Graphic Design 3
Research Compilation

attentional
bee with no buzz

Secondary Research

Secondary Research Summary
Graphic Design 3
John Brown University

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Abstract: This research's purpose is to help reach a solution for how to combat misplaced attention (excessive distractions and fear of relational intimacy) to affect positive individual and social development in the US by studying the 3-17 age group and communicating findings to the 18-40 age group. This research was done to determine how to effectively educate and communicate to the 18-40 age group with the very technology they are addicted to, but also in ways that transcend technological means. Include other groups purpose of research here!

Contents ━━━

Communications Group Summary

I. **Description of Target Market.**

The millennials, those in Generations at the end of generation X and born into generation Y, are around the age of 18-40. They are either currently parents or parents of the children of the near future. Millennials have experienced a dramatic shift in the way that they have grown up in comparison to generations of the past because of the increase of technology. They are open to change and believe in social causes and the importance of causing change. They are self-expressive and feel the desire to share their life with others. They tend to value happiness and discovery more than family and practicality.

Description of Generation X
Generation X and Y diversify in a few key areas. Generation X was born between 1965-1977, age 38-49 in 2014. They value family, but were also children who experienced the raising of divorce rates and have become less traditional than other generations (Williams, 2011). They are well-educated and desire to learn. They believe in a balance of family and work as many are self-employed. They do not believe in sacrificing important things, such as time, energy, and relationships in order to advance in their profession. They are attracted to honesty, humor, and uniqueness (Williams, 2011).

Description of Generation Y
Generation Y was born between 1977-1994, age 20-37 in 2014. They grew up with constant change and have learned to become very accepting of it. Family life is different from previous generations as more homes are dual-income, family types have diversified, and ethnic and cultural diversity in neighborhoods and virtual neighborhoods allows for developing respect and awareness. They were born into an age of technology. They are result driven and quickly developed a sense of independence and self-image (Williams, 2011). They feel a need for peer acceptance at a heightened amount due to the increase in social networking. They are scared of rejection due to their desire to be accepted. They are open minded, goal oriented, and motivated towards their own perceptions of success. They desire speed, the ability to customize for themselves, and personal entertainment. Gen Y craves new challenges and options (Hernandez).

II. **Communication Techniques and Approaches**

There are various marketing understandings and strategies appropriate to our target market's characteristics and behaviors, particularly in terms of their communication with them. There are things that are appealing and unappealing to this group. This group has a short attention span, which means the advertising needs to be efficient in order to be effective. Marketing to their circle of friends through word of mouth, social media, viral, and buzz marketing will be effective (The Mth Degree, 2010).
Mediums of Communication
This group is driven by peer to peer interaction, and being communal to this group is vital for being successful. They have a peer to peer communication process. A study reported that 91% of Millennials trust their friends for product recommendations. This presents a huge opportunity to market with Millennials rather than to them. They care what their community says (Fields, 2008). Advertising that is additive to their lives and entertaining compels them to share their experiences with their friends. They enjoy social events as a means of advertising (Williams, 2011). This group likes to feel like they are part of a team. They base their decisions off of one another which makes marketing with them rather than at them an important task. Combining social media efforts makes a campaign effect and has greater impact than using one outlet.

Using a variety of mediums and applying content from one platform to the next is engaging. The internet needs to be interactive, and there needs to be a combination of online and offline. They enjoy user-generated content and view it as a highly credible source of information. Some effective ways to reach an audience 18-49 is through paid search, such as search engine optimization or pay-per-click, Facebook ads and email marketing (Fine). Also, advertising through their platforms is a necessity (Sanderson, 2010). Meeting them at the places where the target market comes together is going to be effective. They have platforms from online, mobile, social media, or gaming. Using images on Twitter leads to 150% increase in retweets. Crossover between platforms is important because it builds a stronger campaign (Williams, 2011). Most adults ages 18-34 own a computer, and young adults are 68% more likely to make an online purchase than the average Internet user (Fine).

Characteristics of Communication
Transparency and being authentic is an important characteristic in advertising to this group (Sanderson, 2010). Nine out of ten adults aged 18-34 say they trust the claims that advertisers make, while only 86% of 35-44 year olds do. A marketing message with an association that relates to the parents is valuable. Focusing on what they care about, want, and need is significant. The target group wants to define their brand experience (The Mth Degree, 2010). They want to personalize experiences to their preferences and like to be in control (Williams, 2011). Finding a reliable brand brings reassurance and establishes loyalty. Marketers need to make sure their products can deliver what it claims, whether that relates to quality or standards of operation.
They want things to be clean and simple, but something that is not overly trendy. Our target market wants something authentic.

There are specific ways to advertiser to parents in this target group.   Marketers have an easy opening when pushing a product that promises to bring happiness to a child's life. Parents feel responsible for their children's well being, and the most compelling strategies that companies use to reach parents are playing up the emotion of guilt (Art Institute, 2011). Parents are attracted when given the mindset that their kids deserve more (Art Institute, 2011). "Power moms" and "chief influencers" are important groups because these parents are inclined to share information with and make recommendations to other family and friends(Art Institute, 2011). Showing that advertisers care about them, their children, , and their world gains favor of this group.

Social Conditions & Causality

Due to technology, there has been a change in many different age groups and demographics. This change has been studied by observing and researching the social conditions and studying the proposed causalities. Research has been done to study the way that people interact face to face and how they form relationships, the positive and negative effects and uses of social media and technologically based communication, and the change in brain power and desire to strengthen the mind.

I.   **Increased Dependency**

Technological advancements have created a new standard for convenience and efficiency. The ability to communicate with people across the globe in seconds has become nearly an expectation for those using technology to its fullest potential. Nearly 74 percent of adults and 84 percent of teenagers are using modes of new technology, specifically image messaging, to stay in touch and create relationships with people (Hunt, 2014).

Not only has the communication gap been bridged on a personal level, but the gap has narrowed on a professional level as well, going as far as secure and convenient communication between doctors and patients outside of the office, during any hours of the day. (New Mobile)

Although the convenience and efficiency of social media and technological communications is a helpful advancement in many situations, studies have also shown various effects of these advancements, primarily the effects of constant use of devices and the effects on those who are being raised in the generation of technology.

Younger generations are being affected in a different and more integral way than older generations. The internet has become a common, everyday use object for younger generations, rather than just a tool for obtaining information. The effectiveness of the internet for obtaining information is undeniable and schools have quickly started to include technology in their learning and teaching processes (Glassman, 2014).Studies show that there is a growth in dependency on technology, specifically smart phones that is negatively effecting society. Research shows that 7 out of 10 people, ages 18-34, cannot go longer than an hour without feeling the need to check their phones. This is a learned, compulsive behavior that continues to be reinforced and create a stronger obsession (Men's Health, 2014). People become so accustomed to the use of the technology, that they learn to use it in all situations. They feel anxious when they are unable to utilize technology for different tasks. This leads to a decrease in creativity, concentration span, and originality of thought (Bala, 2014).

II.   A Social Presence

Social media specifically has created a new world, in a sense. In a professional and personal realm, people create what is called an online presence. This shows their personality, their accomplishments, their friendships and connections, their stories, and their life who whomever may come across it. Smartphones have created a new ability to interact with people, to share ideas, to reconnect, and to plans. In a sense, smartphones offer the ability to never be alone as they serve as a "megaphone to broader conversational audiences"(Kita, 2014).In fact, internet users spend more time on social media than on any other site (Bala, 2014).People are able to put their life on a pedestal. Rather than opening their entire lives up to the world connected through technology, people are able to show only what they choose to share. This opens up the ability to create false identities and intimacies. People become focused on how they are being seen to the world and portray themselves how they want to be seen, rather than who they truly are (Bala, 2014).

Younger generations specifically are affected by the public nature of social media. Everything they do is at risk of being judged by any number of sources (Clemmitt, 2013). The generations that have grown up with social media show a decrease in social risk taking and an avoidance of intimate and personal conversations in lieu of written communication, such as Facebook or texting (Clemmitt, 2013). They feel less need to connect with other people in face to face interactions because they have filled the need for intimacy with communicating through technology. Individuals are embedded in social networks in which they communicate with others in their daily lives (Higo, 2014).

III.   Relationships

The way that people interact with each other and build new relationships has changed greatly since before technology. In personal relationships, quick communication and social media are effective and useful, but also has a tendency towards miscommunication, confusion, and less satisfying conversation. Relationships have increased levels of anxiety as the abbreviated nature of texts often leads to misinterpreted interpretations. People tend to enjoy listening to other people less and fail to ask questions when they have

already seen an abbreviated version of the story on social media. This leads to less satisfaction and less intimacy in relationships, especially for partners who follow each other on social media (Kita, 2014).

Face to face interactions are diminishing because the desire to have these interactions is lower. People are even less likely to look at each other upon passing on the street, creating feelings of disconnect, even if eye-contact is made (Association for Psychological Science, 2012). People are more likely to communicate with their close friends and family in other places over their devices than to start a conversation with someone standing next to them (Bethune, 2014). This is called social withdraw and is characterized by the primacy of maintaining existing close relationships over developing new ones (Higo, 2014).

There is less need to personally interact with people who may be different and there is a mutual growing acceptance to avoid conversation with surrounding people. Technology allows for more independence and requires less interactions with strangers. For example, if a man were lost in a city, he could simply ask Siri, the voice activated search engine for the Apple iPhone, for directions, rather than ask someone standing next to him. It also affects the frequency with which one engages in conversation with strangers in public settings. The lack of social interaction in the public place encourages segregation of citizens along traditional lines of difference such as values, opinions, gender, race, ethnicity, and life stage.

> Information and Communications Technologies (ICT's) are changing the sociality of modern society and changing social quality. ITC's are relevant for understanding relationships with technology because of the way it considers agency as an element of "the social" in the interaction of individuals with their environment in creative ways to manage self-realization. Technology has become more accessible to the general public and so it is becoming a larger part of our social construct, and has also created some divisions within that construct (Wallace, 2012).

Overall, people lose the skill of personal interaction through substituting in person conversations with technological. This skill is essential for maintaining health, creating good habits in the ability to compromise, and the ability to communicate with those who may be different. People also have a decreased sense of community as the relationships with those living near to them may be weak or non-existent (Bethune, 2014).

IV.   Decreased Brain Power

In addition to a change in relationships and personal connections, studies have shown a change in the use of brain power for everyday tasks, and are specifically seen in the high-technology use generations. With smartphones and technology always quickly accessible and quick, the brain does not often register them as time spent, but as micro-accomplishments. Time spent is less acknowledged and people often experience "smartphone time warp", meaning the time goes by with little to no understanding of how it went so quickly (Kita, 2014). The internet and technology rewires the brain and can create symptoms of physical and mental withdrawal (This Is How, 2013).

In moderation, the internet and technology have proven to boost brain function, but for the most part, the reliance on it has led to inability to focus and shallow thinking (Carr, 2010). Studies throughout the United States have proven that citizens' ability to focus has decreased dramatically, from the ability to hold focus for 12 minutes 10 years ago to only 5 minutes today (Plumridge, 2013). A one second delay in page load time can result in 11% fewer page views, 16% decreased customer satisfaction and 7% lost conversions (Plumridge, 2013).The internet heavily encourages the use of multitasking, which decreases task-switching ability because of the reduced ability to filter out interference from the irrelevant task set (Ophir, 2009). In depth analysis is being diminished by instant access to computers and online platforms. "Digital technologies do more to distract students than to help them academically" (Plumridge, 2013). People are

being conditioned to interruptions: We want to be interrupted, because each interruption—email, tweet, instant message, RSS headline—brings us a valuable piece of information (Carr, 2010). This leads to lower productivity levels as every time we shift our attention, the brain has to reorient itself. Many studies have shown that switching between just two tasks can add substantially to our cognitive load, impeding our thinking, and increasing the likelihood that we will overlook or misinterpret important information (Carr, 2010).

People experience a decreased ability to learn. The constant flow of information combined with the interruptions and distractions lower our ability to process and retain information as well as translate new material into conceptual knowledge through drawing connections (Carr, 2010). Our ability to learn suffers and our understanding weakens.

Affected

Due to technology, there has been a change in many different age groups and demographics. This change has been studied by observing and researching the social conditions and studying the proposed causalities. Research has been done to study the way that people interact face to face and how they form relationships, the positive and negative effects and uses of social media and technologically based communication, and the change in brain power and desire to strengthen the mind.

I. PreK and Elementary: Ages (4-5)

What children experience at a young age can affect their development of social, communicative, and creative ability (McPake, 2014). Kids learn by observing the world around them. But the world they are experiencing now has not always been the norm. In recent years, according to several academic studies, children between the ages of 8-to-18 spend close to 7.5 hours on average using some type of technology (TV, iPhone, iPad, computer, etc). In the midst of their usage, they are actually soaking up closer to 11 hours worth of media (Jones, 2014). Joan Ganz Cooney Center did a recent study on children's media. According to their research, they found that in 2006, 90% of parents said that their children younger than 2 years old consumed some form of electronic media and by 2010, two-thirds of children between the ages 4-to-7 years old had used an iPhone (Rosin, 2013). Hanna Rosin, a writer for The Atlantic Magazine, wrote about her son:

> "To us (his parents I mean), American childhood has undergone a somewhat alarming transformation in a very short time. But to him, it has always been possible to do so many things with a swipe of a finger." (Rosin 2013)

Many parents worry about what kids are being exposed to on the internet but the worry should be, "What is all this connectivity doing to their brains?" They are beginning to form "digital lives" (McPake, 2013). This is a problem some researchers refer to as "continuous partial attention." If parents are constantly sticking digital media in front of their children as a form of distraction in order for them to be quiet while eating a meal or on a car ride, how do they benefit from that? A study done by Dalton Conley, a writer for Time Magazine and the Academic Search Elite, showed that people who use media regularly are more sensitive to distracting stimuli than light media users are. In other words, "constant distraction affects a child's ability to focus and absorb new information" (Conley, 2011).

This is not to say that technology cannot have a positive impact on kids today (Kalinsky, 1994). In fact, many studies have proven this to be true as well. Kids have ample opportunity to grow and to learn things about

this world that were not even possible several decades ago because of technology. They are able to communicate with people around the world with ease. They will be able to discover things in the future that we never dreamed possible. But their usage still needs to be monitored and used wisely. They still need "traditional" face-to-face interaction with family and friends in order to properly develop socially. As Rosin puts it:

> "Parents end up treating tablets like precision surgical instruments, gadgets that might perform miracles for their child's IQ and help him win some nifty robotics competition-- but only if they are used just so. Otherwise their child could end up one of those sad, pale creatures who can't make eye contact and has an avatar for a girlfriend." (Rosin, 2013)

II. Junior High: Ages 13-14

Adolescents spend most of their time online for "social interaction, communication and the development of intimacy (Fitton et al., 401). Boys tend to be more knowledgeable about internet technology research more online, and play more video games than girls. It has been suggested that "video gaming and watching television may act as a protective factor for boys, lowering anxiety (Fitton et al., 401). Girls use technology significantly more for communication than boys. (Fitton et al., 401).

Technology has been associated with many negatives. When the telephone was first introduced, "It was going to bring down our society. . . men would be calling women and making lascivious comments, and women would be so vulnerable, and we'd never have civilized conversation again" (Farber et al. 1126). Likewise, internet technology has been associated with cyberbullying, internet "addiction," lack of exercise, exposure to inappropriate content and violence, sleep disruption, vision problems, etc. (Fitton et al., 401). However, for the already socially isolated, the internet provides an outlet for communication, forging friendships and practicing social skills. A study stretching from the US to Northern Ireland focused on adolescents with multiple or severe disabilities. Via video-conferencing, students were able to interact with like students (O'Rourke, 10). For the most part, the students responded well, their conversations became easier over time, expanding their worldview, and they showed some confidence in this newfound social safe zone directly supervised by teachers and administrators (O'Rourke, 13).

Digital communication affords opportunities for adolescents to say things they wouldn't or couldn't say in person. In 2012, 43 % of teenagers reported using IMing to express something they wouldn't say in person (Farber et al., 1227). Face-to-face communication risks exposure: "Even if you do not want to share information, it may be written on your face and therefore visible, or in response to a direct question you may feel compelled to share information that you later regret. By comparison, technologies like cell phones allow young people to share certain pieces of information while otherwise staying hidden from view." (Farber et al., 1128). Adolescents were more likely to rate face-to-face communication and texting in regard to sharing too much information, rather than tweeting. However, adolescents were more likely to share private, intimate information of complex feelings and emotions face-to-face and with phone calls (Farber et al., 1227).

For others, the "distance, disembodiment, and, at times, anonymity afforded by technological communication can, for some people at least some of the time, provide a measure of safety and immediacy that may facilitate the frequency, breadth, and depth of interpersonal disclosures" (Farber et al., 1227.). Online relationships give the semblance of a real relationship, fulfilling an emotional need for the socially isolated.

Adolescents also seem to prefer communication via technology because it allows the ability to think prior to answering (Fitton et al., 407). Also, the results of a 2012 study concluded that "young people tend to keep their social interaction on sites like Facebook superficially positive. As a consequence, older children and adolescents often use social media sites to compare themselves to their seemingly successful peers. They

may focus on all the positive experiences and accomplishments others are posting, including how many 'likes' others are getting and, as a result, feel increasingly like outcasts or 'not good enough' " (Farber et al., 128-1129). The study continued: "In addition, adolescents and young adults may satisfy their need for frequent boosts to their self image by sharing status updates on their accomplishments, posting revealing pictures of their bodies, and otherwise expending a great deal of mental energy trying to convince themselves and others that "all is well." They feel uneasy and even disturbed by the incipient awareness that they are being rewarded with "likes" for keeping their true selves, including their pain, hidden and unheard. (Farber et al., 1228-1229).

The use of technology in adolescents' lives is so prevalent they often forget they are using it, "Adults, for instance, may assume there is a digital world and a real world, whereas for youth it is not some sort of alternative reality but an extension of their everyday lives." (Pascoe 78, 80). One participant stated: "I can't imagine my life without technology. Everything I use is technology" (Fitton et al., 406).

III.   High School: Ages 15-18

Technology and Teens
Positive effects of technology include its use within education, allowing students to connect for group projects and express themselves creatively through blogs and "remixing" content in artistic creations. Technology also provides social hangouts online, eliminating the dangers of being out late at night; users are able to share feelings and connect through texting. Cognitive benefits include increased visual spatial skills, such as visual tracking, mental rotation, and target localization. (Ives, 2012).

Negatively, technology hinders the brain's developing process, causing teens to make rash decisions. Users display attention deficit symptoms due to the overconsumption of information. Users feel tethered to their phones and are addicted to its excitement, hindering their face to face relationships. A narcissistic attitude can be seen through social media; emotional health and academic performance are damaged. Aggressive behavior manifests itself in cyber bullying and violence. Teen users are uneducated about the consequences of sexting, such as violations of child pornography laws and legal repercussions, and also violations of copyright laws. Overall, a general sense of etiquette has been loss, creating relationship gaps. Specific negative cognitive effects involves the over dominance of the left brain, which leads to loss of ability to feel empathy (Ives, 2012).

Best Practice Guidelines for Educators and Parents
Suggestions for parents and teachers for managing and regulating digital consumption included creating a media use agreement. Practice a two-way conversation to settle a written agreement that determines time limits and guidelines. Secondly, parents must bridge the gap and embrace their teen's world. Be responsible for knowing what children / teens are viewing. Communication is opened when parents express interest and enthusiasm towards technology. Educating teens is crucial to avoid conflicts and distress, this involves addressing discernment with postings and long term consequences. Emphasize the importance of taking breaks, reducing media time, and increasing time spent in nature. Parents are prime role models for children, set a good example by being moderate in own media consumption (Ives, 2012).

Waldorf High School in Seattle, strictly prohibits use of technology in school, mainly in elementary years. During middle school, technology is introduced and taught on how to properly use it. In high school students are encouraged to use technology, for they now have the discernment skills necessary. Interestingly, many students who attend are from parents within the companies: Amazon, Google, and Microsoft (Mosley, 2014).

Students have started using slang in the classroom. Ryan Lytie states, 'We're looking at some of these writing skills and what I'm noticing is [that] there is miscommunication due to the fact that their communication is so limited,' he says. 'The problem is the adults. We have to train adults to work with young people and hold them accountable' (Lytie, 2011)." Students may be unaware that they are using texting abbreviations in writing and emails. Teachers are aware of the problem and are upset yet "let it go" and do nothing about it. Teachers must be trained to work with young people to hold them accountable, and educate teen about the consequences of poor writing (college applications) (Lytie, 2011).

Practical Rules for Moderation
Author Janell Burley Hofmann, a consultant on technology, media, and personal growth has sensible regulations for how to moderate the use of technology. She writes, "Use this beautiful, powerful technology but be in tune with what's going on around you and, you know, stare out a window..." (Hofman, 2013).

"Like when you had too many cookies and you get a stomach ache, well, it might be time to back off. So it can - I think sometimes, we're so in it that it can literally make us not feel good. And I've had that experience, obviously, with this whole contract. I've been on my phone and using the technology quite a bit. And I can feel myself needing to detach a little bit from that" (Hofmann, 2013).

Hofman created rules for dealing with phones. Here are Hofman's 18 rules:

"1. It is my phone. I bought it. I pay for it. I am loaning it to you. Aren't I the greatest?

2. I will always know the password.

3. If it rings, answer it. It is a phone. Say hello, use your manners. Do not ever ignore a phone call if the screen reads "Mom" or "Dad". Not ever.

4. Hand the phone to one of your parents promptly at 7:30pm every school night & every weekend night at 9:00pm. It will be shut off for the night and turned on again at 7:30am. If you would not make a call to someone's land line, wherein their parents may answer first, then do not call or text. Listen to those instincts and respect other families like we would like to be respected.

5. It does not go to school with you. Have a conversation with the people you text in person. It's a life skill. *Half days, field trips and after school activities will require special consideration.

6. If it falls into the toilet, smashes on the ground, or vanishes into thin air, you are responsible for the replacement costs or repairs. Mow a lawn, babysit, stash some birthday money. It will happen, you should be prepared.

7. Do not use this technology to lie, fool, or deceive another human being. Do not involve yourself in conversations that are hurtful to others. Be a good friend first or stay the hell out of the crossfire.

8. Do not text, email, or say anything through this device you would not say in person.

9. Do not text, email, or say anything to someone that you would not say out loud with their parents in the room. Censor yourself.

10. No porn. Search the web for information you would openly share with me. If you have a question about anything, ask a person – preferably me or your father.

11. Turn it off, silence it, put it away in public. Especially in a restaurant, at the movies, or while speaking with another human being. You are not a rude person; do not allow the iPhone to change that.

12. Do not send or receive pictures of your private parts or anyone else's private parts. Don't laugh. Someday you will be tempted to do this despite your high intelligence. It is risky and could ruin your teenage/college/adult life. It is always a bad idea. Cyberspace is vast and more powerful than you. And it is hard to make anything of this magnitude disappear – including a bad reputation.

13. Don't take a zillion pictures and videos. There is no need to document everything. Live your experiences. They will be stored in your memory for eternity.

14. Leave your phone home sometimes and feel safe and secure in that decision. It is not alive or an extension of you. Learn to live without it. Be bigger and more powerful than FOMO – fear of missing out.

15. Download music that is new or classic or different than the millions of your peers that listen to the same exact stuff. Your generation has access to music like never before in history. Take advantage of that gift. Expand your horizons.

16. Play a game with words or puzzles or brain teasers every now and then.

17. Keep your eyes up. See the world happening around you. Stare out a window. Listen to the birds. Take a walk. Talk to a stranger. Wonder without googling.

18. You will mess up. I will take away your phone. We will sit down and talk about it. We will start over again. You & I, we are always learning. I am on your team. We are in this together.It is my hope that you can agree to these terms. Most of the lessons listed here do not just apply to the iPhone, but to life. You are growing up in a fast and ever changing world. It is exciting and enticing. Keep it simple every chance you get. Trust your powerful mind and giant heart above any machine. I love you. I hope you enjoy your awesome new iPhone. Merry Christmas!" (Hofmann, 2013).

Teens' Rules for Communication
Young people grasp the rules of communication - when / when not to use certain technology for each situation. When communication is serious, teens (67%) would not break up with someone; (42%) would not argue with a friend over phones, email, instant messaging, texts, or social networking; they will use cell phones or a landline (studies of 13-18). Teens shy away from discussing personal info using phones, email, instant or texts; prefer instant messaging.Cell phones are number one choice for arranging to meet with friends, having quick conversations, contacting a friend when bored and inviting people to a party.Social networking are the choice when staying in touch with friends, leaving short messages and contacting a friend out of town. If teens want to feel more outgoing and have more time to think about what they have to say, they are more likely to use instant messaging to communicate over cell phones, text messaging or social networking websites (PR Newswire, 2007).

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Primary Research

Field Agent Survey Summary
Graphic Design 3
John Brown University

Creators: Alyssa Schoenwald, Kate Purdy, Jon Skinner, Ashley Kunze, Victoria Bakker, Lauren McLeester, Sarah Ridings, and Casey O'Brian

Abstract: This survey was created to gain formative information on our target group-those aged between eighteen and forty years old.

Contents

Profile

The following is a general profile of a person taking the Field Agent social development survey. The profile is fictional, but was created taking into considering the answers of fifty respondents aged 18-40 years old and with at least one child. The superscript numbers refer to the question on the survey the information was taken from.

I am 33-year-old woman with children. The people in my local community mean a great deal to me because they are close by and I see them often[6]. I prefer to talk to people face-to-face rather than emailing, texting, or calling on the phone. This way I can read the other person's body language, and it is easier to understand[15]. I believe I am somewhat good at face-to-face interaction and I can adequately communicate what I want to say[21]. I also like to text and I'm efficient on that front as well[22].

I would rather communicate to strangers online than in person[1]. The most uncomfortable thing about talking to a stranger is the fear of how I might look. I might embarrass myself, and then what will they think of me[3]? My greatest social fear in life is not meeting expectations[5].

When I am faced with an awkward situation, I try to engage the situation. I smile and attempt to find common ground[2]. However, to avoid these situation all together, I may take out my phone[4]. When I am waiting or trying to waste time, even when there are people around, I will often check social media. I most likely won't start up a conversation with someone next to me[8].

I have a smartphone I mainly use to get information and maintain my relationships[17]. I use my phone to email, surf social media, take pictures, call family, text friends, shop, and more[31]. Generally, I would contend that smart phones cause me to be more socially connected[25]. Sometimes I feel pressure from my community to utilize all the technology available to me[26].

When I'm in a social atmosphere, like at a restaurant, I feel like people are on their phones too much. I'm usually fine with it but sometimes it bothers me[19]. In addition, when I'm hanging out with my friend or significant other, it really bothers me when that they are constantly checking their phone[24]. When I'm hanging out with my friends I only use my phone a little[11]. I think that people use their phones too much because they are conditioned to need to be entertained[28]. We, as a society, are too reliant on digital technology[27]. It's a problem that will get worse and there is no solution to it. We are a society that is addicted to immediacy and ease[29].

In relation to technology use at home, I spend more time on my technology devices than my child[30]. I don't limit my time on technology, but I do limit my child's time[31]. I occasionally take time to unplug from my devices. This is important and has a positive impact on me[32]. My children are the main influences in my parenting choices[34].

Question Summary

Survey Objective and Design
Our Graphic Design III class partnered with research firm, Field Agent, to explore the attitudes and beliefs the eighteen to forty year old age group has about social connectedness. We did this by creating a variety of questions designed in a way that guides the participant through thinking about the importance of healthy social development. Some questions were open-ended while others provided options for the participant to choose a variety of answers. There even was a question where the participant was asked to submit a fifteen to ninety second video. Each question was designed for a purpose and was worded with caution and intentionality.

Field Agent's research forum centers on the relatively modern idea of crowdsourcing data through mobile devices. Each participant downloads Field Agent's app and is paid for completing tasks such as our survey. Field agent then meticulously checks each submission for assurance of accuracy. More information about Field Agent and their research methods can be found at http://www.fieldagent.net.

The following results are from our survey on Field Agent's app, active from November 3, 2014 to November 10, 2014. There were fifty respondents in all. Thirty-five respondents were female while fifteen were male. All respondents were in the 18-40 age range and had at least one child. Four percent of respondents were from the 18-24 age range, 26% were from the 25-30 age range, and seventy percent of respondents were from the 31-40 age range. The map below shows the location of the fifty respondents.

Question Breakdown

1. How do you feel most comfortable communicating with a stranger?
　　a. Online 66%
　　b. In-person 34%

Sixty-six percent of respondents said they feel more comfortable communicating online with a stranger rather than in-person.

2. When you find yourself in an uncomfortable situation, what do you typically do to avoid awkwardness?

Since surveyors could respond in a variety of ways, answers were creative. Eighty percent of respondents named tendencies that engaged the situation such as smiling, mentioning the awkwardness, using humor, finding common ground, or talking a lot. Thirty-four percent of respondents mentioned tendencies that disengage themselves such as looking at ones phone, making excuses to leave, or avoiding eye contact.

3. What makes you the most uncomfortable when talking to a stranger?
　　a. What they will think of me 28%
　　b. Embarrassing myself 34%
　　c. Physical harm 6%
　　d. I never feel uncomfortable talking to strangers 24%
　　e. Other _____   8%

There was not an overwhelming majority on this question. Thirty-four percent said the most uncomfortable thing about talking to a stranger is the fear of embarrassment. Twenty-eight percent responded they fear what the stranger will think of them. Twenty-three out of 35 females responded to these two options. That is significant because it shows that 66% of females fear social interactions with strangers because of how it might make them look. Twenty-four percent said they never feel uncomfortable talking to strangers, eight percent cited other reasons, and six percent said they were fearful of physical harm. Those that answered "other" mentioned questioning motives, lack of conversation, awkward silence, and fear of the unknown for reasons of discomfort.

4. Which methods of avoiding eye contact/awkward situations have you used in the last month? Check all that apply.

　　a. Sunglasses
　　b. Looking at the floor
　　c. Faking being asleep
　　d. Eating something
　　e. Looking intently at your phone
　　f. Reading a book
　　g. Walking with intentionality
　　h. Frequent watch glances
　　I. Walking random places
　　j. Gazing past people
　　k. Talking with anyone I am somewhat acquainted with
　　l. Other _____

In this question, each participant could choose however many answers they wanted. One piece of information that was interesting is that just about 75% of respondents have used their phone as tools to avoid unwanted situations in the last month. Forty percent has used talking with anyone they are someone acquainted with to avoid awkward situations, 30% gazed just past people, and 28% either walked with intentionality or looked at the floor. Other participants mentioned they use earbuds or tending to children as a method of avoiding awkwardness.

5. What is your greatest social fear in life?
        a. I will be left alone 14%
        b. I will be embarrassed 22%
        c. People will judge me 20%
        d. I will not meet expectations 44%
        e. Other _____

Twenty-two out of fifty respondents said that their biggest social fear is that they will not meet expectations. That is a very significant amount of people. Eleven out of fifty replied that they are afraid they will be embarrassed, ten said that they will be judged, and seven were scared that they will be left alone.

6. With whom is it more important to maintain a daily connection? Why?
        a. People in my local community 66%
        b. People similar to me who live in other communities 34%

Sixty-six percent replied that they think it is most important to maintain connection with those in their local community. They stated reasons such as interaction frequency, security, and familiarity. Thirty-four percent replied that it is more important to maintain connections with those similar to them living in other communities. They referred to reasons such as people in other communities are easier to relate to, they are more honest, the interaction is more effortless, and they feel encouraged upon contact.

7. In a general social setting, how important is it to make conversation with strangers?

Forty-four percent replied neutrally with a three. Twenty-four percent responded with a four, six percent with a one, and four percent with a five.

8. List in order the activities you are most likely to do when waiting alone (in line, at the doctor's office, at a restaurant,etc.). Place a number on the line by the activity.

__ Talk to the person sitting next to you
__ Check social media
__ Read news articles
__ Text someone
__ Check your schedule/to do list
__ other _____

Sixteen out of fifty people (32%) said that the first thing they are likely to do when waiting alone is to check social media. This was followed closely by thirteen people who would rather text someone. Thirty-

four percent of the respondents said that they are least likely to talk to a stranger waiting with them. Other things people do while waiting is play games, surf the web, read, watch television, stare at something, watch youtube, shop online, eat or drink something, people watch, listen to music, think about positive things, talk to the staff, or pay bills.

9. How often do you use your phone playing games, checking emails, texting, or surfing social media in (use answer options for questions 10-14):

None	A little	A lot	Always	N/A
O	O	O	O	O

10. church?
A little: 12%
A lot: 2%
Always: 6%
None: 46%
Not Applicable: 34%

11. hanging out with friends?
A little: 58%
A lot: 24%
Always: 12%
None: 6%

12. school/work?
A little: 36%
A lot: 34%
Always: 12%
None: 6%
Not Applicable: 12%

13. in the car?
A little: 36%
A lot: 36%
Always: 12%
None: 16%

14. a sit down dinner?
A little: 46%
A lot: 18%
Always: 2%
None: 32%
Not Applicable: 2%

No results in the last five questions surprised me. In all but one questions, respondents answered with a safe "a little". This brings into question if participants really realize how much they do use their phones.

15. List in order the mode of communication you feel most comfortable using? Place a number on the line by the mode of communication.
__ In-person conversation
__ Phone conversation

__ Written communication
__ Texting/Messaging Apps (ie WhatsApp)
__ Picture Messaging (ie Snapchat)
__ Video Messaging (ie Skype or FaceTime)
__ Social Media post (ie Facebook Post)

Twenty-two out of the fifty participants said that they feel the most comfortable speaking in-person to someone. Twelve said that they are most comfortable with texting or messaging apps, six with written word, and five with a social media post or a phone conversation.

Those that said they would rather speak to someone in person said they prefered this method because of the following reasons: you can read expression, tone, and body language; it is more personal; it is easier to understand; you can get immediate feedback; you can convey feelings easier; it is faster; you can try to understand the other person on a level beyond what they say; it is natural; and there is less chance for miscommunication.

Those that would rather technological interaction such as phone, social media, or texting relied with the following reasons: you can have a record of the communication, you can multitask, it is quick, you can communicate to a group easier, there is no eye contact, you can control the environment, it is not as demanding, it is simple, it is easier to disconnect, there is less pressure, and you have almost constant access to a lot of people.

16. When you're walking somewhere, how much do you use your phone?
      a. I use it the whole time, except to occasionally check to make sure I don't run into something. 18%
      b. I use it the whole time, but I look up when a person passes by. 20%
      c. I don't get it out unless it vibrates or rings; then I check it, and then keeping using it until I have to look up. 32%
      d. I don't get it out unless it vibrates or rings; then I check it, then put it away. 30%

This question was created to measure mobile usage in a time-wasting or casual setting. To do this, we created the above scenario. Most participants responded with c. "I don't get it out unless it vibrates or rings; then I check it, and then keeping using it until I have to look up" (32%) or d. "I don't get it out unless it vibrates; then I check it, then put it away" (30%). Twenty percent replied that they use it the "whole time, except to occasionally check to make sure I don't run into something" and 18% use their phone the "whole time, but look up when a person passes."

17. What do you primarily use your phone to do?
      a. Coordinate daily activities 28%
      b. Maintain personal relationships 30%
      c. Get information 42%

Just about 75% of the 31-40 year olds used their phone to either get information or to maintain relationships. Only 20% of the male respondents said they use their phones to coordinate daily activities. This information was not surprising. Generally speaking, there is a close amount of people primarily using their phones to do each of the following: coordinating daily activities (14/50), maintaining personal relationships (15/50), getting information (21/50). It was expected that the primary use of the phone would be to maintain relationships. It was surprising to see that using the phone to get information was the primary use.

18. Scenario: You are walking down a sidewalk on your way to a meeting. You pull your phone out to check an email confirming the place of the meeting. Do you…
        a. Check the time, then close email when you have gotten the information you need? 42%
        b. Check the time, then delete some emails, and then put your phone away and continue walking? 26%
        c. Check the time, then continue checking your emails, then open up social media all the way to your meeting? 32%

This question was created to get an idea of how much technology can "suck a user in" after they are already engaged in the device. If a participant answered with a, that means they use their phones for the bare essentials in certain occasions. Forty-two percent answered accordingly. If one answered with b, this means they get distracted a small amount. Twenty-six percent answered this way. Lastly, if a respondent chose c. this means they sometimes have a hard time putting the phone down once they are engaged. Thirty-two percent answered c. I was surprised to see that so many (21) people thought that they would put the phone away after they received the required information.

19. When you are in a restaurant do you feel like people are on their phones...
        a. Too much, it's distracting 34%
        b. Too much, but it doesn't bother me 38%
        c. I don't notice 16%
        d. I am also on my phone 12%
        e. Other _____

Answers were basically a split on this question. Nineteen out of fifty respondents said that people are on their phones too much in restaurants, but it does not bother them, and seventeen said that people are on their phones too much and it is distracting. This means that 72% of respondents think that people are on their phones too much in restaurants. Eight people do not notice and six are also on their phones. This question was in a scenario format, yet its purpose was to reflect people's attitude toward mobile overuse in general.

20. On questions 21 through 26, please indicate how much you agree or disagree with the following statements.

Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree
○	○	○	○

21. When speaking face-to-face to someone I don't know well, I find myself having a hard time communicating what I want to say.

Seventy-eight percent of respondents disagreed with this statement (44% somewhat and 34% strongly so). Eighteen percent somewhat agree and four percent strongly agree. It seems a majority of people believe they communicate face-to-face very well.

22. When texting a friend, they often get confused at what I am trying to say.

Eighty-four percent disagree with this statement (56% strongly and 28% somewhat). Those that agreed somewhat was fourteen percent and strongly agree was two percent. This question result was surprising. The face-to-face was as expected but typically people believe that it is easier to have miscommunication

with texting. Eighty-four percent of people do not see themselves as a strongly or a somewhat inefficient texter.

23. It's easier for me to communicate important information through email or text rather than in-person.

Now this result was interesting. There was a tie with somewhat agree and somewhat disagree at 36% There is a split between those that somewhat think they communicate easier in person and those that find technology communication easier. Then there was a second tie. The strongly agree and strongly disagree were both at fourteen percent.

24. It bothers me when my friend/significant other is constantly checking their phone while spending time together.

This question was tightly tied with question nineteen. They were stated differently but were to measure the same thing– respondents attitude on mobile overuse. In question nineteen, 38% of respondents said that people are on their phones too much but it does not bother them. Likewise, 34% said that people are on their phones too much, but it is distracting. The results to question 24 urges us to understand that perhaps people have varying degrees of annoyance, some not large enough for action. Forty-eight percent said that they strongly agree and 32% somewhat agree. This is significant. Eighty percent of respondents are annoyed to some degree when people they are with spend a lot of time on their phone. There then should be continued research on how much is "constantly checking their phone". Is there an annoyance slope that corresponds with how often one checks their phone?

25. Smartphones, as a whole, cause me to be less socially connected.

The results for this question were interesting as well. Thirty-four percent said they somewhat think smartphones socially disconnect them. Thirty percent strongly disagree with the statement. They believe that their phones help them to socially connect. Twenty-four somewhat disagree and twelve percent strongly agree. In summary, 54% of respondents disagree to any degree and 46% agree to any degree.

26. I feel like my family/friends/work always expects me to be actively utilizing the technology available.

There was no strong answer on this question either. Forty percent of participants said they do somewhat feel this pressure. Thirty-six somewhat disagree, 16% strongly agree, and eight percent strongly disagree. This would be 56% that agrees to some extent and 44% that disagree to some extent.

27. How do you feel about society's reliance on digital technology?
        a. Overly reliant 62%
        b. Somewhat reliant 34%
        c. Not reliant 2%
        d. I never thought about it
        e. Does not concern me 2%

An overwhelming majority of participants (96%) responded that society is reliant on digital technology. Thirty-one out of fifty said that society is overly reliant, seventeen said that society is somewhat reliant, one said that it did not concern her, and one man said that society is not reliant on digital technology.

28. Why do you believe people need to continually use their smart phones?
        a. Fear of social interaction 12%

b. Boredom/need for entertainment 56%
c. Busyness 6%
d. Desire for connectedness 20%
e. Other _____ 6%

Fifty-six percent of respondents said that society uses smartphones excessively because they are bored and need to be entertained. Twenty said it was because there is an overwhelming desire to be connected. Twelve percent credit over-dependence of fear of social interaction. Six percent said it was due to business. Those that choose other said it was out of laziness, habit, or dependency.

29. Describe your thought on the heavy use of digital technology in America? Do you think it's a problem? Do you think there is a realistic solution to this problem?
Additional Instructions:Please take this video of yourself. Don't forget to turn on your camera and that it is facing you. You have 60 seconds

Most agreed that is was a problem, that there is no solution, and it will only get worse. Our culture relies heavily on technology, and consequently there is no learning, due to desiring the easy, quick answer. Many mentioned children being obsessed with technology, and therefore displaying a lack of manners and social interactions. More specific information on each video can be found by following this link: https://docs.google.com/document/d/1SjRTgi01npHpDZ_H47CNQqB2bixLOPbPAUqh6PKmgzA/edit?usp=sharing

30. Who spends more time using technology?
a. Me 82%
b. My child 18%

It was surprising to see that 82% of respondents said that they use more technology than their child. Eighteen percent said their child spends more time on technology. As respondents' age increased, so did the number of people that amited their child spent more time on technology. This indicates that as their children grow up, they use more and more of their time on technology. It could also indicate that those in the 31-40 year old age group generally spend less time on technology.

31. Describe your everyday use and that of your child/children.

When asked about the technology usage of the parent, no one replied with a time limit. It seems they just use it all the time or when needed. They would most all respond with what they use their technology to do: check blogs, read emails, surf social media, watch entertainment, find recipes, take pictures, read books or magazines, check sports scores, call family, pay bills, search for a job, text friends, get coupons, help with navigation, tasks for their occupation, shopping, and more. One participant did mention she is more aware of how long she is on her phone in front of her children. One used her phone more after her children were in bed.

Many parents noted that their child uses a computer or ipad at school. Some parents outlined different limits on technology usage for their children. They ranged from none at home to two hours a day, only for educational purposes, thirty minutes at night, games once a week, cartoons, only certain apps, for homework, to no limits whatsoever. A few parents said that they use technology or the restriction of technology as a punishment or a reward for their child.

32. Do you ever take time to unplug?
      a. yes 78%
      b. no 22%
      ***if no, skip to question # 34**

Thirty-nine out of fifty said they do unplug, while ten said they do not.

33. What is your experience in "unplugging" and how often do you do this?

Many said that they would like to unplug more. However, everyone who purposefully took time to disconnect, sees it as a positive experience. Everyone had their own idea of what is means to unplug and how they go about it. Here are some of their ideas about how or when to disconnect:

Some unplug every weekend, when their with friends, on a walk, at night, after work, when making dinner, when reading, at the gym, or during a vacation. Some unplug once a day (at dinner for example), week (every Saturday), month (hiking trips) or even once a year ("Freedom February" where the phone is only used for necessity). Some take breaks from Facebook or occasionally delete time consuming games on their phone. Some turn their phones on vibrate, completely off, or put them in another room.

34. Who is your biggest influence when it comes to making a parental change?
      a. A friend or peer 18%
      b. An older family member or relative 24%
      c. A spiritual mentor or pastor 6%
      d. A famous sports star or actor/actress 2%
      e. My kids 42%
      f. Other _____ 8%

Forty- two percent of parents named their kids as the biggest influence in a parental change. Twenty-four said a relative was the biggest influence. Eighteen percent named a friend or peer, six percent said a spiritual mentor or pastor, and two percent said an actor (Dr. Phil). Those that chose "other" named influencers such as spouse, experience, or self-assessment.

*Detailed responded for each question can be found at https://docs.google.com/spreadsheets/d/10jbaxErjVjUchwRkhRIlAmGxbEMM3Nzg0o3QhCbhQ0I/edit?usp=sharing

Observational Group Summary
Graphic Design 3
John Brown University

Moderators: Alyssa Schoenwald, Casey O'Brian, Jon Skinner, Lauren McLeester, Ashley, Sarah Ridings, Kate Purdy

Abstract: This observational group was intended to measure technology's effect on social interaction. We presented a group of participants with activities designed to test technology's effect on productivity and multi-tasking.

Contents

Observation Group Summary

I.   Preliminary Information

In order to gather relevant primary information, our group organized an observational focus group. We wanted to speak with our potential clients and observe their social development in relation to a variety of situations. To begin, we compiled a list of potential participants. We decided that we wanted to talk directly to our target group, men and women aged 18-40 in a Christian middle class environment. Those that showed interest were then emailed a variety of questions including ethnicity, marital status, number of kids, job, phone type, social media platforms, daily social media use, and preferred method of contact. These were the following participants and their information:

	Participant	Gender	Age	Ethnicity	Marital Status	Number of Children	Occupation	Type of Phone	Social Media Platforms Usage	Daily Social Media Usage	Preferred Method of Contact
1	Emily Burney	Female	26	White/Caucasian	Married	0	Resident Director/ Grad Student	iPhone	Facebook, Twitter, and Instagram	Facebook	Email
2	Juan Rodriguez	Male	30	Hispanic/Latino	Married	0	Resident Director/ Grad Student	Motorola Moto G	Facebook, Whatsapp, and Facetime	Facebook and Whatsapp	Email
3	Shannon Kretzer	Female	18	White/Caucasian	Single	0	Student	iPhone	Facebook and Instagram	Facebook and Instagram	No Answer
4	Jessica Wei	Female	26	Asian	Single	0	Student	iPhone	Facebook, Twitter, Instagram, Pinterest, Tumblr, Swarm/Foursquare, Google+, LinkedIn, Vine, Snapchat, and Tinder	Facebook, Twitter, Instagram, Pinterest, Tumblr, Swarm/Foursquare, and Snapchat	Phone
5	Jason Lanker	Male	40	White/Caucasian	Married	3 (aged 2, 11, 14)	Professor	iPhone	Facebook	none	Phone
6	Heather Lanker	Female	38	White/Caucasian	Married	3 (aged 2, 11, 14)	Clothing Designer/ Business Owner	iPhone	Facebook, Twitter, and Pinterest	Facebook, Twitter, and Pinterest	Phone
7	Hannah Salters	Female	22	White/Caucasian	Single	0	Student	iPhone	Facebook, Twitter, and Instagram	Facebook and Instagram	Phone
8	Stephen LaGue	Male	20	White/Caucasian	Single	0	Student	Phone with a slider keypad and a non touch screen	Facebook and Twitter	none	Phone
9	Tim Melcher	Male	24	White/Caucasian	Married	0	Hospital lab tech, Army reserves Healthcare Spc, Student	iPhone	Facebook	Facebook	No Answer
10	Danyele Williams	Female	21	African American and White/Caucasian	Single	0	Student	iPhone	Facebook, Instagram, Pinterest, Snapchat, and Yick Yack	Facebook	No Answer

II.   **Introduction**

Participants were asked to arrive at 7:30pm on October 30, 2014 at the Windgate Visual Arts West building at John Brown University. Upon arrival, the participants were told that they were being monitored via camera and audio. They then signed a [consent form](#) notarizing their acceptance of our documentation. Alyssa Schoenwald opened the session by welcoming the participants and explaining the agenda and purpose of the event. We then went around the room and had the participants introduce themselves and answer an ice-breaker question.

III.   **Interruption**

To begin our study, we staged an interruption to observe participants' reactions both individually and corporately. Alyssa was pulled out of the room by Casey O'Brien requesting her assistance. All moderators then convened in the hallway for seven minutes. We did this to observe how participants handled a potentially awkward situation and what they did with their time while they were forced to wait.

Observations during Interruption:

When the interruption began, participants were all sitting at one table, except for one. Most participants were engaged verbally with one another. The participants that were previously acquainted held conversation first; those that were not listened and joined in shortly. After a few minutes, the female participant at the other table was invited to join the rest of the group. She was fidgety and looked uncomfortable until this invitation and there was an obvious change in attitude. Another participant got up for food and drink twice. Only one was engaged with her phone; she even answered a phone call. We were surprised by the level of ease that participants exhibited through a potentially awkward situation, as well as their limited use of mobile devices.

After the set amount of waiting time, all moderators entered the room and we passed out a [survey](#) asking about their experience. The questions inquired their reactions and thoughts to the wait. The survey also included a question on mobile usage in order for us to divide the group into high and low mobile usage. This information was used for a future activity. Surveys were then collected and analyzed. The results were as follows:

Note: (Two participants walked in late and did not answer the first three questions)
There were eight responses.

1.   *What was your first thought when we told you that you had to wait? Why?*
Two participants were curious as to what the interruption was for, three did not think much of the interruption, and three were slightly disappointed by the disorganization.

2.   *What specifically did you do for the past few minutes to occupy yourself? Why?*
Most participants talked with other group members; and two noted that they listened before engaging in conversation. Two people used their phones to communicate via texting or email, and one of them closed her applications out of habit. Others did a variety of activities to pass the time such as reading the consent form slowly, and eating the food provided.

3.   *What were you thinking while you were waiting? Were you uncomfortable waiting? Why?*
The responses reflected answers noted in question one. Six of the eight participants said that they were comfortable, and responded positively. They understood that stressful situations happen and warrant flexibility. Several noted they were comfortable because of the community aspect of the situation. The two participants that were uncomfortable responded negatively because of feelings of isolation.

The final question was intended to measure phone usage for an upcoming activity. This activity would separate the group into two categories: high and low mobile users. All participants answered this question.

On average, how often do you use your phone?
   a) It's always in my hand
   b) It's always on me, and I check it every few minutes all day long
   c) It's always on or near me, and I check it every few minutes at work, and not as often at home
   d) It's almost always near me; I check it frequently when I'm not busy, but sometimes neglect it for 2-3 hours at a time when I am busy
   e) I usually check it every 2-3 hours, no matter what I am doing
   f) I only check it a few times a day
   g) Other

One participant chose b, and was considered the highest mobile user. Six participants chose d and because of this high response we separated the respondents in half, with three going to the low mobile usage group and three to the high usage group. Three participants dictated their own usage category by choosing g (other). Two were sent to the high usage group, and one was sent to the low usage group.

III.   Activities

Activity 1: Advertising Test: Campaign Reactions

Our first set activity was a marketing campaign reaction inquiry and discussion. The participants were shown three different advertisements representing three different marketing approaches. The [first](#) was a cancer research advertisement involving humor and a celebrity (Steve Carrell). The [second](#) utilized the tactic of fear in a texting and driving campaign. The [third](#) campaign utilized a compassion/empathy approach in raising awareness about lack of clean water. The goal of this activity was to gain insight into what marketing tactic is powerful enough to elicit change.

Observations:
Overall, the participants were drawn to the messages that were relatable to them. The texting and driving advertisement resonated with the group because they either do it or know people who do. One of the participants who is a parent saw the campaign and thought of the safety of her children, which made it more impactful. Seeing the consequences of texting and driving makes people want to change their habits. It also is something that they can personally change with some amount of ease. They also liked the fact that the water campaign gave them an explicit picture of the problem.

Participants responses:
Participant 1: Water Campaign: She was able to see the problems clearly and it made her want to help the need. Participant 2: Texting/Driving Campaign: Responded strongly because the issue was closer and personal to him.
Participant 3: Texting/Driving Campaign: Thought about her kids and their safety.
Participant 4: Texting/Driving Campaign: It is something that she could change with her driving to school everyday.
Participant 5: Texting/Driving: Changing this habit is something she can do. Also responded to Water Campaign: Even though she doesn't have money, she thought, *"Where can I find money to help?"*

From this activity, we gathered that campaigns that struck a personal chord were more likely to elicit a reaction, thus induce change. Further research should be done on specifics of tactfully reaching the 18-40 age group in relation to the presentation of the material in the product.

Activity 2: Group Productivity Test: Crossword Puzzle
High Mobile Usage vs Low Mobile Usage

The second activity was a group productivity observation. This finding by Nicholas Carr inspired the idea for the first activity. He states, "Our online habits continue to reverberate in the workings of our brain cells even when we're not at a computer. We're exercising the neural circuits devoted to skimming and multitasking while ignoring those used for reading and thinking deeply" (Carr 2010). The exercise was created to view if or how much high mobile use over time affects productivity. Based on the previous survey, the group was separated into high and low mobile usage groups. The lower use group was taken upstairs to another classroom being monitored by video. We then proceeded to present both groups with a crossword puzzle to solve. They were instructed to work together and allowed to use whatever means necessary for their answers. The groups were given five minutes to complete as much as of the puzzle as possible. Crossword results can be found here:
https://drive.google.com/file/d/0B1wxUS2rho4yWDVYN3JJWFFXcmc/view?usp=sharing.

High Mobile Usage Group Observation Summary

The high mobile usage group started out all working together on the puzzle, with one participant taking the lead. Within a few minutes, another participant pulled out an iPhone to Google one of the answers. One by one, all participants ended up pulling out their phones, and the group's productivity and engagement seemed to decline. The 'leader' looked to the group for assistance, but they were all are on their phones, some checking other applications such as Facebook and email. The attitude of the group as a whole shifted from the beginning, and there was a decline in encouragement and teamwork. This group did not finish the puzzle.

Low Mobile Usage Group Observation Summary

The low mobile use group was moved to an upstairs classroom. One participant lead the activity, which was interesting considering she was the least engaged when they were all left in a room at the beginning. Maybe she felt that once given a task and something to do she could engage others. Once the puzzle was completed, we noted a lack of eye contact alluding to feelings of awkwardness. There was no technology used throughout the puzzle or after the puzzle was finished. All the answers were correct and the group finished the puzzle within the determined five minutes.

From this activity, we learned that high mobile usage may not have a strong connection to productivity. Also, the use of mobile devices not only slowed the group down, but also decreased interaction and quality of attitudes and work.

Activity 3: Individual Distraction Test: Math Word Problems
Distracted vs. Undistracted

The third activity began with a mixing of the separate participant groups because mobile usage was not pertinent to the results. They were then separated into two different classrooms. The upstairs class was

instructed to individually complete five eighth-grade level math story problems. They were given a maximum time allowance of ten minutes. The downstairs class was given the same instructions. However, the downstairs classroom had a large television was screening the first ten minutes of the movie Spiderman. This activity was made to test the hypothesis that increased distractions hinder quality and productivity.

Distracted Group Observations Summary

There was an obvious sense of frustration across the board with the distracted group. They began the word problems very focused, but it seemed that as the noise and action of the movie escalated, focus became harder. Some of the participants would look up during times that the movie would be louder, or when the facilitators would laugh or draw attention to what was happening. One participant also pulled out his phone before he finished the problems, adding to the distraction and his productivity. They all finished within the allotted ten minutes. The group then discussed their feelings about the activity. One noted the difficulty he had with dividing his brain between the two activities. The one that brought out his phone during the activity thought that having the movie on was fine. He claimed that he was able to tune it out. Interestingly enough, this participant also finished last. The whole group concluded that it was more difficult to work on math word problems than having formulas or just numbers. Comprehension was difficult with distractions.

Undistracted Group Observations Summary

Almost everyone flipped their sheet over after completing the problems. Once they had finished and had nothing to do, they turned their papers back over to double check their answers. This action may have been due to a desire to stay busy in order to avoid awkwardness. They may have also felt a lack of confidence in their work.

The results from the activity are as follows:

The average times for both groups to complete the math problems were only within about 9 seconds of each other. The average time for the upstairs group (the group doing the problems in silence) was 5.76 minutes. The average time for the downstairs group (the group with the movie) was only slightly longer with 5.91 minutes. We were surprised by the fact that the downstairs group answered more questions correctly due to the distraction. The downstairs group answered nineteen questions right, while the upstairs group only answered thirteen questions correctly. This may indicate that auto and visual distractions are not as strongly tied to lack of productivity as expected. In fact, the opposite may need to be explored.

Activity 4: Group Multitasking Test: Fable & Cards
Sequential vs. Multitasking

Groups were then mixed once more for the final session. This activity sought to measure how multitasking affects productivity as displayed in quality and quantity. The choice in activity was inspired by a finding we continually came across in our secondary research. Nicholas Carr explains the phenomenon.

> "Every time we shift our attention, the brain has to reorient itself, further taxing our mental resources. Many studies have shown that switching between just two tasks can add substantially to our cognitive load, impeding our thinking and increasing the likelihood that we'll overlook or misinterpret important information" (Carr, 2010).

We set to measure productivity in the midst of multitasking by dictating two tasks for both groups to complete. These included reading a fable out loud and sorting a deck of cards by suit. After the fable, the participants were asked to write a short moral of the story on a sticky note. However, the upstairs group had one additional instruction: they were told they must switch activities at set intervals called out by the moderator. The intervals were in ten, fifteen, and twenty seconds.

Sequential Group Observation Summary

The sequential group began with the fable, each taking turns reading a line of it. At first it was a struggle to find their spot when switching readers, but about halfway through, the group began to get the hang of it. They began to lose focus, and one participant even pulled his phone out when it was not his turn to read. There was seemingly no difficulty for the participants to come up with the moral of the story once they had finished reading. Their interpretations were comprehensive in nature and they applied the moral to more than just the character, but to themselves or humanity as a whole. The card sorting flowed well, with one participant taking the lead and the group offering their help.

Multi-Tasking Group Observation Summary

For the card portion of the activity, there was hardly any communication. At the start, they discussed a strategy very briefly, but the rest was nonverbal. One participant was not actively engaged because it appeared that she felt inadequate. She watched passively instead of participating. For the reading portion of the activity, the group had to point to where they left off when passing the story on to the next person. They were not able to find their place before the interval ended, so eventually only one person was able to read. After they were done with the story, they had to write down the moral. Some participants needed time to think before writing down their thoughts.

Results from the activity was as follows:
In comparing the differences between the productivity of each group, we found the sequential group's morals to include a broader, more comprehensive understanding of the story. This indicates that switching between two tasks negatively affects thinking, retaining and processing information.

IV.   Discussion

After finishing these activities, we reunited all participants and asked them a series of questions pertaining to their social development and interactions with technology. The questions asked were as follows:
1. What do you like about communicating with technology? Why?
2. What do you not like about communicating with technology? Why?
3. What do you do to make an awkward social situation feel less awkward? Why?
4. Do you think it is important to have interactions with strangers? Why?
5. Who in your life do you talk to the most? What is your favorite way of communicating with them? Why?
6. What are the most important things in your life? Do you think you pay enough attention to those things? Why?

Below are some important aspects of the participants' responses to the questions.
Question 1: What do you like about communicating with technology? Why?
- Interactive

- Useful for running business
- Helps connected with others

Question 2: What do you not like about communicating with technology? Why?
- No tone and more disconnect
- It shuts down personal human interaction
- It is easy to create a 'manufactured' person or a certain image that we want to convey on social media
- Overstimulates
- It is an interruption of time
- It is a cultural expectation

Question 3: What do you do to make an awkward social situation feel less awkward? Why?
- You acknowledge that it is 'awkward'
- Create humor to alleviate the awkwardness
- Pull out phone

Question 4: Do you think it is important to have interactions with strangers? Why?
- Yes, there is always possibility when meeting new people
- Yes, you may not know someone's background and can learn from it
- Yes, it is good to get outside of your comfort zone
- Yes, the ability to communicate with strangers is an important skill to have (especially in the workplace)
- Yes. It is difficult to talk with strangers, but is essential for work

Question 5: Who in your life do you talk to the most? What is your favorite way of communicating with them? Why?
- Married participants said each other. They like to go on walks and "be there". They noted that if they did not have children they would leave their phones at home. However, because of having children, they feel like they must be available at all times.
- One participant uses the new application called "gchat" to maintain contact with college classmates.
- One participant says he talks to his wife and army buddies the most, and uses lots of different modes of communication.

Question 6: What are the most important things in your life? Do you think you pay enough attention to those things? Why?
- My friends and family. We have a schedule that we keep in calling each other.
- My family and my wife's family. You just have to be intentional in keeping up with them.

Overall, there was a negative attitude towards an overuse of technology, but none acknowledged it in themselves. They seemed to think it was a problem that others struggled with and maybe not something that they could fix. They did see positives in technology as it pertains to convenience, and relational and business contexts. It was not surprising that they put family and friends as most valuable. They acknowledged the fact that relational intentionality and contact was essential for maintenance of relationships. All recognized the benefit of reaching out to strangers as a basic human need.

V.   Dismissal

To close the session, we offered each participant the opportunity to help us further. We gave them the option to complete a challenge in which they would tape a sticky note to their phone and recording the

number of times they picked up their phones in the next twenty-four hours. In addition, we asked them to distinguish whether the phone usage was for logistical or social reasons. Logistical usage pertains to checking the time, weather, alarms, etc. Social usage pertains to social media, texting/calling, email, etc. They then emailed results to Ashley Kunze after twenty-four hours.

Sticky Note Challenge Results:
Participant 1: 2 social, 5 logistical
Participant 2: 32 social, 2 logistical
Participant 3: 29 social, 13 logistical
Participant 4: 5 social, 1 logistical

As we wrapped up the session, we observed participants' willingness to stay and interact after they were dismissed. Cupcakes were offered. Most left after talking to a few people.

Additional Notes:
One additional element to the observational focus group was that we had one moderator who was not present. Lauren was given the task of anonymously calling and texting participants in the group and observing their reactions. Two participants answered calls from her. In these situations, Lauren simply said, "You have the wrong number." One participant saw the missed call and was fidgety for a while and frequently glanced at her phone. When the absent moderator would text, she asked them if they wanted to hang out or ask about their work. Three respondents texted her back during the session. At the end of the group, we notified participants of the call/text observation and told them to disregard the contact.

A copy of detailed observations of the different activities conducted can be found here:
https://docs.google.com/document/d/1a0pNRfRyuWRQ3rjMw01_j2nTLytFvk4eqz2UuaZ-Bfg/edit

Family and Educator Interview Summary
Graphic Design 3
John Brown University

Interviewers: Andrea Crouse

Abstract: The interviews aimed to research and understand dynamics within families and classrooms regarding the usage and limitations of technology and the effects on social development among children ages 3-17.

Contents

Purpose Statement

The following interviews were conducting via email at the participant's convenience. Participants were chosen based upon the requirement of having children between the ages of 3-17. To accommodate our Christian perspective, all families and educators participants are actively involved in a local church and living out the Christian faith. Variety is seen between the participants in the area of public, private or homeschool education, as well as place of residency.

Basic Participant Characteristics

Family

Participant	Residency	Occupation	School	Number of Children	Age of Children
Jason Lanker	Siloam Springs, AR	John Brown University Biblical Studies Professor	Public	2	11, 14
Trisha Posey	Siloam Springs, AR	John Brown University Honors Scholars Program Director	Public	3	3 ½, 4, 9
Amy Conkling	Hutchinson, KS	Journalist and stay at home mother	N/A	2	3, 5
Margery Brensing	Hutchinson, KS	Former Elementary Teacher, stay at home mother	Public	2	4, 6
Kameron & Anne Slater	Siloam Springs, AR	Simmons Food & stay at home mother	Public	4	9, 11, 14, 16
Michael & Jamie Shirley	Siloam Springs, AR	Accountant & Homeschool teacher and stay at home mother	Homeschool	3	10, 11, 13

Educational

Participant	Residency	Occupation	Class Size	Age of Children
Leslie Ratzlaff	Hutchinson, KS	Public Elementary School Speech Paraprofessional	approx 70	K - 6th
Marilyn Crouse	Hutchinson, KS	Private Elementary School Teacher	10	K

Interview Results Summary

Family

All of the participants testified to limiting their children's usage of technology by limiting specific amounts of time on specific days. The positive effects noted are: exposure to the world's ideas and relationships, increased creativity (through Minecraft), increased vocabulary (through educational TV shows), form of entertainment, able to relate to friends. The negative effects noted are: develop an obsession, become consumed, addiction, emotional attachment, and irritable attitudes. In addition, behavioral changes due to overusage include: cognitive and emotional, such as temper tantrums at the limitations and grumpiness. Specifically, "There does seem to be a sense in our children's generation that they 'deserve' their time with a device" (Shirley).

Quality family time is maintained through family dinners, household chores, day activities, manage outside commitments to avoid excess business, good communication, consistent church attendance, family devotions, and prayer.
One participant (Jamie Shirley) emphasized the importance of monitoring their own usage of technology and its negative effects of diminishing family time, and also because their children are watching their usage habits. Technology is not inherently bad, yet parents must be responsible with its usage.

Educational

Positive effects within the classroom include: motivation and excitement to use technology as well as expanding the scope of education, that learning is not confined to textbooks. Negative effects include: lack of patience, expectancy of instant gratification, need to be entertained constantly, and loss of communication skills.

Detailed Responses

Family

Jason Lanker
John Brown University, Assistant Professor Biblical Studies

1. How many children do you have? What ages?

    2 girls, 14 and 11

2. Do you limit your child's use of technology? If yes, how so?

    Yes. They only have one hour of total usage (if they are on the web at the same time they are watching a TV show on the weekdays, they only have 30 minutes of each) at home during the weekdays, 2 on Friday and Saturday and none on Sunday.

3. What methods do you use to monitor the content viewed and time spent?

    We only have Netflix which shows us the last shows watched and we have all passwords for their online use. We regularly check both. Most often to simply talk about shows they enjoyed or pictures they posted.

4. What forms of technology is your child exposed to?

Recorded TV programs, Movies, Instagram, Pinterest, Online radio

5. In what ways do you see positive and negative effects of technology within your family?

It gives them an outlet to the outside world of thoughts and relationships, but is so engrossing and passive that they can easily get consumed or fail to realize the messages being transmitted.

6. How do you maintain quality family time amidst such a fast-paced culture?

We eat dinner together about 4 nights a week with no tech allowed. Sunday's are truly a Sabbath to enter into purposeful relationship with only God and others (family being at the center of the others)

7. In your opinion, what role should technology play in a child's life?

It is an essential part of the world in which we live. So if they are going to receive some of the "goods" from this culture they need to interact with it through technology.

8. In your child's (children's) education, how is technology used?

It is primarily used as word or graphic arts processing, with a little use of information gathering sites

9. Do you notice any behavioral changes due to use of technology?

Not so much behavioral, but cognitive or emotional. When they see or hear inappropriate material it affects them. We've developed a good communication style, so they are able to process that pretty regularly. BUT, if they didn't have that time I know that their hearts would eventually begin to put into practice what they are thinking and feeling inside.

10. What would you consider to be the ideal technology / downtime ratio?

1/7 (At almost 80 hrs/wk average usage our youth culture is almost exactly flopped)

Trisha Posey
John Brown University Honors Scholars Program Director

1. How many children do you have? What ages?

Three--ages 9, 4 (almost 5), and 3 1/2

2. Do you limit your child's use of technology? If yes, how so?

Yes. We allow one hour of tv after school and two hours of tablet time on Sunday afternoon. Occasionally we'll allow Saturday morning cartoons, but for the most part we keep technology to the weekday. When they are at grandparents the rules are much looser. :)

3. What methods do you use to monitor the content viewed and time spent?

For TV, we allow them to watch just PBS cartoons, which we trust. On the tablet, the two oldest play minecraft. I usually set the kitchen timer to monitor their time.

4. What forms of technology is your child exposed to?

TV and tablet.

5. In what ways do you see positive and negative effects of technology within your family?

I don't see too much negative. Minecraft has brought out a lot of creativity in the two oldest kids. The television programs are educational, so we see positive benefits like increased vocabulary and math skills.

6. How do you maintain quality family time amidst such a fast-paced culture?

We have no internet at home and keep cell phones turned off at home. We have a lot of chores since we live with farm animals, so much of our quality time is spent doing them!

7. In your opinion, what role should technology play in a child's life?

I think it's great for encouraging imaginative play and learning new things in a fun way (kudos to PBS for this). But we try to keep technology to a minimum.

8. In your child's (children's) education, how is technology used?

For the oldest, not much at all. For the younger ones, PBS cartoons provide some education.

9. Do you notice any behavioral changes due to use of technology?

When the kids are at their grandparents and have access to cartoons that we usually wouldn't approve of or more "entertainment-focused" games, they tend to get sucked in and throw more fits when we take them away.

10. What would you consider to be the ideal technology / downtime ratio?

I like the balance we have--at home, one hour a day of tv or tablet time and no other technology outside of that. As the kids get older and might need more access to the internet for school work we'll have to reassess.

Amy Conkling
Grace Bible Church, Hutchinson KS
Journalist and Mother

1. How many children do you have? What ages?

We have two children – Mackie (5) and Brax (3)

2. Do you limit your child's use of technology? If yes, how so?

We do limit our children's technology. They typically have 30-45 minutes of "screen time" - iPad or TV show in the morning and get another 45 minutes or so in the evening. Of course, this isn't every day, but usually is 3-4 days out of the week. The other days they usually have less time, as they're in school, at playgroups, or it's the weekends and we're staying busy not watching TV.

3. What methods do you use to monitor the content viewed and time spent?

Honestly, my 5-yr-old is great accountability! From a young age, we told her what shows were appropriate and not appropriate and were very limiting on what shows she could watch, restricting her to 2-3 shows that were on the "appropriate" list. This list has expanded over the years, and they have about 10 shows that they know are ok for them to watch without a parent in the room watching with them, but anything other than those shows, they must have our permission. It never fails – the kids will be downstairs watching a PBS show and it changes to something different and they're yelling at me that it's "not appropriate, mommy!" (It usually is ok for them to watch, but they don't know that and so we set boundaries and limitations by only letting them watch and be exposed to 10 or so shows, like I mentioned above.

4. What forms of technology is your child exposed to?

90% of the technology is television screen time. The other 10% is iPad/tablet and/or smart phone for games, but they don't really play many games. The only time they use the iPad is if we're on the go (usually at a basketball game, in a long doctor office waiting room, in a meeting, etc)

5. In what ways do you see positive and negative effects of technology within your family?

There are some great kid apps that we have downloaded on our iPad to keep them quiet but also let their minds wander, such as doodling/drawing app, and also puzzle apps. However, I find as a parent that my child flourishes (and spends far more time doing!) the REAL thing – the real puzzles, the real drawing and creating. Usually the iPad is the last resort we go to – my bags are usually packed with drawing supplies, on-the-go puzzles, and other items before I whip that baby out. As for television, I find more benefit to that than the tablet/phone screen. Maybe it's because we are strict with what they watch, but they're much more creative and with shows like Super Why and Sesame Street and Wild Kratts, they're learning and problem solving.

6. How do you maintain quality family time amidst such a fast-paced culture?

   Did not answer

7. In your opinion, what role should technology play in a child's life?

   Did not answer

8. In your child's (children's) education, how is technology used?

Both of my children aren't to the point yet where they have technology in their schools. Brax's once-a-day play group doesn't have any type of technology time (I appreciate this!), and neither does Mackie's private preschool that she goes to three mornings a week. I'm very thankful for this, as I feel they're not there to be in front of a computer screen or tablet; they're there learning social and interaction skills and other kindergarten readiness skills.

9. Do you notice any behavioral changes due to use of technology?

I've notice my own change with Child #2. We were pretty strict with Mackie and tried our best to follow the "rules" of the AAP (American Academy of Pediatrics), that says no screen time before 2 and only limited. While we didn't

make it until 2, I do remember strictly limiting her TV time and only let her watch 1-2 shows. Of course I've become quite lenient with Brax, since Mackie is around and they do everything together. There are days that I let them go over that 90-120 minutes of time, but then there are days when they don't watch anything at all. It's all about balance. And until I see the day where they're becoming lazy and just want to lay around and watch TV rather than create, play, and be outside, then I'll worry. But I'm not at this point!

10. What would you consider to be the ideal technology / downtime ratio?

For this point in their lives, I would say I love the days when it's about 30-45 min screen time in the morning and maybe one 30 min show at night after dinner. That's about an hour a day or so. The rest of the time, we're free play, drawing, creating, learning words/letters/numbers/math/reading, etc. So a ratio to that? Ideally, I'd like to see no more than 5% of their day consumed by technology.

Margery Brensing
Former elementary teacher, presently stay-at-home mother
Central Christian School, Hutchinson KS

1. How many children do you have? What ages?

Two children, ages 6 and 4

2. Do you limit your child's use of technology? If yes, how so?

Yes, school days (M – Th) tablet – 30 to 45 min/day. TV – 1 hr to 1:15 per day.

3. What methods do you use to monitor the content viewed and time spent?

Content – We play all games before we allow our children to play them. TV – We allow them to watch PBS, but only certain shows. We don't allow them to watch Dinosaur Train very often. On Saturdays they do watch cartoons on Netflix. They watch in the morning from about 7 a.m. to 9 a.m.

4. What forms of technology is your child exposed to?

TV, Xbox Kinect, Tablet, Computer (at school, mostly)

5. In what ways do you see positive and negative effects of technology within your family?

To be honest, my son shows signs of addiction to the iPad. He is very upset if he doesn't get to play it. We have disciplined him when he argues with us when we ask him to turn it off.

6. How do you maintain quality family time amidst such a fast-paced culture?

We almost always eat an evening family dinner together during the week, sitting at a dinner table with no TV. Fridays we have reserved for family movie night. On Saturdays we try to play a board game or Xbox together. Often, on Saturdays, we go bike riding or go swimming.

7. In your opinion, what role should technology play in a child's life?

We use technology for entertainment and education.

8. In your child's (children's) education, how is technology used?

Our son uses technology for math and reading practice.

9. Do you notice any behavioral changes due to use of technology?

As previously mentioned, we have noticed addictive tendencies and an argumentative spirit.

10. What would you consider to be the ideal technology / downtime ratio?

Well, this question is not my strong suit, so I will answer like this: I believe my son uses technology approximately 2 ½ hours a day. He is awake for 13 ¼ hours a day. I am not sure this is optimum or not.

Kameron & Anne Slater
Stay at home mom, public schools
Harvard Avenue Baptist Church

1. How many children do you have? What ages?

4, Noah-16, Lily-14, Eve-11, Ellen-9

2. Do you limit your child's use of technology? If yes, how so?

Kinda - short answer "yes". None of our children have a cell phone or smart phone. That may change now that Noah is driving. Yet, each of them have an i-touch. We removed the browser so they can only access approved applications that we have downloaded. Noah is the only one that takes his i-touch to school.   All the others leave them at home. Also, every night before bed they bring the i-touch to Mom and Dad. Anne is the creeper and monitors activity. They have access to the computer in our living area. Also, we have an x-box. Noah is only allowed to purchase "everyone" games or recently he purchased a "teen" game. The kids are not allowed to watch TV through the school week. Friday's-Sunday's are fair game.

3. What methods do you use to monitor the content viewed and time spent?

No internet surfing on hand-held devices. We still hold them accountable by monitoring their activity.

4. What forms of technology is your child exposed to?

Apple i-touch hand held device, applications, computers, my smart phone, hardware that plays their i-touch music through the radio in the car, etc. School uses computer based homework for some classes. Our children have started using an application to text. And Noah has an email account. Social network acccounts are limited. Noah and Lily have an instagram. Eve is interested in Pinterest. Ellen likes a computer game.

5. In what ways do you see positive and negative effects of technology within your family?

Attitudes change when virtual interaction is primary. The children are on edge which is negative. The negative effect is this becomes a distraction to daily imagination outside of holding. Also, x-box reality games do not teach the impact of war, etc. Positive= the kids have some form of entertainment. They understand technology much better than mom/dad. They live in this world and somewhat relate to their friends.

6. How do you maintain quality family time amidst such a fast-paced culture?

Consistent attendance at Wed. church and Sunday church. Regular family devotions. Reading books with them. Non-negotiable breakfast and dinner time sitting together at the table. Prayer and support during extra-curricular activities.

7. In your opinion, what role should technology play in a child's life?

Necessary usage - emergency contact by cell phone. Development for school

8. In your child's (children's) education, how is technology used?

homework

9. Do you notice any behavioral changes due to use of technology?

yes

10. What would you consider to be the ideal technology / downtime ratio?

We ideally encourage a fast from the i-touch on Sunday. Mon-Friday - after school 25% of the time after homework and family time. We, also, consider this a privilege not a necessity for children. Anne and I prefer that it not consume them.

Michael & Jamie Shirley
Stay at home mom, homeschool
Harvard Avenue Baptist Church

1. How many children do you have? What ages?

Michael and I have three children ages 13, 11 and 10.

2. Do you limit your child's use of technology? If yes, how so?

Yes, we do TRY to limit technology use. Our kids have games on the iPad they like to play so that is the main device that we have to regulate. They each get 20 mins per day of iPad time (AFTER completing all required tasks for the day such as school, Awana, music practice, chores, etc.). They do a good job of setting their own timer and, for the most part, they put it away when their time is done. They do also have a Wii but actually don't ask to use it near as often as the iPad. They may only get on the Wii once a week so it usually gets 30-45mins of time since 2 or all 3 of them are playing together at a time. Our 13yr old has an iPod Touch which she had to use her own money to purchase, but we have put quite a few restrictions on it.

3. What methods do you use to monitor the content viewed and time spent?

Ours kids don't know the password to add apps so only approved games are added to the iPad by mom. The kids also know they need to ask if they want to go online to 'research' or 'shop' for something. They also have to ask before going to YouTube to watch videos. The one device that is hardest to monitor is the TV! We do like to sit down and watch some shows and football games together, but the worst part is the COMMERCIALS! We like to record shows as much as possible so we can fast forward through the commercials. Our kids now also have a pretty good idea of what shows are acceptable and which are not. They don't really 'push the envelope' too much with television. I also think we've done a pretty good job with movies. We've tried to be pretty particular about what movies they are allowed to see. It definitely hasn't always been easy because even family members have different standards about what to watch so family get-togethers with cousins can be tricky.

4. What forms of technology is your child exposed to?

iPad, iPod touch, TV, laptop, iPhone (mom & dad's)

5. In what ways do you see positive and negative effects of technology within your family?

We do find ourselves sometimes being lazy together in front of the television some evenings when we probably could be more productive. It can also be a good motivator for my kids getting 'work' done. If they don't do the work, they don't get their iPad time. Even for Michael and I technology can have the negative effect of sucking our time and our attention from our kids. We need to be very aware of what our kids are watching us do with our devices!

6. How do you maintain quality family time amidst such a fast-paced culture?

We have done our best to keep from being committed to too many activities. We do have seasons of time when the schedule gets full, but we have said 'no' to a lot of team sports because those seem to take a lot of time away (even though Michael and I both grew up playing team sports). We like to use Saturday as a family day as much as possible because even though Sunday may be considered a 'day of rest'; for our family it's more of a day of ministry. We don't always get to 'rest' on Sunday. Maintaining family time is all a matter of choices and not falling into the trap that kids need to be in everything! Just say NO!

7. In your opinion, what role should technology play in a child's life?

Our family is not trying to avoid technology. It's part of our American culture and is not inherently bad. We are doing our best as parents to be responsible with the technology available. Our kids are realizing, though, that our standards for technology are not always the same as their friends' standards of technology. MANY of their friends have phones at a young age which is not what we have decided to do with our children. We do realize, though, that phones, tablets, laptops, etc. will be a part of their education and careers in the future.

8. In your child's (children's) education, how is technology used?

Our laptop and iPad are both used as part of their education. Particularly since we homeschool we try to use different means for teaching tools. The iPad provides opportunity for learning games and apps that apply to specific subjects we are studying. We also use it for videos and research. The laptop gets used for school subjects that require teaching software. Currently, we use software for Math and Foreign Language.

9. Do you notice any behavioral changes due to use of technology?

Yes, I have seen behavioral issues. It seems a struggle for the kids to go an entire day without using technology which can lead to grumpy attitudes. In their defense, it would be hard for Michael and I to go an entire day without any technology so I can relate to their frustration when we tell them they can't be on the iPad for the day. Most of the time that would be on a Saturday when we want to just focus on doing something as a family. There does seem to be a sense in our children's generation that they 'deserve' their time with a device. I can't stress enough that clear boundaries make it so much easier. Just the simple 'boundary' of setting the timer for 20 minutes makes life so much easier. Especially with three kids when they want everything to be 'fair'. Or, for instance, giving them a specific age when they can get an iPod or phone. It gives them something to look forward to and they aren't constantly begging to get one because they know EXACTLY what the plan is. Kids really do

act better when they know the plan and the boundary!! But parents have to be willing to SET the boundaries and STICK with them. That's not always easy!

10. What would you consider to be the ideal technology / downtime ratio?

Don't think we could even begin to create a ratio. It will be different for every family, and it will depend on what the technology is being used for. I use technology A LOT. I use it for MANY THINGS and truly wouldn't be able to function as a parent, homemaker, or teacher without it. We are a family that will always use technology, but we also strive to make our kids spend time away from technology. We love watching our kids use their imagination in the art of 'pretend play' with their toys. We love watching them play outside building forts and learning how to use tools. All of life is about making choices. Each family will make them
differently.

Educational

Leslie Ratzlaff
Public Elementary School Speech Paraprofessional
McCandless Elementary, Hutchinson KS

1. What grade do you teach? How many children in your class?

We work with Speech and Language students; kindergarten - 6th grade; approx. 70 students.

2. Do you use technology within your classroom for teaching purposes? What forms?

We use an ipad and a laptop.

3. Do you limit the amount of time technology is used? Why / why not?

We use an ipad 20-30 minutes (their usual speech/language session time) approx. every other month. We do not use technology a lot because we have one ipad available and we work with small groups the majority of the time.

4. In what ways do you see positive and negative effects of technology within your classroom?

Students are very motivated and excited to practice their targeted skills on the ipad. On the other hand they may focus more on the game itself rather than the skill they should be mastering.

5. In your opinion, what role should technology play in a child's life?

Technology should be a part of a child's life, but in a limited way. Technology should be used as one of many tools to achieve the desired goal(s). Technology should not be be a complete replacement for human interaction and instruction.

6. Do you notice any behavioral changes due to use of technology?

Students who watch a lot of tv or play a lot of video games seem to have a lack of patience and also expect instant gratification

7. Do the children prefer technological activities or do they prefer outdoor and "hand's on" activities?

The students we work with enjoy technological activities, outdoor and "hands on" activities equally.

8. What would you consider the optimum technology / downtime ratio?

The optimum technology/downtime ratio depends on the age of the child and the technology they are using. Smaller amounts of time are appropriate for young children for watching tv, playing video games, etc. and more time should be allotted for older
children.

Marilyn Crouse
Kindergarten elementary teacher
Central Christian School, Hutchinson KS

1. What grade do you teach? How many children in your class?

I teach kindergarten and have a class of 10 this year.

2. Do you use technology within your classroom for teaching purposes? What forms?

I use a powerpoint projector to show educational videos and the computer for internet access to supplemental activities and also for accelerated reading tests.

3. Do you limit the amount of time technology is used? Why / why not?

My students do not use technology (computer specifically) individually in my classroom.

4. In what ways do you see positive and negative effects of technology within your classroom?

The positve effects that I see from what I use are: broadening of their horizons by introducing them to areas beyond our classroom, helping them to see learning can take place from more than just books.

5. In your opinion, what role should technology play in a child's life?

Technology should enhance a child's learning but not totally consume it. A child needs to learn/think for himself and not depend on a "machine" to do everything for him.

6. Do you notice any behavioral changes due to use of technology?

Yes, I feel that because of the use of technology children have come to the place where they have to be entertained all the time. It is harder for some to just sit still and listen or just get absorbed in a good book or even just enjoying imaginary play. I think good communication skills are getting lost by the wayside due to faces being glued to screens.

7. Do the children prefer technological activities or do they prefer outdoor and "hand's on" activities?

In my setting (private school) we are able to adhere to some of the older ways of teaching and have smaller class sizes. I see our students, at least in the younger grades, preferring outdoor and hands on activities over technological activities.

8. What would you consider the optimum technology / downtime ratio?

I think the downtime should outweigh the technology time greatly, say maybe 3 hours of downtime (playing/reading, etc.) to 1 hour of technology.

Communications: Interview Summary
Graphic Design 3
John Brown University

Format: Interviews were distributed by email.

Abstract: These interviews were conducted to gather opinions of how people view technology, what motivates a change of behavior and the correlating communication process that could result in changed behavior.

Contents ───────────────────────────────────

Overall Interview Summary
Interview Summary for each Interview
Interview Responses

Overall Interview Summary

Through these interviews, we were able to learn that people need motivation through goals, accountability and challenges to help them consume technology is moderation. Everyone agreed technology has its good aspects, however moderation and learning how to take time away was much needed. All agree that relationships are hurting, especially among the younger generation because of the addiction to social media and technology.

Interview Summary for each Interview

Christa Slagter
Female
Mid 20's
Arkansas

Interview Summary
Christa talked about having rules and goals for herself if she was going to spend less time on technology. She also mentioned accountability from friends. She sees the dangers for kids and teens who are being raised without knowing how to interact with each other. Christa sees her phone as a temptation. Her solution would be to get people to value in person communication and to inform them how dangerous technology overuse can be over time.

Interview Questions and Responses
1. Do you believe that you are too dependent on technology? If not, explain. If so, have you ever thought about it being an issue?

Yes, if I lost my iphone, I would be pretty lost for a few days. I would adapt, but it would certainly be difficult at first!

2. What would it really take for you to spend less time on technology (TV, smartphones, computers, etc)?

I would need to set "rules/goals" for myself and maybe have the same goals with someone else to keep me accountable. For example, have a rule with my friends that we can't text when we're in the presence of each other unless it's an important text or something we need to attend to.

3. What is your opinion about the Western world growing up immersed in technology and possibly becoming addicted to it?

I think it's pretty dangerous, particularly for students ages 12-18. They are losing the ability to interact with their peers and they are always on their phone. Adults are better able to recognize the necessity of

social interaction without technology and so they can better discern when it's ok to have their phone/ technology and when they need to put it away.

4. You learn something that you think is worth sharing. When it comes to your family and peers, how do you usually go about that? (Call them, text them, share over social media, tell them when you see them face to face, or something else?).

Usually by text for my friends. With my family, we are currently spread out over 3 different continents so facebook messenger has been super helpful and has helped us connect in ways we haven't been able to before! However, if it's a story or something important to me or something I want to discuss, I wait to tell them in person.

5. What do you like about technology and what don't you like about technology?

I love that I can share the little things in life (pictures, videos) with my family   who is spread out over the world. I get to see videos of my niece growing-up in Taiwan! I don't like how much of a temptation it is for me to always be on my phone. I have to consciously put my phone in another room when I'm hanging out with people so I'm not on it all the time.

6. If you had to motivate your kids, friends, or peers to moderate their use of technology, how would you go about it?

I would first try to get them to understand the importance of face-to-face interaction. If they don't value in-person communication, then they won't see   the need to moderate their use of technology. I think I would need to show them how damaging technology overuse can actually be.

Erin Turner
Female
40 years
St. Louis

Interview Summary
Erin Turner admits she would be lost without technology and that if would take no wifi or service for her to be okay without it. She thinks it is sad how addicted and dependent we are on technology.Erin doesn't allow her kids to charge their phone during the day to moderate their use.

Interview Questions and Responses
1. Do you believe that you are too dependent on technology? If not, explain. If so, have you ever thought about it being an issue?

Yes...I use technology daily for my phone, calendar, texting, searching online (even more convenient now with the phone) : / I often think about how all of my information is kept in there and I would be 'lost' without it.

2. What would it really take for you to spend less time on technology (TV, smartphones, computers, etc)?

When my husband and kids are with me, I don't feel such a need to be checking my phone and/or the TV. It has become something that I feel a certain comfort with having when we are apart in case I'm needed or the TV for entertainment. It would almost take no wifi or service for me to completely be okay with not having it.   : I

3. What is your opinion about the Western world growing up immersed in technology and possibly becoming addicted to it?

I think it is really sad that we are becoming so addicted to it. We have become very spoiled with it and now that we have it feel like we almost can't do without it. The younger generation doesn't even know what it is like to live without it.

4. You learn something that you think is worth sharing. When it comes to your family and peers, how do you usually go about that? (Call them, text them, share over social media, tell them when you see them face to face, or something else?).

It depends on what it is....if it is something that I want to hear their reaction, I will call them or tell them face to face. If it is something I don't mind sharing with everyone, I will post it on social media.....otherwise I would send it in a group text.

5. What do you like about technology and what don't you like about technology?

I don't like how dependent we all are on it but I love being able to have all info that I need just in the palm of my hand in my phone.

6. If you had to motivate your kids, friends, or peers to moderate their use of technology, how would you go about it?

I moderate the use of my kids technology by not allowing them to charge their phones during the day, they are only allowed to charge them at night....if they need charged during the day then that means they have been on it too much. It is also the first thing that gets taken away if they are in trouble for something.

Jennifer Brown

Female

40 years

St. Louis

Interview Summary
Jennifer Brown mentioned a lot about work and the expectations of always available. She believes there needs to be a balance and rest from work and technology. Mrs. Brown believes that the richness of personal connection has been compromised because of social media in addition to the sense of deeply knowing each other.Balanced approach to technology is the solution.

Interview Questions and Responses

1. Do you believe that you are too dependent on technology? If not, explain. If so, have you ever thought about it being an issue?

I'm more dependent upon technology today than 10+ years ago. I utilize electronic calendars, contacts, electronic communication (text/email/social media) for work/personal needs, picture/videos, news, communication with my children's school/grades/lunch purchases, etc.

2. What would it really take for you to spend less time on technology (TV, smartphones, computers, etc)?

For me, a shift in my employers' expectation from 24/7 availability to possibly another more suitable option would offer the reduction I need.

3. What is your opinion about the Western world growing up immersed in technology and possibly becoming addicted to it?

I believe the expectation that success is contingent upon "24/7 availability" is unhealthy. It defies what the Lord established with the need for the Sabbath and with the balance living that Christ demonstrated while on the earth.

4. You learn something that you think is worth sharing. When it comes to your family and peers, how do you usually go about that? (Call them, text them, share over social media, tell them when you see them face to face, or something else?).

It varies according to family member. For my spouse, it's typically text, phone and face to face. For children, it's face to face. For aging parents who reside out of state, it's via phone. For my sisters who also live out of state, it's text, phone and private messaging via social media.

5. What do you like about technology and what don't you like about technology?

Technology has offered immediate access to info and streamlined productivity in many ways. However, I believe it's compromised the richness of personal connection among people. The introduction of social media has created a superficial sense of knowing others and being known.

6. If you had to motivate your kids, friends, or peers to moderate their use of technology, how would you go about it?

We establish time limits on using devices to promote a more balanced approach to living.

Josh Bond
Male
28 years
St. Louis

Interview Summary

Josh believes there is a lack of drive and engagement because of technology. He said accountability would be the key to him changing his behavior of technology overuse. Kids are losing touch with their peers and not developing critical thinking skills. Josh wants to connect with the world in his own eyes and experience things in person – more sensory experiences. Moderation is the key starting with small steps.

Interview Questions and Responses

1. Do you believe that you are too dependent on technology? If not, explain. If so, have you ever thought about it being an issue?

I definitely think that I can rely to much on technology and it does become an issue. Sometimes I find myself with a lack of drive to learn, memorize, or even engage in things in front of me, because every answer to a problem seems to be found at the touch of a button or keystroke.

2. What would it really take for you to spend less time on technology (TV, smartphones, computers, etc)?

In order for me to spend less time on technology, I would need accountability. I would need someone going through it with me who is willing to call me out when I'm beginning to spend more time on technology.

3. What is your opinion about the Western world growing up immersed in technology and possibly becoming addicted to it?

I think it's an unfortunate thing. With such quick access to knowledge and the world, it can lead people to become more educated or even cultured. The fail comes when the kids lose touch with their peers because they're always staring at a screen. When they don't experience adventure and exploration in

nature, but instead look at pictures online. I think they can lose the ability to develop critical or creative thinking because all of the answers to their problems are on their phones.

4. You learn something that you think is worth sharing. When it comes to your family and peers, how do you usually go about that? (Call them, text them, share over social media, tell them when you see them face to face, or something else?).

I tend to share the information in the most convenient way possible. Most of the time that means a text or direct message on social media. Depending on the news and the peer or family member, I try to make a phone call when appropriate.

5. What do you like about technology and what don't you like about technology?

I love technology because it connects us to the world and knowledge. It's for that reason I also don't like it. I'd rather connect and see the world with my own eyes. I want the desire to read and be taught skills in person.

6. If you had to motivate your kids, friends, or peers to moderate their use of technology, how would you go about it?

I think the best way is to have them experience something in person. Whether that's a baseball game, camping, traveling, or anything else that involves a more sensory experience. I believe moderation is key in everything and that small steps over time can lead to big changes. So start small, take an hour a day without the phone, TV, or computer and build from there.

Lindsey Meding
Female
21 years
St. Louis

Interview Summary
For Lindsey, Intentionality is the key to change and modifying behavior with technology. Kids don't know how to maintain and create friendships without technology and most the struggles happen because of technology. Lindsey hates when people get mad at her for not glimpsing into their social media life. To motivate Lindsey would show teens how they are hurting their relationships through technology and social media.

Interview Questions and Responses
1. Do you believe that you are too dependent on technology? If not, explain. If so, have you ever thought about it being an issue?

I honestly don't think so! I know that that is something I could easily be drawn into, so I try to be intentional about creating "no technology" times.

2. What would it really take for you to spend less time on technology (TV, smartphones, computers, etc)?

Intentionality. It's so easy to just pop on a TV show on Netflix before you go to bed, or mindlessly spend an hour scrolling through Facebook or Instagram.

3. What is your opinion about the Western world growing up immersed in technology and possibly becoming addicted to it?

I think our students especially the younger ones, don't know a world without technology. To them, it's like having electricity or running water. They don't know how not to be dependent on it. I think the hardest part of this is that their friendships and relationships become foundationally based on technology. If a student doesn't follow another student on Instagram, it's a sign that the student does like or is mad at the other students. So many of their legitimate friendship struggles are based around likes, followbacks, and other social media occurrences. They don't know how not to create and maintain friendships and support one another without social media and technology.

4. You learn something that you think is worth sharing. When it comes to your family and peers, how do you usually go about that? (Call them, text them, share over social media, tell them when you see them face to face, or something else?).

Dependent on the nature and severity of an incident, my first instinct is different. For example, I was in a car accident last night. I and the other driver were fine, so my first instinct was to post about getting in a car accident on Facebook. My second instinct was to call my mentor, and my third instinct was to call my parents. If I had been hurt it definitely would have been different, but it did strike me that my first instinct was to take a picture and post it to Instagram and Facebook.

5. What do you like about technology and what don't you like about technology?

I love being able to give people a glimpse into my everyday life, but I hate that other people get upset and mad at you when you choose not to glimpse into theirs.

6. If you had to motivate your kids, friends, or peers to moderate their use of technology, how would you go about it?

I would show them how they are hurting their friendships by letting them be directed by and dependent on social media. They ruin their relationships by small, petty things that they let become obstacles to real human interaction.

Taylor Nelson
Female
19 years
St. Louis

Interview Summary

For Taylor to spend less time on technology she would need a goal and a challenge to accomplish. Success driven. Taylor puts her phone away when she is with someone to show them that she truly values their presence. Taylor thinks technology needs to be consumed in moderation. She also thinks society has become less personable. She thinks that change starts small and that if someone spent a day away from their phone then they could start to see they can actually survive without it. "Moderation would be a great refreshment to our culture."

Interview Questions and Responses

1. Do you believe that you are too dependent on technology? If not, explain. If so, have you ever thought about it being an issue?

Unfortunately, yes. I have come to rely heavily on technology, especially for school related things. Research for projects is so simple with a computer, looking up definitions, finding information on how to cite sources, etc.; it is all so easily accessible through technology. I also rely on it for fast communication with people. Whether it's email or texting, or even calling, the respond time is   significantly lessened, and it makes communication possible even with a busy schedule. Even down to the very simplest of things, I trust that my alarm clock will wake me up in the morning, and that the radio will work so I can listen to music on my way to school, and that my laptop will work so I can finish school assignments or watch Netflix. I would say that the majority of my life is dependent upon the use and availability of technology.

2. What would it really take for you to spend less time on technology (TV, smartphones, computers, etc)?

It helps me when I have a mission or a goal that I am striving to accomplish. One day at church, we were given challenge cards and mine was to give up looking at anything with a screen for two weeks. While the challenge was difficult, I was driven and I wanted to be able to accomplish it successfully. I really do like the old fashioned way of life in some respects though. When I am with someone, my phone is put away, because I want to give them my full attention and show them that I truly value their presence and my time with them. I also love handwritten letters and enjoy sending and receiving them, so in certain situations I am able to put the screen away and indulge in a life without technology. I think for me to be better about spending less time on technology, it would need to become less of a way of life. It seems to be intertwined in almost every aspect of our lives, and I think it would be difficult to really do away with it.

3. What is your opinion about the Western world growing up immersed in technology and possibly becoming addicted to it?

I think that children are being subjected to a plethora of sources of technology at too young of an age. They will easily become over stimulated, and they won't be able to sit quietly and read a book, or listen

for a decent amount of time, without being distracted or becoming bored. I think we are handicapping the children and we are setting them up for failure in their futures. I think technology is wonderful and that it can be very useful for teaching and entertaining children, but I think that it all needs to be in moderation. Sometimes kids just need to play outside or read a book or color, or something that allows their body and mind to be refreshed.

4. You learn something that you think is worth sharing. When it comes to your family and peers, how do you usually go about that? (Call them, text them, share over social media, tell them when you see them face to face, or something else?).

It really depends on where I am and where they are. I always prefer to tell people things in person, because I love watching their reaction and I think it is much easier to explain things when talking face-to-face, rather than over text. If it is something pretty simple I usually text, and sometimes I just say a short little snippet of the news and save the full story for the face-to-face conversation. If they are far away, I like to call.

5. What do you like about technology and what don't you like about technology?

I love the convenience of technology. It is so fast and easily accessible and it helps in so many different, and wonderful ways. I don't like that we have become so reliant on technology to do everything. Technology can fail, computers break, phones die, etc and sometimes I think that we trust too much is something that is not always faithful. I also dislike that it keeps people from having real conversations and meeting together. I think society has becomes much less personable and people have become more self-absorbed and generally revert to screens rather than actually meeting together.

6. If you had to motivate your kids, friends, or peers to moderate their use of technology, how would you go about it?

I would probably start out with giving them a small challenge, like not using their phone or something for a day, just so they can see that it is possible to survive without being connected to their phone 24/7. I would want to have some fun activities like playing games, making crafts, going out for coffee or to a park, etc so they can have a sense for activities that don't require the use of technology, and so they can be reminded of the fun that can come from just spending quality time together. Maybe it could be a weekly thing where 1 night a week the activity chosen cannot involve technology at all. It is probably impossible to completely do away with technology, but working on moderation would be a great refreshment to our culture.

Robert Barnes
Male
40 years
Northern Ireland

Interview Summary
The main takeaway from Robert's interview would be that he thinks a good solution is to make at home time set aside for family, banning phones from the dinner table and no TV.

Interview Questions and Responses
1. Do you believe that you are too dependent on technology? If not, explain. If so, have you ever thought about it being an issue?

There are many good things about technology and many advances in medicine because of technology but we are too dependent in some areas. We need energy for our technology to "work" and that means oil, gas etc. all fossil fuels. If we have an energy shortage then we could be in trouble with travel, communications, food production etc. In the past we didn't depend on technology as much in these areas.

2. What would it really take for you to spend less time on technology (TV, smartphones, computers, etc)?

Having a varied range of interests that don't require these devices e.g. reading, cooking, exercise, meeting friends can make me put down the TV remote control and switch off the phone. However on the flip side each one of these activities can be accomplished using smartphones, kindles and other devices.

3. What is your opinion about the Western world growing up immersed in technology and possibly becoming addicted to it?

It not good when people give up talking to each other and spend the time on their smartphone. I have seen it many times (and have been guilty myself) people sitting in restaurants and everyone at the table updating facebook or some other social media site

4. You learn something that you think is worth sharing. When it comes to your family and peers, how do you usually go about that? (Call them, text them, share over social media, tell them when you see them face to face, or something else?).

I would normally send a text if I only want to send it to a small number of people otherwise I would use facebook.

5. What do you like about technology and what don't you like about technology?

Advances in medicine and communication because of technology have been great. What I don't like is out dependence on technology and the fact that it can make us anti social.

6. If you had to motivate your kids, friends, or peers to moderate their use of technology, how would you go about it?

At home a time should be set aside for the family to get together and talks e.g. have a meal together ban phones at the table and turn off the TV.