Do smart phones bring us closer? A family life and family vacation perspective

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University of Wollongong

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Faculty of Business
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Do Smart Phones Bring Us Closer? A family life and family vacation perspective

Heather Kennedy-Eden

This thesis is presented as part of the requirement for the Award of the Degree of Doctor of Philosophy of the University of Wollongong

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ABSTRACT

Relationships developed in families are crucial because these bonds play an integral part in how individuals learn to function and interact in society throughout their life. In the past, these family bonds were strengthened by spending leisure time together and participating in activities as a family. Currently, however, smart phone technology constitutes potential threats to family time and face-to-face interaction that are essential to bonding. Use of smart phones provides opportunities for individual entertainment, connecting on social media, checking in at work, and spending time together physically yet being emotionally separated on devices, which could disrupt quality time spent with family members. However, using smart phones also offers new ways for family members to communicate and share experiences which provides alternative means for bonding among family members.

This research sought to find out if smart phones positively or negatively affected bonding in the daily life of traditional families and to see if these behaviours affected bonding in a vacation environment. This study looked at this issue from a systems theory perspective, conceptualizing families as open, self-regulating social systems with the smart phone being a sociotechnical system within the family system to create a Sociotechnical Family System.

This research involved three objectives. The first objective was to discover perceptions of smart phone technology by family members. The second objective was to examine if and how traditional families negotiate and regulate smart phone use within the family system. The third objective was to understand whether the context of the vacation environment changed the way the family system functioned with technology.

Qualitative methods were used to attain the data for this research because thick descriptions and rich data were desired to understand the complexities of family systems. The first stage of the research involved one-on-one interviews with persons living in Australia and the United States of America. Their feelings and emotions connected to smart phone technology and usage were discussed in these interviews.
The second and third stage of this research involved family group interviews comprised of families who contained a married couple with a mother and father at the core of the family. The second stage interviews included talking about how they used the smart phone within their family in daily life, what feelings they had about smart phones, and rules or guidelines established in reference to their technology use. The third stage topic was the same except the context of the family environment was changed from daily life to family vacation.

Individual interviews were audio recorded and family interviews were audio and video recorded so that nuances in gestures, speech, and family dynamics could also be noted. All interviews were transcribed verbatim and thematically coded by the researcher using Transana software. A research notebook was used to record any immediate feelings and thoughts at the conclusion of an interview. A philosophical hermeneutic approach was used so there was a constant resifting of the data as new themes emerged. This allowed the researcher to understand the actions of the individuals and families and the meaning behind their actions.

The research demonstrates that smart phones can positively and negatively affect bonding. Some families used their smart phones to send texts of endearment to show love and support throughout the day. Others would video chat and play games together on their smart phones. While these were positive influences on bonding, ultimately smart phones are a distraction and, therefore, do interfere with family bonding. With a conscious and concerted effort, however, these negative consequences from smart phone use can be mitigated. Some families were better at balancing smart phone usage so that it did not interfere with family. Those families shared the following traits: both parents were engaged in their children’s lives as a team, families were busy but not chaotic, the families shared positive memorable experiences together, they established some technology-free time together as a family, there was transparency and trust in their technology usage, and there were clearly established rules that were enforced but flexible.

The context of the family environment also played a factor in family bonding. Although smart phone technology was used often on family vacation, there was still a focus on spending quality time with family members and on creating memories.
Work and other responsibilities were frequently a part of vacation, but the main emphasis was still on family time. Often smart phones were checked during downtimes when family members felt bonding was not a primary focus.

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And finally to my blue-eyed boys, thank you for your endless support. You mean the world to me.
DEDICATION

This body of work is dedicated to my husband, Aaron, and son, Landry, who fearlessly took on this adventure to move around the world to Australia so that I could pursue my PhD. I could not have done it without them and would not have wanted to. Their love and support over the last few years has strengthened me and buoyed me up when I was struggling. I could not have asked for a better support team! I am so glad we are eternally bound together for the many adventures yet to come.

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DEFINITIONS AND NOMENCLATURE

Definitions

Family-A group of kin, or people in a kin-like relationship, in a person-supporting network, who live together and function as a cooperative unit (Dumon, 1997; Popenoe, 1988).

Family bonding- The amount of attachment, connection, or emotional closeness that family members feel towards each other (Bahr, Maughan, Marcos, & Li, 1998).

Balanced Family- A family that is balanced in adaptability and cohesion.

Family vacation- Leisure travel away from their home for more than one day with at least two members of the family involved.

Feedback in a System- Refers to the way a system checks its own behaviour and provides information into decision-making processes (Cheal, 1991).

Smart phone- A convergence between a phone and a hand held computer: it offers convenience, can be used for communication or to create content, and has access to the Internet, location based services, games and other computer applications (apps) (Beale, 2005).

System dynamics- Involves understanding the interaction between the objects in the system over time through change and feedback loops (MIT, 1997).

Traditional Family- A Family composed of a married father and mother with a child or children from that marriage who reside with them (Farrell, VandeVusse, & Ocobock, 2012).

Nomenclature

apps (Mobile Applications)

STFS (Sociotechnical Family Systems)
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INTRODUCTION

Families are important because they are at the emotional heart of every society (Schänzel, Yeoman, & Backer, 2012). Families are where children are raised and where future citizens are nurtured to become the next generation of parents, workers, and society members (Hernandez, Denton, Macartney, 2007). The most intimate relationships that people have are shaped by the concept of family (Luckner & Velaski, 2004). For many, the sustaining influence of their family stays with them throughout their lives and binds one generation to the next generation in an endless chain of past, present, and future. While the word family can conjure up a variety of feelings and definitions, depending on the individual’s perspective, the definition used for this study is a group of kin, or people in a kin-like relationship, in a person-supporting network, who live together and function as a cooperative unit (Dumon, 1997; Popenoe, 1988).

Families have different struggles today than they did in the past because technology changes the way they communicate and interact with each other. The rise of these technologies has created the need for research on how these technologies are affecting everyday life (Mesch, 2009). This domestication of technologies refers to the process in which new, and sometimes unfamiliar, technologies and services are brought into the home and offer exciting as well as sometimes threatening possibilities to families (Silverstone & Haddon, 1996). This study focused specifically on traditional families with smart phone technology which is now entrenched in many homes, cars, and in every aspect of the family life.

With technology now infiltrating so many aspects of family life, there is a need to have an understanding of how this affects families. Smart phone technologies may provide families with more ways to communicate, but not necessarily better ways to communicate. Smart phones have added a multitude of communication possibilities to families, but there is not a firm understanding of how this impacts bonding and relationship building among family members. This research sought to fill that void of understanding with empirical research on how smart phones affect family bonding and to discover how families mitigate potential negative effects.
1.1 **Family Systems Research Approach**
This research looked at the traditional family unit from a Systems Theory perspective in order to understand what influence the smart phone has on the family system, specifically in reference to family bonding. Family bonding is defined as the amount of attachment, connection, or emotional closeness that family members feel towards each other (Bahr, Maughan, Marcos, & Li, 1998). Each family system was studied in two different environments, the everyday life of the family and the family vacation to see if there was any change in the behaviour of the family system between the two environments. Since vacations are viewed specifically as a time set aside for family bonding and relationship building, this environment was chosen as a comparison to the everyday life of the family.

1.2 **Families and Sociotechnical Systems**
Family systems are self-regulating, open systems and the added technological component (smart phone) converts inputs and outputs from the family members and plays a major role in self-regulating within the system (Trist, 1981). In this case, the smart phone is a technological system inside the family system and interactions with each other and the smart phone are discussed and observed. Ackoff & Emery (1972) believe that purposeful systems have environments that affect the system, therefore each system can be considered to be a system within a greater supra-system (see Figure 1.1 below). Being a purposeful system indicates that families tend to seek successful solutions to problems and then adapt those solutions to become normative behaviour (Cheal, 1991). These normative behaviours require the family to adjust their behaviours to conform to technology and also to change the technology to fit into their lives.
1.3 Family Relationships
Families are universal in that the family unit has endured centuries with most of the people in the world discovering their personal identity and meaning within the boundaries of this group (Schänzel et al., 2012). Interaction and supportive relationships between family members are essential to the concept of a functioning family unit (Schänzel et al., 2012) and create the foundational structure of how individuals interact in society throughout their lives (Siegel, 2012). As most people are connected to a family in some way, research into families provides a social lens into the everyday life of the contemporary individual (Lashley, Lynch, & Morrison, 2007) because these relationships are enduring and generally carry on throughout the lives of the individuals in the family.

1.4 Family Structure
Today, families are a complex social reality (Popenoe, 1988). Structures within families are varied and could include married parents, single parents, unmarried parents, same gendered parents, blended families, grandparents, and those related or not related to the children in the household (Chesworth, 2003). Within the different family structures, this research focused on traditional families. The traditional family is one composed of a married father and mother with a child or children from that marriage who reside with them (Farrell, VandeVusse, & Ocobock, 2012).
While the traditional family structure is one that has lasted through generations, profound changes have occurred to cause different behaviours within these families. The traditional family of the 1950’s included a father as the leader and breadwinner, and the mother’s primary role was housekeeping and child rearing (Popenoe, 1988). This view contrasts with modern families, which commonly have dual income households where negotiation is more prevalent than a command leadership (Belch & Willis, 2002; Jojic et al., 2012). While traditional families may share similarities in structure, there are nuances in how they function and live their daily lives. The social landscape has transformed families because of such things as new work patterns, living arrangements, delayed marrying age and social expectations (Farrell et al., 2012). Differences in occupations, work schedules, lifestyles, beliefs, culture and ideas create diversity amongst traditional families and the way they live and interact.

Through all these changes within families, interactions, relationships and time spent together are still important in creating emotional ties that bind people together. For instance, meal time is still an important aspect of family time together since it generally happens on a daily basis (Mestag & Vanderweyer, 2005) and is said to enhance the social, emotional and cognitive development of children (Gibbs, 2006). Families these days are time poor, and time spent together needs to encompass a variety of activities to further build relationships and establish important bonds, including activities near home and further away, such as vacations.

1.5 Families and Mobile Technology
As individuals and collectively, families are busy and mobile technology provides ways for families to manage their lives. Mobile technology provides access to many of the same tools available on a home computer, but in a handheld form. Currently, over half of all Americans (Brenner, 2013) and two thirds of Australians (Godfrey, 2013) own a smart phone, and those statistics are expected to continue to rise. A smart phone is a convergence between a phone and a handheld computer: it offers convenience, can be used for communication or to create content, and has access to the Internet, location based services, games and other computer applications (apps) (Beale, 2005). Mobile phones are becoming a mainstay as they are used for communication, security, information access and to stave off boredom. Within
families, mobile phones are providing ways to coordinate last minute schedule changes and communicate when away from home. Further, smart phone technology enables people on vacation to have access to the same kind of information and communication tools they have at home, just in a handheld mobile device.

These handheld devices are shaping the ways that people behave. Smart phones have become so prevalent in people’s lives that they take them everywhere. In a survey by Google in Australia, 74% of smart phone owners said they do not leave their home without their smart phone (Kidman, 2012). Smart phones are also going to places that were once deemed as taboo, such as the bathroom. In one survey, 75% of Americans surveyed claimed that they took their smart phone into the bathroom with them (11mark, 2012). This growing need for people to have their smart phones with them at all times, changes the social landscape and how we communicate with each other digitally and in person.

While mobile technologies are providing some conveniences for families, they also provide distractions in everyday life and on vacation (White & White, 2007). They offer constant access to other people and the convenience of accessing large amounts of information, especially when away from home (Lee & Mills, 2010). Texting and other apps offer avenues for families to remain in a state of almost continual contact, no matter the geographic location. While convenient, this eliminates some of the need for face-to-face interactions and shared experiences that help build relationships. At the same time, this ability to constantly communicate provides opportunities for families and friends to chat on the go and have spontaneous scheduling by coordinating electronically, which provide new ways of bonding and relationship building. Access to friends and work can also be distractions during family time. Some individuals may be more concerned with reading work emails, chatting with their friends, or checking in on social media than participating in family activities, which can cause negative feelings amongst the group. Additionally, smart phones can also provide a means to stave off boredom through games and other apps but they may consequently isolate the individual from conversations and activities. Therefore, while smart phones are providing some conveniences, they also can be disruptive and it is unclear whether this is helping or hurting family bonding.
1.6 Family Vacations

Despite the changing dynamics of the family, family travel and vacations are seen as an important component of family well-being (Chesworth, 2003; Lehto, Choi, Lin, & MacDermid, 2009; Lehto, Lin, Chen, & Choi, 2012). For this research, a family vacation was defined as leisure travel away from their home for more than one day with at least two members of the family involved. The family vacation is a long standing tradition; it is an opportunity to spend time together, to bond as a family, travel to new destinations, and create memories (Hilbrecht, Shaw, Delamere, & Havitz, 2008). Families in contemporary Western societies are spending more time apart on a day-to-day basis because of dual careers and shift work (Valentine, 2006), so time spent together on vacation is important.

Despite the importance of family vacations, the understanding of what constitutes a family vacation has changed over the years. Family vacations are not limited to only the nuclear family; extended family members and grandparents are also adding new dynamics to family vacations as multi-generational families travel together. Changes in work schedules and family dynamics have led to some families taking vacations apart or with parents going on separate vacations from their children. Furthermore, differences in age and interests cause some families to create a vacation within a vacation, where all family members go on vacation together, but participate in separate activities throughout the vacation (Birchler, 2012; Lehto, et al., 2012). Mobile technology provides a way for these families to stay connected, even while participating in different vacation activities. Unfortunately, while mobile technology can help facilitate bonding on vacation, the same mobile technology-induced distractions that are possible in everyday life can also occur when on vacation.

1.6.1 Problem Statement

Changes in technology and increased smart phone usage within families has altered the way families communicate, which could affect the way they bond with each other and how they develop relationships. This issue is brought to the forefront as more and more people use smart phones to engage in a continuously connected state. Smart phones are not limited to the adults of the family; many children have smart phones, which can further complicate the inter-family dynamics as multiple individuals
contend with the distractions that smart phones provide. Work, social lives and entertainment are all available in these handheld devices and could disturb the normal flow of conversations and events among family members during special bonding opportunities that occur in daily life and on vacation. The goal of this research was to study how smart phones affect relationship building and bonding within traditional family structures in their everyday lives and on vacation, because it is not clear whether the benefits of the technology outweigh the possible distractions. It is also unclear how much agency the families actually have in mitigating the negative effects and fostering the positive ones.

1.7 Contribution to Understanding Families
This research contributes to Family Systems Theory in terms of how the system reacts to having the smart phone system as part of the family system. The research looked at the rules that families have in place for smart phone usage and observed how the system reacts and what negative effects were mitigated by the mechanisms that the family has in place to deal with the technical system. The smart phone system, as part of the sociotechnical system, acts as a self-regulator in converting inputs to outputs as a boundary enforcer between the system and the external environment. This research combined aspects of both systems in order to understand if it is possible for Sociotechnical Family Systems to function and thrive.

This study also contributes to the overall understanding of how families are using their smart phones for communication and bonding within family relationships. While smart phones have changed the ways in which families communicate, it has been uncertain whether smart phones contribute or detract from the bonding that strengthens relationships and typically occurs through face-to-face communication. In studying families who were successful at mitigating any negative effects, insight is generated to help understand how to manage smart phone technology. Furthermore, this research provides information for the tourism industry in accommodating the varying ways in which families are creating rules concerning their technology use on vacation.
1.8 Contribution to Understanding Family Vacations

This area of family tourism is an under-researched area (Schanzel, Smith, & Weaver, 2005; Lehto, Choi, Lin, & MacDermid, 2009) and this research provides further insight into how families are vacationing and using technology as part of their vacation experience. Smart phones now allow for easy access to information on-the-go, and this provides opportunities for families to have less strict itineraries and more spontaneity in their travel plans.

1.9 Research Objectives

With smart phones gaining popularity, there is not a clear understanding of how these devices are affecting family bonding. Smart phones enable individuals to carry in their hand access to email, social media, video, apps, and entertainment which could distract from relationship building and bonding activities. The ease and accessibility of smart phones have led many parents to also use their smart phone as a form of communication with their children and entertainment for their children. It is unknown what affect these devices will have on family relationships and this research sought to gain an understanding of how families are dealing with smart phones within their families. Systems Theory describes the concept of a system within a system (Ackoff & Emery, 1972), meaning the family is a system and the environment itself may be thought of as another system when it becomes the focus of attention. This is further demonstrated in the addition of the smart phone as a technical system within the family, so multiple layers of systems were analysed to see how they affected each other specifically with respect to family bonding. The two environments analysed were the everyday life of the family and the family vacation so that a further understanding can be gained of how families with smart phone technology function in the different environments, especially during times when family bonding is a strong focus, such as during vacations.

The specific objectives of this research were as follows:

Research Objective 1: To discover perceptions of smart phone technology by family members.

Research Objective 2: To examine if and how families negotiate and regulate smart phone use within the family system.
Research Objective 3: To understand whether the context of the vacation environment changes the way the family system functions with technology.

1.10 Justification of Research
This research was needed because of the ever greater proliferation of smart technology use by individuals and families. Additionally, there is a lack of research on technology use in the family context specifically related to the impacts on bonding. Given that successful family bonding has important societal consequences, it is essential that there is an understanding of how new technology, like smart phones, influence it. Families are devising ways to mitigate the negative effects of smart phone use, and it is important to comprehend what techniques are working and which ones are not so that other families can benefit from this knowledge. Since family vacations are seen as an important time for family bonding, it is vital that smart phone technology not interfere with these relationship-building experiences and this research provides tools for families to mitigate the negative effects of smart phone use in their daily life and on vacation. There are also contributions to methodological aspects of interviewing families as groups.

1.11 Methodology
This thesis was based on a qualitative study and looks at families through the theoretical lens of Family Systems Theory, which suggests that members of the family are all interdependent and interactions between them create an open and continuous system that is always being influenced by the environment (Hill, 1971). Qualitative methods were used so that rich data could be collected and thick descriptions could be gleaned from the analysis. A philosophical hermeneutic approach was used because human action is meaningful and must be understood in the context of the action (Schwandt, 2000). This study involved two stages of interviews.
1.11.1 Stage 1, Individual Interviews

The first stage included individual one-on-one, semi-structured interviews with the topic focusing on individual feelings about mobile technology and smart phones, what their life experiences were with smart phones personally and their feelings regarding those smart phone users that they came in contact with during their daily life. The participants were given the chance to openly respond to the questions so that their emotions and feelings concerning smart phones could be shared and understood.

1.11.2 Stage 2, Family Group Interviews Regarding Daily Life

The second stage involved unstructured family group interviews where the conversation centred on how mobile technologies were used in the family, how they used the smart phone to communicate and what rules they had established as a family in reference to their technology use. This approach permitted a rich understanding of the feelings and emotions that family members had concerning smart phone usage within their family. These discussions included family groups including parents with their children from the age of four to eighteen.

1.11.3 Stage 3, Family Group Interviews Regarding Vacation

The third stage of the research was a continuation of the conversation with the family groups. Once the topic of smart phone usage in their daily life was exhausted, then the focus changed to how they use their smart phones on vacation in an effort to understand if there was a change in behaviour in relation to the special time spent together on vacation.

1.11.4 Data Analysis

Individual interviews were audio recorded and family group interviews were audio and video recorded. All interviews were transcribed verbatim so they could be examined for recurring themes and situations. Transana software was used for the coding of the transcriptions and videos. Any specific gestures, facial expressions, or other insight that was observed during the interviews and videos were also noted for thematic codification.
Both stages of interviews were analysed using a philosophical hermeneutic approach where the data was continuously reviewed as new themes came to light during analysis. This approach allowed for a depth of understanding, especially in the family setting, where multiple layers of the experience were discussed. This constant re-examining of the data helped to provide insight into family relationships and the rules families are putting in place to mediate any negative effects and foster positive impacts of smart phone usage. It also deepened the understanding of the challenges families face in a constantly changing, technologically advancing world and showed how families have the ability to adapting to these changes. Influences, histories, context, and the emotions involved with the event helped to understand the story and the family dynamics.

1.12 Structure of the Thesis
The rationale and background of the study are introduced in Chapter 1 including its purpose and the research questions that guided the study. The general structure of the thesis is also included in Chapter 1. The literature review is encompassed in Chapter 2 which presents a background of past research that pertains to this study. The conceptual and theoretical background and basis for the research are covered in Chapter 3. Chapter 4 includes the research methodology, a discussion of bias, ethics and credibility as a researcher, and the processes followed during data collection and the analysis of the data. Chapter 5 presents the results of the research with thick descriptions and quotes from the participants. Chapter 6 discusses the results. Chapter 7 includes the conclusion, contributions from a theoretical, practical and methodological perspective, the limitations and future research possibilities.
2. LITERATURE REVIEW & BACKGROUND

This Chapter includes the background literature concerning families, technology use in families, and family vacations. The beginning of the chapter focuses on families and family bonding. The middle of the chapter covers technology and smart phone use in families, and the end of the chapter focuses on family tourism and smart phone technology. The theoretical and conceptual background and framework for this research are covered separately from the literature review in Chapter 3.

2.1 Importance of Families

Although everyone is related to someone, not everyone is considered family. The word family evokes different feelings from each individual, dependant on their background and experience. It is a core component of society made up of distinctly different individuals that are all interrelated. Today’s families are primarily based on companionship, emotional bonds and supporting each other’s needs (Bengtson, 2001). Families are viewed as an institution founded on love, commitment, and caring (Bogenschneider, 2002). This supportive nature, along with longer life expectancies, have also created stronger bonds across generations, creating multi-generational families with grandparents and other intergenerational kin having tighter relationships with children in the family. Nowadays, family evokes a sense of emotional connectedness (Levin, 1999), a “we-ness” found within family groups (Weigei, 2008).

2.2 Families in the Past

While families today are based on more of an emotional connection, this has not always been the case. Throughout history, the idea of family has changed. Since the Industrial Revolution, the function of families has evolved from a more social-institutional to emotional-supportive (Bengtson, 2001; Burgess, 1926; Ogburn, 1932; Parsons, 1944). Some see family as a social structure with reproduction as the primary function (Winch, 1963), while others see it as an institution based more on legality and traditions (Bengtson, 2001).

2.3 Changing Families

These extended family links and changes in society have also changed the structures of families. Divorce and remarriage are creating blended families with step children and step parents, which offer a change in the structure from a traditional family
(Wachter, 1997) of a mother, father, and children all from a single marriage. The increase in divorce rates also means an increase in single parenting. Single parents face increased pressures of work-life balance without another adult to share in parenting responsibilities (Yarber & Sharp, 2010), and they may rely on extended family members for additional support as well.

In many families, grandparents are the family members stepping up to provide support for families and creating multi-generational families. While some multi-generational families have grandparents living with them, one of the fastest growing family structures involves grandparents who have taken on the role of parenting and become surrogate parents (Fitzgerald, 2001). These Baby Boomers are reaching retirement age and have the freedom to provide the support for their families as well as the opportunity to spend time with their grandchildren.

Another change in the structure of families is the rise of same sex marriages. Gay and lesbian families are adding to the diversity of family structure as their numbers grow and partnerships become legalized (Stacey, 1996). These partnerships often include children and form a similar structure to traditional families in that there are two adults and children that make up their family unit (Nelson, 1997).

2.4 Family Time
In addition to adapting to changing structures within families, families are facing further challenges. Finding hours to spend time together for family time is becoming harder for families. While there are always the normal strains of the family life-cycle, economic hardships and job loss are increasing stress contributors (Walsh, 1996). Many feel they have to sacrifice time together as a family in order to advance their career, which puts a strain on family life (Accenture, 2012). Dual income families try to handle the pressure of work-life balance and simultaneously attempt to provide emotional and financial support to family members, while being a productive and competent employee (Duxbury, Lyons, & Higgins, 2007). With parents of children having to spend more and more time working, families are dealing with a time deficit because some aspects of family life, like homework and scheduling, are taking more and more time away from bonding time (Hochschild 2001). However, some believe
this does not necessarily mean that parents are investing less time in children because data showed that in the United States, parents were spending more time in 1997 than in 1981 (Gauthier, Smeeding, and Furstenberg 2004, Sandberg and Hofferth 2001). Yet not all time spent together is quality family time, which is “integral to building and maintaining of well-functioning happy families” (Hallman & Benbow, 2007, p. 871). Family time is “the timing of events, such as marriage, birth of a child, leaving home, and the transition of individuals into different roles as the family moves through its life course” (Hareven, 1977, p. 59). Time spent together is sometimes filled with children’s homework and extra-curricular activities, which may not be quality bonding time even though the family might be co-present (Hochschild, 2001). In addition, these activities have to be managed by parents, which can be exhausting and frustrating, and can cause parents to be in better moods at work than at home (Larson and Richards, 1994). Daly (2001) found that families hope for a positive experience to come out of their time together, but they are “typically left with a feeling that there is never enough, that it is in the service of children, and that they are duty bound by it” (p. 293). However, positive experiences among family members are key motivators for why families seek leisure opportunities for spending time together (Hallman & Benbow, 2007) and is largely understood to be key in tightening family bonds (Hallman & Benbow, 2007; Daly, 1996).

Many factors affect the amount of family time spent together. Delayed marriage and child-bearing, the increasing female labour force, and increased time for children spent in childcare are all challenges that modern families face (Bianchi, 2011). Even amongst the challenges parents are facing, recent research by Bianchi (2011) shows that for mothers, time spent in direct or primary childbearing activities have increased since the 1960s, and mothers will disregard household chores in place of time spent together. Blair-Loy (2003) believes that this is because their devotion to their family is still paramount. Since mothers are working more, fathers in dual-income families are now spending more time with their children; however, time spent between parents and children is sometimes not quality time, it is more just getting things done such as errands (Bianchi, 2011).
2.5 Challenges for Families

Everyday family life is full of challenges. The everyday life of a family represents the regular rhythms and routines (Bennett & Watson, 2002) that families establish on a day-to-day basis. It is created by the complex intersection of the different spheres of life and the many forces that exist and affect schedules and intentions (Daly, 2003, Salmi & Kivimäki, 1997). “Everyday family life is a process that family members constantly create and construct in time and space, together and separately, by material, mental, and social means” (Rönkä & Korvela, 2009, p.88). While each family member experiences daily life from his/her own perspective, collectively they are all influenced by family rules and established routines of the group (Daly, 2003). While these day-to-day routines may seem mundane to reflect upon, they provide opportunities for family members individually to learn social skills such as emotion regulation and control (Perrez, Watzek, Michel, Shoebi, Wilhelm, & Hängii, 2005). These continuous interactions with family members help create the foundations of learning how to deal with others in social situations.

Emotion and emotional well-being are important aspects of family life. Love, hate, jealousy and sympathy are often felt and expressed within the family group (Rönkä & Korvela, 2009). Because family relationships are generally seen as more permanent, the family atmosphere is considered a safe place for individuals to express feelings that are both positive and negative (Perezz et al., 2005). Sharing of feelings and emotional satisfaction are important criteria for factors of quality life in the modern family (Koh, 2005) and they tighten bonds between individuals in the family.

2.6 Family Bonding

Family bonding is defined as the amount of attachment, connection, or emotional closeness that family members feel towards each other (Bahr et al., 1998). Bonding is crucial in family relationships, especially between parents and children, and is said to start with conception and continue throughout adulthood (Young, 2013). These familial bonds start early and are strengthened through continuous and repeated shared experiences throughout life.
Family bonds and family cohesion are important facets of how a family functions. Olson’s (1986, 1989) Circumplex Model of Marital and Family Systems suggests that emotional bonding/cohesion within the family and adaptability to change are foremost indicators of positive family functioning. When families are functioning best, they are adaptable and seek to find balance even during times of stress and tension. A balanced family is one that is balanced in adaptability and cohesion. They fall in the midrange of both of these traits, meaning, for example with adaptability, that they are not too flexible and not too rigid; they are balanced in the middle (Olson, 1986). “Some evidence suggests that families that are close, warm, emotionally connected, and flexible have children with better psychological adjustment than families that are distant, hostile, rigid, or characterized by unhealthy alliances” (Richmon & Stocker, 2006, p. 663). Olson (1986) states that families that are balanced are better functioning than those that are in the extreme high and low areas of cohesion and adaptability, and Greeff (2000) found that there were certain variables that substantially contributed to the level of family functioning. These variables are: family satisfaction, spouse satisfaction, flexibility in spending free time within the marital relationship, satisfaction with general quality of life, family strengths, good relationships with family and friends, communication within the marriage, and conflict management and resolution. Thus, when the level of cohesion/bonding and adaptability within a family are balanced, it provides a stable emotional training ground for individuals to learn how to function in society.

Having a safe place to express feelings and receive empathy contribute to positive bonding experiences in relationships and strengthen the emotional well-being of the members of the family. Daily life happenings and repeated routines involve a myriad of emotions for family members (Almeida, 2005). These emotional crossovers and experiences shared between family members from their individual life spheres are transmitted back and forth (Almeida, 2005, Westman, 2005) and provide bonding experiences as they go through these times together.

2.6.1 Family Capital

Bonding experiences help build family capital. Family capital involves belonging to a social group legitimated as family and competence in acting in ways consistent with
that family (Goodsell & Seiter, 2011). Family Capital is social capital for its members (Bubolz, 2001). Social capital involves trust among people, solidarity and civic engagement and it created in original relationships like the family (Rossi, 2007). Family capital is important because it is passed down from generation to generation and aids family members in being successful in the outside world (Belcher, Peckuonis, and Deforge 2011). These bonds are imperative for individuals to grow emotionally, as well as psychologically and physically (Feldman, Gordon, & Zagoory-Sharon, 2011) because of reactions it can trigger in the brain. The parent-child bond is so critical that it becomes the basis for future bonding experiences with others during an individual’s life (Young, 2013).

2.6.2 Family Rituals

One way to increase family bonding is by establishing positive family rituals (Cheal, 1988; Imber-Black, 2002). The daily life routines and rituals that families establish are important in sustaining a sense of who they are and creating stability within the family (Patterson, 2002). With all the busyness of family life and changing schedules, many families still gather for dinner, plan vacations together and acknowledge major life milestones such as birthdays and weddings (Fiese, 2006). These repetitive and celebratory events are mile markers in an individual’s life and help strengthen the bonds of those present during these rituals. Family rituals are associated with family time and become a cornerstone of family life (Bossard & Boll, 1950, Daly, 2011). These family rituals are times of bonding and aid in healthy emotional growth of individuals, couples, and families (Fiese, 2006, Imber-Black, 2002). Establishing family rituals like dinner time and family vacations are ways to try to strengthen bonds between family members.

2.6.3 Family Leisure-Core and Balance Activities

According to Agate, Zabriskie, Agate, and TaylorPoff (2009), the Core and Balance Model of Family Leisure Functioning suggests that families need two types of family leisure, referred to as core and balance, in order to facilitate family cohesion and adaptability. Balance activities include activities that are out of the ordinary, typically done outside of their local home communities, and provide a sense of novelty, such as vacations (Zabriskie & McCormick, 2003). Core activities include common, low cost activities that are easily accessible and usually done on a more regular basis, like
playing board games or making dinner together. Balance family activities, such as vacations, offer opportunities for families to work together and foster adaptive skills to navigate challenges (Agate et al., 2009). While both types of activities have their advantages, it is the combination of core and balance activities that add variety to family time and aid in having new shared experiences together.

Research on family bonding (Agate et al., 2009; Freeman & Zabriskie, 2003; Zabriskie & McCormick, 2003) indicates that families that regularly participate in both core and balance activities, report higher levels of family cohesion and adaptability, which are core aspects of family functioning. These findings are not limited to a particular kind or type of family. The research findings have been consistent across many different types of family groups, including two-parent families (Zabriskie, 2000; Zabriskie & McCormick, 2001), trans-racial adoptive families (Zabriskie & Freeman, 2004), single-parent families (Hornberger, Zabriskie, & Freeman, 2010; Smith, Taylor, Hill, & Zabriskie, 2004; Zabriskie & Freeman, 2004), Mexican-American families (Christenson, Zabriskie, Eggett, & Freeman, 2006), divorced families (Swinton, Freeman, Zabriskie, & Fields, 2008), and families with a child with a disability (Dodd, 2007). These findings imply that family vacations are an important part of family life, no matter what type of family, and contribute to family bonding and building of relationships. The research that has been done on family bonding mainly deals with families in leisure and recreational activities, and does not specifically address the vacation perspective. Further research is needed so that a better understanding of family bonding on vacation can be attained.

2.6.4 Challenges to Family Bonding

Part of the strain on emotions of family members can be the struggles that families are experiencing in the modern era. The scheduling and arranging of timetables can be a stress on members and add tension into the daily existence of families (Nasman, 2005). Work schedules and school schedules, along with extra-curricular and church activities can burden families while trying to organize rides and adult supervision and other needs of the family. Parents feeling the need to spend more time at work also pose a challenge to their personal and family welfare (Jacobs & Gerson, 2001). In addition to these needs, family members need regular eating schedules, sleep routines,
and recreational activities (Ellegard & Cooper, 2004) which further compound the extensive calendaring needs for family units. These pressures on families can challenge the level of amicability within inter-family relationships as sometimes activities are forgotten or missed because of scheduling difficulties which can cause frustration.

There are challenges in studying family units. Families are made up of individuals who have some shared experiences but also have different perspectives and life experiences which give them different points of views and opinions (Rönkä & Korvela, 2009). Burgess (1926) defines the family as a unit of interacting personalities and these interacting personalities do not always get along or want to be together. Family life is also not static; it involves constantly changing schedules, maturation, and changes in life cycles that alter the way people act, feel, and exhibit emotions. These struggles are part of what makes up the daily ebb and flow of family life and time spent together. Going through these processes together are what can make or break relationships within families.

2.7 Technology and Families
The rise of technologies being used in the home has motivated researchers to study the effects of this technology. Scholars have studied how information and communication technologies are affecting interpersonal relations, sociability, and social capital (ex. Yang, Lee, & Kurnia, 2009; Katz & Rice, 2002; Nie, Hillygus, & Erbing, 2002; Robinson, Kestnbaum, Neustadt, & Alvarez, 2002), and work-life boundaries and spillover (ex. MacKay & Vogt, 2012; Golden, 2014; Hislop & Axtell, 2011, Haythornthwaite & Kazmer, 2002) and how the Internet is impacting families (ex. Lanigan, Bold, and Chenoweth, 2009; Mesch, 2006; Lenhart, Madden, & Hitlin, 2005; Livingstone & Bober, 2004; Watt & White, 1999). Technology is also impacting families because children who go online may not have the skills to deal with inappropriate content (Livingstone & Bober 2004), and Mesch (2006) found that adolescent use of the Internet for social purposes was positively associated with family conflicts, which affect family bonding. Negative effects of emerging technologies on families described in the literature include Yan, Li, and Sui (2013), who found that youth with Internet addiction had lower family functioning, and Park,
Kim, and Lee (2014) found that pathological Internet use among youth can lead to social withdrawal and family problems that affect relationships within the family group. Lenhart, Madden, and Hitlin (2005) found that parents were concerned that their children’s Internet usage would lead to isolation and would replace more worthwhile activities, which could lead to weakened relationships. Conversely, some families are using technology as a relationship builder by having a telematic dinner party and sharing their dinner time together when they are geographically distant (Barden et al., 2012, Barden, 2014). Consequently, technology, on one hand, provides the modern family with important communication and coordination opportunities, but on the other hand, it can also threaten the family’s ability to spend quality time together.

Although there is research on the impact of the Internet on family, there is limited research on how the rise in smart phone technology is affecting families in their home environment. Silverston and Haddon (1996) have coined the term ‘domestication’ to mean the process where new technologies and services, that are sometimes unfamiliar, are brought into the home by domestic users. This process has exciting but also threatening possibilities as this is a two way process with consumers allowing technologies to influence changes in their homes, and the family changing their dynamic and patterns of interaction because of the technology (Mesch, 2006).

2.7.1 Technology in the Home

The introduction of technology in the home has far reaching implications for family relationships. Some view the Internet as a distraction that reduces the time that family members spend together and can cause social isolation (Nie et al., 2002). However, Lanigan et al., (2009) examined how family members perceived the effects of technology on relationships and found that computers improved efficiency in fulfilling existing family obligations and provided more discretionary time. However, they advise that family cohesion and adaptability need to still be considered because discretionary time did not necessarily mean they spent that time together. Lee and Chae (2007) found that the way technology is used can positively or negatively affect families. In their research (2007), gaming had a negative impact on communication and family time, but educational Internet increased time spent together and
connections with other family members. In addition to these concerns, there is the issue of time spent on computers. Many families are negotiating the time that family members spend on shared computers and this can affect relationships when one family member does not get the computer time allotment that they desire (Robinson & Schultz, 2013).

2.7.2 Setting Parameters Around Technology Use

While technology in the home certainly brings with it challenges to relationship building, some feel that technology erodes a family’s foundation. Many feel that children being raised in this technology age are lacking in social skills and have short attention spans (Askar, 2013), which can lead to shallow relationships and character. Steiner-Adair and Barker (2013) encourage parents to think about how to sustain healthy family relationships and adapt traditional child rearing techniques to the Digital Age. Boundaries should still be maintained with children, and family values taught, so that when children come upon something unsavoury using technology, they know to disconnect (Steiner-Adair & Barker, 2013). Silva (2009) says that technology does not have to erode the quality of family life because mobile phones have the potential to raise the connections between people and offset this disintegration.

2.8 Mobile Technology and Families

The introduction of mobile technologies has caused individuals to change the way they function in their daily life, which then affects the way they deal with others. Mobile devices are now an integral part of first world families, and Green’s (2002) research documents that more than half of the respondents affirmed that their day could not proceed normally if they were without their mobile phone. Individuals have changed the way they schedule, communicate, and entertain themselves on a regular basis and consequently, these changes have an effect on the people they are surrounded by most often, members of their family. For many, their mobile phone is not just a phone to them anymore; it is a reflection of who they are with instant messages and social media offering a welcome distraction from the monotony of daily life (Michael, 2013).
2.8.1 Family Scheduling

Timetabling and communication are key areas that are changing with the addition of mobile technology. Mobile technologies offer flexibility and reassurance with the opportunity for loose schedules that are easily adjusted on the go by texting or phoning (Brown, Harper, & Green, 2002; Cooper, 2002; Green, 2002; Haddon, 2004; Ling, 2004; Ling & Haddon, 2003). Padilla-Walker, Coyne, and Fraser (2012) found that texting and calling between parents and adolescent children were the most common activities and generally happened on a daily basis. With the ability to stay connected so easily, these devices offer reassurance to parents with the ability to check on their children or make last minute changes. While this is an added bonus for the daily coordination of families, it also affords easy scheduling and communication while away from home, whether going out of town for a business trip or travelling on vacation.

2.8.2 Sense of Security

While daily coordination is facilitated with mobile phones, they also offer a sense of security for families. Safety is considered to be an important component that comes with mobile phone use among family members (Campbell, 2005). It offers extended freedom to children in relation to curfews and where they are permitted to go because of the ease of communication in case of trouble. Parents also enjoy the close communication offered by mobile phones, as it affords opportunities for them to leave home and still be quickly contacted in case of emergency. However, some feel that parents have a false sense of security when they give their child a mobile phone, because parents may then be less diligent in keeping track of their children, and it also gives anyone else access to their child through the phone (Pesoli, 2013).

2.9 Smart Phones in Families

Smart mobile phones, or smart phones, are growing in popularity because they combine many resources into one small device. Social media, Internet, email, texting, and mobile applications are all available through smart phones, iPads and mobile tablet type devices, but smart phones have quickly integrated into the fabric of everyday life (Green, 2002). Smart phones offer additional tools such as directions, looking up information, and making reservations in addition to easy access to social networks, games, and other applications. They are not just being used by tech-savvy
individuals; they are commonly being used by parents to manage their family through coordinating calendars, managing shopping lists, and remembering birthdays (Mawby, 2012). Smart phones offer convenience, are highly personal and are capable of offering various forms of communication in addition to creating content such as video and audio (Beale, 2005).

2.9.1 Blurred Boundaries Between Work and Home

The capabilities of these smart phones are immense and offer the option of blurring boundaries between work and home, social and family life, reality and non-reality. This capability can cause continuous mediated interactions, also known as constant touch, connected relationships, and perpetual contact (Agar, 2003; Katz and Aakhus, 2002; Licoppe, 2004). These interactions can provide employers with constant connections to their workers (Wajcman, Bittman, Brown, 2008), but it can also afford novel opportunities for deepening family relationships and making location irrelevant through somewhat continual communication (Green, 2002).

Although the smart phone provides many conveniences, some families are struggling with how to manage smart phones within their family group. While it offers the possibility of increased communication when apart, when together, many individuals are focusing more on their smart phone than the people around them which detracts from the relationship building within families. Youde (2012) had one individual state, in reference to her parents, that “the longest distance in the world [is] when I stand in front of you and you are busy playing with your phone” (p.1) which demonstrates that smart phones may create emotional and mental barriers to those personal relationships even when individuals are physically close. For many individuals, the relationship they have with their smart phone trumps other social interactions as demonstrated in the fact that nearly half of young Australians said that while dining with family and friends, they still check email, social media, and text (Cisco World Technology Report, 2012). Tan (2012) referred to smart phones as “a black hole sucking up time, including time for family bonding” (p. Lifestyle Section) and is concerned about how providing smart phones to children gives them access to inappropriate content that is not easily monitored by their parents.
2.10 Family Tourism

The research on family and family life is expansive, but from the tourism perspective, it is limited (Schanzel, Smith, & Weaver, 2005; Lehto, Choi, Lin, & MacDermid, 2009). The primary research in tourism is focused on marketing and decision making for family vacations (Bronner & de Hoog, 2008; Decrop, 2005; Decrop & Ebrary, 2006; Decrop & Snelders, 2005; Jenkins, 1978; Kang, Hsu, & Wolfe, 2003; Kenneth & Alain, 2011; Kim, Kim, Choi, Agrusa, & Wang, 2010; Nichols & Snepenger, 1988; Ping, An-Ya, & Jing, 2009) and the influence that children can have on decision making (Nickerson & Jurowski, 2001; Robin, 2010). There is, however, some emerging literature on family tourism (Gram, 2005; Schänzel, 2008; Schänzel et al., 2012; Schänzel, 2010; Schänzel & Lynch, 2012; H. A. Schänzel & Yeoman, 2012; Schanzel & Smith, 2014) that looks into family holidays, family time on vacation and whole family research, so this is of growing interest to tourism professionals.

Research on families and family vacations is vital to understanding society because family life provides a lens whereby we can view contemporary life (Lashley et al., 2007). With family time dwindling because of busy schedules, family tourism becomes ever more important in acting as the bonding agent for relationships during these times of family interaction (Yeoman, McMahon-Neattie, Lord, & Parker-Hodds, 2012). Family vacations are viewed as a time for restoration, away from the trials and complexities of everyday life and returning to the happy and less structured days of childhood (Inglis, 2001). However, Carr (2011) points out that in reality, family vacations require a significant amount of work by family members to ensure that the vacation experience is a positive one for all members of the family.

2.10.1 The Role of the Family Vacation

Within family tourism there are also the different perspectives of the participants to consider. Parents and children have different goals when it comes to family holidays. Children believe the main goal of a vacation is to have fun (Schänzel, 2008, Hilbrecht et al., 2008), where parents may be more purposeful in their choice of activities and focus more on being together and creating memories (Shaw, Havitz, & Delemere, 2008, Shaw & Dawson, 2001). It has also been shown that mothers often have more of a passive role during vacations, seeking relaxation, where fathers are more engaged.
in the active leisure with their children and participate in activities with them (Kay, 2009, Harrington, 2009, Schänzel, 2010). Unfortunately, these different viewpoints can lead to tension during the vacation when one person feels their vacation is not living up to expectations which cause added stress and conflicts to arise (Gram, 2005, Schänzel, 2010) during a time when family bonding is paramount.

2.10.2 Children in Tourism Research

Since children are part of many families, it is important to study children in tourism. However, while different age groups, like seniors and youth, have been researched in tourism, there is a lack of research in the area of children (Small, 2008). There has been some research on the influence that children have on parental decision making regarding vacations (Filatruault & Ritchie, 1950; Fodness, 1992; Tagg & Seaton, 1994; Wang, Hsieh, Yeh, & Tsai, 2004) but little research has been done from a children’s perspective (Small, 2008). Only recently has there been a focus on how children prefer to experience vacations, and Cullingford (1995) found that children viewed travel as including beaches and going out to eat rather than sightseeing. Gram (2005) found that on vacation, children were interested in activities where they were allowed to be actively engaged and play with other children. Nickerson and Jurowski (2001) had similar results in their research that showed children enjoyed active activities and shopping.

Many imagined that young tourists were just more immature versions of the adult tourist, with the same wants and needs (Pastor, 1991), however, others feel that young tourists have their own identity and special interests which make them different from the adult tourist (Ravon, 1991). While there are some similarities between the adult and the younger tourists, it is important to understand the differences and preferences because the younger tourists will become the adult travellers of tomorrow (Carr, 1998). Krueel (1991) believes that young tourists can be explained through a topography of seven categories: International and domestic youth tourists, educational tourists, alternative tourists, short-term and long-term tourists, institutionalized (mass) tourists, explorers and drifters, and experienced tourists.
2.10.3 Family Vacation and Bonding

Family vacations are important times for bonding and breaking the normal routine of everyday life by spending quality time together (Southall, 2012). They provide opportunities to strengthen relationships and problem solve as a family (Agate et al., 2009) and are frequently the only time the entire family is together for an extended amount of time (Schänzel & Smith, 2014). These times together spent in leisure and travel enable family members to reconnect to one another as a family unit (Nickerson & Jurowski, 2001). Family vacations offer opportunities for shared experiences (Schänzel & Yeoman, 2012; Shaw et al., 2008) and creating memories as a family (Kozak & Duman, 2012; Schänzel, 2008; West & Merriam, 2009). These trips can strengthen the sense of belonging amongst the family members because they include escape from their everyday lives and a nurturing of familial relationships (Durko & Petrick, 2013; Schänzel & Yeoman, 2012). Family vacations can also provide a sense of family well-being in the midst of changing family dynamics and unsure economies (Durko & Petrick, 2013).

2.10.4 Strengthening Bonds on Vacation and Building Family Capital

Family vacations are an integral part of establishing, maintaining, and building family bonds. These experiences aid in what Blunt and Dowling (2006) call the practice of making home, because home is not just a brick and mortar structure, it is a grid of social relationships with symbolic meanings and feelings of belonging. These feelings of home and belonging are central to the building of one’s identity (Schänzel et al., 2012) and demonstrate how important family vacations are in tightening the bonds within family members. Even the anticipation of going on a vacation can strengthen family bonds and feelings of togetherness (Gilbert & Abdullah, 2004). Family vacations also help to build family capital. Family capital is not simply having social relationships with family members; it involves belonging to a social group legitimated as family and competence in acting in ways consistent with that family (Goodsell & Seiter, 2011). Family capital is important because it is passed down from generation to generation and aids family members in being successful in the outside world (Belcher, Peckuonis, & Deforge, 2011). Vacations help transfer family capital through generations and to mitigate the varying family structures and geographical scattering of families.
Family trips provide opportunities for family members to have a change in their normal daily routine and participate in activities that are generally out of the ordinary. Shaw et al., (2008) found that family cohesion is strengthened through family travel because the memories created from the different experiences of the trip were lasting and meaningful. These shared experiences help build relationships, loyalty within the family, and also help the family members to get along better (Smith, 1997). Although many vacations still involve chores such as preparing meals and taking care of children, work pressures are lessened and the daily grind of busy schedules is temporarily relaxed (Shaw et al., 2008).

2.10.5 Family Vacation Expectations

The ideal vacation connotes different images for different people and often the age of a person can play a part in what is included in an ideal vacation. While parents may be interested in rest and relaxation, children often desire more activities and to have fun (Gram, 2005; Hilbrecht, et al., 2008). Families with younger children or of varied ages tend to put more emphasis on making decisions as a coalition while families with teenagers are more likely to pair up and go do things of similar interest (Lehto et al., 2012). Some parents also try to provide purposive leisure, which is leisure that is more planned and has a desire to achieve a goal, like teaching family values (Shaw & Dawson, 2001). Being together is also an important part of family vacations for parents but they still desire time to rest and relax (Durko & Petrick, 2013). Their ultimate goal for family trips is strengthening of the family unit (Shaw et al., 2008). Although family vacations are an important part of family life, they do not always live up to expectations. Since many family members may not spend much time together on a day-to-day basis because of busy schedules, being insulated together for long periods of time can cause friction (Rosenblatt & Russell, 1975). Additionally, because vacations are an investment of time and money, they can strain the finances of the family and cause marital discord and stress after the vacation (Chesworth, 2003). Even perceived vacation expectations, when not met, can cause disappointment for individuals. “Crowded conditions, negotiations over the division
of labour in unfamiliar settings, illness, and unpredictability inherent in travelling with children could all disrupt family harmony” (Hilbrecht et al., 2008, p. 543).

2.10.6 Changing Views of Family Vacations

Rugh (2009) spoke of family vacations and the nostalgia they evoke from families up through the 1970s and how many families today are seeking to recreate those same feelings. Family vacations traditionally included all of the immediate nuclear family, but with busy lives and differing work schedules, some family vacations only include some members of the family or expand to include grandparents and other relatives. Tripadvisor’s family travel survey reports that over 80% of the respondents plan to take at least one vacation a year with family members and 37% plan to take a multi-generational family trip (Theme Park Post, 2011). The multi-generational travel trend is expected to continue as grandparents increasingly travel with families as the baby boomer generation enters retirement (Kang et al., 2003). Throughout society today, in many cases both parents are employed on a full time basis, so it is natural for grandparents to spend time with their grandchildren in everyday settings and on vacation (Yeoman, 2008). The family has been identified as the most important consumptive unit (Lehto et al., 2012); however, family tourism has not received the attention it deserves from tourism research (Schanzel, Smith, & Weaver, 2005; Lehto, Choi, Lin, & MacDermid, 2009).

2.10.7 Smart Phones and Family Vacations

Smart phone technology is changing the way people vacation. In times past, people went on vacation to experience a significant separation from their everyday life (Obrador, 2012) but now smart phones offer access to Web 2.0 applications, like travel review sites and blogs, which provide an endless supply of sharing opportunities and information while travelling (Gretzel, Fesenmaier, Lee, & Tussyadiah, 2011) while also staying connected with home. Increasingly, people’s daily lives and vacations are mediated through technology (Tussyadiah & Fesenmaier, 2009). In the past, when a vacation began, the travelers would cross an imaginary threshold that would separate them from their daily life and send them in to the realm of vacations where rewarding and transformative experiences await (Hottola, 2004). However, with current technology, there is a blurring of those spaces called digital
elasticity, where individuals remain electronically connected to their daily life as they explore new worlds (Pearce, 2001, Pearce & Gretzel, 2012).

2.10.8 Smart Phones and Staying Connected on Vacation

Mobile technology, and especially social media, provides a platform to stay connected by sharing vacation memories and keeping in touch with friends and loved ones at home (White & White, 2007). Smart phone cameras offer easy and convenient ways to capture memories on vacation and then share them online. These media blur the boundaries between the physically and technologically present and create new avenues for people to communicate while they are travelling (Jansson, 2007). While this offers opportunities for people to stay connected, it also offers distractions to current surroundings of the individual. The ability to remain socially present even when physically distant could provide a distraction for family members on vacation, consequently detracting from the family bonding activities that usually take place. People establish normal daily routines and habits with their smart phones, like checking email and social media, and often these routines continue and spillover into their vacation (MacKay and Vogt 2012). The instant communication that is offered by these devices alters the previous ideas of time and space, which provide the structure for human experience. It can be assumed that vacation experiences are also being affected by these changes (Gretzel & Jamal, 2009).

2.10.9 Photography on Vacation

Mobile phones with cameras are highly popular (Gye, 2005) so their use on vacation is also popular. Gye (2005) goes on to explain that one of the most important roles for photography in families is storytelling. Photography and tourism are enmeshed together and it is almost unthinkable to go on vacation without bringing a camera along (Haldrup & Larsen, 2003). Palmer (2005) calls family photography a participatory media that elicits individualised exchanges of the subjects. Photography is “a source of much pleasure and fun, and cameras virtually always accompany people involved in leisure, recreational and travel pursuits” (Haywood, 1990, p. 25). In the vacation experience, photographs link the traveller to the destination by capturing the moment and providing evidence of the experience (Prideaux & Coghlan, 2010). Haldrup and Larsen (2003) believe that if no pictures are taken then there are no memories of the vacation.
In families, tourist photography is not just visual, it is embodied and helps produce social roles and relationships, such as family life (Larsen, 2005). This is known as the family gaze, which includes the choreography of tourist photography and the question of sociality and social relations in families (Haldrup & Larsen, 2003). Family research demonstrates that relationships are strengthened through interaction and ritualized moments (Hallman & Benbow, 2007), so family vacations offer opportunities to capture these moments through pictures and to create and document those memories. A family photograph’s main role is to immortalize the best and celebratory times spent together as a family and reinforce the sense that the family has individual and group identity (Bourdieu, 1990).

2.10.10 Limitless Information for Travellers

The Web 2.0 applications and Internet access delivered by smart phones provide limitless amounts of information to travellers. The vast range of data services to smart phones means that information is available all day, every day, and almost everywhere (Brown & Chalmers, 2003; O’Brien & Burmeister, 2003; Rasinger, Fuchs, and Hopken, 2007). Wang, Park, and Fesenmaier (2012) in referencing Saari, Yoo, & Tussyadiah (2008), Tussyadiah & Fesenmaier (2009) and Wang, Park, and Fesenmaier (2010) stated that “smart phones can mediate both the behavioural and psychological dimensions of the touristic experience by facilitating information search, information processing, and information sharing, by enabling a traveller to learn about new travel opportunities and to get to know better a destination, and by sharing photos and other social activities at any time during the trip.” (p.371).

2.10.11 Together-Apart

Smart phones also offer the opportunities for families to spend time together and apart. While most families want to have shared experiences that increase bonding and togetherness, they also need some time where they can relax and not have the stress of planned activities (Gram, 2005). Smart phones can entertain and connect family members to e-books, videos, friends, and social networks: these technologies can create a multiplicity of worlds, where individuals are physically present but mentally somewhere else (Turkle, 2011). These devices offer opportunities for families to be physically together, like on the beach, but participating in different activities from
building sand castles to reading a book or checking Facebook. Since texting and calling between parents and adolescent children were common activities on a daily basis (Padilla-Walker et al., 2012), it easily translates into the vacation setting by facilitating separate excursions and the ability to check in and coordinate with each other throughout their activities when apart. This affords families the option of separating into smaller groups and doing activities that are of particular interest to certain individuals or age groups.

With the rising interest and use of smart phones among families, it is important for research to be done in this area so that we can gain a better understanding of family habits and how families are manoeuvring through daily life and vacations with the added benefits and distractions associated with smart phones. Clearly, the use of smart phones in families can have an impact on relationships in the family, so it is important to understand how families can mitigate negative effects of smart phone usage without damaging the important relationships and bonding that occur in daily life and on vacation.

2.11 Summary
Families are constantly evolving and changing and these changes pose challenges for families as they learn to adapt to new circumstances and situations. Even amidst these challenges, family bonding is a vital aspect of healthy and balanced families. New technologies provide benefits in ease of scheduling and communication but may also allow unwanted material to enter their home, thus causing families to establish parameters around technology use of the family members. These devices also offer distractions to family members during times when family bonding is important, such as on family vacation. Family vacations of the past offered a break from everyday life but now with smart phones, life comes along on vacation and may interrupt times of bonding. Smart phones offer benefits such as information search on-the-go and last minute scheduling in addition to being able to stay connected with loved ones and friends at home. This research will show whether smart phones are disrupting family bonding and how families are mitigating and negative effects. The next chapter will discuss the conceptual and theoretical frameworks that will be used as a guide to this research.
3. CONCEPTUAL/THEORETICAL FRAMEWORK

This chapter covers the conceptual and theoretical considerations that were used to guide this research. Drawing on the Family Systems Theory (Bowen, 1974) perspective, the study investigated how family relationships, from a systems perspective, have been affected by smart phone technology. The aim of this research is to determine if smart phones have a positive or negative impact on family bonding by looking at the family in two different environments, everyday life and family vacation. The smart phone has changed the way families communicate and share information with each other and the outside world but it is unclear what affect this is having on family relationships and bonding.

3.1 Systems Theory

Family Systems Theory (Bowen, 1974) is based on General System Theory (von Bertalanffy, 1968). Von Bertalanffy believed that there were systems or structural similarities that could be seen throughout various disciplines and sciences like biology, physics, mathematics, engineering, business, and so forth (Van Dyke et al., 2012). Systems theory concentrates on the functioning of a system and its component parts with the levels of efficiency extending from robust to total failure (Bowen, 1974). In Systems Theory there are core assumptions for all systems. Some of these assumptions are that a system must be understood as a whole rather than in individual parts (von Bertalanffy, 1968) and that the system as a whole explains the nature of its parts (Skyttnner, 20015). All these parts work together with each other either directly or indirectly (Krippendorf, 2008) with human systems being distinctive in their ability to be self-reflexive, meaning they can examine themselves and their behaviour (Van Dyke et al., 2012). Family systems also have a hierarchal structure with smaller systems, or subsystems, within the larger family system, for example the marital dyad or father-son could make up a subsystem (Cox & Paley, 2003). Within the family system are system dynamics, which involve understanding the interaction between the objects in the system over time through change and feedback loops (MIT, 1997). The goal of systems theorists is to try to clarify the behaviour of complex, organized systems (Boss, Doherty, LaRossa, Schumm, & Steinmetz, 1993), and Cox and Paley (2003) believe that research using systems thinking as a way to understand families is important in aiding understanding of social and emotional development. (See Figure
3.1 at the end of this section for a visual diagram of the different ways Families are viewed as Systems.)

3.2 Family Systems
The application of Systems Theory to the family setting came about through psychiatry and psychotherapy instead of mainstream science or social science. Family Therapists, working on the clinical side of family therapy, realized that it was important to understand the whole of the environment surrounding the individuals seeking help (Bevalas & Segal, 2006). All those members of the family who reside at home are part of the immediate family system (Weir, K., Lee, S., Canosa, P., Rodrigues, N., McWilliams, M. & Parker, L., 2013). Family Systems Theory takes into account communication and interaction patterns, individualism and connectedness, devotion and independence, and adaptation to stress and anxiety in the context of the whole family as opposed to the lone individual (Christian, 2006; Kern & Peluso, 1999). Bowen (1993) describes the family as a system in the following way:

*The family is a system in that a change in one part of the system is followed by a compensatory change in the other parts of the system. I prefer to think of the family as a variety of systems and subsystems…I think of the family as a combination of “emotional” and “relationship” systems. The term “emotional” refers to the force that motivates the system and “relationship” to the ways it is expressed. (pp. 155, 158)*

Therefore, each member of the family has individual agency in their behaviour while simultaneously being part of the larger family and their actions affecting the group as a whole (Van Dyke, Jones & Butman, 2012). “Thus, when one family member alters his or her behaviour, it often produces heightened tension or anxiety and other family members react, either positively or negatively, to this change” (Kaplan, Arnold, Irby, Boles, Skelton, 2014, p.24). The emotional system powers functioning at all levels and as stressors are applied, families must adapt and challenge those stressors in order to develop relationships and continue functioning as a system (Bowen, 1978). While these relationships are important, it is also vital to have differentiation of self, which
involves the integration of being able to remain a separate self while still being related with others (Crossno, 2011).

The Family Systems approach is based on a few core assumptions. The diagram below (Figure 3.1) shows the different components of a family system and how they relate to the whole system. Each family is unique and is shaped by personality characteristics, complexity, composition, cultural style, life stage, et cetera (Broderick, 1993). This is known as the family structure. These descriptive characteristics that create the family structure provide the input into the interactional system, they influence the way the family works or doesn’t work together (Allen, 1982). The interactional system determines the family rules, which then in turn create the output that is family functioning. The family life cycle represents the different elements of change that can transform a family’s structure or needs, whether it be developmental or non-developmental (Allen, 1982). Distelberg & Sorenson (2009) define a healthy system as one that can balance values, goals, and functioning.

![Figure 3.1 Family System Components](image)
Figure 3.2 (below) shows how scenarios might be handled in the transformation process involved in the system as inputs are transformed into outputs creating feedback in the system.

Figure 3.2 Family Transformation Process

3.2.1 Family Rules

The way the family interacts determines the family rules or boundaries to the system. Family rules are the guidelines of interaction between and among family members (Satir, 1964; Olson, Sprenkle, & Russell, 1979) while boundaries convey limits, togetherness, and separateness (Christian, 2006; Walsh & Gibbs, 1988). “The family is a rule-governed system [whose] members behave among themselves in an organized, repetitive manner and this patterning of behaviours can be abstracted as a governing principle of family life”(Jackson, 1965, p.6). Although all families have rules, the number of rules and enforcement can vary greatly among families (Christian, 2006). There are two types of family rules: explicit rules are clearly stated and leave no room for question and implicit rules, which are more implied. Implicit rules are more like relationship agreements that deal with the ability for one family member to limit the freedom of another member (Goodman, 1983). Discipline is often the mechanism used to enforce the rules and boundaries within a system (Kern & Peluso, 1999).
3.2.2 Families as Open Systems

Rules are important in family systems because they govern the transfer of resources across system boundaries (von Bertalanffy, 1976). Family Systems are considered to be an open system, which does not mean that there are no boundaries; it just means that it has a permeable boundary that allows some information, energy, and matter to pass back and forth across the border (Broderick, 1993). All systems have some form of a boundary that act as a border between the system and its environment (White & Klein, 2002). Cox and Paley (1997) believe that “for effective family functioning, boundaries must be clear but flexible” (p. 246). Boundaries regulate the balance between allowing outside influences into the family and creating barriers for the family from the outside world (Broderick, 1993). Family rules act as a way of calibrating the family system through the kind and range of accepted behaviour and act as negative error feedback when broken (Watzlawick, Jackson, & Beavin, 1967). The capacity of families to operate within a rules structure makes them homeostatic and self-regulating (Broderick, 1993).

3.2.3 Families as Social Systems

This relationship with others is why the family is considered a social system. Social systems contain certain characteristics. Hill (1971) claims that each family member holds a position within the family that is interdependent of the others, meaning that what one member does will cause the other members to adjust their behaviour. Hill (1971) further states that families are usually a task performing and adaptive group. It is thought that as a group, families tend to seek successful solutions to problems and then adapt those solutions to become normative behaviour (Cheal, 1991). This demonstrates that through constantly changing environments, families seek to find balance and adjust their behaviours when a change interferes with their normal operations.

3.2.4 Families as Self-Regulating Systems

Families are purposeful and self-regulating systems (White & Klein, 2002). During turbulent times in families, adaptability and flexibility are required for the system to survive through reorganizing in response to outside forces which include schools, churches, community, and the work place (Cox & Paley, 2003; Pinkus, 2006).
Families adapt to challenging circumstances so that they can continue to function (Sameroff, 1983). Family systems develop a repertoire of reactions to certain conditions in their environment, so they adapt to the circumstances surrounding them through a set of repeated actions that have worked in the past (Trist, 1980, Heard, 1982). The ability to choose from these actions or create a new action shows flexibility and innovation on the part of the system to adjust to its changing environment (Trist, 1980). This demonstrates that family systems strive to self-regulate with a purpose to return to a more balanced or better level of functioning than when the system is in trauma. Systems theorist also believe that it is typical of living systems to evolve into more complex organizations; therefore, some families will actively initiate change within the family in order to facilitate the strengthening of bonds and offer new opportunities to connect and improve themselves and their relationships (von Bertalanffy, 1968; Hill, 1971).

3.2.5 Families as Unique Systems

As families are studied throughout the world, it becomes evident that every family is distinctive. Each family system is formed by its own particular structure and features (Broderick, 1993). Variations in families such as size, age and gender of the members, cultures, professions, compositions and life stages all make each family a unique unit. Age, maturation and parental obligations also create a hierarchal structure within the family, with each level being a part of a continuously increasing organization across all levels (Cox & Paley, 1997). Furthermore, family systems are not static; they are dynamically intertwined with one another and their environment (Buckley, 1968). They seek variety and are constantly evolving and adapting to the inputs and outputs from the outside environment that occur through daily life. Within the family system, families seek equilibrium and can be homeostatic, where they try to balance the inputs and outputs through feedback and control (Broderick, 1993).

3.2.6 Distance Regulation

With constant interactions amongst family members comes the need to have distance regulation and personal time away from the individual family members. This also includes the concept of differentiation of self, which means the ability be autonomous and still be emotionally connected with others in the family (Hefner, 2014). Family
members seek to regulate the degrees of separateness and connectedness (Hess & Handel, 1959) with a “perpetual confrontation between the quest for autonomy and jointness” (Sprey, 1979, p. 141). Many times in families, not all members are seeking the same outcome or ideal. Family systems must regulate the balance between the bonding process and the buffering process that push and pull people together emotionally (Broderick, 1993). Clearly, many families will struggle with the challenges of having some members more vested in the family unit than others (Day, Gavazzi & Acock, 2001) or family members are so enmeshed that the individual identity is given up into the emotional climate of the group (Reiss & Oliveri, 1980). These kinds of family systems will not function efficiently unless changes occur within the individuals and/or the system to achieve balance.

Families as Systems

![Figure 3.3 Families as Systems](image)

3.2.7 Family Environments

While families are a system in themselves, they also reside in a bigger system or environment. Within the systems concept is the idea of a system within a system (See Figure 3.3). Ackoff (1971) posits that the environment itself may be thought of as a
system when it becomes the focus of attention. Therefore, every system can be considered to be a part of a larger system or life space. The family and the environment in which it resides affect each other and thus, are affected by each other (Van Dyke et al., 2012). Lewin (1936) looked at the context of individuals in terms of their life space, meaning the whole of influences being inflicted on a person at any given moment, both external and internal. In the case of this research, the family system is being analysed in two different environments, the everyday life and on vacation (See Figure 3.4 below, adapted from Huit (2012)).

![Figure 3.4 Family Systems in Daily Life and Vacation Environments](image)

However these levels become much more complex as individuals get more involved in other systems within each level (Huit, 2012). For instance, within a community, an individual or individuals within the family could be involved in many other organizations and groups like work, school, friends and church (See Figure 3.5 below, adapted from Huit (2012)).
Figure 3.5 System within a System from an Individual Perspective
In daily life, individuals and family systems are constantly reacting to the whims and challenges of their environment. Trist (1980) referencing Ackoff (1974) talks about the four modes that systems go into in relation to their environment: 1) inactive, 2) reactive, 3) pre-active, and 4) interactive. When the system is in an inactive mode, the present is understood to be better than the past or the future so the system is not changing; it is just waiting to see if in the future it will need to adjust. In the reactive mode, the past is deemed better than the present so the system tries to restore that lost state. In the pre-active mode, the future is thought to be better than the present or past and the system strives to figure out how to best predict and prepare for those opportunities. In the interactive mode, neither the past, present or future seem positive so the system proactively tries to create a better environment for itself by going into active planning for the future (Ackoff, 1974; Trist 1980). These four modes also apply to families and family life. As natural life happens and routines and schedules change or are interrupted, the family goes into these same modes as they seek out balance and a homeostatic state where life is enjoyable or at least tolerable.

3.2.8 Family System Maintenance
Another way for families to have balance is through maintenance of the system. Viable systems have properties that facilitate self-repair, self-awareness and maintenance (Skyttner, 2005). In families, this maintenance or preventative
maintenance could include vacations as a way to repair cohesion and relationships between family members that may have been stretched during the normal day-to-day living. This kind of maintenance also adds variety to the normal system routines which can be vital to the continued success of a system.

### 3.3 Sociotechnical Systems

Another way of looking at systems is through the sociotechnical lens which came out of the Tavistock Institute in 1949 when researching several projects dealing with the British coal mining industry. Their research looked at the organization as a social system but with the diffusion of technologies into work practices, it led to the recognition of sociotechnical work systems rather than just social systems (Trist, 1981, See Figure 3.6. below). Sociotechnical systems is a joining of technical systems and social systems combined with the work systems that bring the two systems together (Bradbury, Mirvis, Neilson & Pasmore, 2007). It stresses the reciprocal interrelationships between people and technology and the forming of a relationship where efficiency is not contradictory to the social and human aspects of the working environment (Ropohl, 1999). Emery (1959) proposed that in highly fractionated work designs, individual workers had no authority to correct problems and encouraged a more open system design with self-managed groups with authority and control.

### Sociotechnical Family Systems Theory

(Adapted from Bostrum & Heinen, 1977)

![Sociotechnical Family Systems Theory](image)

Figure 3.6 Sociotechnical Systems Theory
The technological component of sociotechnical systems functions as a self-regulator in converting inputs to outputs and as a major boundary in mediating between the system and the larger external environment (Emery, 1959). Figure 3.7 below shows the transformation process in family systems with the aid of the smart phone as the technical system. The processes listed in italics demonstrate ways the smart phone is being used to transform inputs to outputs. Trist and Bamforth (1951) believe that the relationship between the social and the technical systems is so close that they need to be studied holistically because one needs to see how the technological system behaves within the social system. In sociotechnical systems, the technology is complimentary to the individual rather than just an extension of the person (Jordan, 1963) and that, together, they are co-producers of the outcome (Ackoff & Emery, 1972).

![Figure 3.7 Family Transformation with Smart Phone](image)

For this research, the sociotechnical systems understanding was used in conjunction with family systems theory and general systems theory to create sociotechnical families system theory. Since sociotechnical theory is traditionally applied to work organizations, it was also feasibly applied to the family group as a system because of
similarities like goal setting, group cohesion, and seeking balance. Family systems theory suggests that families have open and on-going systems because of their constant interactions between individuals and the influence of the environment (Padilla-Walker et al., 2012). In the case of this research, the environment included the smart phone technical system within the family system and was studied in two environments, the daily life of the family and the family vacation.

3.4 Spillover Theory
Spillover Theory focuses on the impacts that attitudes and emotions from one domain have on another domain (Harris, Marett, & Harris, 2011). MacKay & Vogt (2012) define spillover as a “bidirectional transfer from one life domain to another manifested in the expression of values, affect, skills, and/or behaviour” (Staines, 1980; Stevanovic, 2011) (p.1381). In this case, the research looked at spillover in relation to the smart phone's blurring of lines between everyday life and vacation. With smart phones providing access to Internet, email, social media, and apps, it changes the way people experience vacations (MacKay & Vogt, 2012). Spillover can be positive or negative, so this research sought to understand if there were positive or negative feelings associated with smart phones and if those feelings were mitigated on vacation so as to not interfere with or support bonding activities.

3.5 Research Objectives
Smart phones have changed the way people communicate and connect with each other and this especially applies to families. This research sought to discover if the use of smart phones in families was a positive or negative force in relation to family bonding. In using the system perspective, all influences on families can be thought of as inputs to the system. The smart phone, as a technical system, should take inputs into the system and transform them to outputs that improve performance of the system. This research looked at how the family has adjusted their behaviour to this technology, which leads to the first research objective:

3.5.1 Research Objective 1: To discover perceptions of smart phone technology by family members
For many people, their smart phone is an integral part of their daily life, and it provides the opportunity for real-time scheduling, information search, entertainment and more. The intent of this first stage was to get an understanding of an individual’s personal feelings about smart phones and also gain an understanding of what they think of other people’s use of smart phones. Smart phones were the focus of this research because smart phones are rapidly growing in popularity and offer many capabilities to communicate with others, stay connected, and entertain. These capabilities could also have a negative impact in being a blockade to conversation and relationship building that could be taking place amongst friends and family members that are physically present. On the other hand, these same technologies may be enhancing the communication and closeness felt by the family members through texting, social media, and the ability to stay connected. This first objective sought to determine the feelings people have for smart phones, when they are being used, and if there are times when smart phones should not be used. Since family systems are made up of individuals, this research sought to determine the feelings that individual family members have for smart phones and their uses. These feelings can influence how the family system will adjust to the feedback that smart phones create in the system. Feedback refers to the way a system checks its own behaviour and provides information into decision-making processes (Cheal, 1991).

Figure 3.8 below shows how smart phones provide a continuous flow of information and possible distractions to an individual in their everyday life. The smart phone acts as a connector of the individual to all the other environments that they may deal with in their day-to-day life. Without setting up any kind of personal boundaries or rules to the use of the smart phone, this technical system can cause disruptions in the family system.
The second stage of research moved from the individual as the unit of measure to the family group with the smart phone acting as a technical system within the family system. In previous research done by Goodman (1983), they included the television as part of the family system because family members would interact with each other and the television, both individually and as a group. The smart phone also has the same capabilities of interaction amongst the members and is situated inside the family system for this research as well. Therefore, the next research objective concentrated on the family and their smart phone use.

3.5.2 Research Objective 2: To examine if and how families negotiate and regulate smart phone use within the family system.

The second research objective sought to find out what influence the smart phone had on family bonding in the everyday life of the family. While there are numerous factors that affect bonding, this research looked at how the smart phone specifically changed the way family members communicated with each other and if it helped or hindered their closeness to each other. Since smart phones provide continuous access
to personal networks like friends and family in addition to work, school, and other commitments, this research sought to understand how the system responded to the input of the smart phone (See figure 3.9 below). Also, what rules or boundaries were established in relation to the smart phone usage because the smart phone enabled all these networks and systems to be carried around in a handheld device. Since boundaries are an important facet of systems theory, understanding how families applied boundaries to smart phone use was important as well as what lengths they went to in an effort to close or open the system to the outside influences the smart phone brings into their family life. Understanding what families did in order to integrate or ignore the technology in their lives was vital for this research.

![Figure 3.9 Family System with Smart Phone Added to Interactions](image)

The diagram above shows smart phones as a system in relation to the family system and the outside environments. The smart phone is an integrated part of the sociotechnical system that touches and connects the members of the family with each other and their outside environment through phone, texts, messaging, Internet access, and apps. Access to all the resources of the smart phone may be convenient but it may also hamper personal time and family bonding during family time spent together.
unless some boundaries and rules are established. This research looked to find out what families did as a way of lessening the openness of the smart phone system’s influence on the family.

Since the family system exists in its own environment on a day-to-day basis, the research looked at the family in an environment that was out of the norm of daily life. Therefore, the family vacation environment was chosen as a comparison to the daily life environment.

3.5.3 Research Objective 3: To understand whether the context of the vacation environment changes the way the family system functions with technology.

Since vacations are viewed as a special activity specifically designed to have extended time together as a family, it is essential to look at this component in comparison to the everyday life of the family. In systems thinking, this would be viewed as a form of maintenance to the system. With a defined boundary in place, smart phones could be neutral devices on vacation and not have any influence because emails can be filtered, calls can be sent to voice mail and devices can be turned off (Chesley, 2005); however, many people consider their smart phone to be an extension of themselves, so they may not want to lose the connection they have to others. This objective pursued an understanding of the actions families took to ensure that bonding was still a priority on vacation (See Figure 3.10 below).
The family is a robust system and family systems theory says that families will adapt. Cheal (1991) cites Broderick and Smith (1979) when they discuss the internal structure of the family as a hierarchy of control. These controls include family rules, boundaries, and goals. The highest level of control is called morphogenesis, which occurs when feedback tells the system that the current rules are not working (Broderick, 1993; Cheal, 1991). At this point, the system undertakes the mission to establish or modify rules so the system can again function properly.

In looking at vacations and smart phones, this research sought to understand if families establish new rules for smart phone use during these important family times. Since vacations are special times of extended time together, understanding was sought of what measures families took to ensure that their vacation remained a special time of togetherness. These measures could have included rules for smart phone usage or engagement with other people outside of the family on their smart phones. Different levels of boundary permeability allow access from one context into the next, so in this case, the everyday life of the family was accessible through the smart phone.
technology unless boundaries were placed as a blockage to the family in the vacation environment.

3.6 Summary
As a framework for this research, Family Systems Theory was used to understand how the family systems reacted to the smart phone as part of the system. The smart phone is a sociotechnical system within the family system and this study sought to understand how Sociotechnical Family Systems function and what boundaries and rules are established within the family system to help keep the system in balance. Families are purposeful systems, so they strive to have balance and to progress. Family systems are also unique and each system functions as a system within a greater system, so the context of the family is important, which is why the family was analysed in two settings, daily life and family vacation.
4. METHODOLOGY

This chapter will detail the methodology and process used in this research project. First, the philosophical hermeneutic approach will be discussed and how qualitative methods were chosen for this research so that rich data and thick descriptions would be accumulated for a better understanding of the thoughts and emotions that individuals and families had in relation to smart phone usage. Next, the process and method behind the individual interview stage and the family group stages will be discussed. The data analysis process will follow and credibility established, followed by assumptions.

4.1 Qualitative Research

Qualitative research methods are appropriate when dealing with families because family systems are complex and constantly evolving. This requires the adoption of a research methodology that can fully capture systems and system dynamics. The motivations and feelings of the individuals were sought as they pertained to the family, the reasons behind the actions and the relationships the family members had with one another. Furthermore, this research looked at family dynamics and individual feelings; there are minute and global issues that affect understanding, so the hermeneutic style of qualitative research fits the nature of this study (White & Klein, 2002). Hermeneutics provides an approach that is valuable in comprehending the lived experience in tourism (Pernecky & Jamal, 2010). In philosophical hermeneutics the focus is not on just the individual or what they say, but more understanding both in the context of the encounter (Freeman, 2007).

4.2 Philosophical Hermeneutic Approach

The initial purpose of this research was to make a claim about understanding the family system. To achieve this, philosophical hermeneutics was used with the approach of Gadamer (1970, 1975, 1977) and Taylor, (1989, 1995) because this approach brings together the different facets, in which a situation occurs, for analysis in order to gain a greater depth of understanding. Hermeneutics is an interpretive methodology that requires reflective inquiry on the part of the researcher where understanding is sought rather than explanation (Laing & Moules, 2014). In order to
comprehend a particular experience, one must grasp the situation in which the human actions made meaning (Denzin & Lincoln, 2000). In other words, one must understand the whole of the intentions, beliefs, context, and desires in order to understand the sentence, utterance, or act (Schwandt, 2000). Heidegger (1996) believes that interpretation is based on what we already know in advance, the history of experiences, combined with what we know today. This approach provides a depth of understanding on the individual level but can also be applied to the family setting since multiple layers of experiences are analysed in conjunction with the experiences of those around them. Fay (1996) and Outhwaite (1975) claim that a human action can only be fully understood in regards to the system of meanings of which it is a part. In working with families, it is important to have an understanding of the system around them, the influences, emotions, history, context and other circumstances that occur in relation to their experiences to gain an understanding of the family dynamic. Fowers and Richardson (1996) believe that contemporary hermeneutic philosophy is useful for family research because it is founded on the basis that individuals are self-interpreting, and that they are driven by changing perceptions of what is valuable or worthwhile in their lives. They (Fowers and Richardson, 1996) go on to further state that the structure that supports what is meaningful in life is based on the historical and social contexts that are subject to interpretations and the continuing of and creation of traditions. Philosophical hermeneutics argues that traditions, prejudices and meanings that shape individuals cannot be separated from them (Gadamer, 1975); they are a “living force that enters into all understanding” (Gallagher, 1992, p. 87).

The philosophical hermeneutic approach, as an ethnographic understanding, can be explained as the circle of continuous zigzagging between the minutest details and the most global themes to bring both into light concurrently (Geertz, 1979). Geertz (1979) often described it as the process of going back and forth between the whole perceived through the parts and the parts understood through the whole that motivates them; as a perpetual motion of explanations of each other. In this sense, the qualitative hermeneutic researcher can be compared to a quilt maker in that the small pieces of the quilt or dialogue all have context within the larger pieces or themes that
make up different patterns. Geertz (1979) further explains it as an art, a tradition, and a practice of interpretation.

In philosophical hermeneutics, the researcher is part of the hermeneutic circle. The researcher does not extract herself and her beliefs from the observation and interaction with the participants; instead the researcher is part of the process and brings experience, views, and traditions to assist in their understanding (Flinders & Mills, 1993, Binding & Tapp, 2008). Philosophical hermeneutic researchers examine any prejudices within themselves and disable any that alter the efforts to understand others (Garrison, 1996). This form of research leads to thick descriptions, which Geertz (1973) describes as a multiplicity of complex structures which are knotted into one another. Thick descriptions are not only a study of the action; it is a study of the action in the context of the whole, the environment, the feelings and emotions behind the actions. As a researcher, one must grasp the strange and inexplicit and then render it so that it can be understood (Geertz, 1973) in context of what was happening surrounding the action so that a more complete understanding was achieved.

For family research, hermeneutics and the process of seeking thick descriptions allows for multiple voices to emerge within the family group to aid in understanding the family as a whole system. Laing and Moules (2014) use the word community to describe settings like the family system, where traditions, history, and culture are housed and from which individuals cannot be separated. Although family members have history together, even the same event shared by family members could all have different meanings to each individual which is why thick descriptions are sought in hermeneutic research to aid in understanding their meaning. Families are socially complex groups and each family member will interpret an event in relation to their own experience (Ainsworth & Wolfram Cox, 2003; Fletcher, 2002; Hamilton, 2006). Family researchers must be open to all the varied points of view in the family in order to understand their experiences individually and as a whole (Hall, Melin, & Nordqvist, 2006).

Tourism researchers often seek to understand the tourism experience as a fundamental phenomenological concept (Pernecky & Jamal, 2010). To study phenomenology is to
study the meaning of lived experiences (Lindseth & Norberg, 2004) and tourism researchers seek to understand the experiential and lived existence of tourists (Pernecky & Jamal, 2010). Hermeneutic phenomenology considers experiences from the viewpoint of meanings and interpretations (Ablett & Dyer, 2009) and looks at the individual in relation to the network of relationships and traditions that surround them giving an enlarged view (Pernecky & Jamal, 2010). This research used this enlarged view of the family members’ experiences in daily life and on vacation so that greater understanding of their experience, individually and as a whole, would be attained. To the individuals involved in the experience, it is not just about the activity, it is about what they see, feel, do, and touch combined with all the other elements of who they are with and where they are (Reisinger & Steiner, 2006).

### 4.3 Family Research

Much of family research is limited to individuals in the family and not the family as a group. In the research on family functioning (see for instance Zabriskie, 2000; Zabriskie & McCormiack, 2001; Agate et al., 2009), the work is predominantly accomplished with survey type quantitative responses, mainly from one or both parents. In the research on family and religiosity, for instance Bahr et al., (1998), they surveyed adolescents to get their point of view on the family. In Daly’s (2001) research on deconstructing family time, the parents were interviewed and then children aged 4-5 were observed in a childcare setting. While these methods all contribute to the research on families, Goodman (1983) believes that “one cannot generalize about the whole family from the report of one person” (p.409) and goes further to say that even interviewing dyads within the family does not allow for a complete picture of the family.

#### 4.3.1 Challenges in Family Research

Recently, Schänzel (2010) has recommended whole family research as a method in studying the family. She describes a holistic approach that involves a series of individual interviews and family group interviews over three time periods (Schänzel, 2010). This method does give the researcher an in-depth view of the family and their family dynamics; however, it is time consuming for the researcher and the individuals
and families involved. Families today are busy and the scheduling involved in getting every family member in the same location for a group interview has its complications.

Indeed, family research is challenging. Many times family research requires multiple measures and vast cooperation and coordinating between the researcher and family, which sometimes results in families withdrawing from the study (Woods & Lewis, 1992). Finding families to participate in research can also be difficult when using specific criteria (Horowitz, Ladden, & Moriarty, 2002). Families are also often thought to be one of the most private groups, so entering their home and their life world offers additional challenges (Hämäläinen & Rautio, 2013, Daly, 2007). Families are also embedded within larger contexts that are social, economic, and cultural, and it is imperative for the researcher to have an understanding of those dynamics and the influence they have on the family relations (Huinink, Brüderl, Nauck, Walper, Castiglioni, & Feldhaus, 2010).

4.3.2 Children in Family Research

Children’s voices are not always heard in research studies (Clark, 2011), so it is important that children were able to participate and speak freely during the group interviews. Children can be competent participants in research studies, but must also be protected due to their age and immaturity (Farrell, 2005). Often children function best when stories are told because they provide access to their thoughts and feelings (Jesuvadian & Wright, 2011), so throughout the interviews, the children were asked to share thoughts or stories about their daily life and vacation. Qualitative research with children opens up a foray where children are allowed to communicate, and adult views should not be imposed on their meanings and understandings (Clark, 2011). There is a great deal to learn about children and by enquiring into the children’s experience, we learn how they understand and manoeuvre through the world (Green & Hogan, 2005). Research has found that children are often enthusiastic and forthcoming about expressing their views and enjoy the attention they receive (Balen, Holroyd, Mountain, & Wood, 2000).
4.4 Participatory Research
In order to expand the understanding of families who were interviewed, this research was participatory research in that the researcher’s own family would go through the same process as the other family groups that were interviewed. Heidegger (1996) explains that interpretation relies on the experiences of the researcher; the researcher’s understanding is shaped by whether they have experienced a similar experience. This method broadens the horizon of knowledge and understanding, since the researcher personally undergoes a similar experience as the other families to achieve an enlarged knowledge of the whole. Schwandt (2000) says that “understanding is participative, conversational, and dialogic” (p. 195). Participatory research is described as flexible, iterative, and reflexive with the ability to explore local knowledge and perceptions (Cornwall & Jewkes, 1995, Rifkin, 1994, Chambers, 1992). Kemmis and McTaggart (2005) state that this “engages people in examining their knowledge (understanding, skills, and values) and interpretive categories (the ways in which they interpret themselves and their action in the social and material world)” (p. 567). The activities that families experienced together helped shape their identity, and the researcher wanted to have an understanding of how that identity is changing through the actions and boundaries that are set as a family.

4.5 Stage 1: Interviews
This research consisted of two types of interviews: one-on-one semi-structured interviews and unstructured family group interviews. Interviews are known to be “one of the most common and powerful ways in which we try to understand our fellow humans” (Fontana & Frey, 2005, p. 695). They are a form of contemporary storytelling where individuals reveal life experiences in response to interview questions (Gubrium & Holstein (1998). Individual interviews were done in an effort to understand their feelings about mobile technology and smart phones, to learn of life experiences, and gain insight into experiences in dealing with others who have mobile technology. For the children who participated, examples and stories were given as illustrations for questions so they would better understand what information was sought so the children felt like they had a voice while participating in the research. For the group interviews, family groups were gathered together to talk about their technology use and how having a smart phone in their family affected their family
It is understood that other technologies, besides smart phones, could reside within the family and that within these technologies there are several, like the iPod Touch, that provide a similar experience to a smart phone. For this research, each family had to have at least one smart phone within the family unit and other technologies were noted but not used as the focus of this research. These group interviews were a way to discover how the individuals viewed their smart phone use and how the members of their family viewed that same use. Since these groups were made up of people who are intimately involved in each other’s lives, it offers a perspective into the dynamics within the family group and their relationships. It also provided an opportunity for family members to become aware of any positive or negative feelings that other family members had in reference to their smart phone usage. In Figure 4.1 below, it shows a brief summary of the stages of the research and the method used.
4.5.1 Sampling

In qualitative research, the sampling size is generally small and non-random (Merriam, 1988); therefore, the participants were initially recruited from personal acquaintances and then the snowball method was used which resulted in 23 individual interviews. Qualitative researchers are not seeking to make generalizations about society, so a smaller number of participants with specific characteristics are used (Merriam, 1988). This type of research involves an in-depth examination with the goal of gaining understanding of a particular social phenomena, not a broad representation of society as a whole (Ragin, 1994). These one-on-one interviews were conducted throughout 2012. Twenty-one of these interviews were conducted in person, face-to-face, in Australia and two were conducted over Skype partially with video because of intermittent Internet connection, with people in the United States. The interviews took about 15 minutes each. Due to the varied ages of the
participants, not all participants had smart phones, but all of them at least had someone in their family who used a smart phone. Within the sample, some of the participants were from the same family, which gave additional insight into how smart phones were used within their family group. Being able to have multiple perspectives from the same family provided additional layers of information into the family dynamics and gave a broader picture of what the actual smart phone usage was of the individual and the family.

The recruiting of this study resulted in a sample size of 23 individuals. The participants varied in age from 8 years old to 73 years old with 3 in the 8-11 age range, 4 in the 12-17 age, 3 in the 18-24 age, 5 in the 25-35 age, 5 in the 36-45 age, and 3 in the 46-73 age range (See table below). All the participants had lived in either the Unites States or Australia for at least two years but were of various nationalities including 14 Australians, 3 British, 2 Americans, 1 New Zealander, 1 Indian, 1 Thai, and 1 Icelandic. Originally the age of 4 was the minimum age, believing that a 4 year old would have an understanding of mobile phones and how to use them, and they would be able to convey their feelings about this technology when asked. However, when doing some trial runs, the 4 year olds were mainly interested in playing on the smart phone and could really only speak to that desire, therefore, the age was raised to 8 years old. The age groups spanned across families and generations in order to get an understanding of all perspectives in a family group.

Table 1 Individual Participant Age Groups

<table>
<thead>
<tr>
<th>Age range of participant in years</th>
<th>Number of participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-11</td>
<td>3</td>
</tr>
<tr>
<td>12-17</td>
<td>4</td>
</tr>
<tr>
<td>18-24</td>
<td>3</td>
</tr>
<tr>
<td>25-35</td>
<td>5</td>
</tr>
<tr>
<td>36-45</td>
<td>5</td>
</tr>
<tr>
<td>46-73</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>23</strong></td>
</tr>
</tbody>
</table>
Of the adult participants, ten were married and six were currently unmarried. Of the 23 individuals who were interviewed, seven of these individuals were also part of the family groups that were interviewed in the second and third phase of the research. All the individuals were chosen for their age, situation in families, and use or contact with mobile technology. All but one participant lived with all or part of their family or in a family-like setting, so they would all have an understanding of family dynamics and how technology could affect their relationships.

4.5.2 Interview Settings

The interviews were held in a setting that was mutually convenient for the researcher and participant. Saldana (2011) emphasizes that it is important for the participant to feel secure and comfortable in the setting where the interview is being conducted so that they feel at ease sharing their thoughts and feelings. Locations where conversation could be open and private were used so that the participants felt they could speak freely.

The individual interviews were held either in homes or in an office on campus. There were 17 interviews held in a home environment, four in an office on campus, and two on Skype. For the interviews with children, the parent or guardian was in the area of the house where their children were being interviewed; however, they were not sitting with the child. It was hopeful that the locations would be quiet so that the participant could be easily understood without interruption or excessive noise and for the recording and audio transcription to happen later for further reflection. However, since all of the children’s interviews took place in a household, there were normal household noises of the family members speaking, telephones ringing, televisions and music in the background. Permission was granted from all participants or their parents for audio or video recording of the sessions. All recordings and transcriptions are kept secure in a locked file or password protected computer file.

4.5.3 Interview Protocol

Participants over 18 were given a participant information sheet detailing the research study and asked to sign a consent form that also allowed for audio and visual recording. Audio recording was used for the interviews that were done in person and video recording was used for interviews that were done via Skype. Those under 18
were also given a simplified participant information sheet and their parents signed the consent for their children. Once parental consent was given, the children were asked to participate. All participants were offered a copy of the participant information sheet to keep for their records and were informed that they could stop their participation in the study anytime within seven days of the interview.

Questions for interviewing were open-ended and semi-structured to allow for flexibility within the conversation. These in-depth interviews provided an arena for insight into their feelings and thoughts regarding mobile technology use by themselves and those around them, including family members, friends, and people they see when going about their daily lives. This type of interview provided a greater understanding of the participant’s perspective to aid in determining if technology could be considered disruptive to their lives and to gain a general understanding of how they felt about mobile technology, how they lived with it in their daily life, how they dealt with it among their family and friends, and any personal or family rules that limited their technology use.

4.5.4 Interview Questions

Each interview would start with general chit chat conversation about how their day was going to establish some rapport. Most of the interviewees the researcher had met before or had mutual acquaintances since the snowball method was used. This provided an easy introduction to each other and rapport was quickly established.

The questions used in the interviews were only a general guideline as these were semi-structured, and the participant would sometimes answer a question in a previous answer or the conversation would lead to further discussion on topics that were not anticipated but still relevant to the research. Because this style was used, not all questions were asked to all participants and at times the questions would change throughout the 23 interviews to achieve more clarity in the answer or to better explain what kind of information was being sought. When a participant did not understand the question or did not know how to answer it, the question would be rephrased or they were given an example.
The interview questions for the individual interviews are included in Appendix A.

4.5.5 Data Collection

The individual interview stage of research began in mid-October, 2011 and carried on through December of 2012. The interviews took approximately 15 minutes. The participants were contacted by email or phone and an interview was scheduled. The participant information sheets were emailed to them in advance and a paper copy was offered to them at the interview.

The individual interviews were conducted and recorded using an e-pen which recorded the audio of all the conversation during the interview. The e-pen was also used to take notes during the interview to record any thoughts or feelings after the interview was concluded. The notes and audio were then uploaded from the e-pen to the laptop. Once the file was uploaded, it was converted to an MP4 format so that it could then be uploaded to the transcription software Transana. Once the individual interview recordings were converted to MP4 format, they were time coded in the software either while being verbatim transcribed or afterward so that it would create a digital outline that forms a grid that glues the transcription to the audio file for future coding and analysis. This process provided the video snippets which were coded.

The Transana software was chosen because of its ability to code to snippets of video which were used for the family group interviews. Transana is also able to be coded through an app used with iPhone and iPad recordings. Although coding was never done through an app, there was the potential for the feature if needed, since some of the family group interviews were video recorded using an iPad or iPhone.

Once the interview recordings were uploaded to Transana, verbatim transcription took place in the software. Most of the individual interviews were scheduled in clusters of time during the week, so transcription, coding, and analysis generally took place in groups where two to five interviews, in succession, were done at a time. In Transana, themes are called keywords and within each keyword there is the capability to make sub-categories. These themes and sub-themes are annotated and attached to the words in the transcription and the section of audio in which it takes place, so that it can
reference either the written or spoken words if the researcher needs to go back and revisit. This allows for a compilation of quotes and comments for each theme and its sub-themes in a report. This also creates a drill-down feature for each theme, so that the sub-themes are listed underneath and easy to locate. Theoretical saturation, where it is believed that no further collection will contribute to the research (Schwandt, 2007), was believed to be reached after 19 interviews, but four additional interviews were conducted to be sure that no other new themes came to light. Once the additional interviews were conducted, the same themes were recurring and no additional insight was received so the interview process was considered complete for this term of research.

4.6 Stage 2: Family Group Interviews
The second and third phase of this research included family discussion groups. These interviews started out as non-directive, affinity group discussions in the style of Hugh Mackay (1993). This method for group discussions involves affinity groups, or naturally existing social groups like friends, neighbours, and organization members (Mackay, 1993). The group is brought together in a natural setting where they would normally meet, and the topic of discussion is introduced. In this type of group discussion, the moderator role is essentially passive to introduce the topic and then let the group discuss the topic without interruption (Mackay, 1993). In this format, the discussion will proceed in a similar way as any natural conversation between a group of friends and associates, except the subject has been chosen for them. It is expected that this environment will have leaders and followers, those that speak and those that do not, tangential conversations and possibly jokes, but this is all part of developing an understanding and a thick description of the group and their environment. The beliefs and attitudes will slowly emerge through the natural ebb and flow of the conversation (Mackay, 1993). Furthermore, since children will be involved in many of the family discussions, children do not have the same understanding of politically correct discourses, so an in-depth account of their feelings and perspectives would be expected (Gram, 2005).

Though the non-directive affinity group discussion seems to be very casual, the method has some specific requirements to be successful. The groups must be naturally formed groups of people who are already friends or acquaintances. The
group discussion must be conducted in an area that is a natural location for the group, such as a location where they would normally meet, and the conversation must be uninhibited by the moderator, allowing discussion to proceed freely and spontaneously. The advantage of this according to Mackay (1993) is that when participants are in familiar settings with people who share an interest, they are more relaxed and participants feel more comfortable and willing to speak. Since the groups themselves are internally homogenous, the diversity of the respondents relies on heterogeneity between groups, which is why interviews with traditional family groups of various backgrounds and occupations were chosen.

This method was attempted with two families, and it was found that the families would have a conversation about one of the topics mentioned, and then they would all turn and look at the researcher to prompt them on the next topic. The families were not inherently conversational in this environment. In speaking with Hugh Mackay, he advised that this method did not always work with family groups because of their intense intimate knowledge of each other. In some ways, there was no reason for them to talk about the effect of the smart phone on their family because they already experienced it on a daily basis.

At this point the method was changed to a more open, unstructured family group interview. The overall topic was introduced and suggestions were given regarding ideas they could discuss, and then they were left to start the conversation. Once conversation would lag, the researcher would ask a question about something they said or move along to a different focus in the overall topic. The questions were not written out in advance; the interviews were unstructured in that the family would guide the conversation around the topics and the researcher would merely offer suggestions to keep the conversation going or to steer it in a new direction as needed.

4.6.1 Sampling

The family groups were recruited from personal contacts, people who were recruited for the individual interview section of the research, and the snowball method. This resulted in ten family groups being used in this research. These families all had a married mother and a father at the core of the family plus three of the families had one
or both grandparents of the children living with them on a full time or partial basis. Two of the families had fathers who were on their second marriage from a divorce; both had older grown children from the first marriage who did not live with the family. All of the families had at least one smart phone in use in the family. Four of the families lived in Wollongong, Australia, five of the families lived in Utah, USA, and one family lived in Australia and Utah. All the families had at least one child with the largest family having five children.

The recruiting conversations occurred with one of the parents of the family. A participant information sheet was emailed to the family contact, and the parents would sign the consent forms and parental consent forms for the children. All were offered copies of the participant information sheet at the time of the interview. The families could withdraw their participation from the study at any time up to seven days following the interview.

Although the structures of all the families had a traditional male and female married couple as the core, the personalities, occupations, cultural differences, children’s ages, and general lifestyle differences created a diversity within the traditional families. The families also needed to have gone on a family vacation within the last eight months. Within each family, there had to be at least one smart phone being used, although only two families had one phone, the rest had between two and four. However, many of the children in the families had an iPod Touch, which is basically a smart phone without the phone feature, but they used applications like Skype and Facetime which create phone and video call type communication that simulate an actual smart phone. The smart phone also had to be used as a smart phone and not just as a phone. The applications and other data features had to be used as well as texts and phone calls. People who own and use a smart phone merely as a phone would not meet those requirements; multiple functions of the smart phone had to be used on a regular basis.

Although the traditional family structure is not as common as it once was, it is still a viable family structure and one that is worth researching. After researching families to participate in the family group interviews, it was found that there was a great deal
of diversity within the traditional families that were recruited. For example, within this small group, there are three that have multiple generations living under the same roof. One of the fathers travels extensively for work and is gone Monday through Friday of most weeks. Another family has a military father who is gone for extensive periods of time as well. Some of the mothers work full-time and some part-time and some stay at home to care for children. Some of these families are small and some are large, some were on their second marriage. Others dealt with work schedules outside the normal 8 a.m. - 5 p.m. work day and some of them seemed to always be working. These variations within the traditional families allow for great diversity within the group so that, although family structure was limited to only a married mother and father with children at the core of the family, a rich pool of data was collected.

4.6.2 Interview Setting

Since this research is grounded in family systems, the family interview setting is important so that the researcher can view the interactions of the family members and gain some understanding of how they socialized and worked together in their normal environment. A location was sought where the family would be comfortable and in a familiar environment. All but one of the family group interviews were held in the family home with the family there as a group. One family asked if they could be interviewed at the husband’s office because the wife was pregnant and had been limited to bed rest for weeks but was now able to leave the house, and she wanted to have some different scenery. The wife and daughter generally visited the father often at the office, so it was still a familiar place where they could feel comfortable.

4.6.3 Interview Protocol

Once the family was gathered, the interview would begin with an explanation that the session would be audio and video recorded so that it could be transcribed later, but that their responses would be confidential. The process of the interview was explained and they were asked to have only one person talking at a time. The researcher would then explain the objective of the research by saying something similar to the following:

“My research specifically looks at families who have smart phones and how the smart phones affect family bonding. One of the ways we find out what people think about
smart phones is by holding these family group discussions like we have here tonight. In this case, I am specifically looking at how the smart phone is used within your family.”

4.6.4 Interview Questions

Although these interviews were unstructured, there were some general questions that the researcher used to guide the conversation in case the family did not cover all the topics. Examples of these questions are included in Appendix A. These interviews ranged in length from 20 minutes to an hour and depended on the number of people in the family and how fast they spoke.

The family systems theory states that systems seek balance, so if a family member has negative feelings towards technology use by one or more members, the researcher sought to find out if the family made any adjustments during their daily life or on vacation to try to alleviate these negative feelings. Due to the special nature of vacations, was there more of an effort made to counteract any negative feelings during their vacation time?

4.6.5 Data Collection

All the family group interviews were audio and video recorded so that they could be transcribed later, analysed and reflected upon. Verbatim transcription was done by the researcher along with notations about gestures, emotions, feelings, where they sat, interactions, and other contextual elements of the interview. Since a thick description is desired for this research, external cues and undertones were noted, along with any other vital information that helped create a deeper understanding of the family dynamics. All interviews were transcribed by the researcher so that a more thorough understanding of the data was obtained and a greater familiarity with the data so that as new themes emerged, the previous interviews could be easily reviewed for underlying themes. A researcher journal was also used to write down any reflections, observations, and recurring themes immediately after the interviews were completed and throughout transcription and analysis.

Many of the themes were topics that were recurring throughout the interviews. Some examples of categories that emerged were comments about boundaries/rules
established in relation to their technology use, technology use on vacation, and ways they used technology as a bonding tool. Then sub-themes were established as people spoke of specifics within that theme; for example, within the boundaries/rules theme, there were sub-categories that included comments regarding lack of rules regarding technology use, not having any technology at meal times, and technology being taken away as a form of punishment.

4.7 Data Analysis
For the data analysis of both the individual interviews and the family group interviews, a philosophical hermeneutic style was used, which can be described as an endless sifting between the minute details and the larger overarching themes. As is tradition in hermeneutics, the interpretation and the data analysis happened simultaneously, bringing together the conversation and experiences with knowledge (Laing & Moules, 2014). The hermeneutic circle, the way in which the whole and the parts are interpreted together, allows the researcher to look at the subject in relation to the context and the details and then reverse and look at the details in context of the whole (Gadamer 1970, 1975, 1977, Moules, 2002).

In interpretive approaches, relevant concepts and language in the data are used as a way to sensitize the researcher to the significant aspects of the research and provide a map for the researcher to seek recurring themes (Nordqvist, Hall, & Melin, 2009; Hammersley, 1989). The way the participants speak often gives impressions of their experience and reveals cultural and ideological perspectives that are involved in the meaning-making of an event (Freeman, 2007). As each transcription was analysed, language and thoughts that were sensitizing concepts to Systems Theory were coded into themes using Transana software. As Boyatzis (1998) defines, a theme is simply “a pattern found in information that at minimum describes and organizes possible observations or at the maximum, interprets aspects of the phenomenon” (p. vii). These themes were coded as keywords in Transana. Within these broad themes, recurring sub-themes also emerged and were coded. As each new interview was coded and new themes or sub-themes emerged, the previous interviews were then reviewed, as is the tradition of philosophical hermeneutics circling of information, to be sure there were no underlying conversations regarding that topic that had been missed in the previous analysis. This created an endless pattern of circling back and
forth through the interviews to be sure the analysis was thorough and also created a deeper understanding and relationship with the material being analysed.

4.7.1 Stage 1-Individual Interviews

For the individual interviews, each interview was audio recorded and then uploaded to the Transana transcription software and verbatim transcribed. Although the individual interviews started first, there was some overlap between the first and second stage and at times, both stages were taking place so the transcription was being done for some individual and group interviews simultaneously. As the transcription was being done, some coding was taking place simultaneously and once the transcription was complete, the transcription would be analysed again for any themes that were missed during transcription. So initially, each transcription was analysed twice and then as other themes emerged from later transcriptions, they would be analysed again looking specifically for new themes and sub-themes. As the coding process happened, rules were established and noted in Transana that stipulated what the category meant and what was to be included in that category.

During the individual interviews, an understanding of the individual’s thoughts and feelings regarding their own technology use and that of those around them was sought. Themes emerged that included dependence on technology, complaints about technology, and feelings of security. Another example of one theme that emerged and became a keyword was disruptive technology, which involved ways in which individuals felt that technology was disrupting their relationships. The subcategories within this keyword involved comments about feeling ignored because someone was engaged with technology, being distracted by technology, and the inappropriate uses or bothersome activities that involved technology.

4.7.2 Stage 2 and 3-Family Group Interviews

The data analysis for the family groups was handled in a similar manner as the individual interviews; however, the group interviews were generally longer, therefore the transcriptions took longer to complete. These interviews gave access to the thoughts and feelings related to technology use, how they use technology personally and as a group, and how their family was coping with the use of smart phones and
other mobile technologies within their family. They also shed light on ways families are establishing rules regarding technology within their family system and how the family members felt concerning those established rules. In the philosophical hermeneutic fashion, understanding of the individual and global feelings is vital (Schwandt, 2000) and those feelings mentioned in the context of the interview were analysed in conjunction with their lifestyle and family dynamic so that there was a greater understanding of the family and the environment in which they live.

In the beginning, sensitizing concepts to Family Systems Theory were used to look for ways the smartphone might affect family bonding. Examples of these concepts included issues related to bonding, needed time together and apart, and establishment of family rules. A recurring theme was for people to use their technology to keep in touch with loved ones, both those that lived close by and those far away. Since we were looking for how smartphones are influencing bonding, these comments would have been coded under the bonding using technology keyword or theme. Within that keyword, there were subcategories that arose such as sharing experiences, sending loving texts or words of encouragement which were called texts of endearment, documenting memories, and playing games together.

After the family was asked questions about their daily life, the conversation changed to talk about technology use while on vacation. Many of the same themes occurred; they were just specifically related to being on vacation. For instance, while it was important for people to keep in touch with family members in their daily lives, they also wanted to maintain that connection on vacation and would use technology to keep in touch and share experiences with extended family or those family members who were not present.

The next part of the process included looking at the collections of comments under each keyword. This was done by looking on screen or by running reports. These collections show all the coded phrases with their assigned keyword and episode name, which was the family name, and the themes or sub-themes that were coded into that section. The data was analysed by looking at the family interview collection or by keyword collection. This part of the research is iterative and dynamic (Merriam,
1998) as the interviews are being analysed and patterns are looked for in the data. This type of analysis is commonly used in qualitative research and is especially useful in analysing interviews and individual accounts (Taylor & Bogdan, 1984).

Once the transcriptions were complete and the coding was finished, the keywords and sub-categories were analysed in relation to see which themes were repeated the most or were the most emotionally charged issues that the individuals discussed. Next, these comments from individuals would be compared to the comments of the family group interviews to see if there were similar issues and how the families were handling the situation within the family system and whether they were addressing any problems as part of their family rules.

4.8 Credibility
As the interviews were completed and themes established, in order to enhance credibility of the research, member checks were used as a cross check of the research (Denzin & Lincoln, 2000). For the individual interviews, the participants over the age of 12 were emailed a synopsis of his/her interview. The participant was then given a chance to correct any information that seemed incorrect or was misinterpreted. The participants were also asked for clarification, if needed, on any topics. None of the participants under the age of 12 had email so a parent was emailed and they verified the information or informed the researcher of any corrections that needed to be made. For the family group interviews, at least one of the parents were sent an electronic message with a general summary of the family group conversation and how it was interpreted plus any clarifying questions, if needed. The parent was able to provide any corrections to the interpretations or clarify any vague statements in their reply or to make further comment on the discussion if they chose. These member checks allowed for participants to verify or correct any of the interpretations of the researcher. As mentioned in the hermeneutics approach, the interpretation of the data is influenced by the researcher’s horizon, so this form of cross checking will help to validate the findings and assure that the researcher’s understanding is in line with the intent of the interviewee.
4.9 Assumptions and Bias

In conclusion of this chapter, a discussion on the researcher’s assumptions and bias need to be discussed. As discussed earlier, I am a member of a traditional family. As a wife and mother, I have a small family that has travelled the world together and had some wonderful experiences together. As a daughter, my parents are nearing their 50\textsuperscript{th} anniversary and I have two sisters and a brother. As someone who grew up in a loving and supportive family, I am an advocate of the same and wish that all individuals had the same opportunity. However, I know that this just cannot be. My grandmother was a single mother who was abandoned by her husband just days after her daughter was born. My husband grew up with an abusive father who eventually left the family and his mother struggled to provide for them. I know that not all families work. However, I have a great interest in seeing just how successful families do work, because I think there is something to learn from family groups who are seeking to find balance and be successful as a family unit.

With the rapidly advancing and increasingly shrinking size of technologies, mobile phones and smart phones have changed the way we communicate and interact in as a society. Families are the basic units of society so the goal was to discover what families are trying to do to balance this technology that can help keep them connected and also provide an escape from their surroundings. It is a juggling act for parents as they weigh the positive and negative effects that bringing this technology into the family will have. A device that allows them to keep connected with loved ones also has the power to be a distraction from shared experiences and bring in, perhaps, unwanted material into the family home. It is a fine line to walk as parents, trying to figure out what parts of the outside world to allow into their family.

As an American, my background and historical reference is American; however I have travelled throughout the world and lived in Australia for two years and I feel that has broadened my point of view somewhat. I have friends of diverse cultures, religions, and backgrounds and seek to find commonalities and shared experiences with these individuals. I am also a member of The Church of Jesus Christ of Latter-day Saints, nicknamed the Mormons, and as a Mormon, families are important. Many
of the Church beliefs are centred on families and that family ties can be linked across generations for eternity. We believe that families can be together forever.

From a research standpoint, I am an outsider to these families but having spent time with them through interviews and being involved in similar organizations, I felt like I became less of an outsider and more of a friend they were having over for dinner. I expected there to be some parental control exerted at times during the interviews when kids brought up something personal or private but there was only one instance when that occurred, and the main reason was because it was about an extended family member who was not there and they did not want to divulge someone else’s private life.

As an outsider to the family, I tried to pay special attention to the nuances of each family and how they communicated so that I would understand their style and the manner in which they communicated. Every family had a different personality and different style of doing things, even their homes were all very different, but they all seemed to welcome me into their home and family and were comfortable sharing this part of their lives with me. By the end of the research, I felt that I had a better understanding of each of their dynamics and how they functioned as a group. However, I was not a part of their family and was still an outsider to their family group and while I did my best to make everything as natural as possible, my questioning and presence still would have an influence and may have made them think about the topic in relation to their smart phone use. A few times in the interviews, someone would start out by saying that their smart phone interference was a big issue but then they might also relate that they couldn’t live without their smart phone or they might relate that it is a big issue for other people but not themselves. While my topic dealt with the way they all personally used their smart phones and mobile devices, it still seemed to not be too intimate of a topic where people were embarrassed or uncomfortable sharing their feelings.

In doing this research, I wanted to gain an understanding of how individuals and families are dealing with smart phones in their lives and how it is affecting their relationships. Many people think these mobile technologies are tearing families apart,
but others say it is providing a new way for families to communicate and I wanted to see which was true or if both were. I am seeking an understanding of the key ideas or tools that are being used within families to help them be successful in finding balance between having these technologies and still having meaningful bonding and shared experiences. I found it interesting the ways these families coped with technology in their lives. Some are doing it better than others and some are not very successful, but there was something to be learned from each family.

4.10 Summary
This study was conducted using qualitative methods including individual interviews and family group interviews. The semi-structured individual interviews sought to understand how the individual felt about smart phones and how they used it in their daily life. The family group interviews were unstructured interviews that centred on how they used smart phones within their family, how they communicated with them, the feelings they had for smart phones and how their daily lives were affected by smart phones. The second stage of the family group interviews concentrated on the time the family spent on vacation and how their behaviour changed in relation to their smart phone use. These methods were used so that rich data was acquired with thick descriptions of their feelings regarding smart phones. The individual interviews were audio recorded and the family group interviews were audio and video recorded so that they could all be verbatim transcribed by the researcher and thematically coded in Transana software. To ensure the researcher understood the feelings and intent of the participants, a summary of the interview was sent back to some participants to verify the interpretation of the researcher.
5. FINDINGS

This chapter will detail the findings from the research. It will begin with a description of the individual participants and family groups involved in the research. There is a chart below the description that gives a synopsis of the participants for an easy reference. Next, the results are shown in the order of the research objectives.

5.1 Reference Chart for all Interviewees

The charts below represent all the people who were interviewed and in which interview they participated. Since some individuals only participated in one-on-one interviews and other participated in both, this table provides a quick reference for all participants. In the case where a family member was not interviewed, they are listed with the family but not given a name unless they were specifically referred to in the findings. The participants are grouped in alphabetical order by surname. A more detailed listing is provided in Appendix C.
Family Name: Baker
Sariah
Age: 25, Born in the United Kingdom, lives in Australia
Technology: Smart phone, 2 laptops, iPad
Participated in individual interviews

Family Name: Bishop
Rick
Age: 38, Born in Australia, lives in Australia
Technology: Smart phone, shared desktop
Participated in family interviews

Harmony
Age: 37, Born in Australia, lives in Australia
Technology: Smart phone, shared desktop
Participated in individual and family interviews

Michelle
Age 10, born in Australia, lives in Australia
Technology: shared desktop, school provided laptop, shared iPad
Participated in family interviews

Cash
Age 8, Born in Australia, lives in Australia
Technology: shared desktop, school provided laptop, shared iPad
Not interviewed

Holly
Age 3, Born in the Australia, lives in Australia
Technology: Shared desktop
Did not participate

Vince
Age 1, Born in Australia, lives in Australia
Technology: Shared laptop desktop
Did not participate

Darlene
Age 64, Born in Australia, lives in Australia
Technology: Smart phone, shared desktop
Participated in family interviews

Jack
Age 65, Born in Lebanon, lives in Australia
Technology: Smart phone, iPad, shared desktop
Participated in family interviews
Family Name: Black

Lucy
Age: 28, Born in the United Kingdom, lives in Australia
Technology: Smart phone, laptop
Participated in individual interviews

Family Name: Cantoni

Anthony
Age: 55, Born in Australia, lives in Australia
Technology: Smart phone, laptop, iPod, Shared desktop
Participated in individual and family interviews

Carrie
Age: 36, Born in Australia, lives in Australia
Technology: Smart phone, laptop, shared desktop
Participated in individual and family interviews

William
Age 15, Born in Australia, lives in Australia
Technology: Smart phone, iPod, shared desktop, school provided laptop
Participated in individual and family interviews

Penney
Age 13, Born in Australia, lives in Australia
Technology: Shared smart phone, Shared desktop, iPod
Participated in individual and family interviews

Laverne
Age 73, Born in the United Kingdom, lives in Australia
Technology: Shared laptop, e-reader
Participated in individual interviews
Family Name: Craft

Jerry
Age: 43, Born in the USA, lives in the USA
Technology: Smart phone, laptop
Participated in family interviews

Lara
Age: 40, Born in the USA, lives in the USA
Technology: Mobile phone, shared laptop, iPod
Participated in family interviews

Cecily (away at college)
Age 20, born in the USA, lives in the USA
Technology: Smart phone
Did not participate

Katie
Age 14, Born in the USA, lives in the USA
Technology: Mobile phone, shared laptop, iPod
Participated in family interviews

Kammie
Age 11, Born in the USA, lives in the USA
Technology: Shared iPod
Participated in family interviews

Family Name: Eckerd

Leah
Age: 66, Born in the USA, lives in the USA
Technology: Smart phone, laptops, iPad
Participated in individual interviews

Family Name: Goa

Jim
Age: 66, Born in the USA, lives in the USA
Technology: Smart phone, laptops, iPad, iPod
Participated in individual interviews
Family Name: Ferguson

Kenneth
Age: 38, Born in the USA, lives in Australia and the USA
Technology: Smartphone, laptop
Participated in family interviews

Hadleigh
Age: 43, Born in the USA, lives in Australia and the USA
Technology: Smartphone, laptops, iPad
Participated in family interviews

Tom
Age: 7, Born in the USA, lives in Australia and the USA
Technology: Smartphone, mini computer
Participated in family interviews

Lorraine
Age: 65, Born in the USA, lives in the USA
Technology: Smartphone, laptop
Participated in family interviews

Family Name: Logan

Karl
Age: 31, Born in Iceland, lives in Australia
Technology: Smartphone, laptop, iPad
Participated in family and individual interviews

Heldi
Age: 30, Born in Iceland, lives in Australia
Technology: Smartphone, laptop
Participated in family interviews

Nancy
Age: 3, Born in Iceland, lives in Australia
Technology: None
Did not participate
Family Name: Johnson

- Age: 36, Born in Australia, lives in Australia
  - Technology: Smart phone, laptop
  - Not interviewed

- Susie
  - Age: 34, Born in New Zealand, lives in Australia
  - Technology: Mobile phone, shared laptop
  - Participated in individual interviews

- Coco
  - Age: 12, Born in Australia, lives in Australia
  - Technology: Mobile phone, iPod, shared laptop
  - Participated in individual interviews

- Sammie
  - Age: 9, Born in Australia, lives in Australia
  - Technology: Shared laptop, school computer
  - Participated in individual interviews

- Bella
  - Age: 8, Born in Australia, lives in Australia
  - Technology: Shared laptop, school computer
  - Participated in individual interviews

- Age 1
  - Born in Australia, lives in Australia
  - Technology: shared laptop
  - Did not participate in interviews

Family Name: Lawrence

- Chris
  - Age: 23, Born in India, lives in Australia
  - Technology: Smart phone, 2 laptops, iPad, e-reader
  - Participated in individual interviews
Family Name: Manning

Bryan
Age: 38, Born in the USA, lives in the USA
Technology: Smart phone, laptop, shared desktop
Participated in family interviews

Margie
Age: 39, Born in Canada, lives in the USA
Technology: Smart phone, shared desktop
Participated in family interviews

Brady
Age: 12, born in the USA, lives in the USA
Technology: iPod, shared desktop
Participated in family interviews

Emily
Age: 4, Born in the USA, lives in the USA
Technology: Shared desktop
Participated in family interviews

Family Name: Maple

Josh
Age: 47, Born in the USA, lives in the USA
Technology: Smart phone, laptop, shared desktop
Participated in family interviews

Elizabeth
Age: 46, Born in the USA, lives in the USA
Technology: Smart phone, shared desktop
Participated in family interviews

Jacob
Age: 18, born in the USA, lives in the USA
Technology: Mobile phone, laptop, shared desktop, iPad
Participated in family interviews

Valerie
Age: 14, Born in the USA, lives in the USA
Technology: Mobile phone, shared desktop
Participated in family interviews
Family Name: Neilson

Rick
Age: 40, Born in the USA, lives in the USA
Technology: Smart phone, laptop, shared desktop
Participated in family interviews

Jenny
Age: 38, Born in the USA, lives in the USA
Technology: Mobile phone, shared laptop, iPod
Participated in family interviews

Aggie
Age 16, born in the USA, lives in the USA
Technology: Mobile phone, shared laptop, iPad
Participated in family interviews

Joey
Age 15, Born in the USA, lives in the USA
Technology: Mobile phone, shared laptop, iPad, iPod, tablet
Participated in family interviews

Monica
Age 11, Born in the USA, lives in the USA
Technology: Shared laptop, iPod
Participated in family interviews

Marcie
Age 7, Born in the USA, lives in the USA
Technology: Shared laptop, iPod
Participated in family interviews

Thomas
Age 4, Born in the USA, lives in the USA
Technology: Shared laptop
Participated in family interviews
Family Name: Rinehart

Monroe
Age: 41, Born in Australia, lives in Australia
Technology: Smart phone, laptop, iPod, Shared laptop
Participated in individual interviews

Kristina
Age: 36, Born in Australia, lives in Australia
Technology: Smart phone, shared laptop
Participated in individual interviews

Jaya
Age: 12, Born in Australia, lives in Australia
Technology: iPod, shared laptop
Participated in individual interviews

Gene
Age: 8, Born in Australia, lives in Australia
Technology: Shared laptop
Participated in individual interviews

Age 2, Born in Australia, lives in Australia
Technology: Shared laptop
Not interviewed

Rhiannon
Age: 25, Born in Thailand, lives in Australia
Technology: Smart phone, laptop, desktop
Participated in individual interviews

Family Name: Smith

Mike
Age: 22, Born in Australia, lives in Australia
Technology: Smart phone, laptop
Participated in individual interviews

Anne
Age: 20, Born in Australia, lives in Australia
Technology: Smart phone, laptop
Participated in individual interviews
Family Name: Ranger

Jason
Age: 43, Born in the United Kingdom, lives in Australia
Technology: Smart phone, shared desktop
Participated in family interviews

Judy
Age: 40, Born in the United Kingdom, lives in Australia
Technology: Smart phone, shared desktop
Participated in family interviews

Rod
Age 11, born in Australia, lives in Australia
Technology: iPod, shared desktop
Participated in family interviews

Paul
Age 9, Born in Australia, lives in Australia
Technology: iPod, shared desktop
Participated in family interviews
5.2 Research Objective #1—Perceptions

The first research objective was to discover perceptions of smart phone technology by family members. For some people the smart phone was viewed as a tool to help them...
function as an individual and as a family in their daily life. Others felt that the smart phone was more of a bother and preferred other forms of communication. There were also times when some of the participants felt that it interfered in their personal relationships, but others felt that it provided ways to strengthen relationships.

5.2.1 Smart Phones as a Tool

Many of the individuals that were interviewed expressed that they woke up to their alarm on their smart phone, used it continuously throughout their day, and went to bed after reading or checking social media at night. It was a tool used to help them get through their day. Karl Logan (38) said:

I answer phone calls, do short text messages, I read and reply to email, I use Facebook, and a number of other iPhone applications…I just recently started using the mobile phone calendar. Usually I just use my computer calendar but now I use my mobile phone calendar…Now it is reminding me to do stuff that my wife asks me to do… everything from pick up my daughter to almost brush my teeth because I am slightly slow when it comes to remembering things.

Kristina (36) said that one of the greatest assets of having a smart phone was the convenience. She said:

When your car breaks down, when you are at the checkout and your husband has transferred money out and not told you and you say ‘What am I supposed to do with this $200 trolley full of groceries?’ One time I left the house and filled my car with petrol and had to ring Monroe and say ‘Monroe, I just filled the car and left my wallet in the bedroom.’ There are lots of emergencies…and sometimes, we are so busy, I will have to make phone calls, or do text messages, so I do it like when Monroe is taking me to work, so I am travelling and doing tasks.

Kenneth Ferguson (38) also agreed that his smart phone helps him in administrative type tasks, he said:
I use my smart phone every day, I travel every week for business and I use it for making phone calls, the calendar, I use it for social media: Facebook, twitter, LinkedIn, Pinterest. I use it for contacts, email, I use it for news, I use it for movies, entertainment…I would say text is slowly creeping past phone calls, I use text, I message, I use google voice messages, and Facetime, Apple’s version of Skype.

Kenneth’s wife, Hadleigh (41), said she uses it for much the same:

I find it most convenient when I am waiting. Whether it is waiting for an appointment, waiting to pick up my son from school or waiting in line, my smart phone offers me the opportunity to quickly check email and social media when I normally would be bored. It helps pass the time and also helps me utilize those pockets of time in a productive way so I don’t have to wait to do it at home.

Harmony (37) brought up a similar point when she said:

For me, I think it is a help because if I didn't have a smart phone, that is probably 50% of how we communicate simply because we are so busy that we just would never know where we are or what we had to be doing. If we were to wait until we were home together or face to face to communicate to each other, it would be midnight.

The smart phones helped coordinate and get things done because they were able to do things on the go. In this way, the smart phones help keep the system moving so that members can remember appointments and get things done even when they are not at home.

For some people, they had not reflected on how they use their phone until they were asked, and then they would realize as they spoke that the phone had a substantial impact on how they functioned during their normal day. When Monroe (41) was asked how he used his smart phone in his daily life, he said “Just as the phone really.
No, I do go on the Internet with it, if I need to then google maps, mobile technology, I use Facebook, text messaging, and search for Internet and church stuff and games.”

The more he talked, the more he realized that he did not just use it as a phone for calling people. This happened many times throughout the individual interviews where the discussion had moved on to another topic and in the middle of a thought they would remember another way that they used their phone and interrupt their story to tell me how else they used it. Anthony (55) did this a few times throughout our interview and then he said “I never realized how much technology I use all day.” I asked him if he felt like it was disruptive to his life and he said “Well, I use it as a major tool, so it is a bit hard for me to say it is disruptive because I use it as a tool.”

For Anthony, who works a full time job and then is a musician four nights a week with gigs and DJ-ing, his smart phone was part of his regular routine. It was intricately involved in his everyday life for everything from information search, to using apps as a music analyser, taking pictures, and marketing his band and business but it was not until it was brought to his attention that he realized to what extent he used his phone.

5.2.2 Smart Phones as a Bother

Not all the participants felt that the smart phone was a tool that was helpful in their daily lives. Some of them considered it to be an outright bother and that they were being required to use a smart phone when they would rather use something simpler. In the Bishop family, for instance, there were polarizing views of smart phones. The parents, Harmony and Rick, use their smart phones in coordinating schedules and keeping in touch throughout the day. The grandparents, Jack and Darlene, also had smart phones but their use, or lack thereof, of smart phones caused great frustration among the adults in the family. Jack (65), speaking of Darlene (64), says:

[She] is the worst person in the world for phones; she is the worst, the worst, worse than worst. I'll ring 3 times and then I will give up ringing then and just, it's hopeless, she is the worst in the world. She leaves it lying around, most of the time it is sitting at home, you know?
When Harmony questioned her mom about why she doesn’t take it with her, she said she was not interested in taking it with her, but it clearly caused a conflict between the adult members of their family and how they would like to communicate and coordinate their schedules. However, this was not the only problem of communication within their family. Jack also would very rarely respond to texts, which was the main way that Harmony (37) liked to communicate. She said “If you send him a text message, he never answers them and then I will say ‘You have six messages’ and he will say ‘What do they say?’” and she will get frustrated because he has not read any messages for two weeks. This pattern of behaviour shows a generational difference in technology usage and their preferences for using their devices to accomplish tasks. It also shows that the grandparents did not feel the need to always be attached to their technology whereas the younger individuals felt like it was an integral part of their day.

The Ranger family also had a similar issue with Jason’s oldest son from his first marriage. Jason (43) said:

I try to get in touch and text message my oldest son, who is 20, and I would like for the text message to tell me whether the text message has actually been received and read by him because we are trying to organize an appointment and it was impossible for him to answer me and...I had no idea if he had read it and when I spoke to him, he said 'oh yeah' so he had read it.

Jason was clearly frustrated by his son’s lack of response. Jason then said that he figured out a way to solve the problem. He will call from a different phone number and his son will always pick up because he doesn’t know whose number it is.

While many participants used their smart phone as a tool, Jack Bishop (65) does not. He has a smart phone and uses it some for its smart capabilities but he does not like technology. He said:
You’ve come to the wrong bloke…because I hate it... I've got an iPad as well and on the iPad, I've got only church (apps) stuff. But I don't play games on it or anything like that... I am a dinosaur or something. I would much rather talk to someone than use email and stuff like that...Electronic stuff, I am not comfortable with it, I don't enjoy it. I have it so I can contact mum and mum can contact me… The main reason I use the phone is to ring my grandkids, that is the biggest thing for us.

So, for Jack, it is a necessity in that he requires it to keep in touch with his family, and he will put up with the annoyance so that he gets that benefit.

Judy Ranger (40) calls herself old-fashioned because she prefers less technology, to her it can be overwhelming. She said “I am a bit old fashioned…I still write in my diary where most people use their phone. And people say 'Well, why don't you put it in your phone?' and I'm like ‘Nah, I like the paper and pencil.’” Even some of the younger participants, while they did not say the smart phone was a bother, there were some who questioned the need to have a smart phone or were indifferent to it. Michelle (10), the daughter of Rick and Harmony Bishop and granddaughter to Jack and Darlene made the comment:

I don't really get the point of having a phone well I do, kind of, but instead of using it for time, you could wear a watch and instead of texting people you could just call them. Like, why not have a regular phone instead of an iPhone?

5.2.3 Smart Phones as an Interference

Although some viewed the smart phone as a tool and others as more of an annoyance, many on both sides mentioned times when smart phones interfered in their lives. These comments usually dealt with personal relationships and the distractions that smart phones can cause, which will affect bonding. When asked if she felt it was difficult to engage with people when they were on their phone, Coco Johnson (12) said:
Yes, definitely because whenever I am talking to somebody and I've got my phone out, I am thinking more about what the phone is doing or the iPod is doing than thinking about what I am talking to the person…You know they are there and they are talking to you, well, it is kind of like when you are listening to music on your iPod and trying to read a book at the same time…you can't do both well, you can listen to the music and then read your book but you have to either stop and read the book or put the book away because it just gets too hard.

Chris (23) also felt like technology was interfering in conversations with his dad. He said:

My dad will do that at times, he will be reading the news, when he is meant to be spending time with his family. No, there is bit of a disconnect between what he is doing and what is going on otherwise because we might be talking about something and we will say ‘Oh what do you think, dad?’ and he will say ‘What?’ So he is clearly not paying attention.

Chris further stated that when this happens, it is as if he was not even there talking to his dad. Penney Cantoni (13) said “I think it is just that you try and tell them something really important, and they are just not paying attention.” In cases like these, these actions have an obvious effect on bonding between the individuals. Feelings of inadequacy, unimportance, and neglect will hinder bonding between these individuals, especially if it is happening over and over again. It seems especially hurtful when it is between a parent and a child.

Elizabeth (46) also has a sister-in-law who is distracted by her phone all the time and it interferes with their relationship when they spend time together. She says:
[She] drives me crazy!...I will be with her in the car or at the dinner table or a family party or whatever and she is always on and I am old school, whatever, but that's rude...I will say 'You are with me,’ and she will say ‘I just have to do this.’ and whatever and I think it is super rude, I really do.

And sometimes when people do use their smart phone around others, it causes interference because of issues with privacy and personal space. The Crafts said that it has caused problems in the past, Lara (40) said:

We were at a family dinner and my nephew had his phone sitting out on the table in the middle of everybody and a text came through, and I just was joking around with him and said the first two words, like 'you're freaking me out' and I asked why are you freaking? And he got really upset about me seeing that but my position is if you are going to put it out in front of everybody or even if you are going to text somebody, then everybody should be able to read it, it shouldn't be, you know, private, so the whole thing where the teenagers get mad because you saw their phone or saw what they were texting, I think is a little bit ridiculous.

The Maples experienced a similar instance with one of their cousins on vacation. Jacob (18) said “Our cousin snap-chats with his girlfriend and it is really annoying...All the time!” Elizabeth (46) said “And it is 24-7 and it is like this age (referring to her children's ages) when they get a little bit older they are losing touch with reality.” Jacob found this behaviour annoying and no longer enjoyed being around his cousin because of it. This is a demonstration of a blockade in the building of relationships because of the use of a smart phone.

There are other ways that people perceive smart phones as an interference to people and their relationships. There can be negative or adverse feelings about pictures being posted on social media of themselves or their family. Harmony Bishop (37) said:
Socially I think that the use of Instagram, Twitter, Facebook and things is a huge impact on my social outing because there are times when as a family or friends, we have gone out to do things and the next day, there is my picture up on twitter or up on Facebook or up on whatever and nobody has asked my permission. So, it feels like there is a constant intrusion in my life.

Coco Johnson (12) also mentioned that sometimes people say mean things on social media that they would not say in person, or it came across the wrong way and feelings were hurt. While social media offers conveniences, many participants felt that written words could be misinterpreted or that people felt braver in saying hurtful things that they would never say to someone face-to-face.

In the Maple family, they have had quite a few issues with a cousin who has a smart phone. Elizabeth (46) said:

I think it is a real detriment to the kids, though because I've heard kids say a lot "well, I can say things on a text that I would never say face-to-face' and I am like well, if you don't dare say it face-to-face then you shouldn't say it. And we have a cousin that when she calls, she, I don't know what to call it, she vents or explodes at whatever, all the time, over text. Things she would never say face-to-face and then Valerie (Elizabeth’s daughter) is crying.

5.3 Research Objective #2-Negotiating Smart Phone Use in Families
The second research objective was to examine if and how families negotiate and regulate smart phone use within the family system, and this section shows examples of that data. Although the stages of the research were set up with separate individual and family group interviews, many of the individual interviews also commented on the role that technology played in their family, so data from both stages have been used in discussing research objectives two and three.
5.3.1 Adapting to Technology

Many participants and families were able to adjust to having more technology in their lives. Being able to adapt to changes in the family, like the addition of smart phones and other technologies, is an aspect of being part of a sociotechnical system. However, in the case of Sariah (25), all her family members have smart phones, and they all use it continuously throughout their day as part of their normal routine except for her mother. She said that her father has always been interested in technology, so she grew up around it, but her mother would prefer to have a basic phone with no advanced technology. Her mother can call and text slowly but she said that within their family, they mainly all just call each other. She said for “family I probably pick up the phone more than I message whereas friends, I message. Not sure if I’ve made that reflection before. That is odd isn't it?”

In the individual interview with Harmony (37), she said:

I try not to use my phone much at all; I am not too interested in using it… I am not that invested in technology, I try not to make it a part of my life and I try to not make it an influence in my life.

She was fairly determined in this stance and yet a year later when I conducted the family interview with her family, she said:

I am a big texter because I never get through on phones, so I often use my phone to text. I do call [my husband] a lot with it; I call my whole family with it. I use my phone a lot for work, for emails, for texting. Everything. My phone is my life basically. It has everything on it.

In talking about her family in the first interview, she said:

We don't have all the gadgets, we are very limited to a phone, and that is pretty much it, we don't have all the bits and pieces. And it is funny because given the financial situation, [my brother-in-law] has every
gadget under the sun, he has two mobile phones going at one time, he's got the iPad, he's got something else happening and he is constantly involved in it. Even with the financial availability, it just doesn't interest me to be that connected, you know?

But then just a year later, all the adults in the family had smart phones and “the kids do use their iPads for school so they do their homework on it, they do church games on it, all that kind of stuff.” And her daughter, Michelle (10), said “I like to play games and dress up games and sometimes read scriptures and sometimes to play homework kind of games but that is it, mainly fun... I use the iPad to send messages to Dad.” The children seemed to really enjoy being able to have this device for entertainment and for learning but they also readily used it to keep in touch with other family members through Facetime. This further shows that families, as social systems, are able to adapt and change.

5.3.2 Boundary Management and Technology Use Rules in the Family

In all of the families, technology use was part of their everyday lives but they did not want it to be the sole focus or used inappropriately, so they established guidelines for use. In talking to a teen-aged girl, Penney (13), I asked her what would she consider to be disruptive or inappropriate uses of technology and she said “You know, sites, like inappropriate sites that you are really not supposed to go on. [Like] porn, even some really really gory games can be kind of disturbing.” It was clear that she had been told what to look out for and what to avoid online and she knew what would be considered appropriate behaviour. Many of the parents had boundaries and/or rules in place to try to prevent their children from accessing inappropriate sites. Jim (36) said:

So, our big rule is no computers or phones or anything with an Internet connection in the kid's rooms. And we are pretty strict about it although our kids do fight it every so often. It is hard to catch them with an iPod touch or something like that but that is our main rule, and then I play a trust game with them. I tell them that right now they have my trust and the minute they break that trust is when they start to lose privileges. Then we actually blocked YouTube on most of the devices in the home.
using open DNS, and because we found that our kids were not trying to find that stuff on YouTube, but we would occasionally find them watching YouTube, and there would be profanity and stuff on some of the shows they were watching, and we just weren't comfortable with them seeing that.

When asked about her family rules, Coco Johnson (12) said:

Yes, no mobile phones in the bedroom, no computer in the bedroom, basically no technology in the bedroom and to only use it when needed…I am only supposed to use it to contact family but sometimes I use it, well most of the time I use it for whatever I want to.

Coco is the oldest of the five daughters so this is new territory for the parents and determining rules for their children regarding technology. She also knew what some of the guidelines were but was not following all of them. Coco’s mother, Susie (34), said “The biggest one now is that Coco has a phone and we don’t want it in the bedroom or anything.” I asked her how she regulated that, if she confiscated it or what their protocol was. She replied:

It is starting to get to that point, we haven’t really enforced the issue but she’s been with her phone for only about six weeks or something, so, but we have a place where we put the keys and we have kind of talked about having a place where you put the phones each night and kind of check it.

The Maple family controlled their children’s technology in a different way by not having data plans on their mobile phones and having Wi-Fi in the house. This way, at 10:00 p.m. every night, they would turn off the Wi-Fi access to insure that their children were going to bed and not staying up to play games or chat online. So, during the day, the boundaries were more open but at 10:00 p.m. every night, the system became closed in an effort to keep unwanted things out of their family system. They also had a shared family computer that only the parents knew the password to
access. If the children wanted to use the computer, they had to ask the parent’s to enter the password for them. The computer was also kept out in an open area of the home so that anyone could see what they had on their screen.

Alternatively, the Manning family parents create their children’s passwords and do not tell the children what the password is. Margie (39) said in reference to her son’s passwords, “He doesn't know them at all, and he needs them to download anything, he has to come to us and we do [it].” Her husband, Bryan (38), also added “To go along with that, Margie and I know all our passwords for all of our accounts.”

Parents are also using their children’s desire for technology as a way of behaviour management. They referred to it as an e-ban or e-grounding from technology. They established the boundaries of behaviour and any rules within the family for their children and the consequence of not abiding by those is the removal of something the child enjoys. When actions occurred outside the limits, an e-ban would be put in place for them, and they were not allowed to use their smart phones, iPods or any electronic devices. Many of them found that this was the most productive form of behaviour management. Lara Craft (40) from the USA said “You know, I actually find that [taking away] electronics is the thing that works best, it is her currency. So, [taking away access to] Facebook, texting, or just her phone.” And Kristina Rinehart (36) in Australia said “We have a thing called e-ban, which we got from [some friends], instead of grounding them, they have all electronic devices taken.”

Family rules are an important aspect of family systems and many families did not just have limits for the children; many of them established some general family rules for everyone to follow. The most common rule was that there was no electronics allowed during dinner at the family table. Karl Logan (30) said “If I would use my mobile phone while we are eating dinner, I am pretty sure my wife would start eating elsewhere...dinner is sort of, that is our time where we try to communicate as human beings.” Kristina Reinhart (36) commented “If you are having dinner or are doing
something with your family, you know, put it away, it will be there when you get back.”

The Cantoni parents even try to maintain that rule when they are out together on a date, Anthony (55) said:

Carrie and I do it when we go out for lunch or dinner, we make sure we're not allowed to use the phone [when we are] together, unless we are being stupid and texting each other while we are sitting there.

In the interview with the Fergusons, Hadleigh (41) mentioned that she would prefer they not be on the phone at dinner because “it is the one time when we are all looking at each other during the day.” And her son Tom (7), taking a practical approach, said that it didn’t make sense to use your phone at the table “because you have to eat and you don't want to spill your apple juice and ruin your phone.”

For the Reeder family, all four of their children are under nine years of age and so they felt they did not need to create too many restrictive rules yet. Millie Reeder (34) said “No, because none of the kids own their own [electronics]...on Sundays, we don't play games and stuff like that and I usually don't; Sean doesn't ever use his phone on the weekends because it is for work.” The Reinhart family have a nine year old and a 12 year old who have the rule that “they are not allowed to be on it in the morning until after they are ready and after school they have to do their homework first” as a way for them to learn priorities, but the two year old is not held to that same rule. The Bishops have established rules depending on the day of the week. “Monday through Friday, the kids do not get access to any of that stuff” unless they need it for school work. Conversely, the Logans, who only have one two year old daughter, said “No, we are complete mobile phone anarchy. There are no rules.” Kristina Rinehart (36), after talking about the e-ban rule that they have implemented, she added that “Monroe doesn't have any rules, like at one o'clock [he might be] Facebooking!”
For Anne and Mike, two college students who live with their single dad, they even had established rules in their household for their technology use. Matt (22) said “We can use it whenever, generally, but generally Sunday afternoons we will turn our phones off for a sleep and Monday nights for Family [time].” Anne (20) confirmed that they turn it off on Mondays nights to spend time together, she said “The only rule is that we don't use them during family home evening one night a week, that is family time, that is it, we put technology aside to sit down and talk.” Monday nights spent together are a tradition that they started years ago and they continue to spend some time together every Monday night without technology interfering. So, even when three adults live in the same household, there are still family rules that are established and respected through time.

For those families who have adult children, they seem to be struggling with establishing rules. When I asked the Crafts if they communicated with their adult daughter differently than their two younger daughters, the dad, Jerry (43), replied “Our oldest daughter who is in college just doesn't respond... so I send messages like 'Are you still alive? I pay for the phone, respond to text.'”

5.3.3 Challenges in Enforcing the Rules

When it comes to the need of technology in a family, many times the opinions vary on what they need and do not need or what the boundaries and rules should be for their family. This research showed that to be true with some of the families. In the Cantoni family, when they were interviewed separately, they all had different ideas about what the family rules were regarding technology. When asked if they had any rules about places where they could not use technology, like at church, Carrie (36) said:

Yes and no, I do tell them to put them away and they don't put them away and I will occasionally check my phone so I am really not setting the right example. That being said, when they are using them it is because they've got iPods as well...if they are using them in church they are for games and things, so things to occupy them.
She was asked for clarification on this and if she meant they were playing games during the church service and she said (while laughing):

Yes, during church. On a personal level, they shouldn't be playing games in church but with that, the rule is that I would prefer them not to use them and I can't yell at them too loudly in church. That's the tyrant’s job to yell at them in church.

However, when the dad, Anthony (55), was interviewed, he said “Definitely not allowed in church, not church, I know that is a rule.”

In the case of the Cantoni family, there were not clear rules that everyone understood or followed. This family also had some rules regarding social media for their children. The daughter, Penney (13), had been on Facebook and had two separate profiles. She would get in trouble quite a bit for her page and lose the privilege of using Facebook. She was punished because her friends would post things on her wall that her mother did not think were appropriate. Although Penney had no control over what her friends would post, she would still get in trouble for it and eventually stopped using those Facebook accounts. The son, William (15), was also on Facebook, and he would occasionally post something that might be from a page that has an offensive word or picture associated with it. When Carrie would ask William about it, he would say he couldn’t control it since it was already on the page and he was just posting the funny part and not the bad word. To my knowledge, William was not ever banned from Facebook. This caused tension in the family because Penney felt the parent’s did not understand the nuances of Facebook and that William was getting away with worse behaviour.

Another example of system rules not being followed is in the case of the Johnson family. The rule regarding technology, per the mother Susie (34), was that they were limited to be on it for only 20 minutes at a time. When I interviewed their daughter Sammie (9), she said she gets on it and just stays on it until someone tells her to get
Their daughter Coco (12) said that she is only supposed to use technology to only contact family but she really uses it for whatever she wants. They had a designated area in their house for the use of technology but they were only loosely monitored on it because usually Susie was busy doing other things, as any mother of five children would be, so the girls seemed to pick and choose which rules they would follow depending on their mood or desires for that day.

5.3.4 Family Bonding

This section will specifically focus on how the smart phone is affecting family bonding in their everyday life. The research results help demonstrate ways the smart phone has helped or hindered bonding from a family systems perspective. As a reminder, family bonding is defined as the amount of attachment, connection, or emotional closeness that family members feel towards each other (Bahr, Maughan, Marcos, & Li, 1998). Bonding can happen between family members or among the entire family together and this research will highlight those times when smart phones affected bonding or possible bonding moments.

5.3.4.1 Bonding Challenges when Smart Phones are Being Used

While the smart phone can be a beneficial part of regular routines, there may be times when it interferes in relationship building and maintaining, which are vital to having balance within a family system. Sometimes a family member’s behaviour will cause the system to make a change due to a stressor being put on the system. These stressors may cause anxiety and frustration within the system and can affect the interaction among the members of the family. For instance, two different female respondents, both married and speaking of their husbands, said that they could ignore the smart phone if they needed to but their husband could not; he was always compelled to answer phone calls and that was a cause for frustration in their relationship. Harmony (37) said:

His phone is a huge distraction in our family life and in our marriage. So, chances are when we do spend time together, I will say to him ‘Turn your phone off, leave it at home, or just don't bring it’ because it is like glued to his ear.
The pattern he has established of always being on his phone has affected their relationship and caused frustration, which further exasperated his wife when he did not answer the phone when she called him. This has created a pattern of reactions within the system that created feelings of ill will for Harmony. Rick, unintentionally, is sending Harmony a message that her phone calls are not important, that is the feedback she receives from his actions. She explains:

I would say at least once or twice a week, Rick and I will get in an argument about his phone usage because it encroaches on our personal time. For example, Rick and I [go out to eat] and he gets a phone call and my inclination would be to see who it is and stop it or let it ring out and call them back after dinner. Rick will immediately pick it up in the middle of a conversation, in the middle of dinner, in the middle of a date, in the middle of the movies. He just feels compelled to pick it up, you know, it is like the universe revolves around who is on the other end and what he has to manage. And it is because he is a fix-it man, you know, whereas I could give a toss.

These repeated occurrences are creating a pattern of reactions within their marital subsystem that causes discord and entropy within their relationship. This makes the system off balance; the system will not function well. They try to spend time together, Rick gets a phone call and answers it regardless of what they are doing, and then Harmony gets upset that he is not paying any attention to her and she feels unimportant, then they argue about it. This discord affects their family system as well as their marital subsystem because their children are always hearing their parents argue about his smart phone usage. Rick (38) says “I don't enjoy being on the phone. I don't enjoy sending text messages, and I don't enjoy talking to people on phones because I am sick of it. But yes, it rings all the time.” Rick feels trapped because of his obligations with work, his extended family, and his church community in which he plays an active part. These outside influences are affecting his relationships with his family members because of his obligatory feelings to always answer the phone. While Harmony
has tried to establish some rules to help prevent these situations, Rick is still not following the rules and continues to answer the phone which upsets Harmony further. Clearly this is a demonstration of a system that has not found a way to adapt into a functioning sociotechnical system. There is a lot of feedback coming from the parts of the system, such as Rick’s frustration and Harmony’s anger which result in continuous arguments each week. These situations detract from the relationship building that could have taken place instead of the arguments that subsequently happen. Since the actions of one member in the family will affect the other members, Rick’s actions are not only affecting Harmony but also his children, since he often misses important phone calls from Harmony when there are schedule changes or he is needed by one of the children.

In some ways the smart phone may be able to help in work-life balance because a parent could attend a birthday party of their child and still be on call for work. This happened to the Ferguson family on Tom’s first birthday. They planned a family party at the zoo with grandparents, aunt, uncles, and cousins. Kenneth (38), the father, had a job where he was on call 24 hours a day, 7 days a week. At one point at the zoo, he got a phone call from an upset client and therefore spent most of the time, standing away from the family and talking on the phone. While they were glad he participated in parts of the birthday celebration, it was extremely disappointing that he had to work during an important family event. It was a sacrifice that they had to make numerous times due to his job.

Sean Reeder (35) was also tethered to his phone on a regular basis. He helps manage the information technologies at his work and handles calls and emails in and outside of work during the week. During the interview, Sean gave the impression that he wasn’t on his smart phone much, that he had set up his own set of rules to guide his use. He used it for work during the week, he had one game he played, and he never used it on weekends since it was a work phone. However, in the short time of the
interview, it became clear that he did not follow his own rules because he was distracted with his smart phone the entire time.

5.3.4.2 Technology-free Time

Many of the families had tried to have some technology-free time as a family where they concentrated more on each other and less on their technology. The Maple family tried to have ‘Internet-free Sundays’ but their son, who just turned 18, said “It is the dumbest thing I have ever heard of.” He talked about instead of being able to use technology, they all just sat around bored and staring at each other. Elizabeth Maple (46), his mother whose idea it was, said “No, we went for walks and we played games.” When asked if they were able to maintain their Internet-free Sunday tradition, the dad, Josh (47), responded with “I think we did one Sunday.” The Logan family experienced a similar problem with their two year old, so it is not just limited to teenagers. Karl (30) tried to declare it a technology-free time for their daughter and said “no TV and she asked for the iPad and I said no iPad tonight and she just found a mobile phone.” And then his wife said he gave up and let her have his smart phone.

A few of the other families have had a little more success with establishing technology-free time. The Neilson family said that their local school district has annual technology-free days and that they usually try to participate as a family and will read or do things together instead. They also will get together for family activities, like watching a movie or doing something together, and tell everyone to put away their phones and iPods for a few hours. The Mannings also occasionally call a technology-free day as well and will participate in a family activity. The Ranger family doesn’t allow any technology before school in the morning or during and after dinner, except for music. They felt like they really did not need to designate any other technology-free times because they participate in activities that are technology-free on a regular basis, like camping. Judy (40) said “No, we don’t go [camping] in order to get away from it. If we do go out, it will be just because we are going somewhere, not to get away from [technology].”
Bryan Manning (38) was forced to be technology-free when he accidentally left his smart phone in his pocket when he went swimming in the ocean. When asked if not having his phone was an adjustment or if it was a positive thing for him while they were on vacation. He said:

Oh no, it was terrible. You know work wise it wasn’t that big of a deal since I had auto-reply on but the people we went with, he was in my contacts and we would message them so keeping in touch with the other couple, that was probably the biggest thing and getting around to find places, I usually used Google maps to get me to a place.

5.3.4.3  Positive Outcomes of Bonding Through Use of the Smart Phone

Some families use their smart phone to aid in their bonding by using it as a tool to communicate, entertain, and share memories.

5.3.4.3.1  Texts of Endearment

The Craft family used their smart phones to coordinate and schedule, but they also used them as a way to show affection for each other. Lara (40) said in talking about Cecily, who is away in college:

You know, like every day, I will be thinking about her and I will just send her a text or a message on Facebook through my phone saying ‘I'm thinking about you, and missing you. I hope everything is going good.’ And she calls Friday or Saturday and then we will talk. In fact, we talked Saturday and she says I've just been so busy but it was nice to know you were thinking about me.

Since they are physically apart and she cannot hug her daughter in person, she feels that this is a way to send a cyber-hug to her so she knows she is not forgotten. Lara said it is “just so she knows we are here and she, every once in a while, will send me a funny quote or something funny she has seen at school, a picture...Yeah, it's just the little things.” So for them, the smart phone is a link to their daughter when she is not home.
The Neilson family of seven said that they also sent texts of endearment and called each other, along with coordinating and scheduling. Even Thomas, the 4 year old, has used the smart phone and iPods to Facetime with his cousins. They also use their smart phones and iPods as a way to quietly coordinate after the younger children have gone to bed. They will often text their oldest daughter, Aggie (16), to tell her things, coordinate schedules, send a text of endearment or tell her to go to bed because her room was in the basement and the parent’s bedroom was upstairs.

The Ranger family would use an app on their iPhones and iPods to communicate with each other but it was mainly just to entertain each other. They would send funny videos to each other, cute messages, and tell jokes. The app was not really used for coordinating schedules, it was just for fun. They would also play each other in game apps and sometimes Skype from one room to the next just to be silly and have an interaction. The Manning family also played games as a form of interaction on their smart devices.

5.3.4.3.2 Documenting their Lives with the Smart Phone

Smart phones provide a tool to document family life and help families to become more enmeshed as they participate in and share memories after they are past. Heidi Logan (30) uses her smart phone for this because most of their family live overseas, she said:

I take a lot of pictures and videos, post them on Facebook, maybe, and Instagram… And I think it is because I can keep the family posted. Like, to see what we have been up to. So, I might post many pictures just for my mom and friends and family back home.

Her husband, Karl (30) added:

She sent them videos and you know, links to websites of pictures that she uploaded. With me, I couldn't be bothered. So the smart phone
would be one easier way for my family to get a glimpse of what I am
doing…the smart phone just makes sure that a few members of her
family know what we do almost up to date, minute by minute basis,
almost.

Sariah (25) also keeps in touch with family overseas through apps on her phone that
she can send pictures through. She said she uses:

Internet based texting and even i-messaging because that is free. Even
just talking to people overseas in the UK and South America…so like
even things like everyday things, you can't call up someone all the time
overseas because of the time difference but if something happens, I can
take a picture and send it, that is a huge thing, we do that a lot, we send a
lot of photos.

Anthony Cantoni (55) said he uses his phone’s camera a lot to take pictures and
videos. He specifically takes videos of his daughter’s singing performances and his
son doing karate so they can document their accomplishments.

Harmony (37) believes that her smart phone helps her keep in touch with her family,
extended family, and friends. She can share photos and experiences with them even
when she is not close to them. She said:

We use it a lot to take photos and connect that way with friends and
family. That is one thing that the smart phone, that is probably the
biggest thing that I use mine for is to share family news with friends and
family…Yeah, text them, Facebook, all of it. But I use it as my
camera/communication with family.

She feels this allows her to be emotionally connected to family over distance.
Facetime and Skype are also used to help strengthen the bond between members of the family. For instance, in the Reeder family, Sean (35) is gone on military assignments every few weeks and Millie (35) said “So we used to do Facetime at night when he was gone for a long time...we would do Facetime a lot.” Laverne Cantoni (73) uses Skype on a regular basis to keep in touch with her children who live overseas. The Fergusons also used Facetime on a regular basis when Kenneth travelled every week for work. They would even have some family nights where they would do activities together over Facetime with their son, such as reading a book or watching a short video.

5.3.4.3.3 Distance Regulation

In family systems, there needs to be distance regulation between family members so that the individuals in the family feel a sense of being a part of the family but also have their own identity. This can help in bonding because it builds trust amongst members of the family and allows for family time and personal time, which is important to individual enrichment. Bryan Manning (38) mentioned that mobile technologies provided ways for his son to gain some independence and establish his own identity. He said:

I can let him go and run off, do whatever he wants in the mall, knowing that I can find him when I need him. The worst memories of my childhood were waiting for my mother to come pick me up from places, she is always late for everything, like hours, and she was always like something came up or I forgot, or whatever, and had I had a cell phone, then I would not have...now we don't have that problem. It is not meet here at this time, it is I will call you and we can meet.

One of the children, Kammie Craft (11), made a similar comment about some added freedoms she has because two of her friends had their own phones and “because of that, our parents let us go to the movies [by ourselves].” She showed that she appreciated this freedom and the opportunity to go out to the movies with her friends. It made her feel more responsible and older because her parents trusted her to go without them to chaperone.
5.3.4.3.4 Security

Many times parents want to be able to let their children do things away from home but there is fear for their security. Smart phones seem to provide some security for parents. Harmony Bishop (37) said:

We have taught them how to use smart phones, how to use the iPad, and they have our numbers, our emails address, our family’s so they can communicate with us...For example, one night when I was out at work, Rick was here with the kids and he had gone outside to the shop but it was dark and the kids were calling after him and didn't know where he was, they thought he had left, so they call me panicked ‘Dad's left the house, we are by ourselves!’

Harmony was glad that their kids knew how to call her when they thought it was an emergency, even though Rick was just out in the shop and did not hear them calling. Rick (38), however, wondered if it really was a sense of security because he said “if we would not have had the phone, it would not have been a drama... It makes you jump to conclusions too quickly. I think.” Rick mentioned another time when they panicked because someone was late and they couldn’t reach them, but if they had just waited ten minutes, then there would not have been such drama.

The Craft family also used their smart phones to give them a sense of control when their daughter was having health issues. When Cecily (20) was in high school, she started to have episodes where she would suddenly pass out with maybe only a minute of warning. She ended up having a heart condition and had to get a pacemaker implanted but they had to cope with this stressor on the family system. Cecily and her parents used their smart phones to communicate and check in with each other throughout the day before and after her surgery. Lara (40) said:

Yea, I think that was the other thing, her senior year, when she was having more severe health issues and her first semester, she was able to
call me at any time and she was passing out in the bathroom and she would wake up and not realize what was going on. She would call me and she would be like mumbling Mom, Mom and I would be like "Cecily where are you? I'm coming to the school right now; I will check you out of the office. There was always a way for me to be there for her…so she could kind of be a normal teenager a bit.

Her father has also used social media to check in with her during her doctor’s appointments. Jerry (43) said “She was at a cardiologist appointment on Wednesday [out of state] and...she is making notes on Facebook. Comments like 'I am still the youngest person in the waiting room.'” So, he sent her a message on Facebook to check in with her and told her to call him when she was done with her appointment while he monitored her Facebook status to make sure she was doing okay.

The Manning family also likes the added security mobile technology brings to their family. Bryan (38) said, in reference to his son Brady (12):

It allows me to give him freedom to go, to go kind of do his thing. Really, he needs to get used to doing stuff on his own and sometimes as parents we get a little overzealous because we don't want them to be too far away, we want them to be safe. They need to get used to being on their own a bit. So, [it] is a good way to give them space to do their thing but still keep them close enough.

5.3.4.3.5 Physically Present, Mentally Elsewhere

The opposite is also true with smart phone technology, where they are physically together but mentally removed from their surroundings. For the Mannings, Bryan (38) said that “sometimes we will watch TV and I will look around and all 3 of us are fiddling around on our phones.” So, while they are together in the same room, they may not necessarily be engaged with one another. However, he continued to say “We are still talking to each other but we are playing Words with Friends.” He explained that often they are playing against each other on their games, so they still
are interacting. Laverne Cantoni (73), the grandmother who lives with the Cantoni family, gets a little frustrated when everyone is in the house but on their device. She said:

  I think it disrupts the family life because it is difficult to communicate. I mean, the kids are on [them] as soon as they get in and if I want them…I generally have to phone them because they've got their headphones in.

Jerry Craft (43) uses his smart phone as an escape mechanism when he is at family functions. Jerry said “the thing is that it starts with a little chatter and then it grows” and then Lara (40) added “And then we are all talking over each other and it gets really loud” and then Jerry said “It's annoying.” So, he tries to be engaged with people in the beginning but then he will go sit away from the noise and play games or read on his phone as a way to escape the noise. His immediate family seemed to understand his need to get away from the noise but that may not be true for everyone at the event.

Chris (25) mentioned a time when he had been at a family dinner and one of the family members brought her boyfriend. He said:

  We were all talking and he was on his phone playing a game. And, I don't know whether that is as much disruptive as it is offensive because we were all wondering ‘what is going on there? Why can't he be social?’ and I know I thought it was very off-putting in a kind of way and everyone else there did too.

Elizabeth Maple (46) said, in reference to her family, that “If it was up to me, I would not have technology, we would talk and play games and do things with each other instead... I have thought about making [Jacob] go back to pioneer times.”
When talking to Harmony (37), she was nostalgic about letter writing and the emotion and thought that went into letter writing as opposed to texts. She thought it helped solidify her relationships with people. She said:

I think the tools are there for you to be social, but I think society has gotten so dependent on this technology to increase their social life that it has left people without knowing the art of socialization to begin with.

Also, I am a huge fan of the written word and I find, that…I think that people can feel more genuine expression from a written letter than they can from an email or a text message…I think of the genuineness of friendship and the genuineness of keeping in touch with somebody. You know…we used to write and send photos and now we send texts. And so, that to me kind of has ruined the art of true communication, I think.

5.4 Research Objective #3 Context of the Family System in Different Environments

The third research objective was to understand whether the context of the vacation changed the way family systems function with technology. This section will detail the results of the research in reference to if and how families regulate smart phone use within the family system while in the vacation environment. The chart below is a summary of the type of vacation that each family participated in, and a listing of who went on the vacation. Not all members of each family were able to go on their family vacation, so this list is a reference to those circumstances.
<table>
<thead>
<tr>
<th>Bishop Version 1</th>
<th>Bishop Version 2</th>
<th>Bishop Version 3</th>
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<tbody>
<tr>
<td><strong>International trip to the USA for family reunion.</strong>&lt;br&gt;<strong>Attending: Parents and children</strong>&lt;br&gt;<strong>Not: Grandparents</strong></td>
<td><strong>International trip to the USA to visit friends, attend a conference</strong>&lt;br&gt;<strong>Attending: Mother, Grandmother, and one child</strong>&lt;br&gt;<strong>Not: Father and other</strong></td>
<td><strong>The father takes one/two children to their home on the Gold Coast of Australia.</strong>&lt;br&gt;<strong>Attending: Father and one or two children</strong>&lt;br&gt;<strong>Not attending: Mother</strong></td>
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<tr>
<th>Cantoni Version 1</th>
<th>Cantoni Version 2</th>
<th>Craft Version 1</th>
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<tbody>
<tr>
<td><strong>Domestic ski vacation in Australia</strong>&lt;br&gt;<strong>Attending: Parents and children</strong>&lt;br&gt;<strong>Not: Grandmother</strong></td>
<td><strong>Annual domestic trip, west coast, USA with extended family for 2-4 weeks/year.</strong>&lt;br&gt;<strong>Attending: Mother and children, plus extended family</strong>&lt;br&gt;<strong>Not attending: Father</strong></td>
<td><strong>International, the older daughters went to Mexico with their grandparents and extended family.</strong>&lt;br&gt;<strong>Attending: two oldest children</strong>&lt;br&gt;<strong>Not attending: Parents and one child</strong></td>
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<th>Ferguson Version 1</th>
<th>Ferguson Version 2</th>
<th>Ferguson Version 3</th>
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<tr>
<td><strong>Domestic trip to attend the great grandmother's 95th birthday in Texas.</strong>&lt;br&gt;<strong>Attending: Parents, child, and grandmother</strong></td>
<td><strong>Domestic, the grandmother will regularly go on vacation with her other children and their families to go camping.</strong>&lt;br&gt;<strong>Attending: Grandmother with her other grandchildren</strong></td>
<td><strong>Domestic in Sydney, Australia.</strong>&lt;br&gt;<strong>Attending: Parents and child</strong>&lt;br&gt;<strong>Not: Grandmother</strong></td>
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<th>Logan Version 1</th>
<th>Manning Version 1</th>
<th>Manning Version 2</th>
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<tbody>
<tr>
<td><strong>International trip to the USA and Iceland</strong>&lt;br&gt;<strong>Attending: Parents and children</strong></td>
<td><strong>Domestic vacation to Hawaii with two friends of theirs.</strong>&lt;br&gt;<strong>Attending: Parents only</strong>&lt;br&gt;<strong>Not: children</strong></td>
<td><strong>Domestic camping trip, to the parks in Utah and spent a few days doing out-of-doors activities.</strong>&lt;br&gt;<strong>Attending: Parents and children</strong></td>
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5.4.1 Spillover

With the smart phone being able to tether individuals to their work no matter where they are, the spillover affect was analysed to see what kind of an impact it made on the family vacation. Bryan Manning (38) said:

What I do is, they don't want me to check in and stuff but for me it was nice to still check in on it every day to see what was going, even though I had an out of office thing on it, so I didn't have to respond. 1) To see what if there is an emergency that no one could do and they couldn't get
a hold of me and 2) it was nice to kind of go through there so I didn't have to get back to work and have to deal with having 500 emails to respond to… go through and any junk ones and the important ones I left until I got back.

When I asked him if he responded to any emails, he said “I sent a couple just 'hey, how's it going over there?' but professional stuff, no, just for me, my FYI.” Reid Nielson (40) said that at “My last job that was standard, so anytime I would be off, even for a day, I would have to have an auto-respond on. Not here.” His wife, Jenny (38) said “Yeah, they have quite the hold, they can't let go.” And he replied “They've got me.”

5.4.2 Technology Use on Vacation

As part of their ongoing family system, the Maples and Crafts had recurring family vacations every year. The grandparents have a vacation home on the coast and everyone was invited to come and spend about a month of the summer there each year in one of two houses. This is a repeated activity within their family system because it has been recurring for years now and it is something they all look forward to each Summer. In systems theory, systems look for responses that provide beneficial solutions to a problem, and then they establish that response as a recurring action. These families have found that time spent together at the beach with their immediate and extended family strengthens their family bonds and increases their enjoyment so they continue to participate in this activity annually. The use of technology was brought up by both families that attended, but for different reasons. For the Craft family, Wi-Fi connectivity and mobile phone reception were both scarce at the house in which they stayed. Lara Craft (40) said:

The family that stays at the other beach house, they all have the iPads and everything and they always complain that they wish they could just not bring them. They still bring them, but when we are at my mom's (vacation) house, something happened when they built the house, I don't know, it is something in the walls but it is like the dead zone spot so we
don't get any cell reception or anything like that. I have to stand out on the corner to talk to Jerry.

Not having ready access to wireless or having poor service caused some inconveniences. For instance, the Crafts told this story:

Lara (38): Because we were on a network that is not covered on the Grand Pacific Highway, I think it is now but it wasn't covered and we were in a town and had taken two cars and my mom and the girls were in my car.
Kammie (11): Mom thought we were in the other car
Lara: Yes, the other car and so I started off home and ended up about 15 miles away before my brother was able to get a hold of me and he's like ‘They are in Manzanita’ and they thought it was horrible and they were stranded.
Kammie: A guy pulled over and gave us fruit snacks and we [made up the song] "Marooned in Manzanita".

5.4.3 Boundary and Rule Management on Vacation

As stated earlier, rules are an important part of regulating behaviour in the system. While on vacation, many families relaxed their rules and some of them changed the rules to apply to the situation, which shows adaptability within the system. For instance, when the Manning parents went away on their vacation to Hawaii alone, Bryan’s mother came and stayed with her grandchildren. Although the family was not together, in some ways they all still experienced a family vacation of sorts. When asked if the same rules they normally have at home were followed when the grandmother was in charge, Bryan (38) said “I don't think Grandma was quite as diligent.”

While the Maple family was in Mexico, their son stayed in a room with his cousin so their normal boundary of turning off the wireless access at 10:00 p.m. was not applied because they were not in the room to enforce it. They boys would stay up on their
computers and play games past 10:00 p.m. and spend time together, which helped build their relationship.

The Craft daughters, who were also on this vacation to Mexico, also had a change in rules because they were not allowed to take their phones to Mexico. When they go to the coast for their annual family trip, they are allowed to bring their phones but for Mexico, Lara (40) said:

I would not let her take her's because if she were to make a phone call it would be like $4 and I didn't want that to happen. So, while they were in Cancun, [the grandparents had access] and they were on Wi-Fi and I was able to communicate with my father and mother to her, and find out what was going on and that everything was going okay. They were able to email and all that stuff so it was all good.

So, although the components of their family system were separated over great distances, they still made an effort to remain connected. The system remained a functioning system even across long distances.

Alternatively to having strict rules, when the Crafts go to the coast, they said that the only rules they have that pertain to their phones are practical ones, like Jerry (43) said “Don't take them by the ocean” and Katie (14) said “Or drop them in the toilet.” Lara (40) said she keeps her phone with her just in case she needs it; she said “I have my cell phone in a plastic bag in my backpack or whatever just so it is safe but I am not on it as much.” It is just not their focus while they were there, she said “We go and play on the beach and go for walks.”

However, although they admitted to not using their technology as much, their oldest daughter Cecily (20) did use it. Lara (40) said:

Cecily is on the phone, texting someone constantly…She has a lot of friends…In reading her Facebook and with all her health problems, she
is [now able to do] lot more activities so she is not left out. [When she was sick], she couldn't be out with her friends.

Cecily’s overuse of her smart phone is an issue because they complained about it during the interview, but so far the only way they have dealt with it, per Kammie (11) is “We make fun of her.”

5.4.4 Emotional Connection on Vacation

Families are connected on emotional levels and the way they react to situations shows that what one does will affect the other members of the family. For the Craft family, Jerry was unable to go on vacation but Lara made an effort to keep in touch with him and share experiences with him often. This is an example of trying to maintain the system dynamics within the family system. When they returned from vacation, Lara did not want there to be a change in the relationship between she and Jerry or Jerry and his children. Lara (40) said “We either text or call every day because he hasn't been able to go.” Since the mobile phone reception is not good there, she goes out on the corner of the street because that is the only place that her phone gets reception. She also sends him photographs through text and posts on social media so he will know what they are doing. She said:

I think it is faster, even with email and stuff like that, this is instant, I can take a picture even when we are on vacation and I can send it to [Jerry] and within a few minutes he can experience what we are experiencing...There is a big difference, cause on vacation I am posting a lot of pictures [on social media]. That is the nice thing, I can take a picture on my phone or whatever and then I can instantly download it. Like in the old days, you had to take a picture with the camera, take it to the place, wait two weeks, a week , well it was really cool when they could do it in one day but this is really cool, it is instant, you get to share and you get to share other people's experiences.
5.4.5 Separate but Connected on Vacation

Although families would go on vacations together, many times they would split apart for certain activities geared toward different children’s ages or interests. For the Craft family, they would split up and some would go down to the beach and others might walk to Dairy Queen to get ice cream. Kammie (11) talked about an activity that she really enjoyed:

> At six o'clock in the morning, there is an island out there and if you walk through the tide pool, it is really deep, like taller than me, and if you swim over there, there are hundreds of sand dollars. So fun!

Kammie was also appreciative that they could split up and go do this activity because her sisters did not want to get up early to go. This was an important ritual that was a part of her vacation experience and she wanted to make sure they did it every year, even if her sisters were not interested.

Lara (40) also likes the security that it brings when the older kids want to venture out on their own. She said:

> With us, it is nice at [the coast] because with the teenagers, they will go as a group and if at least one of them has a cell phone, I feel more confident that I can call them and say 'Where are you guys? You need to come home we are having dinner.'

For the Reeders, they used their smart phone to keep in touch with Sean (35) while he was at his military training and they were vacationing in the area. Sean needed to be at his training as part of his identity as a military member, but he still wanted to be involved with the family so this was their solution. Millie (35) said: "I would [text] ‘I am at the library’ and he would say ‘I am on base, I'll just come on by’...If he was on lunch or something he would just come over [to where we were]." It was a way for them to have some pockets of time together during the day, and in between assignments for Sean, where they could share in some family time.
5.4.6 Personal Time on Vacation

While family time is an important part of family vacation, there are also times when members of the family want to relax and have some alone time. Within family systems, people need to have a level of individuality and a level of connectedness, so personal time is important. Sometimes the children feel a little lost without something to do or someone to do it with, especially if they don’t have a smart phone of their own. Kammie Craft (11) said that sometimes at the end of the day:

> When [everyone is] on their phone, mom is talking to dad, grandma and grandpa… go on walks sometimes and [my sister] will be up at the beach house with the cousins and Mom will be on the corner talking to dad and I will go up to see if I can use [their smart phone to play games] and they say no.

For the Neilson family, they all have their own devices, so that is not a problem for them. Reid (40), the dad, said “It depends on where we are at, if we are in the mountains, [the devices] just don’t come because we don’t get reception, no Internet access or anything.” and Jenny (38) added that conversely, when “We were in [the resort], we were able to use all our technology there. The place where we were staying had free Wi-Fi.” And Reid added “We took all of the iPods, tablets, and laptops on vacation.” Jenny explained that “we come back and are in between activities or are resting and relaxing, then we are on technology…and we are all sitting in the same room.”

5.4.7 Staying Virtually Connected on Vacation

The Manning family used their smart phones as a way to provide a link to their son while the parents were on vacation. Margie (39) said “Every night before I went to bed I would text Brady and tell him a story and then when he woke up in the morning, he could see that and read about it.” It was a way for them to share what they did with their son and still feel connected to him. They shared their memories and experiences with him and he remembered them because Brady (12) even said “Like the ice cream guy!” when she said that. It was a way for him to still feel connected with his parents who were very far away.
Bryan (38) later stated the reason why they chose to go on a vacation separately, he said:

I think it’s important to spend one-on-one time with each of my family. For Margie and I, we didn’t do a vacation without the kids until Hawaii three Years ago. Margie had too much mom guilt. However, once we went, I think we both realized how important it is to focus on our relationship. We've done at least a weekend getaway each year since, and I think Margie would agree our relationship is better now than it was four years ago.

He went on to say that they also try to do things individually with their children so they get that same one-on-one time with them. He said:

With Brady, I always go camping with him for scouts. It’s a good chance to talk about guy stuff without him having to worry about what mom will say. It is fun to see him interact with the other boys while he forgets that dad is around.

In family systems, families are affected by their environment and in the case of the vacation environment, most family members behaved differently with the technology on vacation than they did in their normal daily life. For Josh Maple (47), he said “I don't use Facebook much because of time. I am just too busy.” But on vacation, he said he was more likely to post. He said “I have before, I've posted a few on Facebook, a few cool, I want to show off like a big fish I caught or something.” He was not the only person who used social media more on vacation than in regular life. Karl Logan (30) said he posts on Facebook on his vacation more:

To rub it in…It makes the trip more worth it. Spend two grand getting there, you might as well let all your friends know that the weather is great and you are having such a nice time… if you want to be politically
correct, you say, you know, I want to let my family know, keep them updated you know, we are doing okay or whatever but really we are just letting all of our friends know we are here, you are there, suck it. You know?

But his wife would tell you that she really does post on social media so that her family can keep up with them. It was not unusual for the husband and wife to have different perspectives on why they post on social media on vacation. Bryan Manning (38) said:

I think the one thing we do a lot more now is that we take pictures and post them on a place like Facebook and before we would take a bunch of picture and have them developed and now we take two to three a day and post them on Facebook for our friends and family to see and they don't have to wait for that… I think to share what we are doing, I mean.

And his wife Margie (39) said in response “I thought we were doing it because Grandma was here and Brady doesn't have a Facebook account but Grandma does so she could show them 'here is what your parents were doing.”

5.4.8 Different Use of Technology on Vacation

Bryan Manning mentioned that they were not keeping up with news and other things that they might normally do in their daily lives, but that his wife was on Facebook and saw the news regarding the Boston Marathon bombing, so after they saw that, they started keeping up with the news again because they wanted to know what was going on since they had both lived close to Boston at one time. So although they were not in their normal environment, they still were affected by news and the smart phone provided that connection to information. They made a change in their system and started regularly checking the news after that happened. This further shows that they were in a system maintenance mode while on vacation and were not focusing on the world around them but on their relationship.
Jenny Neilson (38) said they used their smart phones on vacation a lot more to look up information since they were in a new environment and didn’t know much about the area. She said:

We [were] trying to find places that we want to go see…Yeah, the crater that's got geothermic heated pool in it...so we were driving around [the area] so we thought "Oh, let's see where it is at." and we were searching on the Internet…and found out the place we thought it was, it wasn't where it was, and we found another little treasure…It was a little hill that you could get to the top with war memorials and a great view.

Anthony Cantoni (55) said:

I use it way more on holidays. For example, we were at the ski lifts, I ring William 'Where are you?' 'Oh, down at the bottom of this lift.' 'Alright I will see you there in 10 minutes.' [Then I] put on the theme music to mission impossible and then put on my mask and skied really fast down and met him there in five minutes.

He also said that “Most of my Facebook posts, when I was on holidays, were Penney skiing.”

For the Ranger family, they went overseas to England on their vacation and the only service they used on their smart phone was the phone. They were afraid the data charges and other services would be too expensive, so they did some research and got a Sim card and used it with their phone function only but they still took their smart phone with them everywhere for the camera. Judy (40) said “Yeah, we use Jason's phone quite a lot for a camera and we did when we were in England. That is what we mainly used it for when we were there...Yeah, it was brilliant.” Jason (43) did not mind being disconnected to his normal phone services, he said “No, not when I am on holidays because there is too much other stuff going on.”
5.4.9 The Changing Definition of Family Vacation

For the families interviewed, there were a variety of ways that people went on family vacations, varying from only the mother and children to the children going with the grandparents and not the parents. For the family members, it was still a chance to spend quality time together and strengthen relationships among those that were present. In the Craft family, because of employment responsibilities, Jerry (43) has been unable to go with his family on their annual vacation to the coast for a number of years. He said “With my working, it seems like I always miss the vacation time, that I don't have the time to take off.” But Lara (40) was quick to respond with “But that will change in the next couple of years.” Lara goes to great lengths to make sure Jerry still feels involved even when he is unable to go on vacation with them.

The Craft family also had two of their daughters go on vacation with the grandparents to Mexico. The entire family was invited but work and school obligations made it impossible for the entire family to go. Lara (40) explained though that there were still advantages to letting them go along, she said:

All of my kids have a special relationship with my parents because we allowed them to have extended time with them [on vacations]. Not all my sisters and brothers let their kids do that, and so my children have a special bond, I think. Also, the kid that was at home with us liked the extra space and attention from us.

For the Cantoni family, they wanted time where they could just spend together with their immediate family doing what they want since they spend all the other days with the grandmother being there. Carrie (36) said that if Laverne went:

It would have an impact on the places we go. For example, we might have to amend our itinerary to see places or things she wanted to, but not everybody else did, and vice versa. If she vacationed with us it would also have an effect on the activities chosen. She likes taking pictures of trees, the kids like roller coasters!!! Also, her physical limitations mean we would never be able to travel more than a couple of hours from home.
and would make sightseeing almost impossible due to her mobility issues.

Laverne (73) also mentioned that she did not mind having a quiet house while they were on vacation. She enjoyed the solitude.

In the case of the Maple family, they all went on vacation as a family with grandparents and other extended family members but once they got to the resort, they shuffled. Elizabeth (46) said:

The cousin that is Valerie’s age (14) stayed in our room and the cousin that is Jacob’s age (18) he stayed with us, so we just switched the boy for the girl. It was pretty cool. Our room was basically Internet-free all the time because they had movies on all the time on their iPad and whatever.

The Bishop family also broke into smaller groups for mini family vacations. Rick traveled a lot and many of the trips up to the Gold Coast of Australia are mixed with business so they can check on some rental properties they have in that area. Often, the father, Rick, will take one of the children up there with him so that they have some bonding time together away from the rest of the family. The business aspect of the trip usually only takes a small portion of the day and the rest was spent going to amusement parks, bicycling, and having fun. The children’s paternal grandmother was often visiting the Gold Coast at the same time and they spent time with her as well.

5.5 Summary

The research findings indicate that there are varying degrees of feelings and emotion pertaining to smart phones and their use. While many see smart phones as a tool that helps them manage their lives and the lives of their families, others believe that the technology is interfering with their bonding and relationship building with those that they love. Families are trying to manage any negative effects of smart phone usage through establishing rules and boundaries to what they will allow into their homes and the lives of their children. While the smart phone is meant to aid in communication, it
can be a distraction from those around them, and this can affect relationships. Technology-free times are gave some families a chance to reconnect without technology, but some family members found this time to be boring and unproductive. However, there are times when smart phones aided in bonding among the members of the family. Texts of endearment and documenting memorable times as a family were ways that the smart phone helped build relationships. The smart phone also allowed for parents to give their children the freedom to go beyond their normal home environment because of the ease of contacting them and checking on their welfare. Parents felt more secure in knowing that their child could reach them and vice versa in case of an emergency or change of plans. In addition, the smart phone provided parents the option to be physically present at family activities while still being reachable for work and other responsibilities.

On vacation, many families experienced the spillover of work and their daily lives into the vacation environment. With economic hardships and uneasy work situations, parents felt the need to stay on top of work obligations even when on vacation. On vacation, technology rules were usually less strict and technology was used differently than in everyday life. Information searching and location services were popular uses of smart phones on vacation with work, email, and reading social media being of less importance. However, checking-in on social media and showing others what they are doing was increased on vacation. In general, the families were more relaxed in their technology use on vacation and felt that they were able to still concentrate on spending bonding time together but enjoyed being able to check their smart phone during down times. The next chapter will discuss these findings in detail.
6. DISCUSSION

This chapter will discuss the results from the research and will be guided by the research objectives. The first items discussed are the findings related to the research objectives with a specific focus on bonding. Following that, sociotechnical family systems will be covered and what families who were balanced had in common. Later, the conceptualization of family vacations will be reviewed because the meaning of family vacations seems to have changed over the years. Lastly, system balance on family vacations is discussed.

6.1 Perceptions

The following section will provide a discussion on the first research objective involving perceptions that individuals had regarding smart phone use in their personal lives and in their families.

6.1.1 Smart Phones as a Sociotechnical System

Many of the participants expressed feelings in relation to the smart phone being a tool that they use in their life on a daily and somewhat continuous basis. Since families are an ongoing system that changes over time and has a past, present, and future (Broderick, 1993), there is a focus on the processes, patterns, and interactions of the family members. These patterns occur by repetition of their established routines and behaviours that happen continuously and give the family a sense of equilibrium and stability. For many people, their smart phone was part of this predictable routine in their personal lives, and thus it also affected the family system as well so the sociotechnical system was part of the individual system and also the family system. For Karl Logan, checking his smart phones was a normal part of his daily routine. He uses his smart phone as part of the task performing operation of the system to remind him of the things his wife asks him to do, which also helps maintain an amenable relationship with his wife and helps to keep the system functioning.

Families are busy and keeping track of the day-to-day activities of the individual family members takes significant effort. Smart phones are helped parents to keep abreast of changes in their schedules and the daily pick-up and drop off for kids and their activities. Last minute schedule changes and emergencies were facilitated by smart phones and added flexibility in schedules that had not been available in the past.
The smart phone, in many ways, became the tool that people used to juggle the balls of life as they try to divide their attention among several demands on their time at once (see Figure 6.1 below). The smart phone allowed individuals to quickly go back and forth between different obligations and to focus, like a magnifying glass, on that one specific activity for a brief time. The ability to be able to take care of small administrative tasks away from home, like checking email and sending messages was also a big contributor to the convenience that smart phones added to busy individuals and families. This seemed to be most significant at times when individuals were waiting, like at a doctor’s office, school pick up line, the airport, et cetera. The participants felt that these snippets of time allowed them to keep up with their lives a little better because they could check email and take care of administrative things in their life when normally they would just be sitting and waiting. It also helped them to be able to communicate with their family members more efficiently because when schedules changed, they could quickly send a text and change a schedule on the go while they were away from home. They believed that the smart phone added efficiencies to their system that had not been there in the past. From a systems perspective, these instances helped families to operate at a more robust level because of the efficiencies that the smart phone created in the family system. They have been able to adapt their use of smart phones in their system and it became part of their normative behaviour.
In talking to participants about their perception of the smart phone, many of them were surprised that they used their smart phone so much in their life. It was not until they were asked to reflect on their own behaviour in relation to their smart phone that they realized how much they used it. The smart phone was ingrained as such a natural part of their life, that they did not recognize how dependent they were on their phone. This shows that the phone as a sociotechnical system was ingrained in their life as a natural part of their daily routine and system. In the case of Anthony, he said it was a major tool, so it was hard for him to say it was disruptive because he used it in so many ways to aid in his work and normal daily life. He considered that the benefits that the smart phone brought to his life far surpassed any disruptions that it caused.
While some feel that the smart phone offered many benefits, there are also those that felt that it is bothersome. This caused a variety of responses or feedback within the family system which may in the system not functioning effectively. In the case of the Bishop family, instead of the family reaching a compromise and adapting their behaviour to accommodate those who did not like their smart phone, they just kept on functioning in each of their own preferred ways which caused a lot of feedback and frustration within the system. In the case of the Ranger family, there was frustration in the lack of response, but it was less of a case of sociotechnical systems failure and more of a case of a son avoiding talking to his dad about a subject that was uncomfortable. The dad sent a text, the text was received and read but not responded to, so while the frustration was with the phone to an extent, the true point of frustration was the son not responding. For the Bishop and Ranger families, this aspect of their system was not functioning at an adequate level. The individual’s lack of response or feedback to the other’s inquiries caused frustrations within the family system, and they have not yet found a solution to meet all their needs and preferences. Until they find a solution, the system will continue to function at a subpar level.

For some participants, it was just a matter of not feeling comfortable with technology. For Jack in particular, he did not like technology and while there were some conveniences the smart phone offered him, like his banking app, he generally was uncomfortable with it. However, this discomfort was not just because of the smart phone, it was technology in general because he also had just retired from his job because he was going to have to learn how to use more technology in his work life. Jack did not like dealing with technology, but he was willing to put up with it so he could keep in touch with his wife and grandchildren. Jack’s actions point to a generational difference in his family. While the rest of his family was using technology on a regular basis and seemed very comfortable with technology, he was not. Jack was both scared by it and appalled that people used it so regularly. He did not trust technology, but he loved his grandkids and would not let his dislike of technology interfere in his relationship with them. He used his smartphone to contact his grandkids frequently and visited with them. He wanted to remain a viable part of the family system, so he used the sociotechnical system as a way to do that, even though it was not his preference.
6.1.2 Age Was Not a Determiner in Perception

Although Jack (65) and Darlene (64) are some of the older participants in the research, age was not the only determiner for people who may find technology uncomfortable or bothersome. Laverne (73) used technology on a regular basis and saw the benefit of it. She Skyped with her son who lived overseas, paid her bills online, and read hundreds of books on her e-reader. Conversely, Judy (40) felt that using her smart phone was bothersome and she preferred to just use pencil and paper to keep track of things. Judy is a nurse and deals with technology in her job every day, so she certainly has the capacity to use a smart phone; she just prefers not to because she thinks she is more efficient with pencil and paper. It is the way she has operated for a long time and she is comfortable in that process. Even one of the children, Michelle, did not see the benefit of a smart phone when the family already had other electronics that could do the same things individually, such as a watch or land line phone. Ultimately, age was not a clear determiner of people’s perceptions or ideas regarding smart phones.

6.1.3 A Disruption to Bonding

While some participants viewed the smart phone as a tool and others thought of it more as an annoyance, there were also some comments that blatantly stated that the smart phone, at times, was an interference and a distraction. This is especially important when looking at the effect that the smart phone played on bonding because it could interfere in relationship building, which can in turn affect family capital. In the case of Chris and his father, he felt a sense of neglect when he would try to engage his dad in conversation, only to find out that he was not listening to the conversation at all. His father’s actions inhibited Chris’s efforts to communicate and thus challenged the balance of the system. Chris interpreted his father’s actions as meaning that the technology was more important than his conversation. Since family capital entails acting in ways consistent with family (Goodsell & Seiter, 2011) and social capital involves trust among people, especially family members, Chris’s father not only damaged their relationship but also weakened any family capital that had been built previously.
Penney also felt belittled when she was trying to tell someone something important and they were not listening. Elizabeth felt that in her sister-in-law’s presence, she was not a priority when her sister-in-law would say “I just have to do this” which sent the message to her that whatever she was doing was more important than spending time with Elizabeth. Even as extended family members, this behaviour in a relationship can damage family capital and give people the idea that they may not want to spend time with people who ignore them. When family members or friends paid more attention to their phone than to their loved ones, feelings were hurt and they felt insignificant. These distracted moments or times when relationship building was lost may seem insubstantial on a small scale, but when it is multiplied over and over again on a weekly or daily basis, those missed opportunities for bonding became significant. This lack of interaction affected system functioning and dynamics. Since the smart phone was being brought into the family as a system, it is used repeatedly and often on a daily basis for most people. It is not that people in the past have never been distracted before, for example Kristina Rinehart mentioned that when she was young, her mom would spend hours on the phone attached to the kitchen wall, so it was still a distraction. However, since smart phones are mobile, the distractions can now happen anywhere, at any time, and repeatedly each day.

While the smart phone can be a distraction in relationships by taking the focus away from someone, it also affected personal relationships when people oversharred or overstepped someone’s personal boundaries. While posting or saying mean things about others on social media could have caused contention in relationships, just posting pictures was viewed to some as an invasion of privacy. In the case of Harmony Bishop, she was a private person and did not like it when friends or family posted pictures of her on social media without asking her. People took pictures on their smart phone while they were out together and then posted them on social media. She felt like it was an invasion of her privacy, and it told people where she had been and with whom, which made her uncomfortable. People overstepped the rules and boundaries that she set up for her personal life. Likewise, saying negative things about individuals whom you have a personal relationship with was also damaging because of the exposure to other people. A personal argument would be hard to get over to start with, but when it was displayed for all to see or commented about on
social media, the level of hurt and betrayal went deeper and interfered or inhibited the rebuilding of the relationship. It is another example of overstepping the boundaries that should exist in personal relationships.

6.1.4 Perceptions Brought Forth in Interviews

With the hermeneutic approach, the researcher sought to bring information to light by understanding the experiences, thoughts, and feelings of those interviewed. There were times during the interview process where the individuals or families, through their dialogue, brought information to light that was able to provide them with further understanding of the experience, each other, and the meanings surrounding their actions. When talking to Anthony Cantoni, he did not realize how reliant he was on his smart phone for his personal life and work obligations until he was saying all the ways he uses his phone aloud to the researcher. This experience allowed him to be self-reflexive and helped him to understand how vital it was for his business and personal life.

In interviewing Harmony Bishop individually and in the family group with almost a year between the two interviews, the researcher had a deeper understanding of the history of their technology use individually and as a family so that insight provided a better perspective on how their family had quickly evolved over time. It showed that their family was evolving and changing over time, which is a natural part of system dynamics (MIT, 1997). It also showed that all the parts work together (Krippendorf, 2008) because as one member of the family became more savvy in the use of technology then the other members were also afforded greater access to technology.

Anne and Mike had established a tradition with their father when they were both children that Monday nights were family night, and they would spend time together. Since this tradition had been established when they did not have personal technology devices, there was never a question that technology would interfere in this activity. There was already the understanding of the importance of spending this time together without interruption; it was already a family rule that had been established in the system regardless of technology. This was a time they used every week to build family capital and work on their relationships.
While interviewing the Cantoni family individually and as a family, the researcher discovered that they each had different interpretations of the family rules, and they did not match. This information was important in understanding their family dynamic and some of the struggles they have with their technology use and relationships. This information provided a clearer picture of some of their misunderstandings. For example, Penney Cantoni felt that the rules for her social media use were more strict than her brother, which created some discord within their family.

With the Manning and the Logan parents, it came to light that the wives had different perspective than the husbands as to why they shared vacation pictures on social media. The wives posted to share with their family members specifically and to feel connected to them, while the husbands felt it was more sharing with friends and a way to brag about their activities. The Mannings also learned the importance of the stories that the mom would text to their son at night while the parents were on vacation. Not only did he remember the stories, they were able to laugh about them and share in that memory again during the interview. Being able to experience shared stories showed some of the meanings associated with them and how they used the stories as a bonding tool when separated.

These examples show how interviewing participants and seeking an understanding of their experiences, in the individual and group family settings, can bring further enlightenment of the situation and the meanings behind the actions and utterances. The hermeneutic approach seeks to have a deep understanding of the event in the context of the environment and those around them (Laing & Moules, 2014).

6.2 Negotiating Smart Phone Use in Families
This section will discuss the findings of the second stage of research that deals with if and how families are negotiating and regulating smart phone use in their families. Since families are systems, parts and people react to inputs and outputs and go through transformation when the need arises and as the environment changes. Smart phones have changed the way many of them function in their daily lives. For Sariah, she personally used her smart phone as a tool in her daily life, but she adjusted when it comes to dealing with her family system. Since her mother is not interested in
using all the features of the smart phone, the members of their family all called each other as their form of communication. With her friends and colleagues, she would normally send a text, but within her family system, making a phone call had become their pattern for communication because it accommodated everyone in their system. The family system altered the way they communicated within the family to accommodate their mother’s preference. Harmony Bishop is a good example of how someone had changed the way they operate in their family system. In the first interview she was not interested in technology and was negative towards technology. In the second interview, it had become a major part of her and her family’s life and keeping up with people, tasks, work, and schedules. She had gone through some kind of change or system transformation where she went from being not interested in technology to it being a significant part of her life. This happened in a relatively short period of time. She changed her personal rules and began using her smart phone more and changing the way she felt towards smart phone technology. She had changed, but the dynamics in their family had also changed. Life for them had changed in that, in the first interview, Harmony had a baby boy who was around a year old and she was not working. By the second interview, her child was a mobile two year old and she was working more hours, so her system needs and focus changed, creating a greater need for technology to help her and her family function.

6.2.1 Establishing Rules to Maintain System Balance

One of the ways that families dealt with technology in their lives was by establishing rules. As stated earlier, while each family member experienced daily life from their own perspective, collectively they were all influenced by family rules and established routines for the group (Daly, 2003). While family rules are intended to be clear and flexible (Bowen, 1993), the Cantoni family all had different views of the rules and how they were being followed. Since rules are established to maintain system balance, this family’s lack of understanding of the rules caused the family to be off balance.
Following system rules is one part of achieving balance, but there are other behaviours that were discouraged or banned. It was clear from talking to both parents and children that there were some things that were not considered to be appropriate uses of technology and would not be allowed in their homes. Pornography and sites that could include nudity, curse words, and violence were all considered to be inappropriate, but they also struggled with sites that offered both good and bad, like YouTube. While some of the videos on YouTube were funny and harmless, other videos contained things that they did not want their children exposed to so they struggled with how to regulate that use. Sometimes, they simply cut off access. This is why many families set up boundaries that would prevent some of this type of material to come into the family. As families set up a rule structure and operate within that structure, it makes their family system (Broderick, 1993). With Jim’s family, he and his wife have set up the boundary that YouTube would not be allowed in their home. They also set up the rule that their smart devices were only allowed in the common living areas of the home, not their bedrooms. The rule of limiting Internet access to common living areas was followed by families in the USA and Australia. These parents felt that if their technology use was out in the open where everyone naturally gathered at home, they were less likely to be on sites that the parents did not approve. It was a form of self-governing within the system.

In talking to Coco’s mother, Suzie, she said that they were struggling with enforcing rules and boundaries and figuring out what those rules and boundaries should entail. Coco is their oldest child, so she was the testing ground and reason for creating all their rules that they expected their other four daughters to follow. Family systems are purposeful and self-regulating, so they try to be adaptive and flexible in response to the outside forces that apply stressors to their family (Cheal, 1991; White & Klein, 2002). Suzie felt the world’s outside influence on her five daughters and struggled with how to establish rules to protect them and still give them some freedom. They felt the stress of getting it right and they were trying to find some rules to establish normal system operation. This shows that their family system was constantly evolving as their daughters were getting older and different issues come to light.
The Maple family felt that creating the rule that they only had access to the Internet until ten o’clock at night was a good way for them to monitor their children and also protect their shared family computer. This way, the parents were always aware of when their children were on the computer and the computer was kept out in the open so anyone in the area could see what they were doing. It also protected them while the parents were away or asleep; they did not want their children on unapproved websites so rules were created to set a boundary in reference to what was brought into the house via the Internet. Since families are open systems, they wanted some information to pass back and forth through channels such as the Internet. They wanted to control the access to that information at times when they were available to monitor it more closely.

Transparency and limiting technology use as a form of behaviour management were used to reinforce system boundaries and rules in an effort to attain or maintain system balance. This was also used as a way to encourage good behaviour and good grades since the punishment resulted in e-bans or being grounded from technology. In systems thinking, systems develop a repertoire of reactions to certain situations and those actions become a repeated action or pattern when they are successful. Therefore, when children disobeyed and electronics or access were taken away, it seemed to work for most families in curbing misbehaviour and establishing that reaction as an option for redundancy if the same situation occurred again in the system.

Family dinner time, when observed together as a family, was a special time when most families tried to block the use of technology so they could focus on each other. This time around the dinner table at the end of the day was viewed as a special time when they could reconnect and converse about their day. Parents established these rules in their family system as a way to regulate the behaviours of their children and establish times when they could emotionally connect with each other. In a number of families, dinner time was the only time that most of them were together during the day and looking at each other face-to-face. This was a time for them to share stories from their day and gain an understanding of what each other was going through while they were away. This family rule, however, seems to only apply to the family dining
table in the home because this rule was not enforced as strongly when eating elsewhere, even as a family. Of all the families that were interviewed, only one family, the Crafts, did not have dinner together on a routine basis and that was due to scheduling conflicts with sports practices for the daughters, university classes and school work for the mother, and the father’s second job.

6.2.2 Transparency in Technology Usage in the Family

Other families also came up with different ways to deal with smart phone technology use by trying to make their use transparent. Parents allowed their children to use a smart phone but they had access to their passwords so that they could check up on their usage and with whom they were conversing. This created transparency in that they could check their children’s smart phone and technology accounts at any time. Another form of transparency was with the Manning family where they created all their children’s passwords for them so that only the parents had access. Their children could not get on their technology without their parent’s entering the password. Their transparency was not just limited to the children. As a couple, the parents also had access to each other’s email and social media passwords so that they could also be transparent with each other. This is a demonstration of trust among the members of the family, and trust is a vital part of building social capital among people and in families, it builds family capital.

6.2.3 Rules Adaptation in the Family

Not all rules apply to all members of the family (Cox & Paley, 2003). For some, the parents did not have to follow the same rules as the children because they were given more freedom in their choices to make their own decisions. Many of the families found that rules needed to be adaptable and flexible at times depending on the maturity of their children. This goes along with the thought that systems are constantly evolving; and that they adapt to the inputs and outputs of the system. The Johnson family was in the process of making changes to their rules as Coco now had her own mobile phone and was maturing to the age where they felt more restrictions were necessary. Within a family, it is common to have rule regulation where rules change as their children get older and as interests in technology change and develop. When those changes happen, parents are adjusting those rules to better fit the individual family member. Another example of this is with Anne and Mike, college
aged adults living with their father. In separate interviews with them, they both confirmed that the only rule they had in their household is that they set their technology aside once a week for family time with their dad. There were no other explicit rules. It is also common that within the sub-systems of parents and children there is typically a difference in rules; the parents may not have any firm rules set up for themselves.

The maturation of children brings on its own challenges for parents in adapting rules, since rules help calibrate the system by defining the range of behaviour allowed (Watzlawick et al., 1967), it can be a struggle for parents as their children mature. As mentioned earlier, Coco’s parents were struggling with how to establish rules for her since she was the oldest child. For the Maples and the Crafts, both mentioned how they struggled with rules for their adult children. The Maple’s son, Jacob, just turned 18 and the Crafts have a daughter in college. Elizabeth Maple mentioned that it is harder to control what comes into their home now that he is 18 and has a job and can buy his own Internet access. They no longer had control over his passwords and turning off the Wi-Fi now did not affect him, since he has a job and purchased his own access. The Crafts mentioned that when their daughter was home from college, she also spent a lot of time on her phone and even though they pay for it, they were not comfortable checking it or asking her for her passwords. Since all the family members were dynamically intertwined, they want to feel connected to their adult children but still give them some freedom while still providing a secure and safe home. It is a struggle that parents have dealt with for decades, but the addition of smart phones adds further stress, and they struggled to create balance in the family rules for these adult children.

6.3 Bonding
The research has shown that there are times when smart phones affected bonding in positive and negative ways. The smart phone could add or detract from bonding activities depending on how much the individual allowed it to interfere.

6.3.1 Smart Phones as a Distraction
The Bishops clearly demonstrated how one individual’s actions in the family can negatively affect the other members of the family since, in family systems, individual
actions of the members of the family affect the entire system (Van Dyke et al., 2012). Harmony talks about the smart phone being a huge distraction in their life and how her husband was always compelled to answer it. She gives examples of how they would be out on a date and she would be mid-sentence, and he would still answer the phone when it rang. While this interfered with their time together, it also frustrated Harmony because he did not always answer the phone when she called but he always answered the phone when she was with him. Harmony’s reaction to her husband’s smart phone use caused her to change the rules in their relationship by telling him that he could not bring his phone when they go on a date together. She tried to tell him to not answer, but he was so compelled to answer the phone that it did not work. Rick’s behaviour with his smart phone caused quite a bit of contention in their relationship which certainly affected their opportunities for positive bonding situations because they often argued. She tried to communicate with Rick to let him know that there was a problem within their relationship when he behaved this way; this is another example of when their system became off-balance. The situation was further exasperated when Harmony called Rick and he did not answer the phone; which she felt happened often. This caused disorder or entropy in the system as she had to rearrange schedules to accommodate changes when she could not reach Rick. It also caused tension in the internal environment of their family system, because stresses between their subsystem will impact the rest of the family system.

6.3.2 Work Life Balance with Smart Phones

When there is tension in a system, a system will seek to find balance (Olson, 1986, 1989). Parents sometimes struggled to find balance in their work and personal life because of the spillover from one domain to the other. For the Bishop family and other families who had their smart phones tied to their work, the work-life balance was especially challenging. Work, which is an external stressor on the family system (Cox & Paley, 2003; Pinkus, 2006), was part of the normal family routine but the work day did not end when they left the office. Checking emails and taking phone calls was common practice for many of the parents interviewed. For the Ferguson family, a birthday party at the zoo ended up being spent separated as Kenneth took a work phone call. This time spent on the phone affected their family time, time that was set apart to recognize their son’s first birthday and create memories with
extended family members. In the ecological psychology literature, affordance means a prospect for action conceptualized between an entity and the properties of an object (Gibson, 1979). In this case, the smart phone is the object and the entity is the individual who has the phone and sees it as a way to stay in touch with family and coordinate their schedules. Conversely, when the entity is the family member of the person with the smart phone, they see the smart phone as an object whereby the workplace can reach their family member at all times and as a tether to their work email and work life in general. So, for some family members, smart phones may afford bonding but for others, it is more of an obstacle to bonding. This affordance principle shows that the same object can have different uses depending on the entity’s perspective.

Sean Reeder (35) claimed that he had set up his own set of rules that governed when he used his smart phone; however, the entire time his family was being interviewed, he was on his phone looking things up or playing with it. The words he spoke and the impression he gave were opposing. His phone was woven into so many aspects of his life that he did not realize how much he was on it. This created another stressor to the functioning of the family system. Parents and other family members may not realize how much they are focusing on their smart phone and not on family members. This behaviour would also affect their family time. If Sean did not realize how often he was on his phone during the interview, he probably did not realize it when he was spending time with his family in the same environment which would affect the bonding that takes place during family time.

6.3.3 Documenting Life Through the Smart Phone Camera

Many families document their past experiences through taking pictures and videos on their smart phone. This documentation can aid in bonding as families reminisce about times they have shared. Families and systems evolve and change, the individuals mature and age, and relationship dynamics change (Bowen, 1974), and the smart phone camera provides a way to document and catalogue these changes in the family system. However, while documenting these family experiences, there was still the problem of distraction and not being in the moment. Sometimes individuals got so
wrapped up in videoing or taking pictures that they were not really experiencing the moment for what it was and creating a positive memory for those involved.

Smart phone cameras also helped loved ones share memories and feel connected as other family members travel or live apart. Taking pictures and videos and posting them and sending them to family members helped Heidi Logan to feel connected to them. Even though they were not her immediate family, they were still family and there was a relationship there that she wanted to maintain across the distance. Sariah also used apps and social media to keep in touch with loved ones that lived overseas. In this way, the smart phone was working with boundary management by expanding the boundaries of their network. They do not live close to each other, so there was distance that got in the way of their relationships, but the smart phone technology expanded their immediate vicinity to easily include parts of the world that would otherwise be far more inconvenient. Cameras on smart phones not only make it easy to share their experiences but it also helps them to document their family’s life as well.

6.3.4 Texts, Apps, and Games Can Help Build Relationships

Other apps like Facetime and Skype can bridge across distances that separate family members. The on-screen conversation allows for interaction in the system even when physically apart. These apps helped people to feel connected with family even though they may not have seen them in person for long periods of time. In family systems, there should be a balance between devotion and the allowing of independence (Christian, 2006; Kern & Peluso, 1999) and text messages demonstrate showing affection and still allowing independence of the individual. It helped family members to still feel connected when they were apart and provided a way to strengthen bonds across hundreds of miles. For the Fergusons, it enabled Kenneth to participate in family activities even when he was hundreds of miles away for work. For the Reeders, it provided an opportunity for the children to see their father on Facetime while he was away on military assignments. These screen time interactions were important for bonding between members of the family and for peace of mind, so that the family members knew the person away from them was safe. There was comfort in
being able to see them on screen, and there was greater understanding of feelings and emotions when visual cues and verbal dialogue were experienced together.

Texts of endearment helped family members feel connected by letting them know that their family members were thinking about them. These provided the individual family members with a way to stay connected with their family system even when they were not together. This was a simple way that families sent love notes to each other instantaneously throughout the day. These texts linked them together when they were physically apart; they provided support, encouragement, humour, and a sense of connectedness. Family systems still maintain their relationships even when the individual members separate in the daily rhythms of being together and apart, that are intrinsic in daily life. These texts were a way to perform a system check as well, a way to communicate that they were still part of the system even when they were physically separated.

In the case of the Nielson family, they talked as a group about how convenient texting is for them, for scheduling and for sending texts of endearment, which in many ways helped with their relationships. Because there were so many of them, there was a lot of coordinating that went on among them, so using the smart phones and iPods for that purpose, they believed, helped them strengthen their relationships. They knew where each other were and if they were running late. If one activity gets off schedule, it could adversely affect all the other schedules, so it was important for them to remain organized as a system. They also sent texts that offered encouragement and cute messages of affection. They used technology as a tool so that their family system functioned better and as a way to show their love for each other.

Entertainment and sharing funny experiences built memories and strengthened relationships. For the Ranger family, they often used their smart phones and iPods to communicate and entertain each other, which is a way of making memories. As they were being interviewed, they would laugh and share funny experiences of things they had sent to each other. They would also play games with each other using their apps and that was fun for them, too. The Mannings are another family that played games against each other, sometimes when they were in the same room together and
sometimes when they were separated but it was still a way for them to have shared experiences because they were laughing and reminiscing about it as they talked. This is similar to the emotional and relationship parts of a system where the emotional part is the motivation and the relationship parts is the way it is expressed. In this case, their motivation may be to win or to have fun or do something together, and it was expressed through playing games together. This was also a way for parents to try to have balance in their relationships with their children. So many times, parents are viewed by the children as just disciplinarians, but these interactions offer opportunities for them to be competitors and sometimes team mates in a game of fun.

6.3.5 Feeling Secure

The smart phone seemed to provide parents and children with a sense of security when they were apart. Children needed to feel secure and parents wanted their children to be able to contact them and be safe. Smart phones offered ways for parents to let their children venture out of the immediate family domain and still feel connected, it gave them a sense of security. In the case of the Bishops, it gave the children a sense of security when they could not find their father because they were able to contact their mother. However, Rick felt like the smart phone had embedded in them a sense of panic because instant access to everything means they were not patient and if the kids had just looked a little harder, they would have found him. So, some people felt more secure with a smart phone but in retrospect, Rick felt like it actually caused more panic than was needed at times because people felt like they needed to know everything down to the second, or they assumed something was wrong and felt panicked.

For the Craft family, when their daughter, Cecily started having heart problems in high school and had episodes where she would pass out, the smart phone became a resource to them for their daughter to be able to contact them at any time. Since they knew she was at school and they had her schedule, they could get a pretty good idea of where she was when she would call in distress. They could also use a navigation app to locate her smart phone if they could not find her. This provided them with the ability to let her continue with school, and be a teenager as much as possible, while the doctor was trying to diagnose the problem and arrange for a pacemaker to be
implanted. For them, the smart phone acted as a life line to Cecily while they were away from her and this provided them with a feeling of security. It was an anxious time for them as a family, and their smart phones enabled them to keep in contact in numerous ways throughout the ordeal.

For the Mannings, that security the smart phone brought helped the parents extend the normal boundaries of where their son went on his own. This also helps with the ideas of enmeshment and individual identity in systems. Brady being able to go out on his own some, helped develop his identity and knowing that his parents trusted him also helped them to feel more bonded and enmeshed as a system. Within systems, relationship regulation is important because for a system to survive, relationships must be secure enough to maintain the system’s integrity, but still distanced enough so that each member can maintain their individual identity.

6.3.6 Together Apart

In family systems, there can be struggles in distance regulation with the establishment of when to be separate and when to be together, the challenge between the ‘I’ and the ‘we’ aspect of the family (Hess & Handel, 1959). There is a need for individual personal time and a way to manage the balance between times spent as an individual and a time spent with family. In family systems, there is a level of individuality and connectedness needed, so this type of separating and coming back together is important for family interaction (Broderick, 1993). The smart phone allowed families to remain connected even while apart and facilitated getting back together after the activities. In some of the families interviewed, parents thought that smart phones and mobile technology in general helped to find some balance in this area with their children. Bryan Manning was so grateful that his son did not have to experience the frustration that Bryan had with his mother whenever he would get dropped off at the mall, because she was always late or something would happen. He knew that he could drop off his son and simply text him whenever he was there to pick him up. He also felt like these technologies allowed him to give his son some independence because he felt a sense of security that Brady could call him if there were any problems. These technologies allowed the children to get some individual time away
from their families to spend with their friends and help them establish themselves as an individual.

While smart phones allowed members of the family to feel together even when they were apart, they also allowed the opposite, where family members were physically together but each mentally separate on their devices. There were both positive and negative aspects of this together-apart scenario. It afforded parents the opportunity to be physically close to their children with the ability to check on them while the children talked to friends or played a game and not really focus on their surroundings. However, when people become so engaged with their technology and perhaps have their earphones in, then they can totally disengage from their surroundings and not be aware of dangers or needs of others around them. Laverne experienced this with her grandchildren. She had concerns about them being physically present and emotionally somewhere else, plus, it was isolating to her. She spent all day by herself and she looked forward to the grandchildren getting home from school, but once they were home, they were not always present.

Jerry admitted to using his smart phone as a means for escape when his in-laws started to annoy him at family functions. He recognized the importance of being at the event but felt like showing up and participating for a little while was enough. However, that is the question, is it enough? Has the smart phone dulled our sense of patience and obligation to engage with family even when they are annoying or has the smart phone presented a way to be mentally present at events just long enough to preserve sanity? The case with Chris’s family dinner brings up a similar scenario but from the other perspective where the relatives were all off-put by his actions and his lack of interaction with the rest of them.

Elizabeth Maple was also concerned with her family members being mentally engaged as well as physically present. From a system mode perspective, she was reactive, meaning she thought the past was better than the present. She referenced being old fashioned and going back to pioneer times a few times throughout the interview in a nostalgic way. She felt like life was better back then than it is now with technology. She also felt like technology affected their family time together and their
engagement with each other. She did not like the distractions that technology caused her family and felt that it interfered with bonding. Harmony also was nostalgic about letter writing and the art of socialization that she felt technology had taken away. She felt like the process of becoming technology dependent had also made humans more self-consuming with weakened socialization skills.

This brings up the issue that if families members, as parts of a system, need some time both together and apart to help establish their identity, do individuals need some time together and apart from their devices to establish their identity? Does the need to have a device dilute self-identity and make individuals bland, rude, or less distinguishable from others? So many people connected their identity to the smart phone during the interviews. Just as Harmony said her phone was her life, it seems that many people are becoming too enmeshed with their smart phone, that the social aspect of sociotechnical systems has created a state of being too connected and attached to the smart phone and the access it has to the universe. It has caused people to focus more on the ‘I’ and less on the ‘we’ of the human race and the general social norms of etiquette that used to guide one’s interaction in society. Coco Johnson brought up this point when she said that it was really hard to do two things at once, multitasking lessens the quality of either interaction. The smart phone divided attention and sometimes it consumed it. This focused attention that people pay to their smart phone has to be moderated for it to not impact relationships and bonding. The smart phone is a tool that can help in so many aspects of life but, it can be harmful if there is not some control over how it is used and the extent that individuals let it capture their attention.

The figure below summarizes some of the challenges and benefits to bonding when using smart phones in families.
6.4 The Context of the Vacation Environment

This section will discuss the results of analysing families in two different environments in search of what and if families are making effort to unplug from their work and everyday lives and take time to focus on their family.

6.4.1 The Work-Life Balance on Vacation

For the working parents, they left their normal working environment to spend time with their family on vacation but they eventually returned back to work, so they had a past work history and future work to do, even if for the present it is temporarily suspended. Their work was an ongoing system, just like their family. Since this research looked at families from a system perspective and systems need maintenance, a vacation is a form of maintenance of the system, a chance to re-establish relationships and try to repair any damage that may have occurred in daily life. With smart phones having the capability to bring emails, phone calls, and other work responsibilities along on vacation, a sense of how the parents were managing this spillover effect was needed. For many of the parents, they brought work along with them in the sense that they still checked their work email. There was a fear that if they did not, when they returned to work, they would have hundreds of emails left to respond to or that something major might have happened and they missed it, which
could negatively impact their career. Even though many of them had set auto-reply messages, there was still a fear that they would miss something while they were gone. Reid Neilson was expected to answer his emails always, even if he was on vacation and for many people it seemed like that was more the norm than the exception. With the economic climate being unsteady in many areas of the world, many people are afraid of missing something while on vacation and losing their job. In an effort to compensate for not being at work, they are still checking emails so that they can make sure things are going well in their absence. This need to check emails could affect relationships in the family but a job loss would also affect the family, so many of the parents were trying to find a balance where they could be with the family and still be aware of what was going on at work at the same time, without one interfering with the other. There was also a distinct difference between the Americans and the Australians in this regard; the Americans almost always checked their work email continuously throughout their vacation whereas the Australians were more likely to not check their work email during their vacation.

6.4.2 Technology-Vacation Balance

Some families were able to balance their technology use with vacation time so that their smart phones did not interfere. For the Crafts and Maple families, their vacation had a repetitive quality to it in that it was the same location with mainly the same people each year and so it would have a past, present, and future. Their vacations were something that they looked forward to, and they were excited about it when they were interviewed because it was coming up again in a few weeks. They had memories that they shared in their immediate family system and also as their extended family system with the aunts, uncles, cousins, and grandparents. They both talked about the technology aspect of their vacation and how one house had Wi-Fi and one did not. The Maple family was in the house with Wi-Fi and Elizabeth Maple would rather not have any technology, and the Craft family did not have Wi-Fi and were always trying to find Wi-Fi or mobile phone service so that they could stay connected with the father of the family who could not go on vacation with them. This is a good example of two families on the same vacation but having different technology needs. The Crafts wanted to stay technologically connected since Jerry was unable to come,
but Elizabeth wanted to be technologically disconnected because her family was all together, and she wanted to focus on just spending time together and doing fun things.

The lack of technology during the ride home caused some frustrations for some of the family members, but it also created a memorable story. Their story is an example of a vacation story of the past that was still living on and being shared by the family members. It was a shared memory that the daughter would not let people forget and it created a funny memory for the family. Even though they go to the same place every year for vacation, each year they created new memories and added variety to their vacation experience, and variety is an important need in family systems.

6.4.3 Relaxing of Rules on Vacation

From the children’s perspective, some of the fun of vacations may be the break from the everyday routines and rules that normally apply. For the Manning children, they had a short vacation from their regular rules and some of their normal routines of daily life and had fun spending time with their grandmother while their parents were in Hawaii. The parents also had a break from their hectic daily routines and were able to reconnect with each other, strengthen their relationship by getting away from their normal busy life and enjoying each other’s company. Jacob Maple also enjoyed a break from the rules in that he could stay up with his cousin and play video games and be online while on vacation, since he wasn’t sharing a room with his parents.

The trip to Mexico also created a change in the rules for the Craft girls because they were not able to take their phones or devices with them because of the cost of international roaming fees. They changed the rules for their daughters because of the cost but still kept in contact through the grandparents so that they still felt like they were connected to their family members in Mexico. Their family system was separated by distance, but they could stay emotionally connected through technology.

In the Craft family, they all agreed that they do not use their technology near as much on vacation as they did at home in their daily life, so there was not a need to have rules regarding their usage. However, they still struggled with managing their adult daughter and her smart phone usage so there may have been a need to set up some
rules regarding use. While Cecily’s health issues contributed to her need to be connected, it still goes back to the issue of when parents can or should have rules on their children who are adults. They paid for her phone, so they had some control over it but they also did not want to infringe on her or her social life. When she was getting ready for surgery and recovering from surgery at home, she was unable to be with her friends and she used social media as a way to keep in contact with her friends while she was home. Once she was doing better, that habit had been formed and she often times was engaged more on her phone than with her family around her. The family was trying to use humour to help Cecily realize that she was disengaged from them. It is like a part of the system is not functioning; it has broken or is only partially functioning as a member of the system. For the system to function better this issue will have to be addressed, or Cecily will have to make a change to the way she operates so that it does not affect the other members of the system. The family will have to enforce a new rule to the system if she does not become more aware and make the change herself, because her actions are affecting the system and the way she bonds with her family.

The Crafts also dealt with the fact that Jerry has not been able to go on vacation with them for a few years. Lara made an intentional effort to keep Jerry updated on what they were doing so that he still felt involved even though he was not there. Her smart phone allowed her to call, text, send pictures, and update social media as a way to keep that bond with him even though he was far away. She felt that what they did would also affect Jerry, so she strived to make him feel like he was still part of the family and not isolated at home.

Elizabeth Maple saw examples of how technology was a barrier to their relationships while on vacation, which was why she wanted to not have any technology. She felt like it affected their relationship with their cousin because he was always texting and did not pay attention to them. It was also annoying so they did not want to be around him. His actions with his smart phone were affecting his relationships and caused special times spent with his extended family to be more irritating because of his smart phone and the attention he paid to it. It caused a breakdown of some relationships.
She also felt that texting had diminished their relationship when they texted each other. They were missing out on the value of face-to-face communication and it was being replaced by texting.

6.4.4 Family Subsystems on Vacation

Smart phones afford families the opportunity to separate into smaller subsystems or subgroups in order to pursue individual interests of the group. This allows for families to participate in more individualized activities instead of family group activities. This can also aid in relationship building because it allows people some freedom in their choices and doesn’t force people to participate in activities that they do not want to do. For the Crafts, not everyone wanted to get up at six o’clock in the morning so only some of them went to the beach to see the sand dollars and the others slept in. In systems, this involved a change where they temporarily separated to perform a task and then came back together to function as normal. Lara Craft also brought up the notion of security again. She felt more secure when they would separate that they would be able to get back together again if someone had their phone with them. She also felt that this was especially beneficial for the teenagers in the family. It gave them a chance to be teenagers and to hang out as friends and not have to be part of their family group for a while. It helped them in identity development and also in bonding with their cousins because parents were not around and they could relax and act like teenagers.

6.4.5 Alone Time or Just Lonely on Vacation

Smart phones provided escape as people sought personal time on vacation. Spending all day with family members can make individuals yearn for some alone time. For Kammie Craft, this time made her feel more lonely because she did not own her own smart phone and everyone else was using their device or not at the vacation house. She felt like she had nothing to do and was bored. She found it lonely and frustrating.

For the Neilson family, everyone had their own device so no one felt left out or lonely. They liked to be able to have individual entertainment during the down time, since they had spent the day together doing family things. Their devices allowed them to be able to share in a together-apart scenario. It allowed them to have their individual fun and family fun but they did not interfere with each other. It provided a
way for them to have distance regulation in that it allowed their family members the
time to be individual and the time to feel connected as a family.

6.4.6 Feeling Connected on Vacation

The Manning parents used their smart phone to feel connected to their son while they were on vacation. The smart phone was their link to him and they would share their experiences with him through their phone. They sent texts, shared stories and pictures as a way for them to still feel connected and for Brady to know that they had not forgotten about him or his sister while they were on vacation. Margie has some guilt with leaving her children while she and Bryan went on vacation, so this was a way that helped her to feel connected even when they were apart. The parents also stayed in touch with each other when they are on separate trips with their children. Their smart phone kept their system virtually connected even when they were physically apart.

Josh Maple stayed connected in a different way on vacation than he did in daily life. In his daily life he said he did not have time for Facebook but that on vacation, he would post pictures of a fish he caught or something significant. Karl Logan and Bryan Manning also said they posted more on Facebook on vacation as a form of bragging about what they were doing but their wives contradicted that and said they did it to share with their family what they were doing. Either way, both of them were posting for the purpose of sharing their experiences with family and friends, they just had different motives. In actuality, it was probably a combination of both showing off and sharing that motivated the couples to post on Facebook. Lara Craft used this capability often on vacation since her husband was not with them. She felt that captured memorable moments that she wanted to share with him so that he felt like he was part of their vacation even though he was not present.

Kammie Craft felt disconnected from her family when she and her sisters and grandmother were accidentally left at the gas station and had no way of contacting the family members in the other car. Kammie’s vision of this incident changed as she told the story and heard the perspective of her mother’s version. Families are socially complex phenomena, and often one event can carry several meanings to each
individual which adds complexity to their interpretation (Ainsworth & Wolfram Cox, 2003; Fletcher, 2002; Hamilton, 2006). In the beginning, she seemed frustrated that she had been left behind, stranded without any help. Her mother quickly explained that they would have never abandoned her, that she was always safe since she was with her grandmother, and that her grandmother had a credit card and could have provided for their means. Kammie interpreted this experience as one of neglect but by the end of the conversation during the interview, she had a greater understanding of the circumstances involved. Her attitude had changed and she was singing a song they made up while they were stranded about being stranded. It is not hard to understand her frustration and feelings of neglect even though it was an innocent mistake made by her mother but as the other side of the story was explained, she seemed to be able to see her mother’s perspective more and have a more complete understanding of the meanings behind the experience.

6.4.7 Photography on Vacation

Smart phones make tourism photography easy and convenient and with the additional capabilities of instant sharing, individuals are able to capture moments and share them on social media or with family who are not present. Prideaux and Coghlan (2010) believe that photography links the individual to the destination. In the case of Lara sending photographs to her husband, she was using photography as a way to link her family and destination with her husband. Many of the other participants, like Heidi, also spoke of taking pictures with their smart phones and posting them on social media as a way to document their time on vacation and share those photos with family and friends at home. Family rituals and interactions are ways to strengthen family relationships (Hallman & Benbow, 2007), and many of the participants used photography on vacation as a way of documenting those interactions and special moments that the ritual of the vacation offers.

6.4.8 Vacation from Technology

It was rare for people to not use any technology while they were on vacation. Only one of the families said they did not use the data features of their smart phone on vacation and that was because of international roaming data charges. They were on holiday and they did not want to be bothered with anything else; they just wanted to
concentrate on each other and their experiences. Their vacation environment was treated differently than their everyday environment because it was a special time to them.

Many of them still used technology; they just used it differently. Jenny Neilson talked about using the information search features a lot more on vacation and it enabled them to find a local attraction that they did not even know they were near. They were able to create another happy family memory which would aid in bonding among the family members. Bryan Manning said they had not kept up with any news until they saw on Facebook the information about the Boston bombing, and then they made an effort after that to stay abreast of information because they both lived near Boston at one time. Anthony Cantoni used his phone to communicate with his son, set up a time to meet, and then used the iPod function of his smart phone to listen to music as he skied. He also used his smart phone to video record his daughter while she was skiing and snowboarding and then would post the videos so their family and friends could see it on Facebook. He thought it was fun to have a tool that could do all that for him in his hand. He used his smart phone to enhance his experiences and to document memories of fun times and show his daughter he was proud of her abilities. In his daily life, he does not have that opportunity because he works all the time, so this was a way for him to feel like he was interacting and bonding with his children continuously.

In daily life, for many individuals, the smart phone is a continuous part of their day. They check it regularly and try to keep track of all the things that are going on in their life. In the vacation environment, the smart phone was still used although the frequency was less and it was used for different things, like information searching for activities to do on vacation. Figure 6.3 below shows that there is a difference on family vacations; people change their focus to the family. The smart phone is still in the periphery, and still a valuable tool, but their goal is to magnify the family and build relationships among the members.
6.5 Sociotechnical Family Systems (STFS)

STFS comes from meshing parts of Family Systems Theory, Sociotechnical System Theory, and General Systems Theory (See figure 6.4 below). For families with smart phones as part of their system, the smart phone becomes a regular contributor to the system operations and thus, becomes part of the system. STFSs are not limited to families that only have smart phones, devices like an iPod touch or similar have apps and Internet access which also provide a similar technology component. Families are using these devices in their daily life as a scheduler, a communicator, an emotional connector, an information source, an entertainer and much more. At times these devices can be isolating and interfere in personal relationships but they do not have to. The keys to not letting smart phones interfere in family bonding are a combination of rules, boundaries, and system dynamics.
There are traits that fall into the categories of rules, boundaries, and system dynamics that define a balanced sociotechnical family. Although only a limited amount of time was spent with each family, some of the families seemed to function better than others. Those families were able to adapt to changes in the system quickly to find balance. Remember that when families are functioning best, they are adaptable and seek to find balance even during times of stress and tension. In analysing the research data, there were traits that the families that functioned better had in common in their sociotechnical family system. These families seemed more balanced. A balanced family is one that is balanced in adaptability and cohesion. They fall in the midrange of both of these traits, meaning that for adaptability, they are not too flexible and not too rigid; they are balanced in the middle (Olson, 1986). In separating the families into two groups, one group seemed to be more balanced and close-knit as a family and the other group seemed more unstable and chaotic. The traits that the balanced families had in common under system dynamics were 1) both parents were engaged together in their children’s lives as a team, 2) the families were busy but not chaotic, meaning they seemed more organized, 3) they shared in positive memorable experiences together as a family 4) and there was technology-free time together as a family. Under the rules and boundaries categories, the traits were 1) transparency and
trust in their technology use between the members, and 2) the rules and boundaries in the system regarding technology were clear and enforced but flexible.

In looking at these traits, it becomes apparent that there are both social and technological components that are vital to the family system finding balance. The research indicated that the STFSs that were balanced would have been balanced whether they had a smart phone or not. The smart phone only seemed to magnify the functioning and communication that were already present in the family. To further explain, the problems that the unbalanced families had were exacerbated by smart phone use in the family. Families with communication issues would have had communication issues before they had a smart phone and unless those issues were addressed and a change was made in the system, the family would still function in an unbalanced manner with or without the smart phone. The smart phone did not correct any internal flaws in the system; it only provided the convenience and means for possible efficiencies in communication and organization within the system. In other words, poor communication and organization would happen more efficiently with a smart phone when members were separated than without a smart phone.

6.5.1 Balanced STFS

The following paragraphs discuss the traits of balanced STFS in reference to the research findings. The balanced families in the research data set exhibited at least five of the six traits listed. The table below shows how the families were scored for the traits that they exhibited. The names in italics are the families that had five or more of the traits describing balanced families.
6.5.1.1 Parental Teamwork

The first trait deals with more of the social side of STFS in discussing both parents being engaged and involved in their children’s lives as a team. The parents are a very important subset of the family system and when the parent’s felt the support of each other, it showed in the way they would act and treat each other. This support translated into more opportunities for bonding because working as a team meant coordinating and working together. There was support for their spouse as an individual and as a mother or father. There was more of a team spirit to parenting and a mutual respect for what the other person contributed to their relationship and family as opposed to a divided responsibility roster. The mutual respect and shared responsibility created positive feelings towards each other and promoted bonding among all family members because there was not a contentious relationship. Lara and Jerry Craft demonstrated this in the way she would try to keep him connected with their family, even when he was not able to go on vacation with them. She would send
pictures, post on Facebook, and send texts of endearment so that he knew he was not forgotten and supportive of him staying home to work and provide for their family.

For the other families who were not in the balanced group, there just was not the camaraderie or the care that the other couples showed in their words and actions. In the Johnson family, it seemed like the mother was left to enforce all the technology rules without the support of the father because he was hardly ever home. Susie’s busy life, as a mother of five with a part time job, left her ragged and tired, without the energy to enforce the rules on her own.

6.5.1.2 Controlled Busyness
All of the families interviewed were busy, but some of them seemed far more chaotic than others, which threw their family system off balance. They might even use their smart phones to schedule and organize in their family but it didn’t make them more balanced. In the case of the Bishop family, the father would continuously overschedule his day and end up not having time to do the things he needed. This resulted in endless phone calls and texts from his wife looking for him and trying to find out why he was not where he was supposed to be. This would cause entropy in the system and often meant he disappointed his family members by showing up late for activities or not coming at all. Another sign of the chaotic family was that they were always going from one place to the other in a ragged and never-quite-enough-time fashion. It was like the family could never find centre, or find balance, because they were always moving. They did not take time to breath, relax, and just enjoy each other’s company.

6.5.1.3 Quality Time without Technology
Sometimes families would purposefully offset the balance of the system by initiating change within the system to facilitate growth and grow closer together. Some families tried this with technology-free times. Many families have tried to set up technology-free times so that they can be engaged with each other and further develop their personal relationships. There are degrees of success throughout the families that participated in the research. As much as Elizabeth Maple wanted to go back to pioneer times and not use technology, the rest of her family used technology as part of their everyday life and were not willing to totally give it up. During the time she
planned for them to be technology-free, she did not have set activities to fill in that time so they got bored. Karl Logan told the story of his technology-free night with his two year old that only lasted a few minutes, but he and his wife were not engaging their daughter in another activity that would have distracted her from the technology and kept her entertained. The Neilson and the Manning family found more success because they incorporated other activities into their day to replace the time they normally were on their devices. In essence, their family activities were used as a distraction from their technology use. The Ranger family had technology-free times incorporated in to their daily life and they regularly participated in activities that were technology-free, so for their family it seemed easier to disengage from their technology; it was a repeated action of the system to do technology-free activities together.

When Bryan Manning was forced to go technology-free, he did not like it. His phone was such a natural part of his life that he did not even think about taking it out of his pocket when he went swimming in the ocean. He was okay when his wife would declare it to be a technology-free day, but when he was forced to take one because it was not working, it caused him great frustration. His system could not function well without his smart phone. Even though his wife had her phone and he still had access to the features, it was not his phone and his system functioning level diminished.

6.6 Positive Memories Made Together
It was important for the family to spend time together doing something as a team. It did not have to be something fun, like playing games, it could have been a service project or working together around the house; they just needed to do it together. These times together for a few hours allowed for conversation, serving each other, and building comradery which strengthened family bonds. Many times families would watch movies together but watching movies does not usually allow for conversation and relationship building. Activities such as core activities, those activities that were common, low cost, and easily accessible, for the family are good ways to have bonding activities in everyday life. The Manning family would go camping and hiking in their area and participate in scouting activities together. This was a way for them to spend time together and learn more about nature, but they did it together as a family and they enjoyed it together.
6.6.1.1 Transparency and Trust

Transparency and trust in technology use are intangible but important to family relationships. Transparency was demonstrated in the families where parents had access to their children’s accounts and had the ability to check on them. There were different methods of doing this among the families, but there had to be some way that the parents could check on their children’s technology use if they felt there was a need or concern. Trust was observed in the families where the rules were clear and they were followed. While the Craft and Neilson families both mentioned that they had a child who had been e-banned from their technology for not following a rule, there still seemed to be a level of trust between the children and parents. In the Cantoni family, the parents did not seem to trust the daughter in her computer usage and following the rules. The daughter also seemed to not trust the parents in being fair in their punishment of her in comparison to her brother.

6.6.1.2 Clear but Flexible Technology Rules

Successful families had rules and boundaries in the system regarding technology that were clear and enforced but flexible. Sociotechnical systems specify that each part of the system needs to embody the goal of the system for the most successful outcomes. With the families involved in the research, there were varying levels of rules and boundaries that were established and upheld. Living systems function at varying levels from failure to healthy and robust systems. With families and the sub-systems of parents and children involved, often there is a differing of opinion on the family technology rules and what is acceptable, which will affect the level of success in system outcomes. Parents and children having different ideas about what is acceptable behaviour is not new to the study of families, but parents are struggling to keep up with technology and identifying what the risks and threats are that could harm their children. Sometimes within the families interviewed, different family members would share different versions of the same rule. It is unknown if this was due to lack of communication, a lack of understanding, or a lack of wanting to follow the rule or a combination. It will be difficult for a system to be viable if the rules are being observed in different ways by different parts of the system since they are all interrelated.
Clear but flexible boundaries and rules are a trait in open systems. The balanced families were all able to tell me the family guidelines, and there was not any confusion over the rules or how they would be enforced. They were clearly defined and understood by all of the members in the family system and they were generally all followed. If a boundary or rule was broken, then there was a punishment affixed, but it seemed rules were not often broken. In some of the families that seemed less balanced, there were not clear cut rules or they were disregarded or not followed by some or all of the family members. From the children, the impression was given that they tried to undermine the rules and be sneaky about breaking them when they could get away with it.

In the Cantoni family, there was a discussion about whether they allowed the use of smart phones in church. The interesting thing about this exchange was that Anthony generally did not go to church with the family except maybe once or twice a year. So, although they had that rule, he was not there to enforce it and just assumed it was being enforced or that the children were following it. So, this was a rule that had been established but was not being embraced by the children and not being enforced by the mother in the father’s absence. This system rule is a failure.

The Cantoni family also had the issue with their teenage children and posting on Facebook. When Penney was on Facebook, her parents could at least see what was going on with her by keeping an eye on her Facebook page, in essence monitoring the system balance, but she eventually stopped using her accounts all together. In this instance, interviewing Penney individually and with her family gave further insight into the situation and helped have a better overall impression of the situation that she was facing. From the philosophical hermeneutic perspective, the interpretation of actions was improved by having spent some additional time with her and an understanding of her frustrations. While Penney never stated it outright, it seemed like she had created some secret social media accounts that her parents were not aware of as a way to avoid any of their rules, thus creating a failure in the system with the parents not properly understanding or getting the feedback from the system.
The Johnson family is another example of rules not being followed. Susie was frustrated that her children would not just follow the rules without the parents having to keep track of the time. There was a lot of feedback coming back from the system and the way they were trying to handle the boundaries and rules was not working. The children were not following the rules and the mother was not enforcing it unless she just happened to be there to do so. This caused a degree of disorder in the system because no one seemed to know all the rules and no one was enforcing them regularly. The father in the family was the main proponent of having these rules and yet he was hardly ever home to enforce them. This is another case of the system rules failing and causing distress in the system.

6.7 The STFS in Everyday Life and on Vacation

The research shows that vacations are special times and that families did try to change the way they behave on vacation so that it was different from everyday life. The STFS was maintained in the vacation environment; however, it was usually used in different ways. Information search and location finding with maps was used more often on vacation than in their everyday life. Work email was checked, just not as often and mainly to delete emails that were not important so that they would not have to do it when they got back returned to work. Social connections were maintained throughout the vacation through social media, although some posted less often and others posted more often. Photos were posted to brag about their activities and to share with family and friends what they were doing. The importance was more on posting than on reading, so people would post a picture and move on to do something else and not worry about reading through their media feeds and seeing what others were doing. The conveniences of the smart phone carried over in to vacation but the need to always be checking it did not. The need to spend time together trumped spending time on their smart phone and rules were relaxed.

6.8 The Conceptualization of Family Vacations

One factor that became clear into the family interviews was that the meaning of family vacations varied among the families. In the past, the family vacation may have created a picture in one’s mind of the entire family going on a trip together with just the immediate family. With changes in the structures of families and varying work schedules, the criteria for what constitutes a family vacation has changed in the eyes
of the people that took part in this research. A family vacation where mother, father, and all children are present may still be considered an ideal family vacation, but there are many other scenarios that also constitute a family vacation in the eyes of families.

For the Crafts, they vacationed with extended family members but not all of their immediate family members were there. Even though all the family members were not together, there were still advantages to their extended family system because it helped strengthen those bonds that go beyond the immediate family. Those parts of the system are still interrelated, even though they are not within the immediate family system. The family is still part of the larger extended family system, the family system within the larger extended family system.

In the Cantoni Family, Laverne, the grandmother, did not go on vacation with them. Her mobility would have limited the activities that they could participate in on vacation and could have brought added stress to the family during vacation because of it being an unfamiliar area with different challenges for mobility. Having these times apart may be healthy for the system because it adds variety, which all systems need. It gives them a chance to change up their routine and lessen some of the daily stresses that they normally have at home.

The Bishop family’s mini vacations with Rick and one or two children were special times for the children because they did not often get one-on-one time with their father because of his schedule and the size of their family. These vacation times are a chance at systems maintenance for the family system. These times together with their father were bonding times that they really enjoyed, and it helped to repair some of the hurt feelings of times when he was not there in their daily life.

For the Maple family, when they arrived in Mexico, their son went to stay in a room with his male cousin who is the same age and that family’s daughter came and stayed with Valerie. They still spent time together as a family but this way, the teenagers were happier having their cousin stay with them instead of a sibling. Elizabeth also preferred it when their vacations were less technology focused and since Jacob and his cousin wanted to be very connected to the Internet, it worked out well for both of
them. They still had times that they spent together with their own immediate families, but it offered them a more personalized choice in the vacation accommodations and roommate.

6.9 Balance on Family Vacations
Families seek balance and from a systems balance perspective, a vacation would be like a chance to perform system maintenance on their family system. It is a time to do things differently, to make repairs, and to add variety to their normal routines. In looking at the families that seemed more balanced in their everyday lives, they also seemed more balanced in their vacation environment as well. The same functions of balance that applied in their daily lives, also applied in their vacation environment just with a different perspective.

Just as in their daily life, the balanced families had a team attitude about their vacation, there was excitement when they talked about their vacation, they were happy about the things they shared and they did it together. It doesn’t mean that their vacation was ideal or that they didn’t have any issues, it just means that you could tell that they had built some family capital in having those shared experiences together and that it was a positive force in building their relationships.

Another common trait among the families was that on vacation, their technology boundaries and rules changed. The families were more relaxed in following strict time rules and curfews. Restrictions dealing with morality type issues and what they would let into their system were not relaxed but the rigidity of when and where people could be on technology was relaxed so that everyone could enjoy a little more freedom than in their daily life.

The balanced families were also busy on their vacations but not chaotic and they took the time to spend quality time together. They had activities that they did together but they also allowed for some time where people could do their own thing. They had times when they were busy and times when they relaxed. They all did a variety of things while they were on vacation but it was not a frenzied schedule where they exhausted themselves. They took the time to spend some quality time together.
The families who were successful at being balanced on vacation were able to set technology aside for at least some parts of their vacation. There were times that were technology-free where they concentrated on sharing experiences together and did not let the outside world interfere. They shared in balance activities, the type of activity that is novel and does not happen often and usually happens away from home.

Although I still could place the families in one category or the other for being balanced versus not as balanced on vacation, I felt like the divide was not as big. Across the board, I could see ways in which the family still benefitted from bonding experiences on their vacation whether they were balanced or not. They all made an effort to still have a special vacation experience with their family and to have times where family bonding was a priority. It still offered a change in routine and a chance to reconnect, but there was usually just one or maybe just part of another category that they did not meet the requirements of to be considered balanced where in their everyday life, there was a larger divide.

6.10 Summary
The research data showed that while people perceive the smart phone as a tool, they also acknowledge that it can be a disruption to relationships and bonding. Within families, rules are being established to help limit the negative impacts that smart phones can have on children and relationships within the family. Many families sought to have transparency in their technology use by sharing passwords and using technology in the main gathering areas of the family and limited use within the children’s bedrooms. Smart phone use is part of their daily life and the work life balance is hard to maintain because of fears of job insecurity due to the recent economic hardships. However, even with these challenges, the smart phone also provides a way to document their lives through photographs taken on their phone and shared with friends and family. Some families are building relationships through texts of endearment and connected through their smart phones in ways they could not previously. Smart phones are giving parents an added sense of security and allowing them to let their children venture away from the family domain so that they can spend time with friends and still be easily connected to their parents. This ability to give children some distance away from the family also carries over into the vacation environment as families sometimes split into subgroups and do separate activities.
Although the smart phone can be a distraction on vacation, families are making an effort to not let it distract them and they are concentrating on spending time together and strengthening bonds. Smart phones are still being used on vacation but to a lesser extent than in daily life. Successful STFS included parents who were engaged together as a team, the families were busy but not chaotic, they shared in positive memorable experiences together and had technology-free time spent together as a family. These balanced families also were transparent in their technology use through shared passwords and there was a feeling of trust among the family members regarding their technology use. The rules in balanced families were clear and enforced but flexible, and the rules were usually relaxed somewhat on vacation. Vacation time was a special time together for all the families and even those that were unbalanced still benefitted through strengthening bonds together as a family.
7. CONCLUSION

This research concludes that the smart phone greatly affects family bonding within the family system but ultimately, the manner in which the family deals with it can mitigate the negative effects. Individuals must make a conscious effort to control their behaviours when using a smart phone so that it does not interfere with bonding, whether on vacation or in everyday life. The smart phone cannot be allowed to obstruct the relationship building within the system. The families that balanced the use of the smart phone within their family system so that it did not interfere with bonding adapted certain behaviours within their family group. Those behaviours are:

- Both parents were engaged together in their children’s lives as a team. The parents functioned as a subsystem and worked together within the greater family system. When the family system became off-balance and a change was needed in the system, the parents would lead the family in a discussion and create a plan on how to re-establish balance in their lives to create new normative behaviours within their system.
- The families were busy but not chaotic. There was a sense of organization within the family. Systems need to function in an organized manner and as challenges arise, they adopt new behaviours that become normative if found successful.
- The families included in the study shared positive memorable experiences together. They took time to create memories. This is an important component of quality family time.
- There was technology-free time together as a family. There was a time that the family focused on each other and ignored technology.
- There was transparency and trust in their technology use between the members of the family.
- The rules in the system regarding technology were clear and enforced but flexible. This is vital to a high functioning system.

The families that exhibited at least five of these traits were able to function and find balance even when trials and change would affect their family. Families are naturally going to experience changes and challenges as they go through daily life and their family life cycle, so the ability to adapt to these changes and create ways to
successfully handle these situations within their system is important for balanced families.

Smart phones in families create a sociotechnical family system where the technical system, the social organizational system, and the family system all work together in an effort to find system balance. The smart phone has become so ingrained in the system that often individuals did not recognize how much they use it in their daily lives. Because the smart phone is so ingrained, it is only natural that individuals continue to use it on vacation. The STFS remained intact while on vacation, however, rules were relaxed and the need to always be checking their phone diminished. In systems, it is important to have clear boundaries but to be flexible, and this relaxing of rules on vacations demonstrated that concept. System boundaries remained intact because the things that families did not want to let into their family were the same whether in daily life or on vacation. On vacation, spending time with family was more important than spending time with their phone so the environment of the system did make a difference in how the family system operated.

Contributions
This section will go over the theoretical, practical, and methodological implications that have evolved from this thesis.

This research contributes to the Family Systems Theory in terms of how the family system reacts to having the smart phone as part of the system. The smart phone, as a sociotechnical system, enables families to coordinate aspects of their daily lives quickly and efficiently. This facilitates the ever-changing schedules and appointments that occur on a daily basis in family groups and help maintain system dynamics. Many of these conveniences are simply administrative in action but with the busy lives of families today, time-saving and creating efficiencies in relation to tasks are valuable. The system is able to maintain balance because these technologies are enabling recurring behaviours that helped schedule and coordinate the many facets of family life in the system.
This research also challenges the notion that family systems seek balance. Not all families sought successful solutions so that they could have balance in their lives. One family in particular, the Bishops, seemed to not be willing to come to some kind of compromise so that they could improve their communication, which would thus help their relationship in that they would not have to argue so much over the same topic every week. Other families that were no balanced did not seem to be seeking to remedy that situation, so there may be some complacency in family systems that have not been accounted for yet in family systems theory.

This research also found that families are creative in the ways in which they regulate themselves and have balance. Some use transparency in their online activity as a way to regulate what they participate in online because they know that their loved ones can check on them. Other families found that the parents needed time as a couple to be able to keep their family system balanced, they felt that as parents, they were the core of the system and if they were unbalanced then the whole family system would suffer.

A contribution to the work on philosophical hermeneutics and phenomenology in families and tourism has also been made as the individuals were studied in relation to their family group and the shared experiences they had together. These contributions showed the importance of understanding the global and minute details associated with family experiences in the everyday life and vacation setting. When sharing experiences together, all the senses can be engaged and working in relation to the environment and objects/people around them to create a rich experience with different perspectives and understandings. This approach to tourism and family studies provided rich data and a deeper level of understanding into their individual and family group experiences.

Families are also using the smart phone as a way to coordinate last minute changes and keep track of their children through texting and messaging apps. The instant connection, that parents feel the smart phones provides to their children, is allowing parents to keep in touch with their children throughout the day and to be aware of changes in schedules and general well-being. This is beneficial in coordinating but also gives parents a sense of security in that their children can instantly contact them.
if something goes wrong or if they become ill. This provides for the differentiation of self that is needed in family systems. It gives individual family members the opportunity to have some individual time but still feel connected to their family system. It also provides the added benefit of decreasing wait time when coming to pick up their children, they can simply text them and let them know they have arrived instead of waiting for an appointed time or having to go locate them. Children are benefitting from this as well because parents are allowing their children to venture out beyond the normal family domain and do things on their own or with their friends, like going to the movies. The smart phone provides a tether to the family system, even when far away.

While texting adds convenience, texts of endearment are ways that family members keep emotionally connected to each other throughout the day. Parents can send words of encouragement, messages of love, or funny jokes to their children as a way to feel close to them even when they are physically apart. This is vital to family interaction in the system and the concept of devotion versus independence. These messages build relationships by letting them know that they are thinking about them throughout the day and that just because they may not be physically close, they are still in their thoughts.

Rules are being established in family systems as a way to keep the system balanced and to make sure the system stays calibrated to current needs of the individuals in the system and the family as a whole. Parents are coming up with ways to monitor their children’s use of smart phones and other technology in the home as a way to safeguard the materials that are entering their family domain. Turning off the Wi-Fi, creating password protected devices, and having transparency in knowing their children’s passwords for accounts are some ways that parents are restricting their children through rules. These rules are in place so the parents can be aware of their children’s technology activities at all times. Along with those restrictions, parents are also limiting where children can use their technology. Many families have established common areas in their house for technology use and limited technology in bedrooms where their activities could be more secret. They felt that the technology
needed to be in an open area where anyone could see what was on the screen which provided a form of self-regulation within the family system.

Along with rules regarding technology, there were also punishments for not following those rules. Parents are enforcing e-bans on technology or grounding children from their technology use when rules are broken. These actions are also ways to calibrate the system and seek better behaviour from the individuals in the family. Some social media sites are also being restricted due to content or as a way to encourage better grades, with the promise that their access will return when their grades improve. Parents have found that taking away technology access as a punishment ensures better future conduct than other punishments had in the past. Their technology access is valuable to their children so they would correct their behaviour quickly in the hope of regaining access.

This research also contributes to the Sociotechnical Systems theory in that combining this theory with the Family Systems Theory creates Sociotechnical Family Systems Theory. The establishment of STFS Theory is important because of the way technology is such an integral part of many families. With technology becoming smaller, more cost efficient and user friendly, it is quickly permeating into family systems and affecting the way family members communicate and interact. It is vital to understand how these technologies are affecting family systems so that measures can be made to ensure that families are strengthened and not weakened by the addition of sociotechnical systems into the family system.

For families who are striving or struggling to find balance in their sociotechnical family, the traits that are found in balanced STFS include both parents being engaged in their children’s lives as a team, busy families but not chaotic, shared positive family memories, technology-free time spent together, transparency and trust among the members, and clear but flexible rules established for technology use. For families to be considered balanced, they must have at least five of the six traits mentioned. This list provides a guide for families as to what they need to change in order to be more balanced in their technology use so that it does not interfere with family bonding.
The implications of this research impact the core of society because families are such an important facet of our individual and collective lives. It offers an example of how some families are coping with the strains of being a STFS and how they are making it work in their family setting. Families can take these examples and apply them to their lives as they seek to have a more balanced STFS. The advice to these families is simple: work with your spouse as a team, don’t overschedule your lives so that they are hectic and chaotic, take time to be together as a family and have quality experiences, put down the smart phone and focus on time together occasionally, even if it is just for dinner time. Be honest with expectations of your children and listen to their needs as you come up with ways to be transparent in technology use and build trust. And lastly, create rules and boundaries that are understood by everyone and that are reasonable to be followed, adapt them to individuals and circumstances when needed.

Children offer a valuable contribution to family research and a unique point of view that is different from the adult. Often children may not have all the information that an adult has, so they are unable to fully understand the reasoning behind decisions made on vacations. There is also a lack of maturity in understanding the extent of some situations which can cause them frustration when they feel they are being ignored or not offered a viable alternative. Since quality family time includes positive feelings and experiences, it is vital that an understanding of the children’s perspective be obtained so that those positive feelings during family and vacation experiences can be replicated and build family capital. The interrelatedness of families means that the children's perspective is equally as important to the family system as the other members, and that for vacations to be positive bonding experiences for everyone, there must be accommodation for all opinions and ideas.

This research also challenges the assumption that family time includes the entire family. Many of the families in this research went on vacations with partial families or as subgroups within the family. These times were important bonding times and allowed the family members to have more individual time with each other and allowed for one-on-one interaction instead of in the family group. This provided time
for nurturing, building social capital in the children, and family capital between the individuals as a part of their family. Family time can also extend to include grandparents and other extended family members. Family time spent with multiple generations strengthens family capital and the feeling of being part of a family and the passing down of traditions from one generation to another. The notion that the family vacation includes the entire immediate family has changed as schedules are challenging, work commitments are greater, and Baby Boomer grandparents have more time to spend with their grandchildren. Family Vacations are important times to be together as a family, but the family can take on many different forms and include a myriad of extended family members and other individuals who are considered to be family. These family times together on vacation are used as times to build relationships and strengthen family capital.

This research adds to our understanding of family vacations because some families still wanted to be able to use their technology while on vacation but others did not. Because technology surrounds their family on a daily basis, some parents sought to provide technology-free or at least technology-lessened experiences on vacation so that they could focus on strengthening family bonds. Technology rules were also relaxed on vacation, so children were allowed to stay up later and use technology because that was considered downtime and a time when the focus was not on family bonding. Many parents still wanted access to their work email so that they could stay abreast of what was going on at the office, but their main emphasis was on their family and they tried to not let work interfere. The smart phone enabled families to still be physically together but to participate in individual activities through technology when other activities were not planned and they were relaxing. This provides a way for people to still feel they could sustain some individuality in the system while still having a level of connectedness of the system.

There are contributions to the tourism industry as well as accommodating families that have differing technology needs when they travel. One family did not purchase a data plan for their smart phones while traveling internationally which could limit the information that they have available about tourism attractions in the area. Providing free Wi-Fi service at the destination offers ways for them to use information search
and to also post on social media and promote the location to their friends and families. Additionally, some families wanted to limit the access that their children had to the Internet, so Wi-Fi connections with passwords that are available to the parents where they have the discretion to share them with their children or the ability to simply turn off the Wi-Fi access in their room. It is also important for families to spend time together without their smart phone technology so offering activities and areas where there is not phone and Internet access provides an opportunity for families to be together without the interruption of phone calls and texts. One of the problems some families encountered with technology-free times together was that they would get bored. Offering a variety of activities to fill up this time and to provide bonding experiences for families is vital, so that they can engage with each other in face-to-face interaction and create positive memories.

It is important for the tourism industry to understand that families are making fewer plans in advance because the smart phone allows for on-the-go planning, information search, and spontaneity. This could create some strains on tourism operations if family groups show up unexpectedly when a reservation is required. Reservation requirements should be clearly stated on mobile apps and websites but also consideration should be given to allow some day-of reservations to be made for last minute decision makers.

From a methodological contribution standpoint, the affinity group methodology was not successful with family groups in this study. The researcher was a visitor in their home and they would try to engage the researcher in the conversation and answer questions as they were asked instead of drifting from one topic to another without guidance. In an effort to be polite and helpful, they would answer a question and then turn to the researcher for the next assigned item to talk about. The semi-structured family group interview set up worked better for family group research in the home setting because it felt more like a conversation that commonly occurs in a living room when visitors are present.
7.1 Limitations

Using interviews and group discussion for this research has limitations since the spoken word always has some levels of ambiguity and further analysis may lead to some false assumptions or themes. However, these are common types of data collection and can still produce ample opportunities for understanding other human beings (Denzin & Lincoln, 2000). Group discussion can also have limitations in that emerging group thought may interfere with individual expression and that some individuals may dominate the conversation (Denzin & Lincoln, 2000). Since these interviews were in family groups, there may have been a fear of speaking out and getting punished for saying things that are contrary to the image the family would like to portray, however that did not seem to be the case with any of the family groups.

Only traditional family structures were used in this research however there is diversity within these groups due to occupation and personality of the family. While families with varied backgrounds and lifestyles were sought, time constraints made it difficult to interview a greater variety.

The home setting also provided some challenges to the interview. The desire is for the participants to be comfortable and since this was the family’s natural setting, they were at ease and secure, the researcher is the visitor. During two of the family interviews, the Craft and the Neilson family, the interview was interrupted by someone coming to the door and ringing the doorbell. While not a major setback in time, it can provide a distraction from the topic at hand. The Craft interview was interrupted twice by a visitor at the door. The first time was someone who had left something at their house and they were coming to pick it up, so that was a quick exchange, but the second one was someone coming to welcome the daughters into a new class and they brought them a gift and wanted to speak to them briefly. For the Neilson family, a family from the neighbourhood was on a walk and they wanted to see if the son and dad wanted to come play basketball in the street. It was a short conversation but they told them to just hold on and they would be out shortly. They were anxious to go outside, visit with their friends, and play basketball so the interview did not last as long as it might have otherwise.
While visitors were one distraction, there were also other distractions. During the interview with the Maple family, their dog was sitting on their various laps during the interview. The dog got passed around amongst the family members throughout the entire interview and whoever was not speaking would generally play with the dog and talk to the dog. From the interviewer standpoint, it was quite comical to watch and from the interviewee standpoint, it must have been quite a distraction from the topic being discussed. Also, in many cases, these families were very busy and some of them hardly ever had time to sit together, in their living room, without the television on, and just talk. Since they had set aside this time to meet with me, it gave them an opportunity to talk to each other without some of the distractions they normally have and time commitments to be other places. This was a chance for them to have face-to-face conversations and eye contact with each other which was a novelty for some of them. Consequently, they would take advantage of this time and have tangential conversations whenever something would pop into their head. During the interview with the Bishop family, there was an entire side conversation about a cousin who was pregnant and getting married but they were not sure if she was marrying the person they had met years before or if it was someone new. While these tangents took time, it was a good opportunity, as a researcher, to see further into the dynamics of the family and to know that they felt comfortable enough around me to have these side stories and share sometime intimate details of their family’s lives.

As stated earlier, families are busy. Scheduling a time when the entire family would be together had some difficulties. For many families, there is not a set time when they are all usually home together during the week, and with school, sports, and other activities, it was hard to find a time when we would all meet together. Even dinnertime was not a time when they were all together. While most of the families talked about dinnertime as a time for them to be together, it did not mean that the entire family was there. Many times it would just be a portion of the family. So, all interviews with families were held on Saturday or Sunday, with Sunday afternoon being the most popular time slot. Even with careful scheduling, a perfect result did not always happen. For the Cantoni family, the grandmother who lives with them had been in the hospital but was home and she was resting during the interview so she was not interrupted for the interview. She had been interviewed for the individual
interviews so her comments from that were used to provide a good understanding of her perspective on smart phones, technology, and how she uses it in communicating with her family. For the Bishop family, there was one eight year old son who was not present at the family interview because he had gone to a friend’s house and was not home yet, so the interview was held with the other eight family members because it had been difficult to get them scheduled all together. The other family members mentioned that he and his sister use technology the same and share devices, so I was still able to get an understanding of how he used technology. Even with the difficulties of scheduling, getting the family all together to talk about the topic provided insight into the family dynamic that was valuable to understanding the individuals in the family. It is unwise to think that a clear and complete picture of family life can be viewed by only interviewing parts of the family (Bowen, 1993), thus whole family research or family group research is vital to understanding a more complete version of a family’s story.

7.2 Future Research

It is hoped that this research will give foundational information for further research in the area of family vacations and technology. The next phase of this research will be to target families of a different structure to see if they are functioning in similar ways to traditional families. Families with single parents, gay and lesbian parents, multigenerational families, and blended families would provide further insight into the phenomenon of STFS. To further extend the research, families of different cultural and ethnic backgrounds could be the focus. Also, researching families that go on a stay-cation in their local area instead of a vacation would show another perspective on whether a stay-cation has the same value as a vacation and if the smart phone interferes more in a stay-cation environment because the family environment has not changed.

Another future branch of this research would be to look at STFS families that go to technology dead zones and see how easily they transition into areas of no technology access and whether the bonding is stronger in that setting as opposed to a standard vacation. The type of vacation could also have an effect on the ability for families to go technology-free or to relax their technology use, so an evaluation of ski vacations versus beach vacations or similar would provide further opportunities for research.
8. REFERENCES


Southall, Carol (2012). UK Family Tourism: Past, Present and Future Challenges. In H. Schänzel, I. Yeoman, & E. Backer (Eds.), *Family Tourism: Differences in Participation and Socialization*.


Tan, Chong Yaw (February 12, 2012). Smart phone plan: Children given smartphones should be managed and given boundaries, and taught to use them responsibly. *The Straits Times*, Singapore.


APPENDIX A- INTERVIEW QUESTIONS

Individual Interview Questions
The interview questions that were used as a guide to the semi-structured one-on-one interviews are included below.

Interview Questions for those 12 and over:
- How do you use mobile technology in your daily life?
- How do people you know use mobile technology?
- What do you consider to be disruptive or inappropriate use of mobile technology?
- At what point does mobile technology use become a distraction to people around them?
- Does mobile technology use make it difficult for individuals to engage with the people around them?
- Does the perception of whether technology use is disruptive or not depend on the person, situation, or time when it occurs?

Interview Questions for those 8-11 years old:
- Think about your day yesterday. Did you use any technologies like mobile phones or iPads?
- If yes, when and where did you use them?
- For how long?
- Was it a special day or was it like any other day?
- Who in your family uses a mobile phone or an iPad?
- Do your friends use mobile phones or iPads?
- Do they use them a lot or a little? When and where do they usually use them?
- Does it sometimes bother you when somebody uses a mobile phone or an iPad? Why?
- Can you still pay attention to other things when you use the mobile phone or iPad?
- Do you usually still talk to other people around you when you use the mobile phone or iPad?
• Can you think of a situation or time or place when other people would not be happy if you used a mobile phone or iPad?

Family Group Interview Questions
Although the family group interviews were unstructured, the following questions were used as a general guide for the researcher when conducting the interviews.

Questions regarding Smart Phone Use in Everyday Life
• How are smart phones and other mobile technologies used in your family on a regular/daily basis? Who has them?
• How do you communicate with each other via smart phone(s)? What role does the smart phone plays in communication? Is it more of a coordinating device or a device use to share sentimental feeling? Do you use it to create memorable shared experiences?
• Do you have any family rules established around your smart phone(s) or mobile devices? Are there times when technology is not allowed or restricted?
• Is the use of mobile devices and/or smart phones ever restricted as a form of punishment?

Questions Regarding Smart Phone Use on Vacation
Once their everyday life practices with the smart phone were established, then the discussion moved on to how things are different or the same on vacation.
• Was the smart phone used less or more or in different ways on vacation? How did you use it?
• Did it interfere with vacation activities? What affect did the smart phone have on their vacation?
• Was it purposefully manipulated, whether turned off or otherwise, so that it did not interfere?
APPENDIX B-ETHICS FORMS

Ethics Forms for Stage 1

Ethics Forms for Stages 2 and 3

A. GENERAL INFORMATION

1. **Descriptive Title of Project:**
   The influence of smart phones on family bonding

2. **7 line summary of project aims:**
   This research seeks to find out if smart phones are having a positive or negative influence on family bonding among family members by looking at different types of family structures and their smart phone usage. Focus groups made up of a family unit will be conducted to gain an understanding of how their family functions with technology on a daily basis and then a second focus group will be done to see how the family functions with technology while on vacation and the effect on family bonding.

3. **Participating Researchers**
   Summarise the qualifications and experience of all personnel who will be participating in the project.

   **NB:** For student research, a Supervisor must be the Principal Investigator.

<table>
<thead>
<tr>
<th>Principal Investigator/Supervisor</th>
<th>First Name</th>
<th>Family Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Ulrike</td>
<td>Gretzel</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Qualifications</th>
<th>PhD</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Position</th>
<th>Associate Professor</th>
</tr>
</thead>
</table>

| Role in project, relevant research experience (If no experience, describe how relevant experience) | As the primary supervisor, Dr. Gretzel will provide advice on the methods and analysis of the project. |

---

Research Office use only
HE 08/____

UNIVERSITY OF WOLLONGONG/SOUTH EASTERN SYDNEY & ILLAWARRA AREA
HEALTH SERVICE
HUMAN RESEARCH ETHICS COMMITTEE

APPLICATION FOR APPROVAL TO UNDERTAKE RESEARCH INVOLVING HUMAN PARTICIPANTS
### Second Investigator (In absence of PI)

<table>
<thead>
<tr>
<th>Title</th>
<th>First Name</th>
<th>Family Name</th>
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<tbody>
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</table>

**Qualifications**

**Position**

Role in project, relevant research experience (if no experience, describe how relevant experience be obtained)

---

### Co-Investigator/Student

<table>
<thead>
<tr>
<th>Title</th>
<th>First Name</th>
<th>Family Name</th>
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<tbody>
<tr>
<td></td>
<td>Heather</td>
<td>Kennedy-Eden</td>
</tr>
</tbody>
</table>

**Qualifications**

PhD Candidate

**Position**

Role in project, relevant research experience (if no experience, describe how relevant experience be obtained)

Heather will be responsible for collecting and analysing the data under the supervision of Dr. Gretzel.

---

**Please add extra boxes for additional researchers**

---

**4. Contact details for correspondence**

Name: Heather Kennedy-Eden

Postal Address: 26 Ramah  
Mount Ousley, NSW 2519

Email: HLKE697@uowmail.edu.au  
Phone: 0458-247-743

If principal contact is not the Principal Investigator, please provide the contact details for the PI:
Name: Dr. Ulrike Gretzel

Postal Address:

Email: ugretzel@uow.edu.au
Phone: 4221-4823

5. Expected duration of Research (Please specify as near as possible ‘start’ and ‘finish’ dates for the conduct of research):

FROM: April 2012 TO: Jan 2014

6. Purpose of Project
Indicate whether the research is one or more of the following:

☐ Staff Research (University of Wollongong)
☐ Staff Research (SESIAHS)
☒ Student Research - specify:
  Course undertaken: Doctor of Philosophy
  Unit/Faculty/Department: Faculty of Commerce, School of Management and Marketing
  Supervisor/s: Dr. Ulrike Gretzel, Dr. Katina Michael, and Dr. Rodney Clarke

☐ Other (Please specify) ______

7. Has this research project been reviewed by any other Institutional Ethics Committee?
   YES ☐ NO ☒

If no, go to Section B. If YES:
7.a What committees has the application been submitted to?

7.b What is the current status of these applications? Please include copies of all correspondence between the sponsor or researcher and the other Ethics Committee(s) to this point.

B. FINANCIAL SUPPORT FOR RESEARCH
8. What is the source and amount of funding from all sources for this research?

<table>
<thead>
<tr>
<th>Source (Name of Organisation / Funding Scheme)</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>N/A</td>
<td></td>
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</tbody>
</table>

For sponsored research please include the budget for the trial including information about capitation fees, payments to researchers, institutions or organisations involved in the research, current and consequential costs and costs which may be incurred by participants.

If the research is sponsored:
8.a Is there any affiliation/association or financial interest between the researcher(s) associated with this research and the sponsor/funding body/supplier of a drug, surgical device or other therapeutic device to be used in the study?
   YES ☐ NO ☑
   If Yes, Please detail.

8.b Are there any conditions placed on this research by the funding body?
   YES ☐ NO ☑
   If YES, please provide details and provide a copy of the contract/letter of agreement with the funding organisation detailing the terms on which the research is being supported.

8.c Is a copy of the HREC approval to be forwarded to the Granting Body?
   YES ☐ NO ☑
   If YES, please advise of any deadlines.
C. RESEARCH METHODS

9. Research Categories

Please mark the research categories relevant to this research proposal. At least one category should be marked for each grouping. You should mark as many categories as are relevant to the proposed research. For “Other”, please specify.

A  Research procedures used

- Anonymous questionnaires/surveys
- Coded (potentially identifiable) questionnaires/surveys
- Identifiable questionnaires/surveys
- Examination of student work, journals etc
- Examination of medical, educational, personnel or other confidential records
- Observation (overt)
- Observation (covert)
- Interviews (structured or unstructured)
- Telephone interviews
- Procedures involving physical experiments (e.g. exercise, reacting to computer images)
- Procedures involving administration of substances (e.g. drugs, alcohol, food)
- Physical examination of participants (including eg, blood glucose, blood pressure and temperature monitoring)
- Collection of body tissues or fluid samples
- Surgical procedures
- Other: _____

B  Research areas

- Qualitative research
- Social Science research
- Humanities research
- Educational research
- Health research
- Psychological research
- Comparison or evaluation of drugs or surgical or other therapeutic devices
- Comparison or evaluation of clinical procedures
- Comparison or evaluation of counselling or training methods
- Investigation of the effects of an agent (drug or other substance)
- Investigation of bio-mechanical processes
- Biomedical research
- Epidemiology
- Genetic research
- Other: _____
10. Does the project involve: the use of drugs, a surgical device, a therapeutic intervention, or a physiological trial?

YES ☐ NO ☒

If no, go to Q11. If YES:

10.a Please give details of the type of intervention and provide evidence that appropriate indemnity and compensation arrangements are in place to ensure adequate compensation to participants for any injury suffered as a result of participation in the trial (Indemnification forms and, if the research is being undertaken in a private practice, evidence of adequate and appropriate insurance coverage).

10.b Is the research registered:

☐ As a CTN Trial with the TGA
☐ As a CTX Trial with the TGA
☐ On any national or international clinical trial registers
☐ Other (Please detail)

11. Research design and justification

Describe what you want participants to do and justify the design. Please provide an explanation in terms understandable by a non-expert reader. A flow chart or other diagram illustrating the sequence of research activities should be included if possible. For research involving a treatment or physical intervention (eg clinical studies, physiological trials, mental health interventions) a protocol should be provided.

Focus group conversations will be conducted with family groups to ask them about their smart phone usage in daily life and on vacation. These focus groups will take place in the family home so that the family members are in a comfortable environment where they are used to being around each other and feel open to discuss the topic. The researcher will be sitting with the family members in a comfortable setting of their choice in their home, like around the dining table or in a living room.

The group discussions will be video recorded. The video recording will be so that participant behaviour can be observed and noted in the research notes. Gestures, glances, and nuances in body language may not be captured during the initial recording so video recording will be reviewed to make sure it is noted with the research.
The focus group will be made up of individuals from one family including families of the following structures: traditional, single parent, multi-generational, mixed/step, and couples. These focus groups will be unstructured group discussions where the topic is introduced at the beginning and then the group is free to discuss the topic without interruption. If the conversation comes to a halt, then the researcher will prompt the group by bringing up the topic again and mentioning some points that were mentioned prior and trying to direct them further in their conversation. The goal of this section of the research is to see how the family interacts with each other and the dynamics of the family group. In some cases, one individual may feel like they are not on their mobile technology very often but the rest of the family may disagree. These interactions will be observed during the conversations, along with body language, eye contact, who sits next to whom, etc. These focus groups are expected to take about an hour each.

The first focus group discussion will focus on discussion regarding their smartphone use in their daily lives and the impact/feedback that it has on the family bonding between family members. This information is sought so that the researcher has an understanding of how the family functions with their technology during their normal daily routine so that it can be a comparison for when the family is on vacation. The family focus groups will be video recorded so that the conversation can be transcribed and notations made concerning body language and expression of the family members.

The second group discussion will take place with the same group shortly after returning from vacation, preferably within 2 weeks. The discussion will be focused on how the smartphone influenced their family bonding while on family vacation. This focus group discussion will be to see how different (or not) their family functions with technology in the vacation setting. Since vacations are typically seen as a special time of bonding within the family, this research will see if this special time warrants changes in the daily routine of technology use and if particular attention is paid to using their technology differently or less than daily life.

After concluding each interview, member checks will be done with at least one member of the family to see if the researcher interpreted their conversations in the manner that it was meant.

There will also be times of observation with the family where the researcher will observe them in a normal family environment like a park, a family dinner, or local community event to see how they interact and if the smartphone plays a factor in the interactions. The family will be aware that they are being observed, appointments will set up mutually convenient times for observation. The observations will also be member checked with a family member to be sure the observations are being understood and interpreted correctly.
12. **Statistical design**

Any research project that involves the collection of data should be designed so that it is capable of providing information that can be analysed to achieve the aims of the project. Usually, although not always, this will involve various important statistical issues. It is important that the design and analysis be properly planned in the early stages of the project. You should seek statistical advice. The University of Wollongong has a Statistical Consulting Service that provides such advice to research students and staff undertaking research.

Are statistical issues relevant to this project?

YES ☐ NO ☑

If no, go to Q13. If YES:

12.a Have you discussed this project with the Statistical Consulting Service or any other statistical advisor?

YES ☐ NO ☑

If NO, please explain why not.

12.b Provide the calculations used to determine the appropriate sample size. If no power calculations have been done please explain the reason for choosing the sample size.

---

**D. ETHICAL CONSIDERATIONS**

13. **What are the ethical considerations relevant to the proposed research, specifically in relation to the participants’ welfare, rights, beliefs, perceptions, customs and cultural heritage? How has the research design addressed these considerations? Consideration should be at both individual and collective level.**

Since this research deals with families, there will be some families with children under 18 years old involved with the research. However, this research is being done in family groups so the parent(s) will always be present along with any other family members and the family members will be aware of my presence.

The participant’s privacy will be respected and their identity will not be mentioned in any publications or reports that come from the research. All conversations will be confidential and only be used for research purposes.

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**E. RISKS AND BENEFITS**
14. Does the project involve the risk of emotional distress or physical harm, or the use of invasive procedures (e.g. blood sampling)?

YES ☐ NO ☑

If YES
14.a What are the risks?

There is a chance that some tension may arise from the conversation as some people may have very strong beliefs regarding smart phone usage. To help reduce tension, the focus group moderator will try to mediate the conversation so that the participants feel that their feelings are being heard and understood and may talk to the group of what actions the family could do to try to help the situation, see if the family can try to resolve the issue. Since family systems are generally self-correcting, it is hoped that some kind of compromise in the action that is causing tension would be agreed upon between the family members. If there is not a resolution, then the moderator will steer the topic in a new, less controversial, topic.

14.b Explain how the risks of harm or distress will be minimised. In the case of risks of emotional distress, what provisions have been made for an exit interview or the necessity of counselling?

15. Is information about criminal activity likely to be revealed during the study?

YES ☐ NO ☑

If YES, have you included a caution regarding any relevant mandatory reporting requirements in the Participant Information package?

16. Detail the expected benefits of the study to the participants and/or the wider community.

This research is expected to help gain an understanding of family bonding and the changing dynamics of smart phone usage. Also, the researcher hopes to gain a better understanding of family group travel and vacations and how the tourism industry can target this group. This research will help gain a deeper understanding of family group interaction and the effect that technology can play in increasing/decreasing bonding.

This research could also provide the families involved with a chance to reflect on their technology usage and the effect that it has on family relationships and bonding. It is hoped that the families’ awareness of any issues will encourage them to make corrections in their family system to improve the relationships and bonding among them.
F. PARTICIPANTS

17. Mark the categories relevant to this proposal.

- Healthy members of the community
- University students
- Employees of a specific company/organisation
- Members of a specific community group, club or association
- Clients of a service provider
- Health Service clients (e.g. users/clients of a health service)
- School children
- Hospital in-patients
- Clinical clients (e.g. patients)
- Aboriginal/Torres Strait Islander people
- Members of socially disadvantaged groups
- Cadavers/ cadaveric organs
- Other (please specify): ______

18. Expected age(s) of participants – please mark one or more

- Children (under 14)
- Young people (14-18)
- Adults (> 18)

19. What is the rationale for selecting participants from this/these group/s?

We are interviewing family groups, so there will naturally be diversity in ages within families.

G. RECRUITMENT

20. How will potential participants be approached initially and informed about the project? e.g. direct approach to people on the street, mail-out to potential participants through an organisation, posters or newspaper advertisements, etc. Please explain in detail and include copies of any letters, advertisements or other recruitment information.

Some of the family members have participated in another research project, so we will be contacting those possible participants through email. We will also use personal contacts of family members and the snowball method for recruiting additional families.
The principal of one primary school in the area, Mount Keira Demonstration School (MKDS), has offered to put information in their parent newsletter to aid in recruiting families.

21. Where will potential participants be approached by the researchers to seek their participation in the research, and where will research activities involving participants be conducted?

The potential participants will be approached via email and messages through social media to ask if they are willing to participate. Some will be informed of the study through the MKDS parent newsletter and can volunteer to participate by emailing or otherwise contacting the researcher.

22. How many participants in total do you anticipate will be involved in the project? If the research has several stages and/or groups of participants, please provide the total number of participants expected as well as the number and participant group involved in each stage.

We plan to start out with 5 family groups and then continue adding until we reach theoretical saturation. We expect to not have to recruit more than 25 families. The same families will be used for stage 1 and 2 of the research.

H. CONSENT PROCESS

Generally the consent of participants must be obtained prior to conducting research. If you do not intend to seek people’s permission to use information about them which may be identifying, you may need an exemption from State and Federal Privacy requirements. This is addressed in Section I.

Attach copies of any letters of invitation, information packages, consent forms, proxy/substitute consent forms, debriefing information, identification cards, contact detail cards, etc.

23. Will consent for participation be obtained from participants or their legal guardians?

YES ☒ NO ☐

If NO, go to Q31.

24. How will consent for participation be obtained?

☑ in writing
☑ verbally
☐ tacit (eg indicated by completion and return of survey)
☐ other (please specify) ____
☐ consent not being sought

Please explain why the method chosen is the most appropriate and ethical.

Consent will be made in writing via email and signed consent forms. Children over 16 will be able to sign a consent form and children under 16 will be asked to give verbal approval for consent. If any family member does not consent to participate in the study then the family will not be used for this project. All family members must willingly consent for the family to be used in the study.

25. Is it anticipated that all participants will have the capacity to consent to their participation in the research?

YES ☐ NO ☑

If NO, please explain why not (e.g. children, incompetent participants, etc.) and explain how proxy or substitute consent will be obtained from the person with legal authority to consent on behalf of the participant.

Children over 4 will be participating with the family focus groups interviews so verbal consent will be used for children 4-13. Children over 16 will be able to sign the written consent form. Parents will also sign a consent form for all children used in the research.

26. For participants who have the capacity to consent, how does the process ensure that informed consent is freely obtained from the participant?

The participants will be provided with the information sheet for the study in advance and a consent form before the first focus group on daily technology use. The document will state that the consent is voluntary and participants can withdraw from the research at any stage. If any participant decides to withdraw, the family will no longer be used to participate in the research since this is a study on families.

27. Are any participants in a dependant relationship with the researcher, the institution, or the funding body (for example the researcher’s clinical clients or students; employees of the institution; recipients of services provided by the funding body)? If so, what steps will be taken to ensure that participants are free to participate or refuse to participate in the research?

No.
28. How does the project address the participants’ freedom to discontinue participation? Will there be any adverse effects on participants if they withdraw their consent and will they be able to withdraw data concerning themselves if they withdraw their consent?

Participants may decide to decline to take part in the research and may elect to discontinue with the focus groups/observations at any stage. There will be no adverse effects on any participant or family who withdraws their consent to participate in the research. A participant or family may decide to withdraw their consent up to 7 days after the interviews have been conducted. The researcher will ask the participants, prior to each meeting, if they are still willing to participate and continue with the research.

29. Does the project involve withholding relevant information from participants or deceiving them about some aspect of the research?

YES ☐ NO ☑

If YES, what is the justification for this withholding or deception and what steps will be taken to protect the participants’ interest in having full information about their participation?

30. Will participants be paid or offered any form of reward or benefit (monetary or otherwise) for participation in the research? If so, please detail and provide a justification for the payment, reward or benefit.

No.

I. CONFIDENTIALITY AND PRIVACY

31. How will the privacy of individual subjects be protected when recording and analysing the data?

Only the researchers will have access to the data and will ensure the privacy of the participants.

32. Will information collected from data or interview be published or reported?

YES ☑ NO ☐

If YES, what form this will take? All uses of data must be explicitly consented to.
The research findings will be mentioned as part of the Co-Investigators doctoral thesis and any publications emanating from it. In addition, it is likely that the findings from this stage of research will be included in conference proceedings or an academic journal article.

33. Will any part of the research activities be placed on a visual or audio recording (e.g. audiotape, photograph or video-tape)?
   
   YES ☐ NO ☐

If YES,
33.a What will the recording be used for?
   The video recording of the group discussions will be to make note of any nuances in the conversations that may not have been noticed from the dialogue alone when originally conducting the interview, such as body language, gestures, eye contact with other individuals, facial expressions, etc.

33.b Who will see/hear the recording?
   Only the researchers will have access to the recording.

34. Data (including questionnaires, surveys, computer data, tapes, transcripts and specimens) must be securely stored at all times. Where will the data be held and who will have access to it:
  a. during the project?
     The data will be kept in a locked cabinet in the research wing room 181 of building 40 where only the researchers will have access to it.
  b. on completion of the project?
     The data will be stored in a locked cabinet in the IIBSoR office area in building 40. The data will be accessed by the Principal Investigator and Co-investigator.

35. Data should be held securely for a minimum of 5 years (15 years for clinical research) after completion of the research. How long will the data be stored for? If it is not being stored, please provide an ethical justification for this.
   The data will be stored in a locked cabinet in the IIBSoR office area in building 40. The data will be accessed by the Principal Investigator and Co-investigator.

36. Does this project involve obtaining identifiable information (e.g. data) from a third party without prior consent from the participant or their legal guardian?
YES ☐ NO ☐

If NO: You have completed the questionnaire. Please ensure that the form has all the appropriate signatures and attachments (see checklist) before submission.

If YES: go to question 37.

37. Who will be providing the information? Please include copies of any correspondence regarding permission to access this information from a responsible officer of the Agency.

38. Will the information be deidentified during collection, use, or disclosure?

   YES ☐ NO ☐

If NO: You must apply for an exemption to the State and Federal Privacy Acts. Please complete the Privacy Exemption Application Form available from the 'Forms' section of the Ethics webpage.

If YES:

38.a Who will be deidentifying the information? Is this a person who would normally have access to the information?

38.b How and when will the data be deidentified?

1. DECLARATION BY INVESTIGATORS

Principal Investigator:

• I certify that I am the Principal Investigator named on the front page of this application form.

• I undertake to conduct this project in accordance with all the applicable legal requirements and ethical responsibilities associated with its carrying out. I also undertake to take all reasonable steps to ensure that all persons under my supervision involved in this project will also conduct the research in accordance with all such applicable legal requirements and ethical responsibilities.

• I certify that adequate indemnity insurance has been obtained to cover the personnel working on this project.
• I have read the National Statement on Ethical Conduct in Human Research and the Australian Code for the Responsible Conduct of Research. I declare that I and all researchers participating in this project will abide by the terms of these documents.

• I make this application on the basis that it and the information it contains are confidential and that the Human Research Ethics Committee of The University of Wollongong/SESIAHS will keep all information concerning this application and the matters it deals with in strict confidence.

Name (please print)  Signature  Date

Signature/s of other researcher/s: The first named researcher will assume responsibility for the project in the absence of the Chief Investigator. All investigators must sign the application.

Name (please print)  Signature  Date

Name (please print)  Signature  Date

Include additional lines if necessary.

K. APPROVAL BY HEAD OF UNIT

This person must not be a member of the research team.

I am aware of the content of this application. I am satisfied that:
• All appropriate safety measures have been taken;
• The research is in accordance with UOW/SESIAHS Policy; and
approve the conduct of the project within this unit.

Name (please print)  Signature  Date
NOTE: RESEARCH MUST NOT COMMENCE UNTIL THE APPLICATION HAS BEEN APPROVED BY THE HREC.
CHECKLIST (for applicants use)

Applications should be sent to: Ethics Unit
Research Services Office
University of Wollongong
Wollongong NSW 2522

Applications for the full HREC require 15 copies plus the original. Applications to the Executive Committee of the HREC (expedited review) only require the original.

☐ Original Ethics Application plus appropriate number of copies (See Web)
☐ Participant Information Sheet/Package
☐ Consent Form(s)
☐ Copies of Questionnaire(s)/Survey(s) or Interview/Focus Group Questions
☐ Copies of all material used to inform potential participants about the research, including advertisements and letters of invitation.
☐ Evidence of permission to conduct research from site managers (Not required for research sites within NSW Dept of Health)
☐ Evidence of approval/rejection by other HREC(s), including comments and requested alterations to the protocol
☐ Copies of Confidentiality Agreement templates for any third parties involved in the research
☐ Copy of Research Contract for sponsored/contract research
☐ Copy of 'Clinical Trial Insurance Requirements' Form (UOW researchers answering 'Yes to Q10 only)
☐ Privacy Exemption Application (researchers answering No to Q38 only)

For Clinical Trials you should also include:

☐ Protocol (16 copies)
☐ Summary Sheet (16 copies)
☐ Budget (16 copies)
☐ Investigator’s Brochure (6 copies)
☐ Indemnity Form(s) (3 copies)
☐ CTN or CTX Form (1 original copy)
☐ Insurance information (1 copy)
☐ Clinical Trial Agreement (1 copy)
Dear [participant],

PARTICIPANT INFORMATION SHEET: The effect of smart phones on family bonding

This form is to advise that as part of my Doctoral studies at the University of Wollongong, I plan to conduct individual interviews regarding technology use in the family. The researchers involved in this study include supervisor Dr. Ulrike Gretzel and Heather Kennedy-Eden. Their contact details are as follows:

Heather Kennedy-Eden
PhD Candidate
Faculty of Commerce
Tel: 0458-247-743
HLK897@uowmail.edu.au

Dr. Ulrike Gretzel
Primary Supervisor
Faculty of Commerce
Phone: +61-2-4221-4823
Email: u.gretzel@uow.edu.au

Although the interviews will be video recorded, you are assured that your name will not be associated with any comment to be contained in the final report or related publications but referred to as a participant or respondent. The video recording will be so that participant behaviour can be observed and noted in the research notes. Gestures, glances, and nuances in body language may not be captured during the initial recording so video recording will be reviewed to make sure it is noted with the research.

The data generated by the interviews will be used to understand how families adjust their lives to having a smart phone and what the effect is on family bonding.

There will be two group family discussions, in total, with all family members present. These discussions should take approximately an hour and no more than an hour and a half. These family discussions will take place in the family home and will be moderated by Heather Kennedy-Eden, the secondary researcher on this application. The first one will have conversation that will revolve around the use of smart phones in the daily lives of families and the feelings associated with smart phones usage, how the smart phones are used to communicate with one another and how it has changed the way the family functions and whether it has helped or hindered family bonding. The second group family discussion will take place shortly after a family vacation and will revolve around the use of smart phones while on vacation and how if things are different while vacationing.

The family observations will include general observations from afar. The family will be aware of the observations but the researcher will be some distance from the family. These observations will take place at activities the family naturally participates in together, which...
include community activities, going to the park, playing games together, etc. The purpose of this observation is to view the family in a natural habitat and activity to see how the smart phone is being used when the family is together. This observation will also help to understand the relationships between family members.

The collected data will be stored for five years in the Faculty of Commerce and will be presented as part of my thesis. The data may also be used as part of conference or journal publications. It is anticipated that the report will be of assistance to researchers investigating technology use in families, family tourism and family bonding.

If you would like to participate in this research, I will contact you to make an appointment to meet with your family at a convenient time in your home. You should retain this Participation Information Sheet for your records. Apart from allocating approximately six hours of your time over the next year, there is no identifiable risk associated with this research. You may withdraw your participation in the research within 7 days of each of your interviews. A decision to decline to be interviewed or withdraw from the interview will not impact upon any existing or future relationship with the University of Wollongong.

This study has been reviewed by the Human Research Ethics Committee (Social Science, Humanities and Behavioural Science) of the University of Wollongong. If you have any concerns or complaints regarding the way this research has been conducted, you can contact the UOW Ethics Officer at (02) 4221 4457. If you have any queries concerning this research, please do not hesitate to contact me or my supervisors on the contact details specified above. Should you feel any emotional distress, please contact Lifeline at 13 11 14 or go to their webpage at http://www.lifeline.org.au.

Thank you for your interest in this study.

Participant Information Sheet for children under 16

PARTICIPANT INFORMATION SHEET: The effect of smartphones on family bonding

You have been asked to participate in a family discussion that will be video recorded. During this family discussion, we want you and your family to talk about the use of a smartphone, like an iPhone or Blackberry, and what differences it makes in your family, whether you like it, whether you get to use it, and what your feelings are about it. We also want to know if you think it helps your family to stay in touch or share their feelings? We will meet with your family twice, once to talk about how these phones are used in your daily life and once to talk about how the phone is used on vacation.

There will also be a time or two where I will come and just watch your family to see how you talk to each other and play together.

Thank you for helping with this study.

Introduction of the topic for group discussions:
This is a general guide of how the group discussion topics will be introduced during the first discussion:

Hello, My name is Heather Kennedy-Eden and I am a PhD student at the University of Wollongong. My research specifically looks at families who have smart phones and how the smart phones are used within your family. You do not have to answer any specific questions, we just want you to talk to each other so that we can get an understanding of different views. It is very informal, there really aren't very many rules except to show respect for the person who is talking because everyone’s opinion is important and try to have just one person talking at a time. The comments you make tonight will be combined with other families' comments, so some of the families will be similar to yours and some will have a different structure. I will just sit here and listen and take notes while you talk. Your comments will be completely confidential, meaning that I will not put your name in any of my reports.

Okay, is everyone happy with that? Are there any questions? So, are we here today so you can tell me your thoughts about smart phones: what you like, what you don't like, how you use it to communicate, what forms of communication within the smartphone you use the most, what apps you like and how the smartphone has changed the way you function and communicate as a family, do you have any rules regarding when a smart phone can and cannot be used...really anything at all that you would like to share with me about your feelings and thoughts behind smart phones. If one of you would like to start, we will just see where the conversation goes from here. Just pretend I am not here.

Introduction of the topic for the second interview:

Hello, thank you for having me back in your home to discuss another topic with you. Just as a reminder, my name is Heather Kennedy-Eden and I am a PhD student at the University of Wollongong. My research specifically looks at families who have smartphones and how the smartphones affect family bonding. We discussed last time, one of the ways we find out what people think about smartphones is by holding these small family group discussions like we are here tonight. You do not have to answer any specific questions, we just want you to talk to each other so that we can get an understanding of different views. It is very informal, there really aren't very many rules except to show respect for the person who is talking because everyone's opinion is important and try to have just one person talking at a time. The comments you make tonight will be combined with other families' comments. I will just sit here and listen and take notes while you talk. Your comments will be completely anonymous, meaning that I will not put your name in any of my reports.

Okay, is everyone happy with that? Are there any questions? So, we are here today because your family has gone on a vacation together. So now, I want to hear about your vacation and what role the smartphone had on your vacation. Did you use your smartphone during your vacation? Was it less or more compared to how you normally use it? Were there any rules about when a smartphone could be used? How was it different than everyday life? If one of you would like to start, we will just see where the conversation goes from here. Just pretend I am not here.
Research Consent Form

I, ........................................................................................................... have been provided with information about the research being conducted by Heather Kennedy-Eden (Doctoral Candidate) and her supervisor Dr. Ulrike Gretzel from the Faculty of Commerce at the University of Wollongong and hereby consent to participating in this research and having this interview video-recorded. I understand that the data collected from my participation will be used as part of Heather Kennedy-Eden’s Doctoral research and/or any publications emanating from it, and I consent for it to be used in that manner.

I understand that my participation in this research is voluntary, I am free to refuse to participate and I am free to withdraw from the research. My decision to decline to be interviewed or withdraw from the interview will not impact upon any existing or future relationship with the University of Wollongong. If I decide to stop participating, any requests to withdraw from this study should be made in seven days from the date of this interview as signed below.

If I have any enquiries about the research, I can contact Heather Kennedy-Eden at 0458 247 743 or her supervisor Dr. Ulrike Gretzel at 02 4221-4823. I understand that if I have any concerns or complaints regarding the way in which the research is or has been conducted, I can contact the University of Wollongong Human Research Ethics Office on 02 4221 4457.

Signed: ___________________________ Date: __

Name: _____________________________

In the case of electronic communication, the email agreeing to consent will be used in replacement of the signature of the document.

[UOW LETTERHEAD]

The effect of smart phones on family bonding

Parental Research Consent Form
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I, ..............................................................................................................of...........................................................................................................................................

have been provided with information about the research being conducted by Heather Kennedy-Eden (Doctoral Candidate) and her supervisor Dr. Ulrike Gretzel from the Faculty of Commerce at the University of Wollongong and hereby consent my child/children to participate in this research and having this interview video-recorded. I understand that I am giving consent for my child who is under-aged. I understand that the data collected from my participation will be used as part of Heather Kennedy-Eden’s Doctoral research and/or any publications emanating from it, and I consent for it to be used in that manner.

I understand that my participation in this research is voluntary, I am free to refuse to participate and I am free to withdraw from the research. My decision to decline to be interviewed or withdraw from the interview will not impact upon any existing or future relationship with the University of Wollongong. If I decide to stop participating, any requests to withdraw from this study should be made in seven days from the date of this interview as signed below.

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Signed: ........................................... Date: __

Name: ...........................................

In the case of electronic communication, the email agreeing to consent will be used in replacement of the signature of the document.
Dear Ms Kennedy-Eden,

Thank you for your letter responding to the HREC review letter. I am pleased to advise that the Human Research Ethics application referred to below has been approved.

Please note that because of the personal and open-ended nature of the research participants need to be aware that they can withdraw from the research at any time. Please replace the sentence, “You may withdraw within 7 days of each of your interviews” with “You may withdraw from the study at any time and withdraw your data up to the point of submitting the thesis”. Please insert this in both Participant Information Sheets and provide a copy to the Ethics Office.

Please remove “anonymous” from the Participant Information Sheet for the under 18s and replace with “confidential”.

Ethics Number: HE12/209
Project Title: The influence of smartphones on family bonding
Researchers: Ms Heather Kennedy-Eden, Dr Ulrike Gretzel
Approval Date: 12 July 2012
Expiry Date: 11 July 2013

The University of Wollongong Illawarra Shoalhaven Local Health District Social Sciences HREC is constituted and functions in accordance with the NHMRC National Statement on Ethical Conduct in Human Research. The HREC has reviewed the research proposal for compliance with the National Statement and approval of this project is conditional on your continuing compliance with this document.

A condition of approval by the HREC is the submission of a progress report annually and a final report on completion of your project. The progress report template is available at http://www.uow.edu.au/research/ethics/LCM/lcm009385.html. This report must be completed, signed by the appropriate Head of School and returned to the Research Services Office prior to the expiry date.

As evidence of continuing compliance the Human Research Ethics Committee also requires that researchers immediately report

- proposed changes to the protocol including changes to investigators involved
- serious or unexpected adverse effects on participants
- unforeseen events that might affect continued ethical acceptability of the project.

Ethics Unit, Research Services Office
University of Wollongong NSW 2522 Australia
Telephone (02) 4221 3000 Facsimile (02) 4221 4038
Email mcm-ethics@uow.edu.au Web research.uow.edu.au
Please note that approvals are granted for a twelve month period. Further extension will be considered on receipt of a progress report prior to expiry date.
If you have any queries regarding the HREC review process, please contact the Ethics Unit on phone 4221 3386 or email rso-ethics@uow.edu.au.

Yours sincerely,

[Signature]

[Name]
[Title]

[Institution]
[Address]

[Email] rso-ethics@uow.edu.au
[Website] www.uow.edu.au
APPENDIX C- DESCRIPTION OF INDIVIDUAL PARTICIPANTS

The following is a description of the participants in this stage of the study. Some of the participants were in the same family, so those participants will be listed in groups. They have been assigned pseudonyms to conceal their identity.

Several members of the Johnson family participated in this first stage of the study. Bella is an eight year old girl and Sammie is a nine year old girl, both in primary school. Their older sister, Coco, is 12 and is in high school and has her own mobile phone. Their mother, Susie, is 34 and has her own mobile phone. Their father is a PhD student at the university and also has a book published plus he works part time and is trying to start a business. They have 7 members of their family which include the parents and five daughters. Their family has one smart phone, one laptop which they all share, two mobile phones plus an iPod Shuffle however they do not watch television. They have a television for watching movies but they do not watch any television shows. The mother is from New Zealand but the rest of the family are Australians and currently live in Wollongong, Australia.

Next is the Rinehart family. Gene is an eight year old boy who attends a private Christian school along with his sister, Jaya. Jaya is 12 years old and has an iPod. Their mother is Kristina who is 36 and has a mobile phone and their father, Monroe, is 41 and has a laptop, smart phone, and iPods. They have a younger daughter who is two. Monroe works for his family’s business and Kristina works part time. This family has one desktop, two laptops, two smart phones, and numerous iPods. Jaya and Monroe are also DJs for special events and sporting events in the area and they use their laptops and iPods for that purpose. They are all Australians although Kristina’s parents are from Sweden and the United States.

Rhiannon, 25, is a PhD student who rents a room in the Rinehart home. She is from Thailand and has been in Australia for about three years and will be returning to Thailand soon. Rhiannon has a smart phone, laptop and access to a desktop computer at the university.
The Cantoni family consists of Anthony (55), Carrie (37), William (15), and Penney (13) plus Carrie’s mother, Laverne (73) lives with them in Wollongong, Australia. William and Penney both attend high school and have a smart phone, although Carrie’s is actually using Laverne’s phone that she has decided to share. Carrie and Anthony both have smart phones as well. Laverne also has a Kindle. Anthony and Carrie both work full time and Laverne stays home to take care of the house. Among the family members, they have in total one desktop, three laptops, four smart phones, one mobile phone, one kindle, and numerous iPods. This family participated in both the individual interviews and family interviews for this research. All of them are Australians except for Laverne, who is British.

Anne (20) and Mike (22) are brother and sister and they live together with their father. They are both university students getting their undergraduate degrees and they both have smart phones and laptops. They are Australians.

Chris (23) is a PhD student at the university and also teaches part time. He is from India and has lived in Australia for 3 years. Chris lives with a roommate and he has a smart phone, laptop, and iPad.

Sariah (25) is a Master’s student at the university and is from Great Britain. She has lived in Australia since she was a teenager and she lives with her parents and older brother. She is a full time student and also works part time and teaches part time. She has a laptop, a Mac book, a smart phone, and an iPad.

Lucy (28) is a wife and mother of one child and is from Great Britain. She and her husband are both teachers and they have a two year old daughter. Lucy has a smart phone and laptop and she has lived in Australia for two years.

Karl (30) is a PhD student at the university and is married and has one child. He and his wife are Icelandic and they have a one year old daughter. They have two smart phones and two laptops and have lived in Australia for four years. Karl participated in the first stage of this research and his family participated in the family group interviews.
Jim (36) is a professional in the social media industry and lives in Utah, USA. He has a wife and 4 children and works full time as a Social Media Director for a large religious organization. Jim works full time and his wife is a stay at home mother and is pregnant. His family has numerous forms of technology in their home: 3 smart phones and numerous laptops, iPads and five iPod Touches.

Harmony (37) is a wife and mother of 4 and she also works part time. She is Australian and travels domestically and internationally quite often. Her family has two smart phones, a desktop, and a laptop. Harmony participated in the individual interview and the rest of her family and her parents participated in the family group interview.

Leah (66) is a full time blogger. She has an extensive following and she blogs about religious topics. She is married and an ‘empty nester’ since her children have all moved out of the house. She has a smart phone, a laptop, and an iPad. She is American and lives in California, USA.

1.2 Description of Family Groups

The following is a general description of the families that were interviewed as a group. Pseudonyms have been assigned to all the participants so that their identity is not revealed.

The Cantoni family participated in both the individual interviews and the family group interview stages of this research. The family consists of Anthony (55), Carrie (37), William (15), and Penney (13) plus Carrie’s mother, Laverne (73) lives with them in Wollongong, Australia. William and Penney both attend high school. Penney had only a mobile phone during the individual interviews but now has a Blackberry smart phone. The Blackberry used to be Laverne’s phone but Laverne loaned it to Penney and now Penney says they share it, although Laverne does not see much of it and now mainly uses the house landline phone. William, Carrie, and Anthony all have smart phones. Laverne also has a Kindle. Anthony and Carrie both work full time and Laverne stays home to take care of the house. Anthony also works an additional job on Thursday, Friday, Saturday, and Sunday nights at gigs for his
band. Since the individual interview, Laverne has had many health issues and rarely leaves the house anymore except for doctor’s appointments. Among the family members, they have in total one desktop, three laptops, four smart phones, one kindle, and numerous iPods. All of them are Australians except for Laverne, who is British.

The Logan family consists of Karl (30), Heidi (29), and their daughter Nancy (2) and are expecting another baby very soon. The Logans are from Iceland and have lived in Australia for 4 years now. Karl is a PhD student and works occasionally as a consultant and Heidi owns her own design business and sells her designs online on a part time basis. Nancy is learning Icelandic and English and she goes to dance and swim classes. They are very athletic, Karl plays soccer and Heidi is a runner and avid exercise enthusiast. They all like to go to the beach, surf, and camp. Karl and Heidi both still have smart phones but they have added an iPad for Nancy since the individual interview. They are the only members of their family in Australia so they use technology to keep in touch with all their family and friends in Iceland and Europe. The family interview with the Logans was held in Karl’s office at the university because of Heidi’s request to get out of the house after having been bedridden during her pregnancy.

The Bishop family lives in Wollongong, Australia and consists of Rick (38), Harmony (37), daughter Michelle (10), son Cash (8), daughter Holly (3), and Vince (1). Harmony’s parent’s also live with them from time to time, Jack (65) and Darlene (64), who are both retired. All family members are Australian except for Jack who is Lebanese but has lived in Australia most of his life. Rick runs his family’s business and is also the leader of his local religious congregation in Wollongong. Harmony works part time with her own practice as a therapist and they are both very involved in their children’s school. Rick and Harmony both have smart phones and use them extensively for scheduling and keeping up with their incredibly busy schedules. Since the individual interview, Harmony’s kids now have an iPad to share and also use their parent’s smart phones at times. Michelle and Cash both have laptops that are provided at school however they do not bring them home, they share a desktop computer at home. Jack has a smart phone but mainly uses it to make phone calls but
he does use an app for personal banking. Darlene also has a smart phone but she rarely remembers to turn it on or bring it with her and only uses it to call and text.

The Ranger Family lives in Wollongong, Australia. The father, Jason, is 43 and is British but has lived in Australia most of his life. Judy is the mother and she is 40 and also British but has lived here over 12 years. They both have smart phones but Judy is not very comfortable with hers, she says she is old fashioned. Their sons, Rod (11) and Paul (9) were both born in Australia. Jason is a full time fireman at the local station and Judy is a full time nurse and administrator at the hospital. The boys both attend primary school and are involved in scouts, sports, and Paul also takes ballet. Jason is a local scout master and both parents are involved in their sons’ school, Jason is Vice-President of the parent and community organization at the school and Judy is involved in volunteering at the school. Both parents have varied and changing schedules with their professions being 24 hour occupations. Their family has two smart phones, two iPods, and a shared desktop computer.

The Neilson Family lives in Kaysville, Utah, USA. They are a family of seven and consist of Reid (40), Jenny (38), daughter Aggie (16), son Joey (15), daughter Monica (11), daughter Marcie (7), and son Thomas (4). Reid has the only smart phone in the family but they also have three mobile phones, five iPod Touches (with Facetime and Skype), a tablet, two laptops, a Mac and a desktop. They often use their iPod Touches to call relatives and friends with the Facetime and Skype apps on their iPods so they function practically as smart phones much of the time. Reid works full time and Jenny works part time at a local day-care centre where Tyler goes to pre-school. Aggie and Joey are in high school while Monica and Marcie are in elementary school. They have a lot of family that live in the area and spend a lot of time with them. They are all Americans.

The Craft family also live in Kaysville, Utah and have Jerry (43), Lara (40), daughter Katie (14), and daughter Kammie (11). They also have a daughter, Cecily (20), who is away at college out of state and was not involved in the interview. Jerry, the father, works full time from his home and Lara is a full time student at a university out of state. Katie is in high school and plays on the lacrosse team. Kammie is in sixth
grade at the elementary school. The Craft family has a very limited budget and so they are always looking for ways to save money. They buy second hand a lot and try to do any home improvement projects themselves. They were all born in America. They have three smart phones, two iPods, a mobile phone and 2 laptops.

The Maple Family consist of father Josh (47), wife Elizabeth (46), son Jacob (18), and daughter Valerie (14). Josh works full time and is on call 24 hours a day. Elizabeth is a stay at home mother who works part time in her home caring for a mentally impaired young man. Jacob had just graduated from high school but was planning to continue to live at home and work full time. Valerie is 14 and plays volleyball at the high school she attends. The Maple Family and The Craft family are actually related, Lara Craft is the sister of Josh Maple. The Maples also live in Kaysville, Utah and are American. They have two smart phones, two laptops, two mobile phones, an iPad, and a shared desktop.

The Manning Family also lives in Kaysville, Utah. Bryan (38) is the father, Margie is the mother (39), Brady is their son (12), and Emily (4) is their adopted daughter. Bryan has his Master's degree and works full time in Salt Lake City. Margie is a stay at home mom to Emily, who attends part-day pre-kindergarten at the local school. Brady is 12 and goes to Junior High school: he likes to make videos and post them to YouTube. They are all Americans except for Margie who is Canadian.

The Reeders are a family of six who live in Farmington, Utah. Sean (35) is the father and Millie (34) is the mother. Their children are Jorge (10), Krissie (8), Louise (5), and Milo (2). Sean works full time and is also in the Army National Guard so he travels for Army training at least one weekend a month and can be deployed for up to a year when needed. He goes to a six week training once a year for the army as well. Millie is a stay at home mom who likes to run as a hobby, which is convenient with 4 kids. Jorge likes to play video games and act in the local theatre. He now has an agent and is hoping to work for Disney. Krissie attends the local elementary school and is in second grade, she takes singing lessons. Louise is in half day kindergarten and also does ballet. Milo is 2 and Millie stays home with him and Lucy. They have two smart phones, a shared desktop for the family, an iPad, and a laptop.
Lastly, we have the Ferguson family. This family has lived in Australia and the USA. Kenneth (38), Hadleigh (41), Tom (7), and Larraine (65) is Kenneth’s mother, whom they lived with in the USA. Kenneth is working full time as a consultant and travels every week by plane to the Midwest United States. He leaves on Sunday night and returns, usually, on Friday night. Larraine has just retired from working full time at a university and is busy developing hobbies and spending time with her children and their families. Landry attended kindergarten and first grade in Australia and at the time of the interview, was about to enter second grade at the elementary school in the neighbourhood. Holly is a full time graduate student. They have four smart phones, an iPad, four laptops, and two e-readers.