Master Thesis

The Impact of Paradoxical Usage Tensions on Family Technology Consumption

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Supervisor: Dr. P. J. Franco

Second examiner: O. Tsoumani, MSc

Britney Stoffels

s1099420

Radboud University

Nijmegen School of Management

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Preface

Thank you for taking the time and effort to read my thesis on *"The Impact of Paradoxical Usage Tensions on Family Technology Consumption "* as my final deliverable for finishing my master's specialization in Marketing at Radboud University. I enjoyed writing my thesis on this subject, I learned a lot about this fascinating topic, and I am very grateful to have been able to research it. I feel honored to be able to add knowledge to the existing body of work and to bridge the gap in marketing literature.

I would like to thank everyone who was involved in the making of this thesis and who supported me. First, I would like to thank Dr. Pao Franco, my supervisor, for allowing me to write my thesis on this topic and for being an amazing supervisor. I have enjoyed our time together and the support you have provided me allowed me to finish my thesis with an amazing experience to look back on. You have given me continuous support and your enthusiasm for this topic encouraged me immensely. I have learned a lot and your availability to always answer my questions, provide useful feedback, and guide me through this process helped me tremendously. Moreover, I would like to thank Olga Tsoumani for providing feedback and reflecting on my work as my second examiner.

Furthermore, I would like to thank my family and friends who have supported me during the process of researching and writing my thesis. Finally, I would like to thank the interview participants for sharing their experiences and opinions and cooperating in this research. It allowed me to gather a significant amount of knowledge, without which this thesis was not possible.

I hope you enjoy reading my thesis.

Britney Stoffels

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Abstract

Technology has become an indispensable part of our lives, impacting individuals and their families. Existing marketing research reveals positive and negative feelings towards technology, shaping families' consumption experience. It is yet to be understood how these tensions can co-exist as families struggle with technology's good and bad sides. Drawing from the Paradoxes of Technology Theory as an enabling lens, and working within the Consumer Culture Theory research tradition, this thesis examines families' challenges with technology by examining how their views on technology impact their consumption, and how family dynamics impact this relationship. This research addresses key limitations in prior family technology consumption and technology paradox literature, by exploring which paradoxes challenge families and how they cope with them. With data from 15 in-depth interviews and a netnography study, this research identifies three new paradoxes and one new coping strategy specific to families. The findings show that paradoxes and coping strategies are different within a family context as they relate to the individual and have a relational aspect regarding the parent-child relationship. Additionally, the study finds that family dynamics influence which paradoxes challenge families as the children's life stage determines which paradoxes are prominent for parents. This thesis contributes to family technology consumption literature by examining families' views on technology through a technology paradox lens to establish how these tensions can co-exist. Furthermore, it contributes to technology paradox literature by finding new paradoxes and a coping strategy impacted by family dynamics. Thereby it offers practical implications for marketers and policymakers as the insights can be used in targeting or branding practices and for creating educational campaigns to create awareness and reassurance for families.

Keywords: Consumer Culture Theory (CCT), Coping Strategies, Digital Technologies, Family Technology Consumption, Technology Paradoxes

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1. Introduction

Parenting has never been easy, but parenting children in an age of screens has only made it harder. According to research by Auxier et al. (2020), 66% of parents in the United States say parenting is harder now than 20 years ago due to technological changes. These technological advancements have come with many advantages, however, it has also introduced new challenges for parents. Parents are apprehensive about the long-term effects of smartphones and believe that it might result in more harm than benefits (Gushée, 2023). According to Tadpatrikar et al. (2021), technology usage in families is very high, and offline family leisure time, family bonding, and communication are negatively affected because families spending quality time without technology has become rare. Hence, families are encouraged to spend more leisure time without using digital technologies to enable better communication and bonding opportunities (Tadpatrikar et al., 2021).

Price (2008) states that "technologies have the ability to disrupt family identity if they are not carefully monitored and managed" (p. 192). As Hawi and Samaha (2017) find, there is a relationship between smartphone addiction and anxiety that indirectly impacts family relations. They emphasize that there is an urgent need to develop and implement strategies to educate parents and children about the detrimental effects of smartphone addiction. Although the main purpose of digital technologies was to increase communication and share information, the rapid spread of the internet and the negative consequences have created paradoxical views (Bulatbaeva et al., 2023). Highlighting that it is now more important for parents to learn how to cope with the dark and the good sides.

Such tensions can be thought of as technology paradoxes, which is an established perspective in marketing literature. As Zolfagharian and Yazdanparast (2019) emphasize, technology consumption creates a situation of contradictory qualities. The use of technology can be seen as a double-edged sword, where it can provide many benefits. However, research has acknowledged the adverse side effects of digital technology, including sleep disturbance, declining academic performance, stress, cyberbullying, and child safety (Zolfagharian & Yazdanparast, 2017; Yap et al., 2021). Technology has become an indispensable activity, where people have become overly dependent and addicted to their phones (Bulatbaeva et al., 2023; Hawi & Samaha, 2017). Users acknowledge that mobile technology has made their lives easier regarding convenience, connectedness, flexibility, and increased freedom of choice. However, when people use technology more frequently, their experience is determined by conflict situations as they experience challenges and become frustrated. People will look for

ways to reduce their reliance on technology while using it to enhance their quality of life as it becomes a significant factor in their everyday lives (Chae & Yeum, 2010; Jarvenpaa & Lang, 2005).

There is a vast body of established literature on families and their technology consumption, stating that families view technology as having positive and negative qualities, inferring that paradoxes exist (e.g., Epp et al., 2014; Neumann, 2015; Rudi et al., 2014; Tadpatrikar et al., 2021). However, marketing literature has yet to account for how these tensions can co-exist, and how coping strategies are used to alleviate family struggles. This knowledge can be strengthened by viewing it as a paradox, as the need for paradox theory lies with family well-being and families' struggles with technology. Prior research on technology paradoxes has explored the impact of technology paradoxes on consumption (e.g., Jarvenpaa & Lang, 2005; Mick and Fournier, 1998; Wilson-Nash & Tinson, 2022; Zolfagharian & Yazdanparast, 2019). However, this literature focuses on individuals and has yet to account for how these tensions can be felt within consumer groups, such as families.

To address these weaknesses of prior work, this study uses Mick and Fournier's (1998) theoretical framework of the Paradoxes of Technology as an enabling lens to examine family technology consumption. Therefore, this research aims to study families' challenges with technology by examining how families' views on technology impact their consumption, and how family dynamics impact this. The research objective will be attained by answering the following research questions:

I. Which paradoxical tensions challenge families' technology consumption and what coping strategies do they use?
II. How do family dynamics impact the technology paradoxes and coping strategies within families?

This research will contribute to family technology consumption and technology paradox literature by further understanding families' consumption of technology through a technology paradox enabling lens, not based on individuals' technology consumption but that of families. Furthermore, this study offers managerial implications for marketers as it is important for them to understand families' challenges with technology and how it impacts their consumption so that they can use this to target families and incorporate it into their branding practices. Additionally, this study offers insights to policymakers for making educational campaigns to educate families and create awareness of the paradoxical tensions that families struggle with and how they can best cope with them.

The remainder of this thesis contains the following sections. First, Chapter 2 will provide the theoretical background of this research, emphasizing key concepts and theories. Next, in Chapter 3 the methodology and the ethics will be explained. This is followed by the findings of this research which are presented in a theoretical framework in Chapter 4. Subsequently, Chapter 5 includes a discussion where theoretical contributions, managerial implications, limitations, and future research suggestions are given. Finally, in Chapter 6 a conclusion is drawn.

2. Theoretical Background

This chapter provides the theoretical background for this research. First, family technology consumption literature will be addressed, followed by family dynamics. Next, Consumer Culture Theory (CCT) is outlined as the research tradition. Accordingly, technology paradox theory is discussed as it is used as an enabling lens to provide a different perspective on interpreting families' technology consumption.

2.1 Family Technology Consumption

Family is one of the most influential groups of consumers, where family members strongly influence each other's buyer behavior and consumption to achieve identity goals (Epp & Price, 2008). Consumption can be seen as a tool to build, maintain, and reinforce the social bonds between immediate and extended family members (Westberg et al., 2017). Technology has become an indispensable part of our lives, it is not just a luxury anymore. In Europe, 79% of teenagers cannot imagine life without their phones and entertainment. Technology even plays an important role in children's education, as 64% of UK schools have embedded technology in everyday teaching and learning practices (Lindner, 2023). Children are given their first mobile device at younger ages, resulting in significant growth in access to devices such as tablets, and smartphones among children (Huisman et al., 2012; Neumann, 2015). It has gotten so severe that according to research, the average teenager spends around 11 hours a day on their phone (Lindner, 2023).

2.1.1 The Role of Technology in Families

In most homes, technology is used to stay in touch with peers, friends, and family members (Huisman et al., 2012). Families have adopted new ways of communicating through social media and other digital technologies, resulting in technology being an integrated part of families' social networks. Communication plays a major role in any family functioning and the well-being of each family member. Conversely, face-to-face communication is decreasing. Research revealed a negative correlation between family functioning and the use of technology, especially for communication with family members. Increasing technology usage can impact family cohesiveness and interactions (Tadpatrikar et al., 2021).

Rudi et al. (2014) highlighted the purpose of technologies in families as a source for communication, sharing experiences, emotional support, ensuring safety, and fulfilling family roles. As Price (2008) states, information and communication technologies (ICTs) have been

increasingly utilized to sustain family togetherness and manage everyday household duties. Technology devices have been deliberately located to facilitate family togetherness, such as placing entertainment devices in the common living area for a family movie night or game night (Epp et al., 2014; Price, 2008). Technological advancements have resulted in families incorporating technology into their daily lives, where families spending quality time without technology has become rare, declining family functioning (Tadpatrikar et al., 2021).

2.1.2 The Impact of Technology on Families

Changes in technology impact individuals and their families (Huisman et al., 2012; Price, 2008). Information and communication technologies have found their way into families' daily lives, offering benefits such as family unity and social bonding. The 'dark side of technology' has the potential to degrade the family unit, just as easily as it can help to sustain and build it. A key concern for parents is that their children get lost in technology, spending too much time on computers, television, mobile phones, or gaming devices (Price, 2008). Huisman et al. (2012) showed that families expressed an appreciation for the convenience of technology because they could use it to connect to the world and their families and search for information. On the other hand, they were constantly struggling with the potential negative side effects. Families struggle with the conflict of convenience versus stress and connecting with the world versus a connection with family time (Huisman et al., 2012).

As the adoption of mobile and internet-connected devices has increased among children, concerns for healthy child development have been expressed regarding excessive and problematic use (Domoff et al., 2020). Excessive use of technology has many negative effects on children, it can cause reduced attention span, loneliness, declined academic performance, cyberbullying, or issues with social interaction (Huisman et al., 2012; Lindner, 2023; Neumann, 2015). Experts worry about the increase in technology usage among children, especially if it replaces activities such as sleep, family time, reading, and playing outside. Additionally, it is worrying that children younger than 13 are using social media, as these platforms are not designed for children and include graphic content (Moyer, 2022). The use of technology has had a positive impact on the cognitive development of communication skills and self-esteem measures. For instance, video games can enhance visual-spatial skills and problem-solving skills. However, exposure to violent video games has been linked to violent behavior and desensitizing children. The focus lies on the quality of the content to see if the impact of technology usage is positive or negative (Huisman et al., 2012).

2.2 Family Dynamics

Family dynamics refer to the patterns of interactions among relatives, their roles and relationships, and the various factors that shape their interactions (Jabbari et al., 2023). Family members establish the foundation from which individuals learn, grow, and develop. According to Gerhardt (2020), "a family dynamic is the scheme of family member's relations and interactions including many prerequisite elements (family arrangements, hierarchies, rules, and patterns of family interactions)" (p. 4). Each family is unique in its characteristics, and family dynamics will ultimately influence how young people view themselves and the world around them. It impacts their relationships, development behavior, and future well-being because parents are regarded as their children's teachers (Gerhardt, 2020; Jabbari et al., 2023).

Each family has a specific dynamism that gives it autonomy and individuality. Parents influence their children and they, in turn, influence their parents' behavior. Families play an important role in children's development, as it is within the family that children have their first experiences and acquire values, attitudes, and behaviors. Family dynamics evolve when its members change or changes happen in the family environment, as children tend to take on the behaviors they see in their environment (De Figueiredo & Dias, 2012). The privatization of family technology possession, such as each family member having its own mobile phone, computer, or other entertainment device, has resulted in individual interactions coming at the expense of interactions of the family unit. Changing how families interact and their interpersonal relationships while limiting the time spent together (Price, 2008).

2.2.1 Family Dynamics and Consumption

Being a family is a collective enterprise central to many consumption experiences. The family with its dynamics, values, and goals impacts the acquisition of technology within a household (Price, 2008). Children are motivated by their personal consumption needs and use consumption knowledge and skills learned from their parents to solve problems. Children get socialized into the consumption process, by parents, mass media, teachers, and peers, who can influence the family consumption decisions. A family represents a system of various dynamics. The parent-child relationship is a special dyadic relationship, where the child depends on the parent from birth, then gradually obtains knowledge and skills from their parents and environment, turning more independent as time goes on (Bao et al., 2007). This dyadic relationship between parent and child impacts family members' mobile device usage. Principles of reinforcement can contribute to problematic usage, if a child is susceptible to rewarding

features of digital media use, they are more likely to refuse to stop. Similarly, the parent will learn that digital media appeases their child, which becomes an easy response in trying to achieve a certain behavioral outcome for the child (Domoff, 2020).

An important factor to note in children's problematic media use is that parents' technology usage impacts that of their children. Parents' beliefs about media/screen time, and media-specific parenting practices contribute to children's problematic usage. Children learn to imitate their parents from an early age, and their relationship to technology is learned from observing parents' or other caregivers' usage (Domoff, 2020). De Figueiredo and Dias (2012) state that family dynamics and interpersonal relationships shape how children and parents behave, being interconnected together. If parents are tethered to their devices and constantly preoccupied with checking apps and notifications, this will affect children's development of technology usage. Another influence on technology usage in families is the parent's beliefs about their children's media usage. Parents who believe that interactive technology can be educational for children and help them succeed in life can result in increased screen time and a higher likelihood of problematic media use (Domoff, 2020).

Family technology consumption literature has shown how families use technology, the impact it has on families, and how family dynamics can impact their consumption. It showed that paradoxical tensions exist around technology and that these impact consumption. As Jarvenpaa and Lang (2005) explained, mobile technology paradoxes shape the consumption experience. Prior literature has identified technology usage in families as having both positive and negative sides, however, it is yet to be understood how these can co-exist. This knowledge can be strengthened by viewing it as a paradox, as the need for paradox theory lies with family well-being and families' struggles with technology. As technology has positive and negative effects on families, these tensions can be reconciled with coping strategies as a way to deal with these usage tensions. Therefore, this research uses Mick and Fournier's (1998) theoretical framework of Paradoxes of Technology as an enabling lens to further understand this phenomenon. As this research emphasizes the social and cultural considerations of family technology consumption, Consumer Culture Theory has been chosen as a research tradition because it studies consumer culture and how consumption relates to consumers' experiences and social relations (Franco, 2022).

2.3 Consumer Culture Theory

The phenomenon of family technology consumption will be studied through the lens of Consumer Culture Theory (CCT). CCT is an established marketing research tradition that consists of a collection of theoretical perspectives. CCT addresses the dynamics and relationships between consumers' actions, the marketplace, and the cultural meanings behind it. It shows how consumption is shaped by consumers' experiences and social relations, aiming to solve questions about why consumption happens and unravel complexities around consumer culture (Arnould et al., 2019; Franco, 2022). Consumer culture is an interconnected system of objects that groups use to orient consumers' experiences and lives and to make collective sense of the environment. CCT conceptualizes culture as the fabric of experiences, meanings, and actions. Key topics where CCT is used are related to the acquisition, possession, use, and disposition of products and services, both by the individual or as part of a social group (Franco, 2022). CCT offers a range of enabling lenses that researchers can draw on to guide research design choices and theoretical work (Dolbec et al., 2022). The next paragraph will explain the chosen enabling lens of this study, Mick and Fournier's (1998) technology paradox theory.

2.4 Technology Paradox Theory

As technology becomes indispensable in users' lives, expectations clash with the actual performance, resulting in users' experiences with technology being seen as paradoxical. A paradox is a statement that contradicts itself, it is based on the idea that opposed states can coexist (Mick & Fournier, 1998). Jarvenpaa and Lang (2005) define a paradox as "a situation, act, or behavior that seems to have contradictory or inconsistent qualities" (p. 7). The positive and negative effects of digital technology are conceptually inseparable and only grow in strength with new developments (Jarvenpaa & Lang, 2005).

2.4.1 Paradoxical Tensions

Mick and Fournier (1998) developed the first conceptual framework about paradoxical tensions, consumers' behavior, and coping strategies for technological products. They developed eight paradoxical tensions: engaging/disengaging, assimilation/isolation, fulfills/creates needs, efficiency/inefficiency, competence/incompetence, new/obsolete, freedom/enslavement, and control/chaos. These paradoxical tensions are likely to provide ambivalence, stimulating anxiety and stress due to the clash and doubt associated with the opposite states. The type of product, situation, or person involved affects which paradoxes are

salient, and the degree of stress experienced. Coping mechanisms have been categorized as a behavioral response to manage these feelings (Mick & Fournier, 1998). Repeated confrontation with paradoxical tensions affects the user's experience with technology, in which the user produces a response and behavioral strategies to cope with these conflict situations (Jarvenpaa & Lang, 2005).

A few paradoxes established by Mick and Fournier (1998) that are most relevant to this research will be explained. The paradox of engaging/disengaging is about technology that can facilitate involvement, flow, or activity, and at the same time can lead to disconnection, disruption, or passivity (Mick & Fournier, 1998). Jarvenpaa and Lang (2005) emphasize that mobile technology creates mixed desires to want to retreat from stressful environments but at the same time stay constantly updated. Fulfills/creates needs paradox shows that technology can fulfill current needs, but it can also cause new problems that users did not have before (Jarvenpaa & Lang, 2005; Mick & Fournier, 1998). Next, is the control/chaos paradox, which emphasizes that technology can facilitate regulation and order, and technology can lead to upheaval and disorder. Lastly, the freedom/enslavement paradox states that technology can facilitate independence or fewer restrictions, showing the freedom technology creates, and technology can lead to dependence or more restrictions showing feelings of enslavement (Mick & Fournier, 1998).

In addition to the paradoxes defined by Mick and Fournier (1998), other researchers have researched paradoxical tensions and defined new paradoxes specific to certain contexts. Wilson-Nash and Tinson (2022) studied the paradox theory in the context of older adults' usage of digital devices. As Fournier and Mick's (1998) paradoxes were not limited to digital technologies, Jarvenpaa and Lang (2005) offer additional paradoxes relating to mobile technologies. Considering that this research will focus on families' views on digital technologies, such as mobile and entertainment devices, a new paradox that has been found that is relevant to this study is the independence/dependence paradox identified by Jarvenpaa and Lang (2005). This paradox shows that people feel that having digital technologies such as mobile phones, allows them to be independent. At the same time, the power to always connect feels like being dependent on total connectivity. Being cut off from digital technologies can result in withdrawal symptoms and discomfort (Jarvenpaa & Lang, 2005).

2.4.2 Coping Mechanisms

Consumers invoke various coping strategies to address the paradoxical views and feelings towards technology. Paradoxical tensions can create conflict and stress, impacting the users'

self-worth (Mick & Fournier, 1998; Wilson-Nash & Tinson, 2022). Coping mechanisms have been categorized as avoidance or confronting and can be further subcategorized into stages of pre-acquisition and consumption. The avoidance strategies deny or minimize the use of a particular technology, whereas the confronting strategies are based on understanding and accommodating the technology (Jarvenpaa & Lang, 2005; Mick & Fournier, 1998). Mick and Fournier (1998) find that confronting mechanisms lead to better adjustment than avoidance mechanisms. Avoidance is a common reaction when technology is confusing or demanding, putting the user under stress and pressure. The ubiquity of mobile technology contributes to the communication overload of users. The user who confronts the technology and takes time and effort to learn how to use it and adjust their expectation can be seen as a user-technology partnership (Jarvenpaa & Lang, 2005).

The consumption avoidance strategies are neglect, abandonment, and distancing. The consumption confronting strategies are accommodation, partnering, and mastering. Consumers can shift between coping strategies to deal with salient paradoxes across technology products (Mick & Fournier, 1998). As Jarvenpaa and Lang (2005) state, users who confidently deal with technology paradoxes will engage more productively with mobile solutions and are more likely to develop positive relationships with them. They will likely use more devices, spend more on upgrades, try out new services, and generally spend more money on technology (Jarvenpaa & Lang, 2005). This research builds knowledge on technology paradoxes and coping strategies that challenge families. The next chapter will describe the research methods to answer the research questions.

3. Methodology

This chapter describes the methodology of this research, justifying the research approach and data collection methods. Next, it describes the data analysis procedure, the research quality principles, and the ethics of this research that have been considered.

3.1 Research Approach

Consistent with studies conducted in the CCT research tradition, this study adopted a qualitative and interpretive approach to explore the concept of family technology consumption as a social phenomenon and answer the research questions. Qualitative research is designed to help researchers understand people, social behaviors, and cultures (Myers, 2020). It helps to comprehend a social phenomenon by gaining an understanding of people's lives, experiences, perceptions, and behaviors, relating to their functioning, social movements, and relationships, and the meanings attached to them (Agius, 2013). According to Myers (2020), qualitative research allows the researcher to understand the context in which actions and decisions occur. Thus, qualitative research can provide insights into the consumer culture aspect of how families interact with, and view technology and how underlying family dynamics impact their technology consumption. Considering the qualitative nature of the research, data collection and analysis were performed simultaneously, making the process iterative.

3.2 Data Collection

The two types of data collection methods that were used are in-depth semi-structured interviews and non-participatory netnography.

3.2.1 In-Depth Semi-Structured Interviews

The first data collection method was semi-structured interviews, as the purpose of this study was to gain an in-depth understanding of how families view and consume technologies. According to Arsel (2017), interviews allow researchers to understand how people see the world by providing rich data about people's lives and their perceptions of their experiences. In-depth interviews allowed families to provide a detailed description of their views on technology and consumption and reflect upon their decisions (Epp & Velagaleti, 2014). The interviews followed an interview guide with a prepared set of questions to provide structure. The semi-structured nature of the interviews allowed the researcher to explore new questions and ideas based on what came up, to provide a deeper understanding of the phenomenon (Myers, 2020).

Most parents were interviewed with their children to collect findings from different viewpoints and see how the family interacted with each other. This phenomenon is studied by studying families instead of individuals to provide additional insights into the existing literature on technology paradoxes. Eggenberger and Nelms (2007) emphasize that a family is more than the sum of its individual members, therefore it should be studied as a whole. The group setting allows for collective reflection, layering of accounts, and to examine the collective sense-making processes (Epp et al., 2014; Epp & Velagaleti, 2014). Epp and Price (2011) state that a family collectively makes sense of important consumption events through narratives, interviewing the family together could reveal identity goals, and family stories provide rich textual data.

There was a collaboration with two other master students researching families and their technology consumption. Together, 15 interviews were conducted with Dutch families, stopping when theoretical saturation was reached. An overview of all the participants is shown in Table 1. A collective interview guide was made with general questions regarding families' technology consumption, followed by questions specific to each student's topic (see Appendix 1). All interviews were conducted in Dutch, allowing the respondents to fully express themselves in their native language, resulting in more authentic answers (Welch & Piekkari, 2006).

Families were interviewed and selected based on the age of the children. The target group was parents with children between 0 and 23. Because the researcher wanted to investigate different age groups to see if age impacted which paradoxes were present. Respondents were selected by applying purposeful, convenience, and snowball sampling, meaning that respondents that fit the set criteria were selected from the researcher's network and by asking respondents for other suitable families to interview. Data was collected and analyzed iteratively to decide what to collect next to build the theoretical framework (Gill, 2020).

Table 1

Participant Table

Family	Pseudonym	Age	Occupation/ Education	Position in Family
Williams	Ivo	41	Digital detective	Father
	Kyra	39	Healthcare	Mother
	Marin	9	Grade school	Daughter
	Naomi	5	Grade school	Daughter
	Dennis	2	-	Son
Clark	Siebe	43	Unknown	Father
	Greetje	43	Unknown	Mother
	Bo	14	High school	Daughter
	Dante	12	High school	Son
	Senna	8	Grade school	Daughter
	Fien	5	Grade school	Daughter
Morgan	Brooke	45	Elementary school teacher	Mother (of 11 year old daughter)
Reed	Harper	33	Stay-at-home mom	Mother (of 6 year old daughter)
	Percy	51	Baker	Father
	Daphne	49	Dog sitter	Mother
	Sabrina	15	High school	Daughter
Harper	Laura	49	Optician	Mother
	Travis	49	Truck driver	Father
	Ashley	16	High school	Daughter
Stewart	Tobias	50	Unknown	Father
	Daniëlle	49	Unknown	Mother
	Romee	10	Grade school	Daughter
	Jens	7	Grade school	Son
Cox	Ronald	40	ICT'er	Father
	Inge	38	Pabo teacher	Mother
	Jackie	7	Grade school	Daughter
	Quinten	3	-	Son
	Noa	1	-	Daughter
Fisher	Hugo	38	ICT'er	Father
	Maxime	36	GP assistant	Mother
	Thibeau	11	Grade school	Son
	Josephine	9	Grade school	Daughter
	Julie	6	Grade school	Daughter
Bennet	Skylar	46	D&I manager	Mother (of 11 and 12 year old sons)
Hayes	James	30	Manager	Father
	Lizzie	29	High school teacher	Mother (of 2 year old daughter)
Parker	Rose	29	Manager	Mother (of 11 month old son)
Bailey	Caleb	38	Quality controller	Father
	Luna	36	Sports instructor	Mother (of 11 year old son and 7 year old daughter)
Johnson	Carolina	55	Stay-at-home mom	Mother
	Bruce	55	Interior architect	Father
	Cressida	23	University student	Daughter
	Elise	20	HBO student	Daughter
Jones	Imogen	59	Municipal official	Mother
	Greg	56	Furniture maker	Father
	Morrigan	22	HBO student	Daughter
	Theo	20	Construction market employee	Son

3.2.2 Non-Participatory Netnography

As secondary data collection, netnography research was completed. Netnography is an online form of ethnography where online communities and cultures are studied (Bettany & Kerrane, 2016). According to Kozinets et al., (2014), netnography is a flexible approach that allows researchers to explore rich, diverse, cultural phenomena in their local context, providing windows to naturally occurring behaviors. This data was collected through online sources to gain supplementary insights into individuals' behaviors and feelings toward technology. The netnography research helped the researcher to understand the phenomenon and provide supplementary insights to the interviews. Non-participative netnography approach was utilized as the researcher did not actively participate in the online discussions (Bettany & Kerrane, 2016). Since the researcher was not interested in the social dynamics between the users, it was not necessary to participate in online discussions.

The netnographic research consisted of studying two Reddit communities specific to parents: r/Parents and r/AskParents. A total of 24 posts were stored and analyzed across the two communities, most occurring on r/Parents as this was the most active community with many posts regarding technology consumption and feelings towards it. Four were from r/AskParents and the other 20 came from r/Parenting. Data was obtained over 20 days (April 1 until April 20, 2024), where the researcher checked the communities every day to see which new posts related to the topic. The textual data was then analyzed from the posts and the comments users posted. All data was collected in an Excel sheet with the insights from the post and comments. The number of field notes differed per post; some had below ten comments and others had 100 or more comments. Each post was given a code connecting to the topics and the researcher wrote down initial findings and theories about the posts. After the 20-day period ended, the data was analyzed and incorporated into the findings.

3.3 Data Analysis

Data was iteratively analyzed after each interview was completed. This helped determine if data saturation was reached. Theoretical saturation or data saturation is the point in the research where no new insights, themes, or issues emerge from the data, showing that the emerging theory is comprehensive and grounded in data (Hagaman & Wutich, 2016). Hagaman and Wutich (2016) state that 16 or fewer interviews are enough to reach data saturation within relatively homogeneous groups. The data showed that with 15 interviews data saturation was reached as no new findings were found in the last few interviews. After the data was collected,

it was transcribed, coded, analyzed, and interpreted. The interviews were transcribed manually by the researcher, then open and axial coded, with a mindfulness of technology paradox theory as the lens while creating the codes (Myers, 2020). Coding helped interpret, organize, and structure the data into meaningful theory (Deterding & Waters, 2021). The data collected through the netnography research was analyzed similarly. The field notes and the data collected from the online communities were coded the same way as the interviews. This allowed the researcher to easily analyze the data and compare the two sources.

3.4 Research Quality

To ensure the research quality and trustworthiness, some principles were considered. The authenticity of a study is about showing that interpretations are drawn from the data and that the researcher grasps how members understand their world. Plausibility is about accounting for as much information as possible to show a well-argued fit between the data and the interpretation offered (Hogg & Maclaran, 2008). This study ensures authenticity by describing the data collection and analysis process to demonstrate the thoroughness of the research. In addition, the research included many quotes from the interviews and netnographic study to show that the interpretation can be linked back to the data to achieve authenticity and plausibility. By doing family interviews in their homes, the researcher immersed herself in the respondents' world to understand underlying family dynamics (Hogg & Maclaran, 2008).

Different research methods were used to study the subject from separate angles. Using multiple data sources to develop a comprehensive understanding of phenomena allowed the researcher to look at the topic from distinct angles (Myers, 2020). Additionally, multiple respondents were asked the same questions, allowing the researcher to check the accuracy of the information and see if the same interpretations could be made. Lastly, because three researchers carried out the interviews, this ensures research triangulation (Wallendorf & Belk, 1989). By including triangulation in the research, this study also considers the credibility principle, which is about the adequate and believable representation of constructions of reality that are studied (Wallendorf & Belk, 1989). All these principles helped achieve the trustworthiness of this research. The researcher was transparent and careful in interpreting the data.

3.5 Ethics

This research was conducted while considering several ethical considerations. To start, the respondents were given a plain language statement about the purpose of the study and the research process (see Appendix 2). Furthermore, the respondents were informed about how the data would be used and signed a consent form. Since children are part of the target group, an under-18 and above-18 consent form was drafted, where the parents gave consent for their children (see Appendix 3 and 4). Before starting the interviews, the researcher requested permission to record the interview. It was emphasized that the recordings are solely used for transcribing purposes and will be deleted after the study has been completed. Emphasizing that anonymity is guaranteed to obtain honest answers. To maintain anonymity, pseudonyms are used to refer to respondents, and any personal details are anonymized.

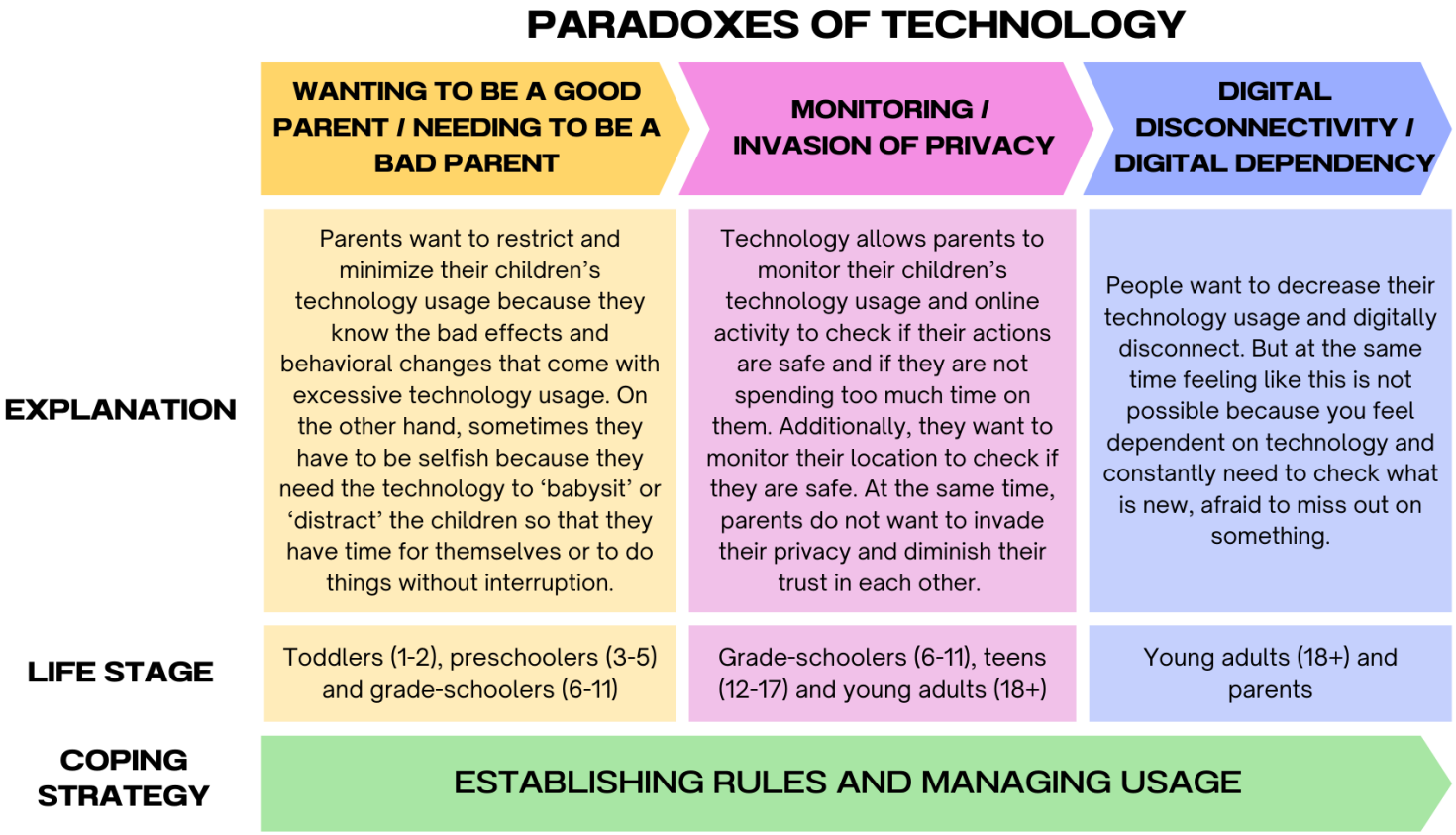
Additionally, for the netnographic research, the same measures were taken to ensure the confidentiality and anonymity of the members of the online communities. Personal and identifiable information is redacted and no names will be used to address users of the online communities. Additionally, quotes from netnographic research were slightly modified by using synonyms to prevent reverse searching and exposure of direct quotes, which protects the participant's anonymity (Markham, 2012). At the end of the research, the researcher and supervisor have signed a Research Integrity Form, acknowledging that the researcher is responsible for providing original work, maintaining confidentiality, and providing appropriate information to the participants.

4. Findings

This chapter presents the findings on how families' views on technology and family dynamics impact their technology consumption. The findings are based on data obtained through interviews and netnographic research. Data analysis resulted in a theoretical framework, shown in Figure 1, establishing the core findings of this research and contributions to the technology paradox literature. The data shows that parents have positive and negative feelings regarding technology affecting their consumption. This research establishes three new paradoxes and one coping strategy specific to families that extends Mick and Fournier's (1998) theory. Additionally, the framework shows the existence of a time element relating to which paradoxes are more prominent in the progression of the children's life stages. Certain paradoxes are more prominent during different life stages of the children within the families. To personalize the findings and show the family aspect, the participants are referred to by pseudonyms.

Figure 1

Theoretical Framework



4.1 Wanting to be a Good Parent/Needing to be a Bad Parent

The first new paradox found in the interviews relates to wanting to be a good parent versus sometimes needing to be a bad parent. Parents want to be good by restricting and minimizing their children's time on technology devices, such as TV, mobile phones, tablets, or gaming systems because they know the bad effects of excessive technology usage. Parents noticed that children get lost in technology, existing in their own world (e.g., Price, 2008). Caleb Bailey argued: "*With those devices, you are more selfish anyway because you are in your own world"*. With a sole focus on the device in front of them, children are harder to reach, and their behavior is affected. Children often become angry and irritated when they need to turn off the device, ending in a struggle and negotiations for more time.

> I think that sometimes you can't make contact with them at all. The moment they are on that screen and you ask them something, they really don't get it. They are completely in their own bubble. Then it quickly turns negative, and they end up in an irritation zone (Ivo Williams, father of 9, 5, and 2-year-old).

Luna Bailey (mother of 11 and 7-year-old) compared the behavior to withdrawal symptoms: *"We sometimes have a week with no devices. Then at a certain point you no longer hear them, usually after 3 to 4 days. [...] as if it were some kind of withdrawal"*. Reddit users further substantiate this.

> When we try to get him to speak to us, he can only make eye contact briefly before going back to the TV. He is okay if he can watch his show to the end but if we have to cut something off in the middle, he has a meltdown (r/Parenting user, April 20, 2024).

Other parents noticed an inability to focus on one thing, constantly switching between videos or applications. A user commented: *"It's the dopamine he's looking for. Are you sure you want him on an iPad? He's already displaying signs of dopamine addiction and reduced attention span"* (r/Parenting user, April 14, 2024). These signs of addiction result in parents wanting to limit their children's technology usage by implementing rules and managing their usage.

Emphasizing the importance of balance, parents see the positive side to letting their children use technology devices but limiting it. *"I believe balance is essential. Studies about technology addiction have shown that children as young as 4 become violent when it's taken away. I hope parents limit screen time before it becomes that bad"* (r/Parenting user, April 10,

2024). Supported by Caleb Bailey (father of 11 and 7-year-old): *"We're trying to find a balance. And if we think it's getting too crazy, [..] less time is spent on the devices. It also depends on the behavior they exhibit."* A key takeaway is that balance and moderation are important. It is okay to let your children use technology as there are many benefits to it, however, make sure they don't spend too much time on them.

However, there is a contradictory side to this, the need to be a 'bad parent' sometimes. Children are in a bubble when using technology devices, barely registering what happens around them because they are distracted. *"Someone could come in here and they wouldn't even notice"* (Caleb Bailey, father of 11 and 7-year-old). Parents can use technology to babysit their children so they have time to do things without interruption. *"Yes, they are in their own world, but I am also grateful that she watches Dribbel [animated series] while I do her hair in the morning"* (Lizzie Hayes, mother of a 2-year-old). As Siebe Clark (father of 14, 12, 8, and 5-year-old) emphasized:

> Well, it's just incredibly relaxing to have your children out for half an hour or an hour. That's the advantage of it. If you want to cook or whatever, or at the end of the day you are a bit done, then you have a wonderful thing to keep your children entertained.

Even the parents who abstain from using this tactic, mention that they understand the need for some alone time after a busy day, resulting in them putting their child in front of a device. However, they do see the disadvantages of doing it too much:

> Yes, it is a convenience for parents, but I think you are doing yourself and your child a disservice, you are not building a relationship with your child by sitting at the table doing crafts or drawing and going for a walk (Carolina Johnson, mother of 23 and 21-year-old).

"They are placed in front of such a device because it is nice and easy because then they have some peace and quiet as parents" (Imogen Jones, mother of 20 and 22-year-old). A Reddit user mentioned that she uses the TV to entertain her children allowing her to do other things. However, she stated that she feels guilty about how much screen time they get, but "*some days I just can't find the motivation to think of different activities*" (r/Parenting user, April 3, 2024). Someone commented *"I'm not anti screens, some content is educational and occasionally parents need a break. I think subtitles taught my child to read earlier than she would have otherwise."* There are positive sides to letting children use technology devices as they help kids

learn and develop new skills. *"I do think that it is positive for their language. Daughter can speak English very well, I think partly because of what they learn online"* (Luna Bailey, mother of 11 and 7-year-old). And that it is okay to use this to your advantage as a parent, coming back to the previous point, moderation, and balance are important.

This paradox is present for parents with kids between 1 and 11 years old. After this, children gain independence as they enter high school. Before that, the parents still carefully manage their technology usage and need to entertain them. Caleb Bailey indicated that they notice stronger behavioral changes with their daughter (7) when taking away technology than with their older son (11). *"He can put things into perspective a little better"*. When the children get older, they are more able to entertain themselves: *"When they were little we did that for half an hour when we were cooking. Nowadays we don't do that anymore because they can entertain themselves better"* (Daniëlle Stewart, mother of a 10 and 7-year-old).

4.2 Monitoring/Invasion of Privacy

Secondly, another popular topic relates to parents monitoring their child's technology usage and/or using technology to track loved ones. With the dangers of the internet and excessive technology usage, parents want to monitor their children's online activity to check if their actions are safe and if they are not spending too much time on them. As Ivo Williams (father of 9, 5, and 2-year-old) said:

> We want to check what they are watching. YouTube is full of very weird videos, but you also have very nice videos that I find funny. But if there is a lot of cursing, that really goes too far for me. So I want to keep some control over what they are watching and what they are doing. And also limit the time, because it really doesn't have to be the case that they sit behind a screen all day, which I think is far from healthy.

Monitoring could mean reading messages on children's phones. A Reddit user asked for advice on whether it is okay for parents to read teenagers' messages for safety reasons. Someone commented: *"You can, and should, read pre-teen messages [...] Lovingly tell him you want to protect him and tell him about the dangers"* (r/Parenting user, April 4, 2024). Another user commented: *"When I gave my 11-year-old her phone I explicitly said that I could demand her phone at ANY time and look through it. This was non-negotiable"*. Reasons are rooted in wanting to check what their children are watching and doing online, as they know the dangers of social media and the internet for children (see Moyer, 2022). Most parents with younger

children monitor what they are doing online. *"We have parental control so we can keep an eye on which apps she has used"* (Ronald Cox, father of 7,3, and 1-year-old). Or limiting which apps they cannot access: Hugo Fisher (father of 11, 9, and 6-year-old) stated: *"We set that they cannot go on YouTube, only on YouTube Kids."* And *"You can also block things. Like TikTok, for example, that is not yet allowed"* (Maxime Fisher).

Respondents mentioned that they want to check whether their child or loved one has safely arrived at their destination, especially in the evenings or when living in a traffic-busy area (see Rudi et al., 2014). Bruce Johnson (father of 23 and 21-year-old) explained: *"Many families find it very annoying if someone knows where everyone is. But that is not the case with us. For us, it's just a safety thing. Is someone coming home? Or are they safely on their way?"* Not everybody may like that the whole family can see where they are, but for some, the safety aspect is more important, as long as it is discussed and everyone agrees.

The other side of the paradox is that while you want to monitor or check up on your child so that they are safe, you also do not want to invade their privacy and diminish the trust established in the relationship. Parents want to make sure their child or partner is safe, but they do not want to spy on them. Laura Harper (mother of a 16-year-old) emphasized: "*It is not healthy, it is also about trust. Yes, you need to trust your child to do things.*" Other parents state that they do not even want to know what their child is doing all the time: *"I don't even want to know what he's been up to. [...] It's also about privacy*" (Caleb Bailey, father of 11 and 7-year-old).

There was a popular Reddit post about parents having cameras in their house and using them to watch what their children and friends were doing. Most comments stated that it is disgusting and creepy that parents are monitoring their children so extensively. Stating *"I think it's a disgusting invasion of privacy"*, "*This breeds nothing but secrecy and distrust"*, and *"Helicopter parents are gross, it's extremely weird!"* (r/Parenting user, April 2, 2024). Some are more lenient and say that it is okay to have cameras in the house for safety reasons only, or to see if your children are home safe, but not for watching them. There is a thin line before it invades their privacy.

With younger children, parents monitor their activity on the devices more than when they are older. The interviews showed that this was mostly prominent in families that had younger children between 6 and 12. Focusing on children who have their own devices or are on devices without direct supervision. After that age, the monitoring gets less, as the child gains independence and parents feel less need to monitor their activity as the children can do that for themselves. Relating to parents tracking their children was not as connected to age. This is

more focused on ensuring the safety of a loved one, instead of checking if someone is not doing something they should be doing. Therefore this activity was also prominent for families with teenagers and young adults, who still live at home.

4.3 Digital Disconnectivity/Digital Dependency

The last paradox relates to wanting to decrease technology usage and digitally disconnect. But at the same time feeling like you cannot because you feel dependent on technology or constantly needing to check what is new, afraid to miss out. Respondents pointed out feelings of wanting to lessen their technology usage, emphasizing the extensive time spent on their phones. Brooke Morgan stated: *"I would really like to spend a lot less time on the internet"*, and *"I'd rather put that thing away more often"*. Digital disconnecting relates to wanting to decrease screen time or time spent mindlessly scrolling on social media. "*All these notifications coming at me, driving me crazy. I would like that to be less"* (Skylar Bennett).

Some participants are already working on reducing their screen time by deleting applications or only allowing important notifications to appear. Laura Harper states: *"I have already reduced it a lot. I did that for my WhatsApp in my immediate family, I only receive notifications from them."* Some people install a sleep mode at night to avoid receiving notifications; some have even deleted social media or installed daily limits to reduce the time they spend mindlessly scrolling. Setting these limits creates awareness by notifying you that you have already spent a certain amount of time on an app. The limit can be surpassed, but this extra action often is too much of a hassle.

> I have screen time limits for myself for everything that is social media or could be labeled a dopamine slot machine. I have 25 minutes a day on everything and then they are locked. I can extend them, but I have to be honest I then have to do an extra action, and 9 out of 10 times if I have to do that then I think why am I actually doing that, and then I am going to do something else (Cressida Johnson, child aged 23).

Some have already seen the effects of reducing their screen time: *"I have noticed that my screen time has plummeted, I have thrown off quite a lot of social media."* (Cressida Johnson).

The other side of this is that even though you might want to cut back on your technology usage, it is hard to do because people are addicted and dependent on it. The interviews showed how easy it is for people to be drawn back in, as a notification will result in them picking up their phone, and having to check it immediately. *"Yes, I have my phone next to me and then I*

get a notification from Snapchat and then I have to respond" (Sabrina Smith, child aged 15). Additionally, because it has become such an integral part of our lives, it is hard to cut back, as Elise Johnson, a child aged 21 states: *"I know I need to cut back, but it also became my source of information."*

> I would like to set more boundaries for myself. I want to try to put a lot of things away in the evening more often. [...] But it really is a trap that you quickly fall into and pick up again (Brooke Morgan).

One of the participants even said she did not see the usefulness of reducing her screen time, because she would go back either way *"We could pay attention to it, but I don't think there's any point anymore. After a week I would say never mind"* (Sabrina Smith, child aged 15).

Bringing along the problem that even though people want to reduce their technology usage, they are scared to miss out on things. Greetje Clark states: *"Perhaps it is almost a kind of self-confidence to be able to put something away. [...] That fear of not being available."* Substantiated by Brooke Morgan who emphasized that she is conscious about not spending too much time on her phone, but finds that she is drawn back very easily, *"Should I really put it aside for a moment? But then there is that curiosity again. Maybe something new has come up? Am I missing something?"*

People want to reduce their technology usage but feel like they cannot because society has made us dependent. As confirmed by Siebe and Greetje Clark *"Technology is essential in our society"* and *"Our online and offline world is so intertwined [...] If you want to participate in this society, you must have the tools to do so."* People feel that they are becoming more dependent on technology and that you can't live without it (see Lindner, 2023).*"A phone contains everything you need, it dominates every aspect of your life in that respect. Because you can do everything with it, so you literally don't need anything else than that thing if you want"* (Morrigan Jones, child aged 22).

"I don't think we can live without it anymore. Everything revolves around the internet, everything is online" (Travis Harper). This relates to everyday life activities. As Daphne Smith expressed: *"I don't think we can live without it these days. Look at internet banking, for example, nowadays they just assume that everyone can do it."* Everything nowadays requires registration via email or accessing information through your phone.

> Nowadays we do a lot with the telephone. Like lights on, music on, lights off, everything. Or well, I can't get into the car without a phone. [...] I do notice that we are becoming more and more dependent (Rose Parker).

The dependency on technology also affects people at school (see Lindner, 2023) and work. Travis Harper said: *"My work goes online, I receive my details online about what I have to do. [...] So if the internet ever goes down, I'll be free for a day."* It changes how people's work is structured: *"Without technology, I would no longer know how to teach normally"* (Inge Cox). One of the children states that she feels she is dependent on technology, especially regarding her schoolwork, because everything is online, *"Yes, if you don't have your school application you can't do anything"* (Ashley Harper, child aged 16). It applies to high school students and university students: *"I can't do my study without my laptop"* (Elise Johnson, child aged 21).

These paradoxical tensions were an overarching topic across many interviews, almost all of the respondents have expressed their dependence on technology. Emphasizing the significance of feelings of dependency not allowing them to completely disconnect digitally. *"I try to limit its influence as much as possible, but you can't escape it"* (Greg Jones) With this paradox, the relational aspects between parents and children were less prominent. This paradox was mostly present in parents regarding their individual technology usage, and in young adults, who are in charge of their technology use with no established rules. As Imogen Jones (mother of 20 and 22-year-old) stated *"I think it is their own responsibility to arrange that themselves. I don't worry about that anymore."*

4.4 Rules and Managing Usage as a Coping Strategy

Parents' views on technology and the prevalent paradoxical tensions impact how they use technology and how they manage their children's usage. Their coping strategies are about managing their well-being and that of their children. Data showed that an important coping mechanism for parents and families to deal with paradoxical tensions is establishing rules for themselves and their children to manage the usage of technology devices. Parents see the good in technology devices, they can be educational, entertaining, and stimulating, which results in them allowing their children to use them. However, they acknowledge that excessive use can do serious harm and that there is a bad side to it, raising the need for restrictions on the usage. As mentioned by Caroline Johnson: *"Sometimes it's very entertaining, but sometimes I think it's also very evil."*

> I first let her decide for herself, but that didn't go well, because she wanted to sit on that thing all day and not do other things such as drawing or going outside. So now we have agreed on 20 minutes a day and that is going well (Harper Reed, mother of a 6-year-old).

Many parents asked for advice on how to manage their child's screen time on Reddit. Many of the same rules and management tactics were mentioned to regulate their children's or their own technology usage on Reddit and in the interviews. Most rules relate to setting daily time limits or restricting time spent on devices to the weekends. Because with excessive use parents notice a behavioral change in their children. As users commented: *"With too much screen time, they get really cranky"* and *"I change between allowing 30-45 minutes and some weeks I install a total ban [...] One of my children has instant and noticeably worse behavior after gaming"* (r/Parenting user, April 1, 2024).

Other Reddit posts were about whether a child of a certain age should have a phone or social media. Generally, people agreed on no phones and social media before high school, many others even said not until 16. The importance of having parental controls was mentioned: *"No phone and social media until 14. Then only with parental controls and the phone goes to you before bed"* (r/Parenting user, April 20, 2024). Relating to social media use, there was a big consensus on the dangers of social media for children (e.g., Moyer, 2022). Saying *"Social media is poison."* and *"The whole Internet, social media and more, is not safe for children"* (r/Parenting user, April 14, 2024). As a user commented:

> When it comes to screen time, TikTok is a black hole. You start by watching one video someone sent to you, next thing you know you've been on TikTok for 45 minutes without realizing it. Not forgetting the negative effects social media has on teenage girls which I don't even want to get into (r/Parenting user, April 16, 2024).

The data gathered from the interviews showed similar results as those from Reddit. Almost all parents had some rules to manage their children's technology usage, except parents with young adults. For instance, Luna Bailey (mother of 11 and 7-year-old) stated: *"If they start to show very unpleasant behavior, we will remove the devices."* There are rules about only allowing the children access to certain gaming sites such as Roblox when the parents are present. In many families, there are rules about no devices during dinner or after a certain hour at night. Some have a set amount of time the children can spend on their devices, and others don't have a set time, but just keep a watch themselves.

> In any case, she will have two hours of screen time on that tablet, but she is not allowed to just grab that tablet. She has to ask that. The same applies to the TV, if we do not permit it in advance, it will simply not turn on (Ronald Cox, father of 7, 3, and 1-year-old).

These rules have a complex side to them, as interviews showed that a few parents feel that their technology usage impacts their children. *"They find it extremely difficult to have rules and restrictions in an environment where they see us taking those devices all the time"* (Skylar Bennett, mother of an 11 and 12-year-old). Or stating that if a parent has a certain technology usage or spends a certain amount of time on a device, they feel that they cannot tell their child not to do the same. As Daphne Smith (mother of a 16-year-old) said *"Now we sometimes come into the room and she is still on the phone in bed, I do that myself. So I can't tell her not to do it."*

5. Discussion

This chapter addresses this research's theoretical contributions and practical implications. Furthermore, the limitations of this study and recommendations for future research will be discussed. This study aimed to advance the marketing literature on how families' views on technology and underlying dynamics impact their technology consumption. The previous chapter showed that three new paradoxes are present specific to the family context as parents acknowledge both positive and negative feelings towards using technology. They cope with these paradoxes by using a new coping strategy of setting specific rules and managing their own and their children's technology usage. Additionally, the research revealed that family dynamics influence which paradoxes challenge families as the children's life stage determines which paradoxes are present.

5.1 Theoretical contributions

Contribution to Family Technology Consumption Literature

Firstly, this study advances family technology consumption literature by examining how families' views on technology and family dynamics impact their technology consumption, by looking at it through a technology paradox lens. Existing family technology consumption literature established different ways families consume technology and the impact technology can have. Authors have shown that different positive and negative feelings exist towards technology and that they shape the consumption experience, through their research it could be inferred that paradoxes exist (e.g., Huisman et al., 2012; Price, 2008; Rudi et al., 2014; Tadpatrikar et al., 2021). However, it is yet to be understood how these can co-exist, prior research can be strengthened by viewing it in terms of a paradox, by using coping strategies as a way to alleviate the family struggles. Therefore, this research used paradox theory to understand families' feelings towards technology further and show how these tensions impact family consumption with coping strategies. This study suggests that what they found can be understood through a paradox lens, not based on individuals' technology consumption but that of families.

Using Mick and Fournier's (1998) Paradoxes of Technology as a lens allowed the research to be examined from a point of view that showed certain paradoxical tensions exist within families that cause negative feelings such as anxiety or stress resulting in the usage of a coping strategy to affect a family's technology consumption. Future research on family technology consumption could examine other ways that show how families' views towards

technology can affect the parents and the children's technology consumption by considering additional aspects. The research showed that some parents felt that they could not tell their children not to do something if they do it too. As stated by Domoff (2020), parents' technology usage impacts that of their children, where parents can transfer problematic habits and views of media and screen time. This could be further investigated by looking at it through a family identity lens to investigate if parental views and technology usage habits are passed down to their children. By studying how families evolve over different life stages and how parents' views and habits regarding technology impact their children.

Contributions to Technology Paradox Literature

The second contribution of this research is to technology paradox literature. It has been established that technology paradoxes impact consumers' consumption (e.g., Jarvenpaa & Lang, 2005; Yap et al., 2021; Wilson-Nash & Tinson, 2022). However, it is an under-researched phenomenon in the family consumption context. This study adds knowledge to technology paradox literature by researching this phenomenon in a marketing and family context. Extensive knowledge has been obtained of parents' different views on technology and how these are expressed in their technology consumption, highlighting their main strategy of coping with their positive and negative feelings towards digital technologies.

Additionally, Mick and Fournier's (1998) theory on Paradoxes of Technology focuses on individual tensions regarding technology, resulting in coping strategies on how individuals tackle the paradoxes. However, the data has shown that family dynamics impact these paradoxical tensions and coping strategies and are not just individual. The parent-child relationship plays a role as parents cope with the paradoxical tensions for themselves and their children. Researching families' views on technology revealed three new paradoxes and one new coping strategy specific to the family context, thereby adding to the existing literature.

The new digital disconnectivity/dependency paradox shares similarities with Mick and Fournier's (1998) freedom/enslavement and engaging/disengaging paradoxes, and the independence/dependence paradox by Jarvenpaa and Lang (2005). The similarity relates to the digital dependency side of the paradox. These paradoxes mention feelings of dependency and enslavement regarding technology and total connectivity, which come back in the new paradox. However, as there are differences and the specific relation to the family context, it was included as a new paradox. The difference is that with the new paradox, the focus lies on the contradiction between wanting to disconnect but having feelings that this is not possible

because society has made us dependent on technology and because people are addicted to their devices and do not want to miss out on anything.

The other two paradoxes are separate from existing paradoxes as these are very specific to the family context and being a parent. The wanting to be a good parent/needing to be a bad parent paradox is an example of this, which focuses on the contradictory feelings a parent can have regarding their children's technology usage. This relates relatively to the fulfills/creates needs paradox. Technology provides parents with a solution because technology can be used to entertain and distract children. Simultaneously it causes a new problem because of the effects of excessive use, parents want to limit their children's usage by implying rules. However, this is not a clear similarity as the new paradox is specific to the family context and implies the relational aspect of a parent having these paradoxical feelings but having to cope with it in a way that does not harm their child's wellbeing, but still thinking about themselves.

The monitoring/invasion of privacy paradox can be connected to the control/chaos paradox. When parents monitor their children's technology usage or check their location for safety reasons, it can facilitate order and control. On the contrary, always knowing where someone is or checking what they are doing and watching can lead to disorder and chaos by impacting someone's privacy and trust in the relationship. This connection is more implausible than the others but is positioned around the same feelings. Even so, it is different enough to be considered a new paradox as there are distinct aspects to existing paradoxes. Such as the relational aspect of wanting to care for someone and make sure what they are doing is safe, but at the same time avoid damaging the trust and privacy of someone else.

This research explored the relational aspect of technology paradox literature in the family context, however, there are more aspects to be researched relating to group-oriented paradoxes. Future research could further investigate this by researching the relational aspect and the effects it has on paradoxes and coping mechanisms present in a research context. For instance, within families, it could be further investigated how technology is consumed differently on family vacations. Yu et al. (2018) find that even during vacations, families use technology excessively when it should improve family interaction and cohesion, impacting the family vacation experience. Future research could investigate this by examining which paradoxes are relevant in this context. Additionally, it could be investigated how technology is used regarding extended family such as elderly parents or when people have to take care of other family members, as other challenges could be relevant in this context. The interviews showed that some parents had concerns about their elderly parents and the struggles they have with their usage.

5.2 Managerial Implications

Besides the theoretical contributions, this research offers some managerial implications. First, organizations could incorporate this research into how they target families with technology-related products and services. It showed the paradoxical tensions within families and what concepts families are struggling with, marketers could use this to their advantage. By advertising how families should manage their children's technology usage, educating them on the dark side of excessive usage, and highlighting the positive aspects. And giving guidelines on creating a healthy balance makes it easier for families to cope with certain paradoxes. Marketers could use the family technology paradoxes to target specific families or use it in their branding and advertising to show they understand the struggles of parenting and share ways their products can help.

The literature shows that children interact with digital technologies such as television, tablets, mobile phones, and gaming devices. Specific brands of family technologies can use the findings regarding the paradoxes and the coping mechanisms to target families or use them in their branding. Organizations such as Nintendo or Disney could focus on the uses of their products and services as a way for families to come together and can be used to entertain children. While emphasizing the best way to use it by incorporating balance and having rules in place. Additionally, organizations such as Apple or Samsung could target families focusing on the paradoxical tensions and ways to manage them. Sharing specific functions of their devices for setting up parental controls and monitoring a child's activity or location. Or focusing on ways users can limit their technology usage but still be connected.

Additionally, this research could offer valuable insights that policymakers could use in educational campaigns. They could communicate the findings to parents to create awareness and reassurance about the paradoxical tensions they might be experiencing. These campaigns could explain what these tensions entail and how they can cope with them. By sharing different examples of other families, parents learn about different practices they can use to alleviate the tensions. For instance, seeing how people have successfully minimized their technology usage by incorporating certain tactics. Or to understand the importance of balance within the paradoxes to minimize the stressful feelings associated with them. This is achieved through policymakers and marketers as they can incorporate the findings into policies or advertisements to make consumers aware.

5.3 Limitations and Future Research

The limitations of this research and future research suggestions will be addressed in this section. Firstly, the initial age group of the children was expanded to 0-23 based on the results of the first set of interviews to further investigate the results linked to their age. This resulted in the researcher finding links between the paradoxes and the age groups of the children. However, this did result in fewer families being interviewed within certain age groups. The findings are transferable across many different families, but might only apply to some parents as more aspects could play a role in the understudied groups. Of the families, there was one child between 0 and 12 months, three between 1 and 2 years, one between 3 and 4 years, fourteen between 5 and 11 years, five between 12 and 17 years, and five between 18 and 23. Future research could build on this by further studying the underrepresented groups within the data to see other findings and relations. For instance, to see if parents use technology differently or more to entertain children between 0 and 4 than they do for children between 5 and 11.

In addition, future research could examine the same concept with a focus on different participants relating to differences between genders of parents or children, families' beliefs, or social classes. This research selected its participants based on the age of the children. The goal of this research was exploratory, therefore future research can build more on existing studies by researching other segmentations within families. By reflecting on the family sample, it was noticed that it is not as diverse in terms of gender, social class, or family beliefs as it is in the age groups of the children. Researching diverse families could result in additional insights specific to those segmentations. An example of future research could be to consider whether social class impacts how families view and consume technologies. By looking at the interviews it was noticed that there was a difference between the two families and how much technology they consumed which could be attributed to differences in social class. The family in a higher social class uses more technology and uses it differently in their day-to-day life. Contrary to the lower social class family, who only use general technology devices such as phones and television. It could be further investigated if social class impacts families' consumption by seeing if families with less technology in their homes use the technology they have more intensely or possibly use it less because they have fewer kinds.

6. Conclusion

This research aimed to study families' challenges with technology by examining how families view technology, how this impacts their technology consumption, and what role family dynamics play in this relationship. To reach this objective, two questions were formulated. The first research question was: *"Which paradoxical tensions challenge families' technology consumption and what coping strategies do they use?"* The research identified three new paradoxes: Wanting to be a Good Parent/Needing to be a Bad Parent, Monitoring/Invasion of Privacy, and Digital Disconnectivity/Digital Dependency. The parents emphasize positive and negative feelings towards technology usage for themselves and their children. To cope with these tensions, a new coping strategy has been identified, where families use setting rules and managing their and their children's usage to cope with their paradoxical feelings towards technology.

The second research question was: *"How do family dynamics impact the technology paradoxes and coping strategies within families?"* This study revealed that family dynamics influence families' views towards technology and its consumption. The children's life stage determines which paradoxes are prominent for parents, because children have different needs at different ages, determining parents' priorities and views towards technology. Moreover, this study showed that paradoxes and the feelings of stress that result in coping strategies are not just individual but relational. There is a dyadic relationship between a parent and a child, where the child is dependent on the parent. Parents have to cope not only with their struggles and paradoxical tensions regarding technology but also with their children. This establishes why new paradoxes were found within the family setting as family dynamics influenced parents' views on technology and the resulting coping mechanisms.

Through exploring technology paradoxes in the context of families, this research aspires to advance existing literature, inspire future research, and offer practical implications for marketers and policymakers to advertise and bring awareness and reassurance to families and help them cope with the paradoxes of technology.

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Appendices

Appendix 1. Interview Guide

INTERVIEW GUIDE

Project: Family Technology Consumption

INTERVIEWER:	
DATA & TIME:	
AUDIE/VIDEO RECORDER?	
OTHER COMMENTS:	

PARTICIPANT DETAILS

Names:	
AGE (CIRCLE RANGE):	5-14 15-24 25-34 35-44 45-54 55-64 65+
GENDER:	Male / Female / Nonbinary / Transgender / Prefer not to say

START INTERVIEW

Note what's in the room (might say something about the participants, could ask questions about it if relevant).

VERBAL CONSENT FORM

Thank you for taking the time for this interview. This interview will be conducted to gather information on the topic of technology usage in families to complete my Master's Thesis. First, I will ask you some general questions about yourself and the family and then your general technology usage. After that, I will dive deeper into questions related to three technology topics. To give a general sense of the kind of technology I am talking about, this research is about current digital technologies such as communication technologies, the internet, everyday devices, and entertainment technology. Feel free to ask me for further clarification if a question

is not clear or please let me know if you are uncomfortable answering certain questions. The interview is anonymous and confidential, the data will only be used for this study.

1) Rapport building and General Context Background

Personal information:

- Can you provide some insight into your current family situation? (partner, children)
- What do you spend most of your time doing? (working, studying, hobbies)
- Can you tell me about your work [or study]?
- What do you do in your spare time outside of work/school?

Questions about family dynamics (contextual background):

- Are there specific traditions or activities that you do together as a family?
- Is there a dominant personality trait that characterizes your family?
- Can you tell me about what is important in life for your family?
- What do you do together as a family in your free time?

General questions regarding technology use:

- What technology devices do you and the children use regularly? (think of mobile devices, gaming systems, wearables, and other entertainment devices)
- Among the various technology devices you use, which one do you use most in your free time?
- Can you give an estimate of the number of hours you typically spend using this/these device(s)?
- How do you feel about your technology usage? Do you think it is too much, or normal?
    - To the parents: What do you think about your child's usage?
    - Do you actively deal with their technology use, with rules or control, etc.? Or do you just let them do what they want?
- Would you like to reduce your technology usage or time spent on devices or are you okay with your current usage? Why?
    - If they already do this: how do you do this?
- Do you have specific rules for your own and your children's technology consumption? (such as no devices in bed, maximum number of hours per day, etc.)
    - If yes, what are those rules?
    - If yes, why do you have these rules?

    - If not, why not?
- When and where do you use these technologies?
- Who is the technology person in the family?
- Is there something that excites you about current technology?
- Is there something you don't enjoy about current technology?
- Do you think your technology use influences that of the children? How?
    - Do you see similarities or differences? → Can you give an example?

<u>Questions - Families view on technology (Technology Paradox Theory)</u>

Intro: Now I will be asking you some questions relating to your view on technologies. The goal of my research is to gain insights into how families view modern-day technologies and how they manage their usage.

Situational/specific questions

- Can you describe a situation where you used these technologies *(that we just talked about)* and you got frustrated/angry/anxious etc.?
- Can you describe a situation where you used these technologies and you got happy/enthusiastic/excited etc.?
- How do you feel about all the changes and advancements we are currently making in technology? (think about the Internet of Things, Artificial Intelligence, etc.)
- How do you guys manage your usage of technology for yourself and your children?

General view on technology questions

- So, in general, how do you view these types of technologies and everything that we can do with them in this current age?
    - Based on what they answer:
        - *If they say only positive things:* You mentioned a lot of positive aspects, do you also have negative views on it? Can you name some?
        - *If they say only negative things then ask*: You mentioned a lot of negative aspects, do you also view it as something more positive? Can you name some?
- Are these associations or feelings connected to certain types of technologies? Can you give some examples?
- How does technology impact your life? Can you give examples?

- Can you think of conflicting feelings about a certain technology? (for instance, do you view the same technology as something good and as something bad?)

New additional questions after the first six interviews were analyzed to build the theoretical framework

Paradox 1: Wanting to be a Good Parent/Needing to be a Bad Parent

- Do you ever use technology devices (telephone, tablets, TV, etc.) to entertain or distract the children so that you can have a moment for yourself or to do other chores or tasks (e.g., cooking dinner, cleaning)?
- If the kids are on an iPad or watching TV, is it easy to get them off and put the devices away? Or are they resisting and making a big fuss about it?
    - How do you deal with this?
- Do you feel that you and/or the children are really in their own world when you/they are on technology devices?
    - Do you feel like it is an addiction?
    - How do you deal with this?

Paradox 2: Monitoring/Invasion of Privacy

- Do you use technology to keep track of each other to see where someone is or if someone has arrived safely at their destination or monitor what the children are doing online? (think of checking what your child is looking for and watching on the internet or checking via GPS whether someone has arrived at work safely, etc.).
    - Can you give examples?
    - If yes, why?
    - If not, why not?
- Do you also see this as a violation of privacy or of trust in each other? Or is it sometimes necessary for each other's safety?
    - How do you deal with this?

Paradox 3: Digital Disconnectivity/Digital Dependency

- Do you feel that you are dependent on technology? → can you explain?
- Do you feel the need to check your phone a lot? → why?
- Do you have the feeling that because of technology you are busier with work outside of the typical working hours (9-5)?

<u>Questions - Attitudes toward privacy within technology</u>

Intro: Now I will be asking you questions related to the topic of attitudes toward privacy when using technology. Privacy nowadays is a topic that gets a lot of attention, as you may know. Therefore, the goal of my research is to investigate how parenthood changes attitudes towards privacy, specifically when parents are sharing sensitive information about their children on social media. Additionally, I aim to understand how this shift in behavior impacts parents' technology use.

Specific:

- Can you tell me about a specific moment in time when you shared a photo of your child on social media?
    - What was the reason for sharing?
    - What was the age of your child when you shared the photo?
    - Do you consider anything before sharing a photo of your child on social media (privacy concerns)?
        - If yes: can you tell me a little bit more about these considerations in a specific situation?
        - If not: next question
- Can you tell me about a memorable time when you wanted to share a photo of your child on social media, but you didn't?
    - What is the reason for not posting the photo on social media?
- Do you often see family members/friends/co-workers post about their children on social media?
    - If yes: Can you tell me what the post was about?
    - If not: do you know the reasons for not sharing photos of their children online?
- Can you tell me about the time when you became more cautious about sharing certain details about your child online?
    - What was the reason for this? (I want to know if it was for privacy reasons)

General

- What is your approach to the topic of sharing information about your children on social media?
    - Are there specific considerations that guide your decisions?

- Can you tell me how your approach to (not) sharing photos of your child on social media has impacted your technology use (do you spend less time on social media for instance)?
- Can you tell me a bit about your experiences with parenthood and how it has influenced your technology use? (are you using more devices or less?)
- Can you tell me about any places or resources you look at that help you think about your parenting approach?

New questions after the first six interviews were analyzed to build the theoretical framework

Phase 1: Awareness

- What is your opinion about sharing photos or information about children on social media?
- Can you tell me about a specific time when you shared a photo of your child on social media?
    - If they did not share: next question
    - What was the reason for sharing (birthday, first day of school)?
    - Do you take certain considerations into account before sharing a photo of your child on social media (privacy issues)?
        - If yes: Can you tell me a little more about these privacy considerations before posting the photo?
        - On which social media platform was the photo posted?
- Can you tell me about a memorable moment when you wanted to share a photo of your child on social media but did not?
    - What is the reason for not posting the photo on social media?
    - How did you become aware of this?

Phase 2+3: Cultural Understandings/Modification of behavior

- Do you often see family members/friends/colleagues posting about their children on social media?
    - If yes: can you tell me what the post was about?
        - Are these posts public or private?
        - On what platform are these photos posted?
    - If not: do you know the reasons why they do not share photos of their children online?

Based on sharing / not sharing photos on social media

If parents DO share:

- Can you tell me about the time when you became more cautious about sharing certain details about your child online?
    - What was the reason for this? (privacy, kids don't choose this)
    - What have you learned from this experience?

If parents DON'T share:

- Can you tell me when it was decided not to post photos of your child online?
    - What was the reason for this?

Final questions

- What specific feelings do you experience when deciding whether/not to post a photo of your child online (fear, fomo, concern)?
    - How do you think sharing photos on social media affects your child's development and privacy?
    - Are you aware of this before sharing a photo?
        - If yes: Has this led you to make adjustments, such as posting only in a private group or with a private account?
- Can you tell me how your approach to sharing photos of your child on social media has affected your use of technology (e.g., do you spend less time on social media)?
- Can you tell me a bit about how your experiences with parenting have affected your technology use? (Do you use more devices or less?)

<u>Questions - how does technology affect the family's feeling</u>

Intro: Now I will be asking you some questions relating to the topic of family identity and children's technology use. The goal of my research is to gain insights into how the family feeling within a family is affected by technology use by all family members, but especially children's technology use.

Specific:

- Which technology devices do you use together as a family?
- Can you give me an example of a situation when one of you learned something about the technology use of another family member?

- Do you have any rules for technology usage for children?
    - What are those rules?
    - Why do you have them?
- Can you give me an example of a situation in which you as parents became frustrated about the children using technology?
- To the children: Can you give me an example of a situation when you as children became frustrated about not being allowed to use technology?
- To the children: Which technology devices do you use?
    - Which one do you use the most?
    - If applicable: Which technology devices do you use together with your brother/sister?
- Can you give me an example of a situation when you enjoy using technology together as a family?
- Can you give me an example of a situation when technology usage hurts the atmosphere in the family at that particular moment?

General:

- What is a family feeling in your words?
- What is your opinion about children using technology in general?
- Do you use technology during breakfast, lunch, or dinner? (or other moments on a day when all family members are together)
- Would the family feel stronger or weaker without technology?
    - Why do you think so?

New questions after the first six interviews were analyzed to build the theoretical framework

Family identity

- Does technology help you have quality time together as a family?
- Are certain relationships within your family characterized by technology? (For example, one of the parents spends quality time with one of the children through a video game)
- Do you notice a change in forms of communication with each other due to the presence of technology in the family?
- Are there certain habits or routines in the family that involve technology? (e.g., watch Wie is de Mol together every Saturday evening)

- To the parents: Can you give an example of a situation in which you became frustrated with the children's technology use?
- To the children: Can you give an example of a situation in which you became a little angry with your parents because you were not allowed to play with a screen / look at a screen?
- Can you give an example of a situation in which you enjoy using technological devices together as a family? (TV, Nintendo Switch, reading from an e-reader)
- Can you give an example of a situation where the use of technological devices had a negative effect on the atmosphere in the family?
- Do you use technology during breakfast, lunch, or dinner? (or other moments on a day when you are together as a family)

Family feeling

- Do you feel that you are really together as a family when one or more family members are sitting behind a screen? (Or do you have the feeling that everyone is in his/her own world?)
- Do you feel that everyone can be themselves in the family with the presence and use of technology?

In my study I define family feeling as the ability to be fully yourself among other family members, the unconditional love and support for each other, and the feeling that you live as a collective instead of as an individual when you are at home with other family members.

- Would the family feeling be stronger or weaker without technology?
    - Why do you think so?

4). Wrap Up

Is there anything I have left out? Is there anything else you would like to add/discuss? Anything else you like me to know about? Is there anyone you recommend I should talk to?

Appendix 2. Plain Language Statement

Nijmegen School of Management
Department of Business Administration

PROJECT TITLE: **Family Technology Consumption**

PLAIN LANGUAGE STATEMENT

Dear Sir/Madam,

We invite you and your family to take part in this student research project being conducted by the student researchers Anne-Fleur Elsenaar, Maartje Spaanjaars, and Britney Stoffels through the Department of Management & Marketing at Radboud University. This student research project contributes towards the fulfillment of the requirements of the Master's degree being completed by the student researchers.

Purpose: The purpose of this study is to investigate the way families view current-day technologies and how they manage them in their everyday family life. We are interested in examining the types of technology that impact you as a family and use in everyday life (e.g., phones, iPads, computers, wearables, gaming systems, internet, applications, social media, etc.). We hope this project will help us better understand the way that technology fits into everyday family life at home.

Research Process: The researcher will ask your family questions about the ways you view and use technology, ranging from your attitude towards the privacy concerns regarding technology, how technology affects the family's feelings, to how you view and manage the technology

paradox. Please note that this will likely require you to talk about the technologies you and your family are consuming and your personal views on them. Since we are carrying out these interviews in person at your home, the researcher will observe the family dynamics and interactions relating to technology usage.

The length of these interviews is expected to be around one hour and is contingent on how long you are all willing to participate in this study. This is at your discretion. Further interviews following the initial interview are possible and may allow your family and the researchers to continue our discussions. Participation in any future interviews is at your discretion. All interviews including any further interviews, as well as your family's overall participation are voluntary; you can withdraw at any time, and you can withdraw any data you have supplied (up to the point of analysis/publication).

Confidentiality and Data Use: Only the researchers involved in the project will have access to the raw data in this study. Confidentiality of information provided is subject to legal restrictions. We audio-record the interviews for research purposes. Once we have transcribed and analyzed the recordings we remove any personally identifiable information from the transcript documents to provide you anonymity. In resulting research publications, you will be referred to by a pseudonym. A copy of the results – in full or redacted form - of the study, or a summary of the research findings are available to you if you wish to be sent a copy.

Possible Effects: No physical or psychological risks to you are foreseen. You will not be audio-recorded or your personal details collected without consent. With the small sample of participants in this study, there is the possibility that you and your responses may be identified through the outputs of this study. However, all reasonable measures will be taken to mitigate this risk, including de-identification of any personal information in transcriptions of recorded audio and reference to you using a pseudonym in any written outputs produced from the research.

Providing Consent: Each member of your family over the age of 18 will be required to fill out a consent form to participate in the research or provide verbal consent at the start of a research interview.

Researchers:

Anne-Fleur Elsenaar (Student Researcher)	anne-fleur.elsenaar@ru.nl
Maartje Spaanjaars (Student Researcher	maartje.spaanjaars@ru.nl
Britney Stoffels (Student Researcher)	britney.stoffels@ru.nl
Dr. Pao Franco (Supervisor)	paolo.franco@ru.nl

Any Questions?

For more information or for a request for the final report to be sent to you in an electronic format, please contact the student researchers.

Thank you for your assistance,

Anne-Fleur Elsenaar, Maartje Spaanjaars, and Britney Stoffels

Appendix 3. Consent Form Over 18

Nijmegen School of Business

Department of Business Administration

PARTICIPANT CONSENT FORM

PROJECT TITLE: **Family Technology Consumption**

This is a student research project contributing towards the fulfillment of the requirements of the Master's degree of Business Administration - Marketing being completed by the student researcher, Britney Stoffels / Anne-Fleur Elsenaar / Maartje Spaanjaars.

Name of participant:

Name of investigator(s):

Student Researcher:

Anne-Fleur Elsenaar, Department of Business Administration at Nijmegen School of Management, Radboud University;

Email: (anne-fleur.elsenaar@ru.nl)

Maartje Spaanjaars, Department of Business Administration at Nijmegen School of Management, Radboud University;

Email: (maartje.spaanjaars@ru.nl)

Britney Stoffels, Department of Business Administration at Nijmegen School of Management, Radboud University;
Email: (britney.stoffels@ru.nl)

Supervisors:
Dr. P.J. Franco, Assistant Professor of Marketing at Nijmegen School of Management at Radboud University;
Email: (paolo.franco@ru.nl)

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1. I consent to participate in this student project, the details of which have been explained to me, and I have been provided with a written plain language statement to keep.

2. I understand that after I sign and return this consent form it will be retained by the researcher.

3. I understand that my participation will involve observations and I agree that the researcher may use the results as described in the plain language statement.

4. I understand that the data collected and analyzed in this project might also be used by the researchers in closely related research projects.

5. I understand that my participation may involve audio, photo, and/or video capture if possible and appropriate, and may involve a period of discussion with the researcher over the interview recorded.

6. I understand that persons under the age of consent (under 18) might be present during the interviews at home, and their responses may be collected, and their behaviors observed.

7. I understand that my participation includes:
    - This initial interview with the researcher(s).

- A potential invitation for further interview(s) with the researcher(s). This is at my discretion.

8. I acknowledge that:

(a) the possible effects of participating in the ***observations*** have been explained to my satisfaction;

(b) I have been informed that I am free to withdraw from the project at any time without explanation or prejudice and to withdraw any data I have provided;

(c) the project is for the purpose of academic research;

(d) I have been informed that the confidentiality of the information I provide will be safeguarded subject to any legal requirements;

(e) I have been informed that with my consent the ***observations may be recorded and transcribed. Recordings*** will be destroyed after transcription (but no less than six months after the fieldwork). The transcriptions will be retained indefinitely in safe storage;

(f) I am aware that all reasonable measures to de-identify my responses will be taken, including the removal of personal information in audio transcripts and using a pseudonym instead of my real name while the interview is being recorded.

(g) Due to the small sample size of this study and in consideration of all reasonable measures to de-identify my responses, I have been informed that there is still a risk that my responses and I may be identified through the outputs of this study.

(h) I am aware that there are legal limitations to the confidentiality of the data collected from me after all measures to de-identify my responses have been

taken. This includes that the data provided can be subject to subpoena, freedom of information requests, or mandated reporting by some professions.

(i) I have been informed that a copy of the research findings can be forwarded to me, should I desire.

I consent to the researcher observing behavior □ **yes** □ **no**
(please tick)

I consent to interviews being audio-taped □ **yes** □ **no**
(please tick)

I consent to the use of a pseudonym instead of my real name after the interview has been transcribed and the usage of this pseudonym in resulting outputs of this study.
□ **yes** □ **no**
(please tick)

I wish to be notified when outputs of this research project are published and receive a summary of research findings (If yes, please also provide your email address below)
□ **yes** □ **no**
(please tick)

Participant signature: Date:

Participant contact email:

Appendix 4. Consent Form Under 18

Nijmegen School of Business

Department of Business Administration

PARTICIPANT CONSENT FORM

(UNDER THE AGE OF 18)

PROJECT TITLE: **Family Technology Consumption**

This is a student research project contributing towards the fulfillment of the requirements of the Master's degree of Business Administration - Marketing being completed by the student researcher, Ms. Britney Stoffels / Anne-Fleur Elsenaar / Maartje Spaanjaars.

Name of participant:

Name of parent or legal guardian of participant:

Name of investigator(s):

Student Researcher:

Anne-Fleur Elsenaar, Department of Business Administration at Nijmegen School of Management, Radboud University;

Email: (anne-fleur.elsenaar@ru.nl)

Maartje Spaanjaars, Department of Business Administration at Nijmegen School of Management, Radboud University;

Email: (maartje.spaanjaars@ru.nl)

Britney Stoffels, Department of Business Administration at Nijmegen School of Management, Radboud University;
Email: (britney.stoffels@ru.nl)

Supervisors:
Dr. P.J. Franco, Assistant Professor of Marketing at Nijmegen School of Management at Radboud University;
Email: (paolo.franco@ru.nl**)**

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1. I consent to allow the above participants listed under my legal guardianship to participate in this student project, the details of which have been explained to me, and I have been provided with a written plain language statement to keep.

2. I understand that after I sign and return this consent form it will be retained by the researcher.

3. I understand that their participation will involve observations and I agree that the researcher may use the results as described in the plain language statement.

4. I understand that the data collected and analyzed in this project might also be used by the researchers in closely related research projects.

5. I understand that their participation may involve audio, photo, and/or video capture if possible and appropriate, and may involve a period of discussion with the researcher over the interview recorded.

6. I understand that my participation includes:
    - This initial interview with the researcher(s).
    - A potential invitation for further interview(s) with the researcher(s). This is at my discretion.

- A potential invitation for an interview with other family members. Passing on their details is at my discretion, and their participation is at their discretion.

8. I acknowledge that:

(a) the possible effects of participating in the ***observations*** have been explained to my satisfaction;

(b) I have been informed that I am free to withdraw the above participants from the project at any time without explanation or prejudice and to withdraw any data I have provided;

(c) the project is for the purpose of academic research;

(d) I have been informed that the confidentiality of the information they provide will be safeguarded subject to any legal requirements;

(e) I have been informed that with my consent the ***observations may be recorded and transcribed. Recordings*** will be destroyed after transcription (but no less than 6 months). The transcriptions will be retained indefinitely in safe storage;

(f) I am aware that all reasonable measures to de-identify their responses will be taken, including removal of personal information in audio transcripts and using a pseudonym instead of their real name(s) while the interview is being recorded.

(g) Due to the small sample size of this study and in consideration of all reasonable measures to de-identify their responses, I have been informed that there is still a risk that their responses and I may be identified through the outputs of this study.

(h) I am aware that there are legal limitations to the confidentiality of the data collected after all measures to de-identify their responses have been taken. This includes that the data provided can be subject to subpoena, freedom of information requests or mandated reporting by some professions.

(i) I have been informed that a copy of the research findings can be forwarded to me, should I desire.

I consent to the researcher observing behavior of the listed participants above

□ **yes** □ **no**

(please tick)

I consent to interviews being audio-taped □ **yes** □ **no**

(please tick)

I consent to the use of a pseudonym instead of their real names after the interview has been transcribed and the usage of this pseudonym in resulting outputs of this study.

□ **yes** □ **no**

(please tick)

I wish to be notified when outputs of this research project are published and receive a summary of research findings (If yes, please also provide your email address below

□ **yes** □ **no**

(please tick)

Participant signature: Date:

Participant contact email: