a contextual factor for encouraging children's use of digital media, although the parameters around which this was allowed was still restrictive:

> When we go on holidays no, it's outside play. Unless it's morning and we want to sleep in then it's a great tool [laughs]. Camping 'you can have it until we get up and then we are all active'.

The experiences of these mothers highlight that digital media use is negotiated on the basis that it occupies children whilst allowing them opportunities to rest. In his survey research about parents' instrumental use of digital media in childrearing, Nikken (2019) also found that

devices are commonly used to distract children and provide a substitute role when parents are in need of relief or are engaged in other activities. Nikken (2019, p. 543) notes that because of the portability of digital media devices and the design of video content that enables uninterrupted viewing or access:

> … children do not have to be in the vicinity of the parent when parents let them use media to have some respite or time to attend to other tasks. Thus, when appropriately applied, instrumental use of media can benefit several members within the family at the same time.

Nikken (2019) makes a point here that is also reflected in other studies about how children's digital media use, which might have been initially encouraged as a way for parents to relax, may be facilitated to help pacify children and support their emotional needs (Holloway, Green & Love 2014; Zaman et al. 2016). In this instance, instrumental media use is beneficial to both children and their parents. Nicky indicated a similar strategy of deference in relation to the use of digital media by her son (10-years-old) who has dyslexia. She explained that because he feels so exhausted from being at school all day, Nicky permits her son to take himself off into a quiet space in the house or the garden to unwind with his iPad. Extended access is also granted during weekends as a means of supporting her son's processing needs:

> There are some weekends when he is just so drained that he might spend on and off, not consistently through the whole day, but he might spend up to 6 hours during the day on a device watching telly.

Digital media use is also associated with pacification by Rhiannon, whose 16-year-old is studying for exams. Rhiannon explains that because he is on the autism spectrum he needs:

> … some downtime from structure because if I don't, he we will end up with meltdowns and things … he really needs downtime, and his downtime is watching YouTube and sort of switching off for a bit.

These two examples highlight the significance and embeddedness of digital media tools in the lives of mothers parenting young people with learning disabilities. In the context of mothering, Nicky and Rhiannon adopt a digital management style that supports their sons' social-psychological and emotional well-being, recognising that restrictive or prohibitive approaches would impair their development. Such strategies reflect the highly contextual nature of mothers' intensive digital care work and reveal how digital management practices are influenced by the desire to be a good mother.

By constructing children's digital media use as an instrumental tool, the mothers in my study were able to seek time-out from the role of digital management. These findings show that when mothers perceive digital media as alleviating the pressures of intensive mothering whilst giving children freer reign, they were positive about the manifestations of children's digital media use in the home. Nonetheless, permissive approaches taken by these mothers can also be motivated by a desire to seek bouts of relief due to an intensification of their digital management role.

7.4 Chapter summary

This chapter has captured a range of digital care work that mothers undertake as part of their daily mothering role. Whilst mothers continue to provide the majority share of traditional parenting and domestic labour, often in addition to paid work, the stories of participants also highlight the extensive range of digital mothering that is undertaken in the contemporary home.

The accounts proffered in this chapter emphasise the complex interplay mothers have with digital media as facilitators of children's use. The digital management role is shown to be more complex, nuanced and gendered for mothers than parental mediation suggests as they try to engage in children's digital media use whilst also dealing with multiple and competing demands on their time. Not only do mothers expend considerable energy regulating and facilitating children's use of digital media, but they also think about and negotiate how digital management strategies align with their mothering identity. To this end, mother's experiences of digital media vis-à-vis children's use can be paradoxical as they try to manage perceived risks and facilitate opportunities whilst dealing with the expectations and pressures of intensive mothering.

As these findings show, the presence of digital media in the home, and its use by children, is moulding the communicative practices of mothers and is shaping their role and social world. Even in homes where devices are few in number, participants exhibited responsibility for digital socialisation through their attempts to instil healthy attitudes and digital behaviours in children. To be a good mother, though, requires intense effort and constant negotiation about the meaning of digital media for childhood experiences, for mothering, and for family life more broadly. The chapter highlights that these meanings are negotiated by mothers and mutually shaped through the rich and diverse interactions they have with digital media in the home.

CHAPTER 8: Conclusion

This research sought to understand how mothers' experiences and communicative practices have been transformed by an increase in the appropriation and use of digital media in the home. It adopted a social constructivist and qualitative approach to enquire how the presence and use of digital media in the home shapes the contemporary mothering experience.

To address this research question, I obtained insights from 17 mothers living in South Australia about how digital media are negotiated and managed in the home and explored the impacts of mediatisation on mothers' domestication processes. Now, in drawing together the findings in this final chapter I emphasise how interceded contemporary mothering is with digital media. I argue for what appears to be a new state of digital mothering as reflected in the complex, gendered and mediatised experiences mothers have with digital media in the home. And yet, at the same time, I acknowledge that the careful management by mothers of their own and their children's use of digital media also implies that digital mothers are subject to many of the same assumptions and ideologies associated with more traditional tropes of mothering. Digital mothering, in the context of this study, is revealed as a paradoxical experience for mothers as they navigate their digital interactions around multiple responsibilities and expectations.

In Section 8.1, I briefly recount key aspects of my research and summarise the key findings, exploring them anew to elucidate overarching insights and contributions. Section 8.2 provides a meta-analysis of the research conducted in this study and highlights new ways of problematising and theorising contemporary mothering. Section 8.3 underlines the theoretical and methodological contributions that this study makes to the field of communication research. In Section 8.4, I highlight implications for social policy and suggest new directions for exploring digital mothering from the standpoint of unpaid digital care work and digital labour in the home. Section 8.5 outlines the constraints of my research project and identifies possible avenues for future research that may help address these limitations. Section 8.6 concludes the study.

8.1 Thesis summary

A combination of personal interests and a paucity of scholarly knowledge about how contemporary mothering is experienced through direct and indirect interactions with digital media in the home motivated this study. Feminist communication literature provided insights about digital media's role in mothers' lives, particularly in relation to how mothering identities and ideologies are negotiated, perpetuated or subverted online, but this focus failed to illuminate how the presence of digital media in the home, and its use by children shape, or are shaped by, perceptions of mothering.

Parental mediation literature contributed by proposing various strategies for managing children's use of digital media (cf. Jiow, Lim & Lin 2017; Livingstone et al. 2017; Page Jeffrey 2020a; Van Petegem et al. 2019; Zaman et al. 2016). However, the assumption that parents have a mutual role in managing children's use required a new way of thinking about and theorising parental mediation in relation to mothers and the unpaid care work they provide in the home.

Chapter 3 makes a specific contribution by bringing together two influential schools of thought about how meaning is constructed through media. The theories of domestication and mediatisation were identified as mutually congruent approaches that together provide a holistic view of how digital media are incorporated into everyday familial interactions, both on a micro-level, and within the context of wide-scale adoption at a macro level. These approaches, in combination, enabled an informed and theoretically rich analysis of how digital media are perceived, domesticated and managed by mothers in times of deep mediatisation. Mothers are rarely the focus of domestication or mediatisation research. My study has provided them a voice through which to articulate their experiences of contemporary mothering in a digital home.

The theoretical modelling was further explicated in Chapter 4 where I brought together the epistemological and methodological underpinnings of this study. Its interpretivist, qualitative design was necessary for unearthing the little spoken about communicative practices of mothers in their own homes.

Chapter 5: *Configuring the digital home*, was the first of three data chapters. Whilst mothers are more likely to appropriate digital media that are perceived as supporting their routine lives,

as domestication theory suggests, their empirical accounts highlighted gender-specific factors related to this process that are rarely explored in studies in this field[15]. Specifically, mothers' perceptions of digital media and its presence in the home were shown to be connected to their mothering identity. Early concerns by Rakow and Navarro (1993) that the mobile phone might inflict an additional burden of responsibility on mothers was not supported as this research showed that mothers' appropriation of smartphones for children is an empowering act.

The ways in which mothers in this study constructed meaning about the smartphone and incorporated its use into the ritualistic and routine practices of mothering work provides evidence not only of how domestication is nuanced by gender, but also how mediatisation influences these experiences. This finding contributes insight and new knowledge to the field of communication and media research about the socially constructed process of meaning-making that occurs when mothers interact with digital media, which, in turn, also shape their mothering experiences. Digital media were perceived and domesticated quite differently however, when they were deemed as inflicting communicative practices on the family, as was illustrated by resistance arising from school-imposed policies regarding digital media acquisition and use. Nevertheless, the data showed that the drive to meet expectations about what constitutes a good education, and thus good mothering, resulted in mothers relinquishing these objections. These findings emphasise how domestication, in times of deep mediatisation, is a complex and gendered process that can both enhance and constrain mothers' agency.

One of the processes of domesticating digital media includes finding ways to make them fit into temporal routines. The findings reported in Chapter 6: *Temporal dimensions of mothers' digital media use*, supported this thesis by illustrating that where digital media were not perceived as compatible with mothers' circumstances or needs, their uses were more rigorously negotiated or rejected. The chapter also expanded the temporal parameters of domestication research by emphasising, as Pentzold (2019) has suggested, the role mediatisation has in 'reconstructing how communications influence time consciousness and the practices of configuring the temporal dimensions of social life' (p. 929). In many cases, the ability to

[15] As discussed in Chapter 2, exceptions include Enevold and Hagström's (2009) domestication study about mothers who play digital games and Lim and Soon's (2010) study about the domestication processes of Korean and Chinese mothers in relation to computer technology. Morley (1988) and Livingstone (1992) also paid early tribute to the gendered nature of domestication by studying differences in media use between cohabitating partners.

control and manage the time and contexts in which digital media are used was empowering to mothers, especially in reinforcing identities of ideal mother, ideal friend and ideal worker. Yet, paradoxically, the perceived affordances of flexibility and mobility that were identified as enhancing mothers' communicative practices were shown to also impact negatively on their time and domestication practices.

The issue of time poverty in relation to digital media use is of particular significance to mothers because it is they who spend more time engaged in childrearing and domestic duties in both traditional and digital terms, often in addition to paid employment. Chapter 6 thus highlighted the temporality of mothers' interactions with digital media as shaped in accordance with and due to an awareness of their responsibilities to others, which can intensify their communicative practices.

The final data chapter, Chapter 7: *Managing children's digital media use: the digital care work of good mothers,* highlighted a further stretching and intensification of mothers' communicative interactions and mothering experiences through a practice of digital management. The study's focus on mothers extends knowledge of parental mediation by emphasising how the role of digital management is gendered and is instinctively subsumed into the existing care work mothers provide in the home. The findings identified three motivational factors that relate specifically to mothers' perceptions, experiences and responsibilities for managing digital media in the home: the need to protect, to teach and to repose. In doing so, the chapter contributes to the notably few studies that have shown how the gender of parents influences parental mediation practices (e.g. Festl & Gniewosz 2019; Livingstone et al. 2017; Warren 2017).

Chapter 7 challenged the dominant viewpoint adopted in parental mediation research that both parents have a (mutual if not equal) role in the management of children's digital media use. Although this proposition is important for identifying gendered differences in the perceptions and parental mediation practices of both parents, it should not come at the cost of understanding the specificity of how mothers experience a digital management role in the home.

8.2 The paradoxes of digital mothering

Throughout this study I have argued for a more nuanced analysis and understanding of contemporary mothering in relation to digital media. The research undertaken and reported on in this thesis has provided intimate knowledge about how mothers experience life in a digital home. By adopting and expanding the concepts of domestication, mediatisation and parental mediation, I observed how mothers construct meaning about digital media's presence in the home, its use by mothers and children and, importantly, how these meanings shape their experiences of mothering. As the findings' chapters demonstrated, the processes involved in negotiating these meanings are multi-faceted and contextual and are often interpreted through a framework of good mothering. However, the results also highlight that mothers' experiences in the digital home are paradoxical. Mothers' interactions with digital media can be constrained by the demands and expectations of others or those they place upon themselves, but they can also result in emancipating mothers from these pressures, helping them feel in charge of their everyday lives.

In many respects the findings in this study illuminate a new epoch of digital mothering defined by its interdependence with digital media. As Hjarvard (2019, p. 245) explains:

> The integration of digital and online media into ever-more social and cultural spheres represents an intensified mediatization that not only allows for 'more' digital interaction but also restructures the social conditions under which we interact [original emphasis].

This study has highlighted the changed conditions under which digital mothers live by tracing the communicative landscape of the home and the mediatisation processes that have contributed to this changing milieu. At the same time, attention has remained on how mothering is experienced and negotiated in this socially-constructed digital home.

The idea of 'digital parenting' is not unfamiliar to those raising children in times of deep mediatisation. Given the extensive domestic and childrearing role mothers have in the home and the wider contribution they make to society, I have argued that such transformations in parenting need to be explored not in general terms of digital parenting or parental mediation, but specifically in relation to what these changes mean for contemporary mothering and their communicative practices. Digital media have become an integral part of mothers' lives, shaping what they know and how they interact with others, with direct impacts on the kind of unpaid, intensive (and often invisible) care work they do in the home.

This state of digital mothering has emerged from the intensification of mediatisation (Hjarvard 2019), revealed by flexible working conditions, 24/7 online services, and the digital pedagogical practices of schools. The magnitude of these social transformations and their impact on contemporary mothers were illuminated by Frances and Carol. Even with little initial interest in appropriating or using digital media, the mobile phone (Frances) and the computer (Carol) became compatible with their existing values about efficiencies of time, making them a necessary part of these mothers' social worlds.

On the one hand, the circumstances under which digital mothering is experienced is fundamentally different to those experienced by previous generations of mothers. The affordances of flexibility and choice proffered by digital media were empowering for mothers and they perceived immense benefits for their own use and as tools for mothering. On the other hand, digital mothering may be bound by the same patterns of intensive mothering that Hays (1996) first spoke about 25 years ago. Mothers often exercised reflexive self-management of their interactions, motivated by a desire to perform mothering flawlessly (DeGroot & Vik 2019) and to behave in a way befitting of good mothers (Goodwin & Huppatz 2010; Johnston & Swanson 2003). In addition, mothers expressed dichotomous views about their management of children's digital media use which highlighted, regardless of the enabling or restrictive strategies they used, an intensification of their unpaid care work.

Such an escalation of mothering roles and duties is not due to digital media per se, as this study has emphasised, but because meanings about mothering and digital media are socially constructed and are negotiated through interactions in the home. Traditional expectations about the principal role of mothers in caring for children – for example, ensuring they are provided for, protected and socialised appropriately – now extends into digital domains. The additional responsibilities required of mothers in the digital home suggests that, 'the more things change, the more they stay the same' (Lim 2014, p. 362), casting some doubt on whether the social conditions in which digital mothering takes place have actually been altered in view of mediatisation.

Whilst children's digital media use, and the concerns and anxieties associated with it, may have increased the range and intensity of mothers' unpaid care work, the study also finds that digital mothers are adept at negotiating meanings about digital media and the role they play in their lives. Mothers identified many positive opportunities for enhancing communicative practices

and social relations, supporting existing routines and for managing their time. Children's use, regardless of its demands on mothers' time and energy, also offered distinct benefits that helped enrich the mother-child dyad, thus promoting a sense of good mothering and physical and emotional well-being for mothers.

The experiences shared by mothers in this study confirm that the presence and use of digital media in the home has carved a digital mothering identity that is experienced paradoxically as liberating but constraining, empowering yet exhausting. These attributes are also evident in the traditional mothering role, but, as I have argued, in times of deep mediatisation they are being transformed and reified in the digital home through the domestication of digital media by mothers.

8.3 Contributions

This research contributes to theoretical knowledge about contemporary mothering in three significant ways. Firstly, it expands and refreshes the domestication approach by merging it with mediatisation to provide a rigorous 'double theorization' (Andersson 2017, p. 50) for examining how meaning about digital media is constructed by mothers in the digital home. Whilst a few scholars have suggested similar unions (Anderssen 2017; Hartmann 2014; Linke 2011), studies that have applied the two concepts are scarce (exceptions include Müller 2019; Peil & Roser 2014). Many domestication studies continue to focus attention on how individual digital media devices or platforms are appropriated and given meaning by examining how their use is incorporated into routine practices (e.g. de Reuveu, Nikou & Bouwman 2016 [Smartphone]; Matassi, Boczkowski & Mitchelstein 2019 [WhatsApp]; Sujon, Vinney & Toker-Turnalar 2019 [Facebook]). My study has revealed the need to study contemporary mothering from a cross-media (Hasebrink & Hepp 2017) or polymedia perspective (Madianou & Miller 2012, p. 170) to account for the many contexts, interactions and experiences mothers have with a myriad of digital media in the home.

Secondly, this study contributes to theory development by operationalising mediatisation in relation to contemporary mothering. It highlights gender as an important factor for understanding how mediatisation is resisted and managed (Müller 2019) and the application of the domestication framework helped illuminate specific and measurable instances of mediatisation in mothers' lives. By capturing these moments, the study responded to criticisms

that mediatisation studies fail to reify the concept (Deacon & Stanyer 2015; Ekström et al. 2016; Nowak-Teter 2019). It also addressed calls to adopt a media-centred rather than media-centric approach (Deacon & Stanyer 2014) that examines 'the nuanced layers of the mediatization' and the social phenomenon under investigation (Anderssen 2017, p. 48). In addition, this study has shown how both social constructivist and institutionalist approaches to the study of mediatisation apply to this contemporary mothering experience. This dual perspective provides a systematised method for exploring the tensions and paradoxes of mothering in times of deep mediatisation.

Thirdly, this project has contributed to parental mediation research by attuning its focus to reflect the specific role mothers have in managing digital media interactions in the home. The attitudes and perceptions of mothers are significantly underrepresented in this extensive field of research, subsumed instead within the generic role of parenting. Yet, as my study has demonstrated, children's use of digital media increases the amount of unpaid care work required by mothers, an issue that is compounded by social expectations about their role. My study supports Lim's (2016; 2018) claim that parental mediation is an insufficient concept for examining the relentless act of being engaged in digital media management. Lim's (2020) alternative suggestion of 'transcendent parenting' accounts for the more extensive range of responsibilities that are undertaken by parents who manage children's online and offline worlds.

There is little doubt that the presence of digital media in the home and its use by parents and children is transforming the parental experience, for better and for worse. However, the gender-neutral term of transcendent parenting, as in the case of parental mediation, runs the risk of silencing the perspectives and realities of mothers. I have instead described digital management and how it pertains to mothers' 'unpaid digital care work' in the home, emphasising the difference between this and the more traditional care work associated with mothering. My research has given mothers a voice to communicate their experiences about raising children in a digital home. Their accounts illuminate the nuanced, multifaceted and intense work of contemporary digital mothering.

8.4 Implications

My study presents several implications for social policy. As previously indicated, time use surveys and workforce participation studies continue to show that mothers in Australia spend more time engaged in unpaid care work in the home compared to men, even as the hours they spend in paid employment increases (cf. ABS 2020; 2018a; Australian Institute of Family Studies 2016; Craig, Powell & Smyth 2014). What these statistical studies do not reveal is how much time mothers spend specifically undertaking duties related to digital media management. To do so would produce a more realistic assessment of the work mothers do in the home, and, as my study has done, would also draw attention to the fact that digital care work differs in its impact on mothering.

My study sheds light on how time is expended in relation to managing children's digital media use. To obtain a more nuanced assessment of mothers' socio-economic contribution, future labour and time use studies should consider how much of mothers' time is allocated against digital media use and management as part of their unpaid care work. The role mothers play in educating children as a part of this work was made more visible during the Covid-19 global pandemic. However, it was mothers more so than fathers that reduced their hours of paid work or suspended careers to support children's pedagogical needs (Adams 2020; van der Linden 2020), which impacted their capacity to contribute financially to the family. As research continues into the effects that Covid-19 and its associated lockdowns have had on the gendered distribution of domestic labour and care work (e.g. Craig 2020; Power 2020), scholars and policy makers should also look at the long-term impact that digital management has on mothers' time and resources from before and beyond the pandemic.

Time use data has not been collected in Australia since 2006, even though much has clearly changed in the family home since this time. However, in 2018, the government announced funding for two time use surveys to be rolled out in 2020 and 2027 (Leigh 2018). At the time of writing, the first of these surveys had just been conducted (ABS 2020). Whilst there is little public information about this survey and its contents, a conference presentation given to the United Nations Statistical Commission (Marquardt 2020) emphasised that a major focus of the survey is understanding what impact technology use has on households. It is unclear what the data might reveal about mothers' time use in this regard. Whether participants will be asked to record their own use of digital media or also the time spent managing others' use remains to be

seen, but only the latter will reveal some of the hidden digital care work undertaken by mothers in Australia.

My study also has implications for educational policy and the implementation of digital learning initiatives. The Technologies program is an important part of the Australian school curriculum and school-led initiatives that promote 1:1 access to a device, albeit via voluntary bring you own device (BYOD) schemes or more prescribed mandates, facilitate its implementation. The move towards more digitally-focused methods of teaching and learning is unlikely to abate. Much educational research has considered the efficacy of digital pedagogy for teaching and learning and for student-centred outcomes (e.g. Barbieri 2020; Byers, Hartnell-Young & Imms 2018; Maher & Twining 2016; Selwyn et al. 2017), but little attention has been given to how these policies impact family life or, in particular, the mothering role.

One exception is a study by Keane and Keane (2017) who explored parents' perceptions regarding the implementation of 1:1 programs into schools in Australia and found that parents are often silent stakeholders in decisions about children's digital education. My study found similar results. The Technologies program was introduced in Australian schools in 2016, the year in which mothers were interviewed. Of the 12 mothers who reported purchasing or providing a device for school, none seemed aware that their actions indirectly supported the directions of the Technologies curriculum[16]. The apparent lack of contextual information suggests mothers, and families more widely, have received little information from the Education department or children's schools about these two connecting points. Certainly, school's expectations about parental provision of digital devices and their use in the home by children for schoolwork seemed incongruous with mothers' capacity and willingness to support these demands. Although more directed research would need to be done to ascertain if this is the case, my findings indicate a need for policy makers and school administrators to better engage and communicate with families about the purpose of digital pedagogical practices. To do so may help align parental perceptions about the benefits of digital pedagogy with policy

[16] During the interview (Q4.1) I explored whether homework tasks had increased children's use of digital media at home. This topic allowed exploration of mothers' digital management activities and their perceptions and awareness of digital pedagogical policies (see Chapter 4 for details of the topics and questions posed in the interview guide).

goals and provide parents, and mothers in particular, the support they need to meet pedagogical expectations.

The socio-economic and political implications of 1:1 digital policies were not the focus of my study, but the findings that emerged did illuminate a complex set of challenges faced by digital mothers in regard to assumptions about their digital management role. A multidisciplinary approach from the fields of education, social policy and feminist communication research may well provide a more comprehensive account of how digital pedagogies intensify the unpaid care work of mothers. Research in this area seems particularly prudent in light of the rapid move to online learning that occurred following the closure of schools due to Covid-19, and the subsequent impact this outcome had on mothers worldwide.

8.5 Limitations and further research

In this study, I wanted to find out how mothers experienced the digital home as both users and facilitators of digital media use. The relatively small sample size (n=17) of white, heterosexual, married and mostly middle-class mothers raises issues of generalisability and representativeness. Future research which purposively selects a more diverse sample of mothers would likely provide a more complete account.

Greater attention to how factors such as education, ethnicity, religion and family size shape mothers' management of children's digital media use will contribute more broadly to parental mediation literature. As Chapter 2 highlighted, differences in educational background and the gender of parents have been shown to influence the type of parental mediation strategies that are implemented. Future studies could thus also compare the communicative practices of both parents' in relation to how digital media are managed in the home and explore what other changes in social practices from a gendered perspective shape these experiences.

Given the focus in mediatisation research on temporalities and changes over time, further research of a longitudinal nature is required to record and compare the communicative experiences of mothers as the digital media landscape evolves in the home. The findings about how increased digital pedagogies impact mothers' experiences provides a starting point from which to further explore the longer-term implications of such policies on family cohesion and communication.

8.6 A final word

This study has demonstrated that contemporary mothering is experienced as a state of 'digital mothering' that has become contingent on digital media for the coordination and management of everyday tasks and family life. Mothers' experiences and interactions with digital media are paradoxical, taxing, and at times constrained yet inextricably tied to perceptions of good mothering.

The study has argued that contemporary mothering cannot be fully understood simply by looking at one digital context, for example, mothers' or children's use of digital media, but rather as a constellation of digital interactions that occur in response to communicative changes in society. Only then can we appreciate that a wider set of socio-cultural influences impact on mothers' experiences in the home. This thesis has problematised contemporary mothering as interceded through interactions with digital media in the home – as both users and facilitators of use – and as part of a mediatised society.

References

Abetz, J & Moore, J 2018, '"Welcome to the mommy wars, ladies": Making sense of the ideology of combative mothering in mommy blogs, *Communication, Culture and Critique*, vol. 11, no. 2, pp. 265–281.

Activision Blizzard Media 2020, *Mom's got game: Understanding the growing population of gamer moms*, viewed 12 October 2020, <https://www.activisionblizzardmedia.com/content/dam/atvi/ab-media/gamer-moms/src/Moms-Got-Game-White-Paper.pdf>.

Adams, R 2020, 'Women "put careers on hold" to home school during UK Covid-19 lockdown', *The Guardian*, viewed 10 September 2020, <http://www.theguardian.com/education/2020/jul/30/women-put-careers-on-hold-to-home-school-during-uk-covid-19-lockdown>.

Aitkin, DJ, Hunt, DS & Lin, CA 2015, 'Diffusion theory in the new media environment: Toward an integrated technology adoption model', *Mass Communication and Society*, vol. 18, no. 5, pp. 623–650.

Alon, T, Doepke, M, Olmstead-Rumsey, J & Tertilt, M 2020, 'The impact of Covid-19 on gender equality', *National Bureau of Economic Research*, viewed 11 January 2021, <https://www.nber.org/papers/w26947>.

Althiede, DL 2013, 'Media logic, social control, and fear', *Communication Theory*, vol. 23, no. 3, pp. 223–238.

Ampula, M, Kovisto, J & Valiverronen, E 2014, 'Strong and weak forms of mediatisation theory: A critical review', *Nordicom Review*, vol. 35, no. 1, pp. 111–123.

Andersen, J 2018, 'Archiving, ordering, and searching: Search engines, algorithms, databases, and deep mediatization', *Media, Culture & Society*, vol. 40, no. 8, pp. 1135–1150.

Anderson, WKZ & Grace, KE 2015, '"Taking mama steps" toward authority, alternatives, and advocacy', *Feminist Media Studies*, vol. 15, no. 6, pp. 942–959.

Andersson, M 2017, 'Mediatization from below', in O Driessens, G Bolan, A Hepp and S Hjarvard (eds), *Dynamics of mediatization. Institutional change and everyday transformations in a digital age*, Palgrave Macmillan, London, pp. 35–56.

Archer, C 2019, 'Social media influencers, post-feminism and neoliberalism: How mum bloggers' "playbour" is reshaping public relations', *Public Relations Inquiry*, vol. 8, no. 2, pp. 149–166.

Archer, C & Harrigan, P 2016, 'Prosumers with passion: Learning what motivates bloggers as digital influencer stakeholders', *Prism*, vol. 13, no. 1, pp. 1–14.

Archer, C & Kao, K 2018, 'Mother, baby and Facebook makes three: Does social media provide social support for new mothers?', *Media International Australia*, vol. 168, no. 1, pp. 122–139.

Arendell, T 2000, 'Conceiving and investigating motherhood: The decade's scholarship', *Journal of Marriage and the Family*, vol. 62, pp. 1192–1207.

Australian Bureau of Statistics (ABS) 2016, *Gender indicators: Education, Table 2.5*, cat. No. 4125.0, viewed 15 October 2016, <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/4125.0Feb%202016?OpenDocument>.

Australian Bureau of Statistics (ABS) 2018a, *Gender indicators: Work and family life balance*, Australia, cat no. 4125.0, viewed 29 November 2018, http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/4125.0~Sep%202018~Main%20Features~Work%20and%20Family%20Balance~7

Australian Bureau of Statistics (ABS) 2018b, *Household use of information technology*, Australia, 2016–17, cat.no. 8146.0, viewed 24 May 2019, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/8146.0>.

Australian Bureau of Statistics (ABS) 2020, *Gender indicators, Australia*, viewed 12 October 2020, <https://www.abs.gov.au/statistics/people/people-and-communities/gender-indicators-australia/latest-release#key-statistics>.

Australian Curriculum Assessment and Reporting Authority (ACARA) 2016, *Technologies*, viewed 16 February 2016, < https://www.acara.edu.au/curriculum/learning-areas-subjects/technologies>.

Australian Institute of Family Studies 2016, *Work and family*, accessed 5 May 2019, <https://aifs.gov.au/facts-and-figures/work-and-family>.

Australian Institute for Teaching and School Leadership Limited 2020, *Spotlight: What works in online distance teaching and learning*, viewed 25 April 2020, <https://www.aitsl.edu.au/research/spotlight/what-works-in-online-distance-teaching-and-learning>.

Auxier, B, Anderson, M, Perrin, A & Turner, E 2020, 'Parenting children in the age of screens', *Pew Research Center*, viewed 12 September 2020, <https://www.pewresearch.org/internet/2020/07/28/parenting-children-in-the-age-of-screens/>.

Bakardjieva, M 2006, 'Domestication running wild: From the moral economy of the household to the mores of culture', in T Berker, M Hartmann, Y Punie & KJ Ward (eds), *Domestication of media and technologies*, Open University Press, Maidenhead, UK, pp. 62–79.

Baker, J 2020, 'Tech takeover: Classrooms crowded with digital devices', *The Sydney Morning Herald*, viewed 12 February 2020, < https://www.smh.com.au/education/tech-takeover-classrooms-crowded-with-digital-devices-20200125-p53ul1.html>.

Balmford, W & Davies, H 2020, 'Mobile Minecraft: Negotiated space and perceptions of play in Australian families', *Mobile Media and Communication*, vol. 8, no. 1, pp. 3–21.

Barbieri W 2020, 'The impact of introducing iPads in teacher education: A case study', in MA White & F McCallum (eds), *Critical perspectives on teaching, learning and leadership*, Springer, Singapore, <https://doi.org/10.1007/978-981-15-6667-7_4>.

Barrett, R 2013, 'Government set to end school laptops scheme', *ABC News Australia*, viewed 1 November 2018, < https://www.abc.net.au/news/2013-02-02/federal-government-set-to-end-school-laptops-scheme/4497572>.

Bengtsson, S 2018, 'Sensorial organization as an ethics of space: Digital media in everyday life', *Media and Communication*, vol. 6, no. 2, pp. 39–45.

Berger PL & Luckman, T 1969, *The social construction of reality: A treatise in the sociology of knowledge*, Penguin Books, London.

Berker, T, Hartmann, M, Punie, Y & Ward, K 2006, 'Introduction', in T Berker, M Hartmann, Y Punie and KJ Ward (eds), *Domestication of media and technology*, Open University Press, Maidenhead: UK, pp. 1–17.

Bertel, TF & Ling, R 2016, '"It's just not that exciting anymore": The changing centrality of SMS in the everyday lives of young people', *New Media & Society*, vol. 18, no. 7, pp. 1293–1309.

Beyens, I & Buellens K 2017, 'Parent–child conflict about children's tablet use: The role of parental mediation', *New Media and Society*, vol. 19, no. 2, pp. 2075–2093.

Beyens, I & Eggermont, S 2017, 'Understanding children's television exposure from a life logistics perspective: A longitudinal study of the association between mothers' working hours and young children's television time', *Communication Research*, vol. 44, no. 5, pp. 691–716.

Bittman, M, Rice JM & Wajcman, J 2004, 'Appliances and their impact: The ownership of domestic technology and time spent on household work', *The British Journal of Sociology*, vol. 55 no. 3, pp. 401–423.

Bloomberg LD & Volpe M 2019, *Completing your qualitative dissertation: A road map from beginning to end*, 4th edn, Teachers College, Columbia University, New York.

Blumer, H 1969, *Symbolic interactionism: Perspective and method*, Prentice Hall Inc, Englewood Cliffs, New Jersey.

Blum-Ross, A & Livingstone, S 2018, 'The trouble with "screen time" rules', in G Mascheroni, C Ponte & A Jorge (eds), *Digital parenting: The challenges for families in the digital age*, Nordicom, Göteborg, pp. 179–187.

Blum-Ross, A & Livingstone, S 2016, *Families and screen time: Current advice and emerging research*, LSE Media Policy Project (Media Policy Brief 17), The London School of Economics and Political Science, London, viewed 8 May 2018, < http://eprints.lse.ac.uk/66927/>.

Bober, M, Hynes, D & Lau A 2016, 'Tools for entertainment or learning? Exploring students' and tutors' domestication of mobile devices', in S Cranmer, NB Dohn, M de Laat, T Ryberg

and JA Sime (eds), *Proceedings of the 10th International Conference on Networked Learning*, Educational Research Department County South, Lancaster University, Lancaster, pp. 322–331, ISBN: 978-1-86220-324-2.

Bosman, S 2019, 'Women account for 46% of all game enthusiasts: Watching game video content and esports has changed how women and men alike engage with games', *Newzoo*, viewed 19 July 2019, <https://newzoo.com/insights/articles/women-account-for-46-of-all-game-enthusiasts-watching-game-video-content-and-esports-has-changed-how-women-and-men-alike-engage-with-games>.

Bowen, SA 2016, 'Qualitative research methodology: Methods of observing people', in DW Stacks (ed.), *Primer of public relations research*, Guildford Publications, New York, ProQuest Ebook Central, pp. 193–219.

Brand, JE, Todhunter, S & Jervis, J 2017, *Digital Australia 2018*, Interactive Games and Entertainment Association, Eveleigh, NSW, viewed 12 April 2019, < https://www.igea.net/wp-content/uploads/2017/07/Digital-Australia-2018-DA18-Final-1.pdf>.

Braun, V, Clarke, V, Hadfield, N & Terry, G 2019, 'Thematic analysis', in P Liamputtong (ed.), *Handbook of research methods in health social sciences*, Springer, Singapore, pp. 843–860.

Bray, F 2007, 'Gender and technology,' *Annual Review of Anthropology*, vol. 36, pp. 37–53.

Breiter, A 2014, 'Schools as mediatized worlds from a cross-cultural perspective', in A Hepp and F Krotz (eds), *Mediatized worlds, culture and society in a media age*, Palgrave Macmillan, Basingstoke, Hampshire, UK, pp. 288–303.

Breiter, A & Ruhe, AH 2018, 'Paper versus school information management systems: governing the figurations of mediatized schools in England and Germany', in A Hepp, A Breiter and U Hasebrink (eds), *Communicative figurations. Transforming communications: Studies in cross-media research*, Palgrave-Macmillan, Cham, Switzerland, pp. 313–339.

Brinkmann, S & Kvale S 2015, *Learning the craft of qualitative research interviewing*, 3rd edn, Sage Publications, Thousand Oaks, CA.

Brito, R, Francisco, R, Dias, P & Chaudron, S 2017, 'Family dynamics in digital homes: The role played by parental mediation in young children's digital practices around 14 European countries', *Contemporary Family Therapy*, vol. 39, no. 4, pp. 271–280.

Brunsdon, C & Morley, D 1978, *Everyday television: 'Nationwide'*, British Film Institute, London.

Byers, T, Hartnell-Young, E & Imms, W 2018, 'Empirical evaluation of different classroom spaces on students' perceptions of the use and effectiveness of 1-to-1 technology', *British Journal of Educational Technology*, vol. 49, no. 1, pp. 153–164.

Caivano, O, Leduc, K & Talwar, V 2020, 'When you think you know: The effectiveness of restrictive mediation on parental awareness of cyberbullying experiences among children and

adolescents', *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, vol. 14, no. 1, https://doi.org/10.5817/CP2020-1-2.

Cambridge Assessment International Education 2018, *Global education census report*, viewed 23 September 2020, < https://www.cambridgeinternational.org/Images/514611-global-education-census-survey-report.pdf>

Castells, M 2010, *The rise of the network society*, 2nd edn, Wiley-Blackwell, Chichester, West Sussex.

Castro, LR, Brady, M & Cook, K 2020, 'Negotiating "ideal worker" and intensive mothering ideologies: Australian mothers' emotional geographies during their commutes', *Social & Cultural Geography*, pp. 1–19, https://doi.org/10.1080/14649365.2020.1757140

Chalklen, C & Anderson, H 2018, 'Mothering on Facebook: Exploring the privacy/openness paradox', *Social Media and Society*, vol. 3, no. 2, pp. 1–10.

Chrysanthos, N 2020, 'Parents told to supervise social media use as graphic video circulates', *The Sydney Morning Herald*, 8 September, viewed 12 November 2020, < https://www.smh.com.au/national/parents-told-to-supervise-social-media-use-as-graphic-video-circulates-20200908-p55tkz.html>.

Cingel, DP & Hargittai, E 2018, 'The relationship between childhood rules about technology use and later-life academic achievement among young', *The Communication Review*, vol. 21, no. 2, pp. 131–152.

Clark, LS 2011, 'Parental mediation theory for the digital age', *Communication Theory*, vol. 21, no. 4, pp. 323–343.

Cooper, L & Rogers, C 2015, 'Mothering and "insider" dilemmas: Feminist sociologists in the research process', *Sociological Research Online*, vol. 20, no. 2, pp. 1–13.

Couldry, N & Hepp, A 2016, *The mediated construction of reality*, Polity Press, Cambridge.

Couldry, N & Hepp, A 2013, 'Conceptualizing mediatization: Contexts, traditions, arguments', *Communication Theory*, vol. 23, no. 3, pp. 191–202.

Courtois, C, Mechant, P, Paulussen, S & De Marez, L 2012, 'The triple articulation of media technologies in teenage media consumption', *New Media & Society*, vol. 14, no. 3, pp. 401–420.

Corner, J 2018, '"Mediatization": Media theory's word of the decade, *Media Theory*, vol. 2, no. 2, pp. 79–90, viewed 17 February 2019, <http://mediatheoryjournal.org/john-corner-mediatization/>.

Cowen, RS 1993, *More work for mother: The ironies of household technology from the open hearth to the microwave*, Basic Books, New York.

Coyne, A 2018, *Laptops for all SA senior high school students*, IT news, viewed 15 May 2019, < https://www.itnews.com.au/news/laptops-for-all-sa-senior-high-school-students-482009>.

Craig, L 2020, 'Coronavirus, domestic labour and care: Gendered roles locked down', *Journal of Sociology*, vol. 56, no. 3, pp. 1–9.

Craig, L 2007, *Contemporary motherhood: The impact of children on adults' time*, Routledge, London.

Creswell JW & Miller DL 2000, 'Determining validity in qualitative inquiry', *Theory into Practice*, vol. 39, no. 3, pp. 124–130.

Cresswell JW & Poth CN 2018, 'Qualitative inquiry and research design: Choosing among five approaches', *Sage Publications*, Thousand Oaks, CA, pp. 253–286.

Croucher SM, & Cronn-Mills, D 2015, *Understanding communication research methods: A theoretical and practical approach*, Routledge, New York.

Cunningham, L 2016, 'Mom gamers: The new generation of mobile gamers', *Well connected Mom*, Blog, accessed 20 September, 2018: <https://wellconnectedmom.com/blog/2016/08/09/mom-gamers-the-new-generation-of-mobile-gamers/>

Davies, P 2012, '"Me", "me", "me": The use of the first person in academic writing and some reflections on subjective analyses of personal experiences', *Sociology*, vol. 46, no. 4, pp. 744–752.

Davis, FD 1989, 'Perceived usefulness, perceived ease of use, and user acceptance of information technology', *MIS Quarterly*, vol. 13, no. 3, pp. 319–340.

Daymon, C & Holloway, I 2011, *Qualitative research methods in public relations and marketing communications*, 2nd edn, Routledge, London.

Deacon, D & Stanyer, J 2014, 'Mediatization: Key concept or conceptual bandwagon?', *Media, Culture & Society*, vol. 36, no. 7, pp. 1032–1044.

Deacon, D & Stanyer, J 2015, '"Mediatization and" or "Mediatization of"? A response to Hepp et al.', *Media, Culture and Society*, vol. 37, no. 4, pp. 655–657.

DeGroot, JM & Vik, TA 2019, '"Fake smile. Everything is under control"': The flawless performance of motherhood', *Western Journal of Communication*, vol. 85, no. 1, pp. 1–19.

Deloitte 2017, 'Media consumer survey 2017, Australian media and digital preferences', *Deloitte*, 6th edn, viewed 5 April 2019, <https://tmt-media-consumer-survey-final-report.pdf>.

de Reuver, M, Nikou, S & Bouwan, H 2016, 'Domestication of smartphones and mobile applications: A quantitative mixed-method study', *Mobile Media & Communication*, vol. 4, no. 3, pp. 347–370.

De Schutter, B, Brown, JA & Abeele, VV 2015, 'The domestication of digital games in the lives of older adults', *New Media & Society*, vol. 17, no. 7, pp. 1170–1186.

DeVault, ML & Gross G 2012, 'Feminist qualitative interviewing: experience, talk and knowledge', in SN Hesser-Bibber (ed.), *Handbook of feminist research, theory and praxis,* 2nd edn, Sage Publications, Thousand Oaks, CA, pp. 206–236.

Dias, P & Brito, R 2018, 'Young children and digital media in the home: Parents as role models, gatekeepers, and companions', in I. Management Association (ed.), *Digital multimedia: Concepts, methodologies, tools, and applications*, pp. 964–981, IGI Global, Hershey, PA.

Dias, P, Brito, R, Ribbens, W, Daniela, L, Rubene, Z, Dreier, M Gemo, M, Di Gioia, R, & Chaudron, S 2016, 'The role of parents in the engagement of young children with digital technologies: Exploring tensions between rights of access and protection, from "Gatekeepers" to "Scaffolders"', *Global Studies of Childhood*, vol. 6, no. 4, pp. 1840–1857.

Doolan J & Blackmore J 2018, 'Principals talking back to mediatised education policies regarding school performance', *Journal of Education Policy*, vol. 33, no. 6, pp. 818–839.

Downs, CW & Adrian, AD 2004, *Assessing organisational communication: Strategic communication audits*, Guilford, New York.

Driessens, O, Bolin, G, Hepp, A & Hjarvard, S (eds) 2017, *Dynamics of mediatization: Institutional change and everyday transformations in a digital age,* Palgrave Macmillan, London.

Ekström, M, Fornäs, J, Jansson, A, & Jerslev, A 2016, 'Three tasks for mediatization research: Contributions to an open agenda', *Media, Culture & Society*, vol. 38, no. 7, pp. 1090–1108.

Enevold, J 2012, 'Domesticating play, designing everyday life: The practice and performance of family gender, and gaming', in *Proceedings of DiGRA Nordic 2012 Conference: Local and Global – Games in Culture and Society*, viewed 1 August 2018, <http://www.digra.org/digital-library/publications/domesticating-play-designing-everyday-life-the-practice-and-performance-of-family-gender-and-gaming/>

Enevold, J & Hagström, C 2009, 'Mothers, play and everyday life: Ethnology meets game studies', *Ethnologia Scandinavica,* vol. 39, no. 1, pp. 29–41.

Enevold, J & Hagström, C 2017, 'Coming out of the gaming closet: Engaged cultural analysis and the life-line as interview method and consciousness-raiser', *Cultural Analysis*, vol. 16, no. 2, pp. 20–41.

eSafety Commissioner 2016, *Young people and social media use*, Australian Government, viewed 20 May 2019, https://www.esafety.gov.au/about-us/research/youth-digital-dangers/social-media-usage.

eSafety Commissioner 2020a, *Joint statement regarding suicide death video on social media,* Australian Government, viewed, 20 November 2020, < https://www.esafety.gov.au/about-us/newsroom/joint-statement-regarding-suicide-death-video-social-media>.

eSafety Commissioner 2020b, *Advice booklet for parents and carers*, Australian Government, viewed 20 December 2020, < https://www.esafety.gov.au/key-issues/covid-19/advice-parents-carers>.

Everything Apple 2015, *Apple Keynote 2007 Complete – iPhone, video, YouTube*, 13 September, viewed 18 October 2020, <https://www.youtube.com/watch?v=VKpaK670U7s>.

Farrugia L & Lauri MA 2018, 'Maltese parents' awareness and management of risks their children face online', in G Mascheroni, C Ponte & A Jorge (eds), *Digital parenting: The challenges for families in the digital age*, Nordicom, Gothenburg, pp. 135–146.

Faulkner, W 2001, 'The technology question in feminism: A view from feminist technology studies', *Women's Studies International Forum*, vol. 24, no. 1, pp. 79–95.

Fenech, M & Wilkins DP 2019, 'The representation of the national quality framework in the Australian print media: Silences and slants in the mediatisation of early childhood education policy', *Journal of Education Policy*, vol. 34, no. 6, pp. 748–770.

Ferrant, G, Pesando LM & Nowacka, K 2014, 'Issues paper: Unpaid care work: The missing link in the analysis of gender gaps in labour outcomes', *Organisation for Economic Cooperation and Development Centre*, viewed 20 August 2020, http://www.oecd.org/dev/development-gender/Unpaid_care_work.pdf.

Festl, R & Gniewosz, G 2019, 'Role of mothers' and fathers' internet parenting for family climate', *Journal of Social and Personal Relationships*, vol. 36, no. 6, pp. 1764–1784.

Flew, T & Swift, AG 2015, 'Engaging, persuading, and entertaining citizens: Mediatization and the Australian political public sphere', *International Journal of Press/Politics*, vol. 20, no. 1, pp. 108–128.

Flew, T 2017, 'Media convergence', *Encyclopaedia Britannica*, viewed 26 October 2020, <https://www.britannica.com/topic/media-convergence>.

Flew, T 2014, 'Convergent media policy', in P Dearman and C Greenfield (eds), *How we are governed: Investigations of communication, media and democracy*, Cambridge Scholars Publishing, Newcastle upon Tyne, pp. 10–30.

Fortunati, L 2009, 'Gender and the cell phone', in G Goggin & L Hjorth (eds), *Mobile technologies: From telecommunications to media*, Routledge, New York, pp. 23–36.

Foss, SK & Foss, KA 1988, 'What distinguishes feminist scholarship in communication studies?', *Women's Studies in Communication*, vol. 11, no, 1, pp. 9–11.

Friedman, M 2010, 'On Mommy blogging: Notes to a future feminist historian', *Journal of Women's History*, vol. 22, no. 4, pp. 197–208.

Frizzo-Barker, J & Chow-White, PA 2012, '"There's an app for that" mediating mobile moms and connected careerists through smartphones and networked individualism', *Feminist Media Studies*, vol. 12, no. 4, pp. 580–589.

Gabriel, F 2014, 'Sexting, selfies and self-harm: Young people, social media and the performance of self-development', *Media International Australia incorporating Culture and Policy,* vol. 151, no. 1, pp. 104–112.

Galdas, P 2017, 'Revisiting bias in qualitative research: Reflections on its relationship with funding and impact', *International Journal of Qualitative Methods*, vol. 16, pp. 1–2.

Goodwin, S & Huppatz, K 2010, 'The good mother in theory and research: An overview', in S Goodwin & K Huppatz (eds), *The good mother: Contemporary motherhoods in Australia*, Sydney University Press, Sydney, pp. 1–24.

Guba EG & Lincoln YS 1994, 'Competing paradigms in qualitative research', in NK Denzin and YS Lincoln (eds), *Handbook of qualitative research,* Sage Publications, Thousand Oaks, CA, pp. 105–117.

Haddon, L 2006, 'The contribution of domestication research to in-home computing and media consumption', *The Information Society*, vol. 22, no. 4, pp. 195–203.

Haddon, L & Holloway, D 2018, 'Parental evaluations of young children's touchscreen technologies', in G Mascheroni, C Ponte & A Jorge (eds), *Digital parenting: The challenges for families in the digital age,* Nordicom, Gothenburg, pp. 113–121.

Haddon, L 2011, 'Domestication analysis, objects of study, and the centrality of technologies in everyday life', *Canadian Journal of Communication,* vol. 36, no. 2, pp. 311–323.

Haddon, L 2020, 'Domestication analyses and the smartphone', in R Ling, G Goggin, L Fortunati, SS Lim, and Y Li, *Oxford handbook of mobile communication, culture, and information,* Open University Press, Oxford, pp. 14–28.

Hall, S 1973, *Encoding and decoding in the television discourse,* Centre for Contemporary Cultural Studies, Birmingham.

Hand, K, Baxter, J, Carroll, M & Budinski, M 2020, 'Families in Australia survey life during Covid-19', *Australian Institute of Family Studies,* viewed 13 November 2020, <https://aifs.gov.au/sites/default/files/publication-documents/covid-19-survey-report_1_early_findings_0.pdf>.

Hartmann, M 2014, 'Home is where the heart is? Ontological security and the mediatization of homelessness', in K Lundby (ed.), *Mediatization of communication,* De Gruyter Mouton, Berlin, pp. 641–660.

Hartmann, M 2009, 'Everyday: Domestication of mediatization or mediatized domestication?', in K Lundby (ed.), *Mediatization: Concept, changes, consequences,* Peter Lang Publishing, New York, pp. 225–242.

Hartmann, M 2006, 'The triple articulation of ICTs: Media as technological objects, symbolic environments and individual texts', in T Berker, M Hartmann, Y Punie and KJ Ward (eds), *Domestication of media and technology,* Open University Press, Maidenhead, UK, pp. 80–102.

Harvey, A 2015, *Gender, age, and digital games in the domestic context*, Routledge, New York.

Hasebrink, U & Hepp, A 2017, 'How to research cross-media practices? Investigating media repertoires and media ensembles', *Convergence: The International Journal of Research into New Media Technologies*, vol. 23, no. 4, pp. 362–377.

Hays, S 1996, *The cultural contradictions of motherhood*, Yale University Press, New Haven, CT.

Heggeness, ML & Fields, JM 2020, 'Working moms bear brunt of home schooling while working during COVID-19', *United States Census Bureau,* viewed 10 December 2020, <https://www.census.gov/library/stories/2020/08/parents-juggle-work-and-child-care-during-pandemic.html>.

Hepp A 2012, 'Mediatization and the "molding force" of the media', *Communications*, vol. 37, no. 1, pp. 1–28.

Hepp, A 2013, 'The communicative figurations of mediatized worlds: Mediatization research in times of the "mediation of everything"', *European Journal of Communication*, vol. 28, no. 6, pp. 615–629.

Hepp, A 2016, 'Pioneer communities: Collective actors in deep mediatisation', *Media, Culture and Society*, vol. 38, no. 6, pp. 918–933.

Hepp, A 2020, *Deep mediatization: Key ideas in media & cultural studies*, Routledge, London.

Hepp A, Berg M, Roitsch C 2014, 'Mediatized worlds of communitization: Young people as localists, centrists, multi-localists and pluralists', in A Hepp, & F Krotz (eds), *Mediatized worlds*, Palgrave Macmillan, Basingstoke, Hampshire, pp. 174–203.

Hepp, A, Breiter, A & Hasebrink, U 2018, 'Rethinking transforming communications: An introduction', in A Hepp, A Breiter and U Hasebrink (eds), *Communicative figurations. Transforming communications: Studies in cross-media research*, Palgrave-Macmillan, Cham, Switzerland, pp. 3–13.

Hepp, A, Hjarvard, S & Lundby, K 2015, 'Mediatization: Theorizing the interplay between media, culture and society', *Media, Culture & Society*, vol. 37, no. 2, pp. 314–324.

Hepp, A & Krotz, F 2014, 'Mediatized worlds: Understanding everyday mediatization', in A Hepp & F Krotz (eds), *Mediatized worlds: Culture and society in a media age*, Palgrave Macmillan, Basingstoke, Hampshire, pp. 1–15.

Hermanowicz, JC 2002, 'The great interview: 25 strategies for studying people in bed', *Qualitative Sociology*, vol. 25, no. 4, pp. 479–499.

Hertlein, KM 2012, 'Digital dwelling: Technology in couple and family relationships', *Family Relations*, vol. 61, no. 93, pp. 374–387.

Hertlein, KM 2018, 'Technology in relational systems: Roles, rules and boundaries', in J Van Hook, SM McHale & V King (eds), *Families and technology*, Springer, Cham, Switzerland, pp. 89–102.

Hesser-Bibber SN & Piatelli D 2012, 'The feminist practice of holistic reflexivity', in SN Hesser-Bibber (ed.), *Handbook of feminist research, theory and praxis, 2nd edn* Sage Publications, Thousand Oaks, CA, pp. 557–582.

Hiniker, A, Schoenebeck, SY & Kientz, JA 2016, 'Not at the dinner table: Parents' and children's perspectives on family technology rules', *Proceedings of the 19th Association for Computer Machinery Conference on Computer-Supported Cooperative Work & Social Computing*, San Francisco, 27 February–2 March 2016, pp. 1376–1389.

Hjarvard, S 2008, 'The mediatization of society', *Nordicom Review*, vol. 29, no. 2, pp. 105–134.

Hjarvard, S 2016, 'Mediatization and the changing authority of religion', *Media, Culture & Society, v*ol. 38, no. 1, pp. 8–17.

Hjarvard, S 2019, 'The Janus face of digital connectivity: The transformation of social dependencies', in J Ferreira, JL Braga, PG Gomes, AF Neto, AP da Rosa (eds), *Between what we say and what we think: Where is mediatization?* FACOS Universidade, Federal de Santa Maria, Brazil, pp. 241–264.

Holloway, D, Green, L & Love, C 2014, '"It's all about the apps": Parental mediation of preschoolers' digital lives', *Media International Australia*, no. 153, pp. 148–156, https//doi.org/10.1177/1329878X1415300117.

Holmes, M 2010, 'The loves of others: Autoethnography and reflexivity in researching distance relationships', *Qualitative Sociology Review*, vol. 4, no. 2, pp. 89–104.

Hu, C 2017, 'Students, computers and learning: Where is the connection?' *Education and Information Technologies*, vol. 22, no, 6, pp. 2665–2670.

Hynes, D & Rommes, E 2006, '"Fitting the internet into our lives": IT courses for disadvantaged users', in T Berker, M Hartmann, Y Punie, & KJ Ward (eds), *Domestication of media and technologies*, pp. 123–144, Open University Press: Maidenhead, UK.

Ilie, V, Van, SC, Green, G & Lou, H 2005, 'Gender differences in perceptions and use of communication technologies: A diffusion of innovation approach', *Information Resources Management Journal*, vol. 18, no. 3, pp. 13–31.

Jackson, K 2018, 'A brief history of the smartphone', *Science Node*, viewed 20 November 2020, <https://sciencenode.org/feature/How%20did%20smartphones%20evolve.php>.

Jannsen, KC & Phillipson, S 2015, 'Are we ready for BYOD? An analysis of the implementation and communication of BYOD programs in Victorian school', *Australian Educational Computing*, vol. 30, no, 2, pp. 1–14.

Jansson, A 2013, ‘Mediatization and social space: Reconstructing mediatization for the transmedia age’, *Communication Theory*, vol. 23, no. 3, pp. 279–296.

Jansson, A 2015, ‘The molding of mediatization: The stratified indispensability of media in close relationships’, *Communications*, vol. 40, no. 4, pp. 379–401.

Jansson, A 2018, *Mediatization and mobile lives*, Routledge, London, pp. 1–25.

Jenkins, H 2006, *Convergence culture: Where old and new media collide*, New York University Press, New York.

Jensen, KB 2013, ‘Definitive and sensitizing conceptualizations of mediatization’, *Communication Theory*, vol. 23, no. 3, pp. 203–222.

Jiow, HJ, Lim, SS & Lin, J 2017, ‘Level up! Refreshing parental mediation theory for our digital media landscape’, *Communication Theory*, vol. 27, no. 3, pp. 309–328.

Johnson, NF 2019, ‘Schools are asking students to bring digital devices to class, but are they actually being used?’, *The Conversation*, viewed 15 November 2019, <https://theconversation.com/schools-are-asking-students-to-bring-digital-devices-to-class-but-are-they-actually-being-used-113353>.

Johnston, DD & Swanson, DH 2003, 'Undermining mothers: A content analysis of the representation of mothers in magazines', *Mass Communication and Society*, vol. 6, no. 3, pp. 243–265.

Johnston, J & Forde, S 2017, ‘Mediatising politics and Australian Indigenous recognition: A critical analysis of two landmark speeches’, *Communication Research and Practice*, vol. 3, no. 3, pp. 248–264.

Kang, T 2012, 'Gendered media, changing intimacy: Internet-mediated transnational communication in the family sphere', *Media, Culture & Society*, vol. 34, no. 2, pp. 146–161.

Karsenti T & Bugmann J 2018, ‘The educational impacts of Minecraft on elementary school students, in T Mikropoulos (ed.), *Research on e-learning and ICT in Education*, Springer, Cham, Switzerland, pp. 197–212.

Keane, T & Keane, W 2017, ‘Achievements and challenges: Implementing a 1:1 program in a secondary school’, *Education Information Technology*, vol. 22, no. 3, pp. 1025–1041.

Kelly, K 2006, ‘From encounter to text: Collecting data in qualitative research’, in M Terre Blanche, K Durrheim & D Painter (eds), *Research in practice: Applied methods for the social sciences*, 2nd edn, University of Cape Town Press, Cape Town, pp. 285–319.

Kim Y 2017, ‘Digital media for intimacy? Asian nannies’ transnational mothering in Paris’, *The Journal of International Communication*, vol. 23, no.2, pp. 200–217.

Kim, Y 2010, ‘The pilot study in qualitative inquiry’, *Qualitative Social Work*, vol. 9, no. 2, pp. 190–206.

Klein, J, Walter, M & Schimank, U 2018, 'Researching individuals' media repertoires: Challenges of qualitative interviews on cross-media practices', in A Hepp, A Breiter & U Hasebrink (eds), *Communicative figurations. Transforming communications: Studies in cross-media research,* Palgrave Macmillan, Cham, Switzerland, pp. 363–386.

Knoblauch, H 2013, 'Communicative constructivism and mediatization', *Communication Theory,* vol. 23, no. 3, pp. 297–315.

Knoblauch, H & Wilke, R 2016, 'The common denominator: The reception and impact of Berger and Luckmann's The Social Construction of Reality', *Human Studies,* vol. 39, no, 1, pp. 51–69.

Korstjens, I & Moser, A 2018, 'Series: Practical guidance to qualitative research, Part 4: Trustworthiness and publishing', *European Journal of General Practice,* vol. 24, no. 1, pp. 120–124.

Krotz, F 2017, 'Explaining the mediatisation approach', *Journal of the European Institute for Communication and Culture,* vol. 24, no. 2, pp. 103–118.

Krotz, F 2007, 'The meta-process of "mediatization" as a conceptual frame', *Global Media and Communication,* vol. 3, no. 3, pp. 256–260.

Kucirkova, N, Littleton, K & Kyparissiadis, A 2018, 'The influence of children's gender and age on children's use of digital media at home', *British Journal of Educational Technology,* vol. 49, no. 3, pp. 545–559.

Lagesen, VA 2015, 'Gender and technology: From exclusion to inclusion?', in JD Wright (ed.), *International encyclopedia of the social & behavioral sciences,* 2nd edn, Elsevier Ltd, Amsterdam, pp. 723–728.

Laing, S 1991, 'Raymond Williams and the cultural analysis of television', *Media, Culture and Society,* vol. 13, no. 2, pp. 153–169.

Leto, V 1988, 'Washing seems it's all we do': Washing technology and women's communication*',* in C Kramarae (ed.), *Technology and women's voices: Keeping in touch,* Routledge, New York, pp. 161–179.

Liamputtong, P 2019, *Qualitative inquiry,* in P Liamputtong (ed.), *Handbook of research methods in health social sciences,* Springer, Singapore, pp. 9–25.

Licata, JI & Baker, IE 2017, 'Updated guidelines on digital media use by children', *Journal of the American Academy of Physician Assistants,* vol. 30, no. 4, pp. 1–3.

Lim, SS 2020, *Transcendent parenting: Raising children in the digital age,* Oxford University Press, Oxford.

Lim, SS 2018, 'Transcendent parenting in digitally connected families when the technological meets the social', in G Mascheroni, C Ponte & A Jorge (eds), *Digital parenting: The challenges for families in the digital age,* Nordicom, Gothenburg, pp. 31–40.

Lim, SS 2016, ‘Through the tablet glass: Transcendent parenting in an era of mobile media and cloud computing’, *Journal of Children and Media*, vol. 10, no. 1, pp. 21–29.

Lim, SS 2014, ‘Women, “double work” and mobile media: The more things change, the more they stay the same’, in G Goggin & L Hjorth (eds), *Routledge companion to mobile media*, Routledge, London, pp. 356–364.

Lim, SS & Soon, C 2010, ‘The influence of social and cultural factors on mothers’ domestication of household ICTs–Experiences of Chinese and Korean women’, *Telematics and Informatics*, vol. 27, no. 3, pp. 205–216.

Linke, C 2011, 'Being a couple in a media world: The mediatization of everyday communication in couple relationships', *Communications*, vol. 36, no. 1, pp. 91–111.

Lindlof, TR & Taylor, BC 2019, *Qualitative communication research methods*, 4th edn, Sage Publications Inc, Thousand Oaks, CA.

Livholts, M & Bryant, L 2013, ‘Gender and the telephone: Voice and emotions shaping and gendering space’, *Human Technology*, vol. 9, no. 2, pp. 157–170.

Livingstone, S 2014, ‘The mediatization of childhood and education: Reflections on the class’, in L Kramp, N Carpentier, N, A Hepp, I, Tomanic–Trivundza, H, Nieminen, R Kunelius, T Olsson, E, Sundin, and R Kilborn (eds), *Media practice and everyday agency in Europe*, Edition Lumière, Bremen.

Livingstone, S 2007, ‘On the material and the symbolic: Silverstone’s double articulation of research traditions in new media studies’, *New Media and Society*, no. 9, vol. 1, pp. 16–24.

Livingstone, S & Byrne, J 2018, ‘Parenting in the digital age: The challenges of parental responsibility in comparative perspective’, in G Mascheroni, C Ponte & A Jorge (eds), *Digital parenting: The challenges for families in the digital age*, Nordicom, Gothenburg, pp. 19–30.

Livingstone, S & Helsper, EJ 2008, Parental mediation of children's internet use’, *Journal of Broadcasting & Electronic Media*, vol. 52, no. 4, pp. 581–599.

Livingstone, S 1992, ‘The meaning of domestic technologies: A personal construct analysis of familial gender relations’, in R Silverstone and E Hirsch (eds), *Consuming technologies: Media and information in domestic spaces*, Routledge, London, pp. 63–73.

Livingstone, S, Kalmus, V & Talves, K 2013, ‘Girls’ and boys’ experiences of online risk and safety’, in C Carter, L Steiner & L McLaughlin (eds), *The Routledge companion to media and gender*, Routledge, London, pp. 190–200.

Livingstone, SM, Ólafsson, K, Helsper, EJ, Lupiáñez–Villanueva, F, Veltri, GA & Folkvord, F 2017, ‘Maximizing opportunities and minimizing risks for children online: The role of digital skills in emerging strategies of parental mediation’, *Journal of Communication*, vol. 67, no. 1, pp. 82–105.

Livingstone, S & Sefton–Green, J 2016, *The class: Living and learning in the digital age,* New York University Press, New York.

Lohan M 2000, 'Constructive tensions in feminist technology studies', *Social Studies of Science,* vol. 30, no. 6, pp. 895–916.

Longhurst, R 2016, 'Mothering, digital media and emotional geographies in Hamilton, Aotearoa New Zealand', *Social and Cultural Geography*, vol. 17, no.1, pp. 120–139.

Longhurst, R 2013, 'Stretching mothering: Gender, space and information communication technologies', *HAGAR Studies in Culture, Policy and Identities,* vol.11, no. 1, pp. 121–138.

Lopez, LK 2009, 'The radical act of "mommy blogging": Redefining motherhood through the blogosphere', *New Media & Society*, vol. 11, no. 5, pp. 729–747.

Lupton, D, Pedersen S & Thomas GM 2016, 'Parenting and digital media: From the early web to contemporary digital society' *Sociology Compass,* vol. 10, no. 8, pp. 730–743.

Madianou, M 2012, 'Migration and the accentuated ambivalence of motherhood: The role of ICTs in Filipino Transnational Families', *Global Networks,* vol. 12, no. 3, pp. 277–295.

Madianou, M & Miller, D 2012, 'Polymedia: Towards a new theory of digital media in interpersonal communication', *International Journal of Cultural Studies,* vol. 16, no. 2, pp. 169–187.

Maher C, Hadfield M, Hutchings M, de Eyto A, 2018,'Ensuring rigor in qualitative data analysis: A design research approach to coding combining NVivo with traditional material methods', *International Journal of Qualitative Methods*', vol. 17, no. 1, pp. 1–13.

Maher, D & Twining, P 2016, 'Bring your own device: A snapshot of two Australian primary schools', *Educational Research,* vol. 59, no.1, pp. 73–88.

Malmqvist J, Hellberg K, Möllås G, Rose R, Shevlin M 2019, 'Conducting the pilot study: A neglected part of the research process? Methodological findings supporting the importance of piloting in qualitative research studies, *International Journal of Qualitative Methods,* vol. 18, January 2019, https://doi.org/10.1177/1609406919878341.

Marcinkowski, F 2014, 'Mediatisation of politics reflections on the state of the concept', *Javnost – The Public,* vol. 21, no. 2, pp. 5–22.

Marquardt, M 2020, 'Australia's time use survey journey', *Australian Bureau of Statistics, paper presented at 51st session of the United Nations Statistical Commission: Better data, better lives,* Beijing, 2 March 2020, viewed 20 December 2020, <https://unstats.un.org/unsd/statcom/51st–session/side–events/20200302–1M–gender–equality–in–beijing–25/>.

Mascheroni, G 2014, 'Parenting the mobile internet in Italian households: Parents' and children's discourses', *Journal of Children and Media,* vol. 8, no. 4, pp. 440–456.

Mascheroni, G & Vincent, J 2016, 'Perpetual contact as a communicative affordance: Opportunities, constraints, and emotions', *Mobile Media and Communication*, vol. 4, no. 3, pp. 310–326.

Mascheroni, G, Ponte, C & Jorge, A 2018, 'Introduction', in G Mascheroni, C Ponte & A Jorge (eds), *Digital parenting: The challenges for families in the digital age*, Nordicom, Gothenburg, pp. 9–16.

Matassi, M, Boczkowski, PJ, & Mitchelstein, E 2019, 'Domesticating WhatsApp: Family, friends, work, and study in everyday communication', *New Media & Society*, vol. 21, no. 10, pp. 2183–2200.

McLean, K 2016, 'The implementation of bring your own device (BYOD) in primary [elementary] schools', *Frontiers in Psychology*, vol. 7, no. 1739, pp. 1–3.

Min, S, So, KF & Jeong, M, 'Consumer adoption of the Uber mobile application: Insights from diffusion of innovation theory and technology acceptance model', *Journal of Travel & Tourism Marketing*, vol. 36, no. 7, pp. 770–783.

Mikos, L 2016, 'Digital media platforms and the use of TV content: Binge watching and video-on-demand in Germany', *Media and Communication*, vol. 4, no. 3, pp. 154–161.

Morley, D 2003, 'What's "home" got to do with it? Contradictory dynamics in the domestication of technology and the dislocation of domesticity', *European Journal of Cultural Studies*, vol. 6, no. 4, pp. 435–448.

Morley, D 1980, *The 'Nationwide' audience: Structure and decoding*, BFI, London.

Morley, D 1988, *Family television: Cultural power and domestic leisure*, Routledge, London.

Morley, D 1992, *Television, audiences and cultural studies*, Routledge, London.

Morley, D & Brunsdon, C 1999, *The Nationwide television studies*, Routledge, London.

Morley, D & Silverstone, R 1990, 'Domestic communication: technologies and meanings', *Media, Culture and Society*, vol. 12, no. 1, pp. 31–55.

Mitchell, V, Mackley, KL, Pink, S, Escobar–Tello, C, Wilson, GT & Bhamra, T 2015, 'Situating digital interventions: Mixed methods for HCI research in the home", *Interacting with Computers*, vol. 27, no. 1, pp. 3–12.

Müller, KF 2019, 'Managing mediatization: How media users negotiate a successful integration of (new) media in everyday life', in T Eberwein, M Karmasin, F Krotz & M Rath (eds), *Responsibility and resistance ethics in mediatized worlds*, Springer VS, Wiesbaden, pp. 111–130.

Nash, C, O'Malley, L & Patterson, M 2018, 'Wii are family: Consumption, console gaming and family togetherness', *European Journal of Marketing*, vol. 52, no. 9, pp. 2005–2025.

Nathanson AI 2018, ‘How parents manage young children’s mobile media use’, in J Van Hook, SM McHale & V King (eds), *Families and Technology*, National Symposium on Family Issues, vol. 9, Springer, Cham, Switzerland, pp. 3–22.

Neuman WR & Guggenheim, L 2011, ‘The evolution of media effects theory: A six-stage model of cumulative research’, *Communication Theory*, vol. 21, International Communication Association, pp. 169–196, https://doi:10.1111/j.1468-2885.2011.01381.x.

Newman, MZ & Levine, A 2012, *Legitimating television: Media convergence and cultural status*, Routledge, New York.

NewZoo 2017, ‘Male and female gamers: How their similarities and differences shape the games market’, *Newzoo*, viewed 10 February 2019, <https://newzoo.com/insights/articles/male–and–female–gamers–how–their–similarities–and–differences–shape–the–games–market/>.

Nikken, PJ 2019, ‘Parents’ instrumental use of media in childrearing: Relationships with confidence in parenting, and health and conduct problems in children’, *Child Family Studies*, vol, 28, no. 2, pp. 531–546.

Nowak-Teter, E 2019, ‘Mediatization: Conceptual developments and research domains’, *Sociology Compass*, vol. 13, no. 4, pp. 1–10.

OECD 2015, ‘Integrating information and communication technology in teaching and learning’, in *Students, Computers and Learning: Making the Connection*, OECD Publishing, Paris, pp. 49–79, <https://doi.org/10.1787/9789264239555-5-en>.

OFCOM 2017, ‘Children and parents: Media use and attitudes report’, *OFCOM*, viewed 29 October 2020, < https://www.ofcom.org.uk/research-and-data/media-literacy-research/childrens/children-parents-2017>.

Ólafsson, K, Green, L & Staksrud, E 2018, ‘Is big brother more at risk than little sister? The sibling factor in online risk and opportunity’, *New Media & Society*, vol. 20, no. 4, pp. 1360–1379.

O’Reilly, A 2020, ‘Maternal theory: Patriarchal motherhood and empowered mothering’, in L O'Brien Hallstein, A O'Reilly & M Vandenbeld Giles (eds), *The Routledge companion to motherhood*, Routledge, New York, pp. 17–34.

Orton–Johnson, K 2017, ‘Mummy blogs and representations of motherhood: “Bad Mummies” and their readers’, *Social Media and Society*, vol. 3, no. 2, pp. 1–10.

Ortiz–Ospina, E, Tzvetkova , S and Roser, M 2018, ‘Women’s employment’, *OurWorldInData*, Online, viewed 13 August 2020, <https://ourworldindata.org/female–labor–supply/>.

Page Jeffery, C 2020a, ‘“It’s really difficult. We’ve only got each other to talk to.” Monitoring, mediation and good parenting in Australia in the digital age’, *Journal of Children and Media*, <https://doi.org/10.1080/17482798.2020.1744458>.

Page Jeffery, C 2020b, ‘Parenting in the digital age: Between socio-biological and socio-technological development’, *New Media & Society,* February 2020, <https://doi.org/10.1177/1461444820908606>.

Papadakis, S & Kalogiannakis, M 2017, ‘Mobile educational applications for children: What educators and parents need to know’, *International Journal of Mobile Learning and Organisation,* vol. 11, no. 3, pp. 256–257.

Parkin, S 2014, ‘Gamergate: A scandal erupts in the video-game community’, *The New Yorker,* viewed 10 November 2019, <http://www.newyorker.com/tech/annals-of-technology/gamergate-scandal-erupts-video-game-community>.

Parliament of Australia n.d., *Chapter 3 Digital Education Revolution: National secondary schools computer fund,* Audit Report No. 30 2010–11, viewed 4 November 2018, <https://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Completed_Inquiries/jcpaa/auditgen6_11/report/chapter3>.

Peil, C & Röser, J 2014, ‘The meaning of home in the context of digitization, mobilization and mediatization’, in A Hepp (ed), *Mediatized worlds: Culture and society in a media age,* Palgrave Macmillan, Basingstoke, Hampshire, pp. 233–249.

Pentzold, C 2019, ‘Between moments and millennia: Temporalizing mediatisation’, *Media, Culture & Society,* vol. 40, no. 6, pp. 927–937.

Pettigrew, S, Archer, CJ & Harrigan, P 2016, ‘A thematic analysis of mothers’ motivations for blogging’, *Maternal and Child Health Journal*, vol. 20, no. 5, pp. 1025–1031.

Pink, S & Mackley, KL 2013, 'Saturated and situated: Expanding the meaning of media in the routine of everyday life', *Media, Culture & Society,* vol. 35, no. 6, pp. 677–691.

Power, K 2020, ‘The Covid-19 pandemic has increased the care burden of women and families’, *Sustainability: Science, Practice and Policy,* vol. 16, no. 1, pp. 67–73.

Prikhidko, A & Swank, JM 2018, ‘Motherhood experiences and expectations: A qualitative exploration of mothers of toddlers’, *The Family Journal: Counseling and Therapy for Couples and Families*, vol. 26, no. 3, pp. 278–284.

Przybylski, AK, Murayama, K, DeHaan, CR & Gladwell, V 2013, ‘Motivational, emotional, and behavioral correlates of fear of missing out’, *Computers in Human Behavior,* vol. 29, no. 4, pp. 1841–1848.

Puddy, R & Scopelianos, S 2018, ‘SA budget 2018: Winners and losers’, *Australian Broadcasting Corporation (ABC),* viewed 25 May 2019, <https://www.abc.net.au/news/2018-09-04/winners-and-losers-how-the-sa-budget-affects-you/10174642?nw=0>.

Rakow, L 1988a, ‘Women and the telephone: The gendering of a communication technology’, in C Kramarae (ed.), *Technology and women’s voices, keeping in touch*, Routledge, London, pp. 179–199.

Rakow, LF 1988b, 'Gendered technology, gendered practice', *Critical Studies in Mass Communication*, vol. 5, no. 1, pp. 57–70.

Rakow, LF & Navarro, V 1993, 'Remote mothering and the parallel shift: Women meet the cellular telephone', *Critical Studies in Mass Communication*, vol. 10, no. 2, pp. 144–157.

Rawolle, S & Lingard, B 2014, 'Mediatization and education: A sociological account', in K Lundby (ed.), *Mediatization of communication*, De Gruyter Mouton, Berlin, pp. 595–614.

Regional Development Australia, Adelaide Metropolitan Incorporated n.d., *RDA Adelaide Metro*, viewed 20 November 2020, <https://www.rdaadelaide.com.au/wp-content/uploads/2020/05/rda_metromap_sa.jpg>.

Richards L, 2021, *Handling qualitative data: Aa practical guide*, 4th edn, Sage Publications, Los Angeles.

Richards, L & Morse, JM 2013, *Read Me First for a user's guide to qualitative methods*, 3rd edn, Sage Publications, Los Angeles.

Rideout, V and Robb, MB 2019, 'The Common Sense census: Media use by tweens and teens', *Common Sense Media*, viewed 15 September 2020, <https://www.commonsensemedia.org/research/the-common-sense-census-media-use-by-tweens-and-teens-2019>.

Ritchie, J 2003, 'The applications of qualitative methods to social sciences', in J Ritchie & J Lewis (eds), Q*ualitative research practice: A guide for social science students,* Sage Publications, London, pp. 24–46.

Ritchie, J, Lewis, J & Elam 2003, 'Designing and selecting samples', in J Ritchie & J Lewis (eds), Q*ualitative research practice: A guide for social science students,* Sage Publications, London, pp. 77–108.

Rocamora, A 2017, 'Mediatization and digital media in the field of fashion', *Fashion Theory*, vol. 21, no. 5, pp. 505–522.

Rogers, EM 1962, *Diffusion of innovations,* 1st edn , Free Press, New York.

Rogers, EM 2003, *Diffusion of innovations,* 5th edn, Free Press, New York.

Rogers, M 2015, 'Beyond blogging: How mothers use creative non-fiction techniques in digital environments to dislodge the mask of motherhood', *Journal of Family Studies*, vol. 21, no. 3, pp. 248–260.

Romagnoli, A & Wall, G 2012, '"I know I'm a good mom": Young, low-income mothers' experiences with risk perception, intensive parenting ideology and parenting education programmes', *Health, Risk & Society*, vol. 14, no. 3, pp. 279–289.

Rose, J 2017, "Never enough hours in the day": Employed mothers' perceptions of time pressure', *Australian Journal of Social Issues,* vol. 52, no. 2, pp. 116–130.

Rotkirch, A & Janhunen, K 2010, 'Maternal guilt', *Evolutionary Psychology*, vol. 8, no.1, pp. 90–106.

Roulston, K 2010, 'Considering quality in qualitative interviewing', *Qualitative Research*, vol. 10, no. 2, pp. 199–228.

Sampson, H 2004, 'Navigating the waves: The usefulness of a pilot in qualitative research', *Qualitative Research,* vol. 4, no. 3, pp. 383–402.

San Pascual MRS 2016, 'Paradoxes in the mobile parenting experiences of Filipino mothers in diaspora', in SS Lim (eds), *Mobile communication and the family. Mobile communication in Asia*: *Local insights*, Global Implications, Springer, Dordrecht, pp. 147–164.

Sarantakos, S 2005, *Social research*, 3rd edn, Palgrave Macmillan, New York.

Savage, M 2020, 'How Covid-19 is changing women's lives', *British Broadcasting Corporation (BBC)*, viewed 5 September 2020, < https://www.bbc.com/worklife/article/20200630-how-covid-19-is-changing-womens-lives>.

Scheerder, AJ, van Deursen, AJ & van Dijk, JA, 2019, 'Internet use in the home: Digital inequality from a domestication perspective', *New Media and Society,* vol. 21, no. 10, pp. 2099–2118.

Seidman, I 2013, *Interviewing as qualitative research: A guide for researchers in education and the social sciences,* 4th edn, Teachers College Press, New York.

Selwyn, N, Nemorin, S, Bulfin, S & Johnson, NF 2017, 'Left to their own devices: The everyday realities of one–to–one classrooms', *Oxford Review of Education,* vol. 43, no. 3, pp. 289–310.

Selwyn, N & Bulfin, S 2016 'Exploring school regulation of students' technology use: Rules that are made to be broken?', *Educational Review*, vol. 68, no. 3, pp. 274–290.

Shin, W 2015, 'Parental socialization of children's internet use: A qualitative approach', *New Media and Society*, vol. 17, no. 5, pp. 649–665.

Shin, W 2018, 'Empowered parents: The role of self–efficacy in parental mediation of children's smartphone use in the United States', *Journal of Children and Media*, vol. 12, no. 4, pp. 465–477.

Silverman, D 2013, *Doing qualitative research: A practical handbook*, 4th edn, Sage Publications, London.

Silverstone, R 2006, 'Domesticating domestication: Reflections on the life of a concept', in T Berker, M Hartmann, Y Punie & KJ Ward (eds), *Domestication of media and technology,* Open University Press, Maidenhead, UK, pp. 229–248.

Silverstone, R 1994, *Television and everyday life*, Routledge, London.

Silverstone, R, Hirsch, E & Morley, D 1992, 'Information and communication technologies and the moral economy of the household', in R Silverstone & E Hirsch (eds), *Consuming technologies: Media and information in domestic apaces*, Routledge, London, pp. 9–17.

Smahel, D, Machackova, H, Mascheroni, G, Dedkova, L, Staksrud, E, Ólafsson, K, Livingstone, S & Hasebrink, U 2020, 'EU Kids Online 2020: Survey results from 19 countries', *EU Kids Online*, viewed 30 September 2020, <https://www.lse.ac.uk/media-and-communications/assets/documents/research/eu-kids-online/reports/EU-Kids-Online-2020-March2020.pdf>.

Smythe, S & Isserlis, J 2002, 'Regulating women and families: Mothering discourses in family literacy texts', *English Quarterly*, vol. 34, no. 3 pp. 1–12.

Sovacool BK & Hess, DJ 2017, 'Ordering theories: Typologies and conceptual frameworks for sociotechnical change', *Social Studies of Science*, vol. 47, no. 5, pp. 703–750.

Sowon, K 2019, 'Smartphone paradoxes in working mothers' pursuit of work–life balance', in K Krauss, M Turpin, F Naude (eds), *Locally relevant ICT research, International Development Informatics Association Conference,* South Africa, pp. 94–106.

Spradley, J 1979, *The ethnographic interview*, Holt, Rinehart & Winston, New York.

Sprague, J 2005, *Feminist methodologies for critical researchers: Bridging differences*, Altamira Press, Walnut Creek, CA.

Stavert B, 2013, 'Bring your own device (BYOD) in schools: literature review, State of NSW', *Department of Education and Communities*, viewed 7 February 2017, <https://education.nsw.gov.au/policy–library/relateddocuments/BYOD_2013_Literature_Review.pdf>.

Stoilova, M, Nandagiri, R & Livingstone, S 2019, 'Children's understanding of personal data and privacy online: A systematic evidence mapping', *Information, Communication and Society*, https://doi.org/10.1080/1369118X.2019.1657164.

Strömbäck, J 2008, 'Four phases of mediatization: An analysis of the mediatization of politics', *International Journal of Press/Politics*, vol. 13, no, 3, pp. 26–228.

Sujon, Z, Viney, L, & Toker–Turnalar, E 2018, 'Domesticating Facebook: The shift from compulsive connection to personal service platform', *Social Media and Society,* vol. 4, no. 4, pp. 1–12.

Symons, K, Ponnet, K, Walrave, M & Heirmann, W 2017, 'A qualitative study into parental mediation of adolescents' internet use', *Computers in Human Behavior,* vol. 73, pp. 423–432, <https://doi.org/10.1016/j.chb.2017.04.004>.

Talves, K & Kalmus, V 2015, 'Gendered mediation of children's internet use: A keyhole for looking into changing socialization practices', *Cyberpsychology: Journal of Psychosocial Research on Cyberspace,* vol. 9, no. 1, <https://doi.org/10.5817/CP2015-1-4>.

Teichert, L 2017, ‘To digital or not to digital: How mothers are navigating the digital world with their young children’, *Language and Literacy,* vol. 19, no. 1, pp. 63–76.

Thabane, L, Ma1J, Chu1,R, Chen, J, Ismaila, A, Rios, LP, Robson, R Thabane, M, Giangregorio, L, Goldsmith, CH 2010, ‘A tutorial on pilot studies: The what, why and how’, *BMC Medical Research Methodology,* vol. 10, no.1, pp. 1–10.

Thimm, C 2017, ‘Media convergence and the network society: Media logic(s), polymedia and the transition of the public sphere’, in S Sparviero, C Peil, & G Balbi (eds), *Media Convergence and Deconvergence,* Palgrave MacMillan, Cham, Switzerland, pp. 93–112.

Thomas, J, Wilson CK & Park S 2018, ‘Australia’s digital divide is not going away’, *The Conversation,* viewed 15 March 2019, < https://theconversation.com/australias–digital–divide–is–not–going–away–91834>.

Uhls YT & Robb, MB 2017, ‘How parents mediate children's media consumption’, in FC Blumberg and PJ Brooks (eds), *Cognitive development in digital contexts*, Elsevier, London, pp. 325–343.

UNICEF 2020, *Keeping the world’s children learning through Covid-19,* UNICEF, viewed 20 December 2020, < https://www.unicef.org/coronavirus/keeping-worlds-children-learning-through-covid-19>.

United Nations 2020, *Sustainable development goals*, Department of Economic and Social Affairs, viewed 18 December 2020, <https://unstats.un.org/sdgs/indicators/database/?indicator=5.4.1>.

United Nations Women 2020, *UN Secretary-General’s policy brief: The impact of Covid-19 on women*, UN Women, viewed 2 January 2021, < https://www.unwomen.org/en/digital-library/publications/2020/04/policy-brief-the-impact-of-covid-19-on-women>.

Valkenberg, PM, Krcmar, M, Peeters, AL, Marseille, M 1999, ‘Developing a scale to assess three styles of television mediation: “Instructive mediation,” “restrictive mediation,” and “social coviewing”’, *Journal of Broadcasting and Electronic Media,* vol. 43, no. 1, pp. 52–66.

Vanderhoef, J 2013, ‘Casual threats: The feminization of casual video games’, *Ada: A Journal of Gender, New Media and Technology, no. 2,* viewed 27 September 2020, < https://adanewmedia.org/2013/06/issue2–vanderhoef/>

van der Linden, C 2020, ‘The moms are not alright: How coronavirus pandemic policies penalize mothers’, *The Conversation,* viewed 20 September 2020, http://www.theconversation.com/the–moms–are–not–alright–how–coronavirus–pandemic–policies–penalize–mothers–144713.

van Kruistum, C & van Steensel, R 2017, ‘The tacit dimension of parental mediation’, *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, vol. 11, no. 3, Special Issue, <https://doi.org/10.5817/CP2017-3-3>.

Van Petegem, S, de Ferrerre, E, Soenens, B, van Rooij, AJ & Van Looy, J 2019, 'Parents' degree and style of restrictive mediation of young children's digital gaming: Associations with parental attitudes and perceived child adjustment', *Journal of Child and Family Studies*, vol. 28, no. 5, pp. 1379–1391.

van Teijlingen, E & Hundley, V 2002, 'The importance of pilot studies', *Nursing Standard*, vol. 16, no. 40, pp. 33–6.

Vera, H 2016, 'Rebuilding a classic: The social construction of reality at 50', *Cultural Sociology*, vol. 10, no. 1, pp. 3–20.

Vermeulen, L & Van Looy, J 2014, '"I play so I am?": A gender study into stereotype perception and genre choice of digital game players, *Journal of Broadcasting and Electronic Media*, vol. 60, no. 16, pp. 286–304.

Ward, KJ 2006, 'The bald guy just ate an orange: Domestication, work and home', in T Berker, M Hartmann, Y Punie & KJ Ward (eds), *Domestication of media and technology*, Open University Press, Maidenhead, UK, pp. 145–164.

Warren, R & Aloia, L 2019, 'Parenting style, parental stress, and mediation of children's media use', *Western Journal of Communication*, vol. 83, no. 4, pp. 483–500.

Warren, R 2017, 'Multi-platform mediation: US mothers' and fathers' mediation of teens' media use', *Journal of Children and Media*, vol. 11, no. 4, pp. 485–500.

Watulak, SL & Whitfield, D 2016, 'Examining college students' uptake of Facebook through the lens of domestication theory', *E-Learning and Digital Media*, vol. 13, no. 5–6, pp. 179–195.

Wajcman, J 2009, 'Feminist theories of technology', *Cambridge Journal of Economics*, vol. 34, no. 1, pp. 143–152.

Wajcman, J 2004, *Technofeminism*, Polity Press, Cambridge.

Wajcman, J, Bittman, M & Brown, JE 2008, 'Families without borders: Mobile phones, connectedness and work–home divisions', *Sociology*, vol. 42, no. 4, pp. 635–652.

Willett, R 2015, 'The discursive construction of 'good parenting' and digital media: The case of children's virtual world games', *Media, Culture and Society*, vol. 37, no. 7, pp. 1060–1075.

Williams, R 1974, *Television: Technology and cultural form*, Fontana, London.

Williams, R 2003, *Television: Technology and cultural form*, Routledge, London.

Williams, T 2018, 'Labor commits $70 million to fund laptops for Years 10 to 12 students', *The Advertiser*, viewed 15 May 2019, < https://www.adelaidenow.com.au/news/south-australia/labor-commits-70-million-to-fund-laptops-for-years-10-to-12-students/news-story/b45c6673143e3b61a663f0c41e3e8afd>.

Winn J & Heeter, C 2009, 'Gaming, gender, and time: Who makes time to play?', *Sex Roles*, vol. 61, no. pp. 1–13, <https://doi.org/ 10.1007/s11199-009-9595-7>.

World Health Organisation 2020, *Adolescent health,* viewed 15 November 2020, <https://www.who.int/health-topics/adolescent-health#tab=tab_1>.

Zaman, B, Nouwen, M, Vanattenhoven, J, de Ferrerre, E & Van Looy, J 2016, 'A qualitative inquiry into the contextualized parental mediation practices of young children's digital media use in the home', *Journal of Broadcasting and Electronic Media*, vol. 60, no. 1, pp. 1–22.

Zenn, J 2018, 'The biggest mobile gaming consumers in 2018 (and beyond) are women', *Game Analytics*, viewed 5 May 2018, <https://gameanalytics.com/blog/mobile–consumers–women–2018.html>.

Zhang, C, Du, J, Sun, L & Ding, Y 2018, 'Extending face-to-face interactions: Understanding and developing an online teacher and family community', *Early Childhood Education Journal*, vol. 46, pp. no. 3, pp. 331–341.

Appendix A Participant background sheet

[Principal researcher's contact details] **[Principal supervisor's contact details]**

PhD research topic: Mothering in a digital age.

Dear X

Thank you so much for showing interest in my research. I have included further details of my study and outlined what your participation in it will involve.

I am a PhD candidate and mother of two school aged children and have a research interest in digital media and motherhood. I want to speak with mothers of children aged 9–16 years who own and use digital media devices, such as laptops, computers, mobile phones or tablets, to obtain a broad understanding of how mothers interact with these technologies in the home. Your contribution to this research will provide significantly new knowledge about the experiences of mothering in a digital age.

Interview method
As previously arranged, an informal interview will be conducted in your home on **Friday 11 November at 10am**. The interview will be digitally recorded with your prior permission and written notes will be taken, but no photograph equipment will be used. The visit is expected to last up to one hour and I will provide morning tea.

Please be assured that your participation is voluntary and you may withdraw from the interview process at any time. You are free to express any concerns regarding your participation prior to or at any time during or after the interview. Should you wish to withdraw, any data already collected from you will be destroyed and will not be included in the research findings.

You will be offered the opportunity to check the interview transcript to ensure accurate representation of your comments prior to submission of the thesis, along with a digital copy of the findings that can be emailed to you or posted to your address once the report has been finalised.

Confidentiality, security of data and consent
Participation in this research is strictly confidential and anonymous and your identity will always be concealed. Data obtained from interviews will be used in my PhD thesis and may be presented in publications and at conferences, however your name will be replaced with a pseudonym, and any other identifying information will be removed. At no point will personal data be linked to the research findings or any transcripts, papers or reports.

I understand it may be necessary for you to have children present during the interview but please be assured they will not be asked to participate in the research. It is *your* experience as a mother who engages with digital media that is most important. As an active volunteer at my own children's school I have a current police clearance certificate and I will be bring this with me to the interview. Can I ask that you please complete the attached consent form and either email it to me prior to our meeting or hand me a signed copy at the time of the interview.

All information collected as part of the study will be retained for five years by the University of South Australia in compliance with the Australian Code for the Conduct of Responsible Research and stored securely on the researcher's local computer drive. After this time, all data will be deleted. All records containing personal information will remain confidential and no information which could lead to the identification of any individual will be released, unless required by law.

Research ethics

This project has been approved by the University of South Australia's Human Research Ethics Committee (HREC). If you have any ethical concerns about the project or questions about your rights as a participant, please contact the Executive Officer of this Committee on XXXX XXXX or by email at: XX@unisa.edu.au. You can also use these contact details if you wish to lodge a complaint about either the study or the way it is being conducted.

I look forward to meeting you soon!

With warm regards,

Fae Heaselgrave

PhD Candidate - UniSA