

## Chapter #22

# TECHNOLOGY AND ITS USE IN FAMILIES WITH CHILDREN

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### ABSTRACT

Both societal progress and the evolution of information and communication technology (ICT) offer communication opportunities and advantages, as well as challenges at various levels. The literature has documented that the increasing presence of technology in family contexts has made it a central element in the management of routines. It should also be noted that, in family, technology can take on some functions, such as carrying out independent activities as a device, or it can serve as a mechanism for socialization and communication. Using a single question, we carried out a qualitative analysis about people's perception about the use of information and communication technology as a babysitter. Twenty-eight subjects of both sexes participated in the study, ranging from adolescents to young adults without children, to fathers and mothers, all aged between 14 and 60 years of age. Content analysis revealed that parents use technology as a babysitter due, mainly, to their demanding professional lives as well as in consequence of the usefulness of the tool to family organization. Participants were also found to perceive a need for alternatives.

*Keywords:* routine management, family interaction, children, technology, babysitter.

### 1. INTRODUCTION

The family system has evolved over time, in particular regarding its structure, dynamics and constitution, while also adapting to the social, economic and geographic changes which it is subject to (Sallés & Ger, 2011). Sociology and psychology see the family to be the first and foremost agent of socialization, as it lies at the foundation of personality development and child growth (Macionis, 2011 as quoted in Villegas, 2012). It has the most lasting influence, when compared to others such as school, peer groups, and, most recently, technology (Abela, 2003).

Information and communication technology is a human invention that can enrich interpersonal relations or simply provide pleasure for those who use it. Nowadays, technology (e.g., television, smartphones, iPads, tablets, video games, Playstations and computers (Edgar & Edgar, 2008)) is seen as both intrinsic and indispensable (Church, Weight, Berry, & MacDonald, 2010). It is mostly used for information and entertainment purposes, and its users devote a significant amount of time to it (Abela, 2003). Very few homes, these days, lack any forms of technology (Stephens, 2007) and references are often heard to "digital families" since several types of devices are commonly used. Technology is inevitable in homes and the notion of a world made up of only parents and children has vanished (Díazgranados, 2007). In addition to its natural and attractive nature, technology is becoming more and more pervasive in daily routines. For example, it can be used to coordinate or arrange the family member schedules (e.g., to perform a domestic activity

while watching television). It can also be used simultaneously with other tasks (e.g., doing sports while listening to music on the MP3 player or smartphone) (Church et al., 2010). Most of all, technology has become a family companion (Díazgranados, 2007).

Over the course of time, the family as a system has been undergoing transformations in its structure and dynamics as a result of: i) a decrease in parents' availability to perform their parental role due to the rise in professional demands and challenges; ii) the rising numbers of single parent families; iii) the diminishing availability of the nuclear (e.g., parents, siblings) and extended families to contribute to care of small children; and, iv) the continuing responsibility of parents to carry out domestic tasks (e.g., shopping, taking care of children's hygiene, cooking, and cleaning, etc.) without any kind of assistance (Beech et al., 2004).

Meanwhile, there has been the intrusion into the family of myriad new forms of technology and, according to Sanchis (2008), these have expanded their roles beyond those originally intended. Television, for example, is seen to be a "family member". It has expanded its role from providing entertainment to taking care of children. The image of a child sitting alone in front of a television is quite common. Moreover, we can all attest to instances where the television is the main occupation throughout, such as, for example, when a child stays home sick from school. Sanchis (2008) sees television as being one of the first devices that prepared children to adapt to other screens (e.g., consoles, smartphones, computer, tablet) which have come to assume a similarly preponderant role in young people's development.

If, due to the fact that families are increasingly busy, children do not always have someone to watch over them, then technology becomes their only companion (Edgar & Edgar, 2008) and, simultaneously, their babysitter. This is a solution that has increasingly been responding to parents' daily needs. Special attention has been given to the so-called "second screens" (e.g., smartphones, tablets) (Ley et al., 2013) but, for Götz, Bachmann and Hofmann (2007), television seems to be the favorite technology of children in their free time. It serves as an inexpensive babysitter and can therefore be used "take care of children" while parents attend to other responsibilities. Abela (2003) states that television is considered an "electronic babysitter" and can even be called the "third parent" since it exerts a level of authority almost comparable to that of parents. However, although these authors have emphasized the child's preference for television, Dias and Brito (2016) disagree and state that, these days, children's current favorite forms of technology are tablets and smartphones.

Given the degree of penetration of technology in homes, it is impossible not to feel affected by it, especially children, who are more exposed to its influence from a young age (Díazgranados, 2007). Childhood is a life cycle characterized by intense levels of interaction and assimilation of significant stimuli. Meanwhile, today's children grow and develop in constant contact with technology, which affects them a wide range of areas (e.g., cognitive, social, affective, physical) (Correa et al., 2015).

Authors such as Vandewater, Lee, and Shim (2005) consider that children's first contact with technology occurs naturally as part of the family environment. The literature is replete with examples of direct contact and constant use of technology by children. Buckingham (2000, quoted in Plowman, McPake, & Stephen, 2008) argues that childhood has been lost as a result of the changes in modern society. Postman (1982, 1994 as quoted in Plowman et al. 2008), in turn, blames technology for the loss of childhood, as most children seem to prefer to spend their leisure time with screen related activities rather than those which require the physical presence of other people. Others, such as Plamer (2006, as quoted in Plowman, et al., 2008) point out that children's language development is at stake

since they spend so much time watching television, where communication is passive, which undermines their active or productive language, since they do not talk enough with each other. On the other hand, it has also been argued, for example by Stephens (2007), that technology has a positive impact on children. The author argues that computer programs or games with valuable content and quality help children, as users, to positively develop both intellectual and social abilities. Moreover, technology can be both stimulating and relaxing for children. It is also defended that technology can be a way of sharing interests with peers or learning new facts or information (Stephens, 2007). Chaudron (2015) further states that contact with technology may lead children to stimulate their imagination, fantasy, creativity, and gaming. Devices can also serve as a certain support for learning, reading, and researching information.

In modern families, technology takes on different roles. A new usage, however, is proving especially helpful for parents: technology can function as a babysitter of small children. There are justifications for this situation, namely: (i) parents are more and more professionally active and therefore have less time to spend with their children; (ii) single parent households have been increasing in number; (iii) there are fewer siblings or neighbors that might take care of children (Edgar & Edgar, 2008); and, (iv) technology is an inexpensive way of keeping children quiet while parents perform other tasks (Götz et al., 2007; Rideout, Hamel, & Kaiser Family Foundation, 2006). By the same token, technology can also function as: a support for education; a tool for helping children to sleep; a family activity; background noise; or as a way to stimulate or relax from physical activity (Götz et al., 2007).

Technology has become a companion for children during several hours each day (Edgar & Edgar, 2008), as parents are getting busier day by day. Heinrich (2014) found that participant families did not have any assistance with home responsibilities, whether on a daily or weekly basis. Moreover, it was found that one of the parents, usually the mother, held the responsibility for most family responsibilities.

Considering the present reality and existing literature, this investigation looked at adults and teenagers living in the *Alentejo* region of Portugal and analyzed their insights into the use of technology as a babysitter of small children.

## **2. METHOD**

### **2.1. Participants**

The study was conducted with the participation of (N=28) adults, young adults and teenagers, of both genders, between 14 to 60 years of age. All participants admitted to having some familiarity with technology. Regarding their educational levels, the teenagers were attending (N=2) the 3rd cycle of the basic education and (N=5) high school; only one young adult (N=1) had a vocational degree and the others (N=6) had college degrees. Two fathers (N=2) had college degrees, three (N=3) had completed the 3rd cycle of the basic education and (N=2) had vocational degrees. Two mothers, (N=2) had completed the 3rd cycle of the basic education, two (N=2) had completed high school, and three (N=3) had college degrees.

### **2.2. Objective**

Identify the participants' perception of parents use technology as babysitter.

### **2.3. Procedures**

A qualitative data collection procedure was used in which a single question was posed:

“What is your opinion about the following statement: ‘Parents use technology as babysitter for small children’”.

The following criteria guided participant selection: participants had to be either a father, a mother, or a young adult or teenager without children of their own.

After obtaining the authorizations and informed consents from the participants, the interviews were conducted, recorded, and later transcribed and coded, in order to guarantee participant anonymity. Data were analyzed using an inductive Content Analysis technique that yielded *à posteriori* categories (Moraes, 1999).

Two types of units were set. The registry units (RU) are categories of keywords or expressions in participants’ speech; counting units (CU) identify the number of times each participant mentioned a certain experience. When the number of (RU) and (CU) is the same, the number of (RU) is not mentioned.

The data were collected by interview and then coded in order to guarantee the anonymity of the participants – each participant was given a code starting with a letter, F for fathers, M for mothers, YA for young adults, and T for teenagers.

### 3. RESULTS

The results of the content analysis appear below. It was evident that all participants (N=28) were aware of families using technology to babysit small children and even provided some explanations. From the records under analysis concerning the question: "Parents make use of technology to babysit small children (0-10 years)", three categories and subsequent subcategories emerged: 1) the importance of technology as a babysitter (using technology to take care of children while parents are away); 2) implications of technology as a babysitter (effects or outcomes, either beneficial or harmful, of using technology as a babysitter); and 3) the need for alternatives (due to the risk of harmful impacts on the process of children’s development of their knowledge and abilities) and their respective subcategories.

#### 3.1. Category 1: The importance of technology as a babysitter

This category gathers participants’ insights regarding the role of technology as a babysitter. It includes three subcategories: “Calming children down”, “Entertaining children”, and “Guaranteeing children’s safety”.

The participants saw that technology enables families to calm their children down, entertain them, and keep them safe. Eight participants (CU=8) mentioned the role of technology in calming children, as exemplified by the following quotes: "The kid is restless, so we give him television and cartoons" F4; "Children are in the supermarket and making a scene and the father gives them the smartphone and the child calms down" T10; "Tablets and all those things, in order to calm the kids down and calm themselves down " YA18; "It’s the best way for parents to be able to do some domestic chores, 'calm kids down'" M14 and "It is a cheap and safe way to ensure children behave well and with little effort" M12.

Thirteen participants (CU=13) mentioned the role of technology in “Entertaining children”, of which we highlight: "Keeping the children busy because there is always so many things to do" F3; We don't need to entertain them, to play with them because on the Internet they are where they want to be. Nobody bothers them" M2; and, "They contact a call-center when the Panda channel is inactive, asking it will be back online, because they have to entertain the kids" YA16.

Three participants (CU=3) mentioned “Keeping children safe” as the following quote attests: "It’s a safe way safe, first of all, in the sense that children are not outside, and therefore exposed to other kinds of threats and therefore, it’s a safe way for children to spend their time" YA14.

### 3.2. Category 2: Implications of technology as a babysitter

This category brings together participant insights on using technology as a babysitter. It is divided into two subcategories: risk (CU=28) and usefulness (CU=7).

Table 1 - Category 2: Implications of technology as a babysitter exemplifies participants’ view that using technology as a babysitter entails both risks and benefits for users.

*Table 1.  
Subcategory Risk*

<b>Sub-Subcategories</b>	<b>RU=CU</b>
Weakening of family bonds	17
Exposure	4
Safety	1
Alienation	2
Reduced development of social and communication abilities	12
Isolation	12
Addiction	7
Health	2
Shallowness (preference for quantity over quality)	2
Alienation from reality	6
Mimicking of behavior	2
Access to improper content	1
Negative impact on education	7

The subcategory “Risk” arises from the comments of all participants (CU=28) and includes 13 sub-subcategories of risk ranging from weakening of family bonds, exposure, reduced development of social and communication abilities, isolation, addiction, alienation from reality, negative impact on education, among others, as described in Table 1. The following quotes serve as examples: "You lose a little bit of reality of the human side, of the human relations between parents, children, between siblings and then, with friends" F1; "They become lonely people. They experience problems by themselves, don't speak with anybody, don't unburden themselves. This can create lead to very complex situations" M19; "They start living in that digital world" YA16; and, "If the child stays completely connected to the internet can even create an addiction" T2; and "They don't care about what their parents say and, as they grow up, they start being...the parents can't control them" YA15.

In the Usefulness subcategory we have chosen to emphasize the insights of seven participants (CU=7) regarding the issue of whether the use of technology as a babysitter can be useful for developing children’s skills and deepening their knowledge. The following quotes serve as examples: "They also need to have that technological side developed more and more" M9; "On those apps there are also didactic games (...)there are games to stimulate the child"; and, "Kids can even develop all that ability and agility to handle that equipment" YA 16.

### 3.3. Category 3: The need for alternatives

This category gathers participant opinions about the need for alternatives to using technology as a babysitter. Category 3: Need for Alternative presents comments of 18 participants (CU=18) about the need to find alternatives. Examples include: "You can entertain them, give them pencils, some paper and they can draw. They keep themselves occupied (...) and then there are games, dominos, Lego. That is far more interesting" M14; "I think that maybe there are other options to amuse kids, talk to them, even if they are of a tender age. Kids need a lot of attention. I think that it would be much easier to entertain them by other means" F4; "When you get home, to turn the television off more often, to turn the computer off more often, to turn off computer games more often, tablets, whatever, and pay more attention to children" YA12; and, "Instead of giving a tablet to children, give them a soccer ball, I think it is much more important for him to fall and get injured than to be with the finger on the screen all the time" T13.

## 4. DISCUSSION

Our participants believe that parents are regularly using technology to babysit their small children (e.g. "First of all, it is almost a fact that it's used, but specifically in our family we used it; I won't hide from you the fact that that, for parents, especially at the end of a busy day, it's a balm") This statement fits into Category 1 that unites opinions that using technology as a babysitter is useful for calming, entertaining, and keeping children safe. Chaudron (2015) states that, the more overwhelmed they are with responsibilities, the more important it is for parents to have a moment of rest ("parents don't have time for their children and the little that there is left (...) they prefer to spend it on themselves and rest") and time for tackling domestic tasks ("to get children occupied because there are always so many things to do").

Edgar and Edgar (2008) argue that technology is beneficial, since it allows parents to control and regulate both the content and the amount of time spent in front of the television, computer, tablet and other devices, giving a calm sense of supervision. Moreover, it is not only at home that parents use technology as a babysitter. Chaudron (2015) describes how parents also use smartphones (due to their portability) as a primary emergency resource to keep children entertained while out, for example, at a restaurant or while waiting in a line ("when we are out, they stay entertained"). Surprisingly, in this same research, it was found that mothers are more permissive when it comes to providing technology to children (Chaudron, 2015), maybe because they are the most overwhelmed with responsibility ("it is an inexpensive way to get children to behave well"). It is argued that many parents see the tablet as a "friend" of their child, with whom they spend most of their time (Chaudron, 2015), thereby, becoming a fundamental part of family life.

Another relevant finding deals with participant opinions regarding the risks and convenience of using technology as a babysitter. Potential risks (Table 1) include the regular and excessive exposure of the child to screens during a significant amount of time. Multiple studies (Edgar & Edgar, 2008; Tandon, Zhou, Lozano, & Christakis, 2011) have raised awareness of the amount of time small children spend with devices with screens, reporting periods between 3.2 to 5.6 hours per day. This degree of exposure has been related to childhood obesity (Dennison & Edmunds, 2008) ("children end up doing less physical exercise"), sleep disorders (Thompson & Christakis, 2005), and attention deficit disorders (Zimmerman & Christakis, 2007). The risks most commonly mentioned by our participants were the weakening of family bonds, decreases in social and communication abilities, and isolation. Correa et al. (2015) call attention to a loss of contact and

coexistence of children with their family and friends. They point to the risk that children begin to focus exclusively on a virtual world ("children do not interact so much with each other, do not develop friendships so much"). This virtual world can lead to an alienation from reality, making it harder for children to distinguish what is real from what is not ("You lose a little bit the reality of the human side, of the human relations between parents and children (...) and sometimes they only live virtually"). Children may become more and more isolated ("they end up being isolated and not only from other children, but also from their parents"), sedentary, passive and lacking in creativity, curiosity and without any interest in reading or experience. However, not all the authors agree with this conclusion, Plowman et al. (2010) argue that children prefer activities without technology, such as playing outside, swimming, or going to a park.

Participants also worried about the potential negative impacts of technology on parental control ("They don't care about what their parents say and, as they grow up, they start being...the parents can't control them, and they get very rude; that has to do with the parents own education and the time they devote to stay with their children"). The effect of using technology as a babysitter will depend on how parents see it and use it. Plowman et al. (2010) state that, if parents use technology often, they will be more likely to use it as a babysitter of their children. These parents consider that frequent contact with technology from a young age promotes child development in the technological field, giving them necessary skills.

However, if, during children's upbringing, parents allow unsupervised and unregulated use of technology, those risks mentioned above can arise and negatively affect children's development and relationships with others. Therefore, parents must play a mediating role between children and technology. Abela (2003), defining and controlling children's use and contents in a healthy fashion. Some of our participants raised concerns about children gaining access to age-inappropriate content and the possibility they might mimic behaviors they see. Stephens (2007) warns of the danger that children might assimilate content containing stereotypes, negative perceptions and violent behaviors, ("trying to do what they see in the movies, acting violently towards others"). The same author asserts that the more time a child spends watching television, the greater the probability of reproducing the behaviors and language that has been seen and listened to. Nowadays, for those who have cable television, there is a great assortment of children's content. Some people, however, are still limited to publicly accessible channels, only one of which in Portugal broadcasts children's content for a target audience up to 6 years of age and during limited periods (Sanchis, 2008). Consequently, these children have a much greater exposure to age-inappropriate programming, leading to an assimilation of information they should have access to only later in life.

Participants also worried about the potential for children to become addicted to technology as a result of their caretakers using it as a babysitter ("I don't think that it is positive for the future of the new generations in which the kids are so addicted on these devices; the problem is that it creates an addiction...they get addicted; they get addicted, they don't listen to anything else"). Felt and Robb (2016) point out the danger of children forming dysfunctional attachments to technology, such as internet addiction and gaming disorders. Users that enter into these unhealthy behaviors relative to technology and devices can be characterized as compulsive, obsessive or less healthy ("If he sees the smartphone, he wants the smartphone, soon as he sees the tablet, he wants the tablet (...) that is wrong because it is making them to get addicted to technology").

However, technology is useful in family life. Participants also commented on its usefulness. For example, some mentioned its ability to help young people develop skills

and deepen their knowledge. Stephens (2007) argues that technology provides valuable content and quality that are important in helping children to positively learn both social and intellectual abilities ("on those applications there are also didactic games (...) to stimulate children"). Devices can also contribute to sharing some interests among peers or even to learning new information. Edgar and Edgar (2008) affirm that, as a babysitter: i) television can serve as a "storyteller", stimulating children's imagination and opening up myriad opportunities for learning and development, while promoting reflection about emotions, anguish, hopes and issues associated with certain age groups; ii) computer or console games can teach cause-effect relations, results based on intuition, the merit of persistence and how to develop interactive strategies (e.g., searching for information on multiple sources, decision-making and awareness of the consequences, multi-tasking parallel processing and cooperation with others through a network); iii) the computer allows children to stay continually focused, to develop cognitive abilities through games, to develop perception and discrimination, notions of sequences and relations between objects and to train perceptions of concepts such as space, size and shape. In summary, they argue, technology provides visual, verbal, emotional, social, and even physical ways of dealing with the world (Edgar & Edgar, 2008).

The participants' perception about the need for alternatives to technology ("You can give them pencils, some papers and they paint, they get themselves occupied (...) and then some games, domino, Lego, it is much more interesting; When you get home, to turn off the television more often, to turn off the computer more often, to turn off computer games more often, tablet, whatever, and pay more attention to children"). Dorey et al. (2009) point out that a lot of parents find it hard to come up with safe and accessible alternatives for children to replace technology. Such parents see watching television, for example, to be safer than outdoor activities. Chaudron (2015) reported parents who wished their children would experience more physical outdoor activities, preferably with other children. Stephens (2008) also points out the need for alternatives to screens, namely family social activities (e.g., card games, reading, telling jokes or stories, playing with didactic toys, puzzles or even puppets). Although technology will continue to present risks for children and their development at different ages, it will undoubtedly continue to be present in their routines. It will be a permanent presence in users' personal and academic/professional lives, intrinsic to and indispensable for a wide gamut of activities.

It is important for parents to be alert and supervise children's use of technology in order to mitigate the associated risks. Abela (2003) suggests a possible solution to this great family challenge would require parents and children to maintain constant communication, within a system of mutual trust, where parents might be aware of their children's lives. This approach will enable parents to help children find a balance between healthy and excessive uses of technology.

## 5. CONCLUSION

The present research allows us to recognize the frequent use of technology as a babysitter of small children that arises from parents' busy schedules and demanding professional lives. It also highlights how, for those who are responsible for small children, this practice simultaneously brings both risks and benefits, as it is a useful tool that supports family management. No reference to children with complex needs was noticed. It would be interesting to verify its relationship with the subject under study. However, despite its usefulness, it lacks the human dimension of affection and comfort and the help to deal with a more complicated situation. Because even though they are entertained with technologies,



risky situations can occur, which is why their supervision is important. Human presence will always be important.

Children behavior is shaped by family and parenting practices, in this sense, their interests and the use of technologies will have the influence of their family environment. In this sense healthy and active alternatives must be found so that children can make appropriate use of technology while also enjoying other kinds of activities.

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