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Smartphone use in Children's Shows: A Qualitative Content Analysis

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Smartphone use in Children's Shows:
A Qualitative Content Analysis

by

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Abstract

Title: Smartphone use in Children's Shows: A Qualitative Content Analysis

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This study analyzes media messages through the lenses of social cognitive theory and cultivation theory. Specifically, this study focuses on messages about smartphone use in children's cartoons.

This study found smartphones are portrayed in a positive manner in the majority of the episodes. Themes of smartphone use included learning, helping, and increasing social standing in the case of capturing content for vlogs. Characters who modeled smartphone use were brave and helpful, but in some cases distracted. Outcomes for smartphone use were overwhelmingly positive.

Based on the widespread usage of smartphones in real life, smartphone usage is only going to become more widespread in the mass media. This study provides a starting point for future research into media messages about smartphones and how those messages may affect viewers.

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Chapter 1
Introduction

A five-year-old child is watching an episode of *Nature Cat* on his father's smartphone. In the opening scene, Nature Cat, Daisy the Bunny, and Squeaks the Mouse are frolicking in a meadow filled with butterflies. The frame pulls back and you can see they are not, in-fact, frolicking with butterflies, anymore at least, but instead are watching a video of themselves frolicking with butterflies. In other words, the child was watching a cartoon on a smartphone whose characters were watching themselves on a smartphone.

Smartphones have become so omnipresent it was only a matter of time before they showed up in children's shows. This paper analyzes messages found in children's shows regarding smartphones through the lenses of social cognitive theory and cultivation theory. Research on both theories tends to focus on gender, race, age, and violence. There has not been much research on how television shapes our views of new technologies such as smartphones. However, there has been a plethora of research on the effects smartphones are having on humans' biological, social, and cognitive systems.

Smartphones

Abbreviated History of Smartphones

A smartphone is "[a] mobile phone that performs many of the functions of a computer, typically having a touchscreen interface, Internet access, and an operating system capable of running downloaded apps" (Oxford Dictionary, n.d.).

Before 2007, basically all smartphones were similar in style to the BlackBerry with its screen and keyboard appearing as separate entities (Pierce, 2018). Then in January of 2007, Apple introduced its first iPhone to the world and quickly cemented itself as the most successful smartphone ever (Pierce, 2018). Since then the iPhone has only grown in popularity.

The iPhone's touch screen allowed for easier navigation and better viewing of photos, videos, and email (Gustin, 2013). In 2008, the App Store came out. An App is short for application, which is "a program or piece of software designed and written to fulfill a particular purpose of the user" (Oxford Dictionary, n. d.). Once the App Store went live, "[d]evelopers immediately began building apps and games that changed the way we communicate, work, eat, and play. The App Store made way for Instagram, Uber, and Tinder, and it turned the iPhone into the pocket computer it was always meant to be" (Pierce, 2018). Today, the iPhone is the standard by which all other smartphones are measured (Pierce, 2018).

A recent study by the Pew Research Center found that 77% of Americans own a smartphone (Mobile Fact Sheet, Feb 5, 2018). When looking just at Millennials, people born between 1981 and 1996 (Dimock, 2018), the number is even higher. A staggering 92% of Millennials say they own smartphones (Jiang, 2018). Further, 95% of children ages 13-17, "say they have or have access to a smartphone" and 45% say they are "almost constantly" online (Anderson & Jiang, 2018).

Negative Effects of Smartphone Use

Smartphone dependence (SPD) also referred to as smartphone addiction or problematic mobile phone use, is considered a behavioral addiction (Hu, Long, Lyu, Zhou, & Chen, 2017, p. 1). Younger smartphone users are more likely to be

addicted to using smartphones than older users (Alhassan, Alqadhib, Taha, Alahmari, Salam, & Almutari, 2018; Cho & Lee, 2017).

Hu et al. (2017) found that smartphone dependent individuals had abnormalities in the white matter of their brains. A similar study on altered brain activity and smartphone dependence found that excessive smartphone use diminished a person's ability to interpret facial expressions and therefore can have a detrimental effect on the ability to interact socially (Chun, Choi, Kim, Cho, Ahn, Nam, Choi, & Kim, 2017). When studying brainwaves and deep learning as it relates to smartphone overuse, Kim and Wang (2018) found that people who were at risk of developing smartphone addiction were more emotionally unstable than those who were not.

Numerous studies have shown a correlation between smartphone addiction and poor academic performance (Judd, 2014; Karpinski, Kirschner, Ozer, Mellott, & Ochwo, 2013; Rosen, Carrier, & Cheever, 2013, Hawi & Samaha (2016). Smartphone addiction can also have an effect on problem solving (Barr, Pennycook, Stollz, & Fugelsang, 2015). People who are more likely to use their intuition when solving a problem, rather than analyze it, rely on smartphones at a higher rate than those who are more likely analyze to a problem (Barr, et al., 2015). According to the authors, this finding demonstrates that people may be relying on technology to do their thinking for them (Barr et al., 2015, p. 473).

Studies have also found that smartphone addiction is associated with a decrease in general productivity (Montag & Walla, 2016; Duke & Montag, 2017), distracted driving (Coben & Zhu, 2013; Falkner, 2011), poor sleep quality (Yogesh, Abha, & Priyanka, 2014), inability to concentrate (Robert, Pullig, & Monoli, 2015), and may even lead to lower levels of life satisfaction (Lachmann, Sariyska, Kannen, Stavrou, & Montag, 2017). Further, "[s]martphone addiction can be a predisposing

factor to depression"(Alhassan, Alqadhib, Taha, Alahmari, Salam, & Almutari, 2018, p. 6).

There have been a number of studies on smartphone addiction and sexual behavior. A study on college students in Hong Kong found a relationship between using dating apps and risky sexual behaviors (Choi, Wong, Lo, Wong, Chio & Fong, 2016). The same study found smartphone addicted individuals are more likely to access pornography and engage in "cyber-verbal violence" (Choi, J., Choi, O., & Kim, J., 2017, p. 819).

Twenge and Martin (2018) conducted one of the few longitudinal studies that included smartphones as a variable. From 1991-2016, annual surveys were conducted to assess the psychological well-being of eighth, tenth, and twelfth graders (Twenge et al., 2018). The study found that since 2012 there has been a link between decreases in psychological well-being and amount of time spent on smartphones (Twenge et al., 2018). Respondents who spent the least amount of time on their smartphones reported being the happiest (Twenge et al., 2018). Respondents who reported spending more time on their smartphone and less time doing non-smartphone involved activities had the worst psychological well-being (Twenge et al., 2018). Further, "[p]sychological well-being was lower in years when adolescents spent more time on screens and higher in years when they spent more time on nonscreen activities, with changes in activities generally preceding declines in well-being" (Twenge et al., 2018, p. 765).

Finally, even the mere presence of a smartphone can reduce the amount of enjoyment one has from face-to-face interactions (Dwyer, R. J., Kushlev, K., Dunn, E.W., 2018).

Positive Effects of Smartphone Use

It's not all doom and gloom, though; there have been positive findings about smartphones. Positive findings regarding smartphone use include increasing communication, tracking activities, and assisting with learning.

Smartphones have been found to be helpful in increasing communication between youths in foster-care and their caregivers, family members, and friends – a key factor in helping them "navigate life's challenges" (Denby, Gomez & Alford, 2016, p. 183).

Anshari, Almunawar, Sharill, Wicaksono and Huda (2017) found that high school and college students are using smartphones to communicate with teachers outside the classroom. Students further reported using smartphones because they are convenient and portable, allow for multitasking, and are environmentally friendly (Anshari et. al, 2017).

Machmud and Abdulah (2017) conducted a study on whether smartphones could help foreign students who had anxiety about speaking English in the classroom. They compared low-anxiety students and high-anxiety students (Machmud & Abdulah, 2017). They found that both groups achieved higher scores when they used smartphones as learning devices than when the students did not use smartphones (Machmud & Abdulah, 2017).

Other positive findings regarding smartphone use include increasing happiness from taking photos (Chen, Mark & Ali, 2016), helping children learn how to cross the street (Schwebel, Wu, Li, Severson, He, Xiang & Hu, 2018), and tracking alcohol consumption (Monk, Heim, Qureshi, & Price, 2015).

Based on the above research it is clear that smartphone use is affecting humans in many ways. What is not clear are the messages we are being sent regarding smartphones. What follows is a general overview of the relevant

literature on social cognitive theory and cultivation theory. These theories are then applied to specific messages in children's cartoons about smartphones.

Literature Review

This paper looks at children's shows through the lenses of Cultivation Theory and Social Cognitive Theory. First, cultivation theory is discussed beginning with the original studies in the 1960s through the present. Second, social cognitive theory is explicated beginning with Albert Bandura's "Bobo doll" study through the present.

Cultivation Theory

When George Gerbner (1994) developed cultivation theory in the late 1960s and early 1970s, he thought that television had replaced religion as the primary source of socialization. Gerbner (1994) explained the reason for the analogy "lies in the continual repetition of patterns (myths, ideologies, 'fact,' relationships, etc.) that serve to define the world and legitimize social order" (p. 18).

Cultivation Theory looks beyond the traditional media effects theories where change is measured in the short term (Gerbner, Gross, Morgan, & Signorielli, 1994). Rather, "cultivation" occurs only after long-term constant exposure to the cultural patterns found in most television programs (Gerbner et al. 1994). Gerbner et al. (1994) points out that individual differences, such as age, sex, and race, will affect what people watch, but what people watch can define what it means to be a certain age, sex, and race.

Original Studies

The original studies on cultivation theory focused on violence on television (Gerbner et al. 1994). The researchers found when they compared heavy television viewers with lighter viewers, the heavy viewers were more likely to believe the real world is like what they see on television. More specifically, heavy viewers are more likely to believe they

> will be involved in violence; to have exaggerated conceptions of danger, mistrust, and victimization; and to hold many inaccurate beliefs about crime and law enforcement. Those who watch more television say that you cannot ‘‘be too careful’’ in dealing with people, say that most people are ‘‘just looking out for themselves’’ and ‘‘cannot be trusted,’’ and believe that there are more people in law enforcement occupations than real-world job statistics show (internal citations omitted). (Morgan, Shanahan, & Signorielli, 2015, p. 681-82)

From these findings researchers developed the concept known as “Mean World Syndrome” (Gerbner et al. 1994). Cultivation Theory distinguished itself from other research at the time, which focused on whether violent stimuli caused aggressive behavior (Morgan, et al., 2015). Rather, cultivation theory looked at television’s effects on viewers’ perceptions of crime and violence over a long period of time (Morgan et al., 2015). Cultivation research progressed to include cultural indicators such as “gender, minority and age-role stereotypes, health, science, the family, education achievement and aspirations, politics, religion, and other topics” (Gerbner et al. 1994, p. 22).

Two main processes are at work within cultivation theory: resonance and mainstreaming (Morgan et al., 2015). Resonance means that real life experiences or “direct experiences” can contribute to cultivation (Morgan et al., 2015). When

someone comes into contact with violence on a regular basis and is a heavy television viewer, cultivation effects can be intensified (Morgan et al., 2015). Mainstreaming is where heavy television viewers become more likely to hold views found in television shows, that is, heavy television viewers take on a "relative commonality of outlooks and values that the television world tends to cultivate" (Gerbner et al. 1994, p. 28). Because television, at the time, only gave us a limited amount of programs, even a diverse public can be corralled into having similar views (Morgan et al., 2015). Further, mainstream views can even trump views developed by other means (Morgan et al. 2015). Specifically, "attitudes or behaviors that would ordinarily be attributed to social or political characteristics may be diminished or absent in groups of heavy television viewers" (Morgan et al., 2015, p. 682).

Changes in Technology

Cultivation theory is built on the basis that television, when compared to other media at the time, was a "relatively nonselective activity" (Morgan et al., 2015, p. 677). Cultivation theory was developed at a time when there was only broadcast television, which disseminated limited types of content to a heterogeneous audience (Morgan et al., 2015). At the time, though, the VCR and cable TV were not available, much less the internet and social media. The early studies on "new" technology (i.e. VCRs and cable television) concluded they would strengthen cultivation effects, because viewers would just receive more of what they were already viewing (Morgan et al., 2015).

Today's technology has fragmented television-viewing habits even more. In an era with vast amounts of content and ways to consume it, we "rarely engage in a shared ritual of most people watching the same thing at the same time" (Morgan et al., 2015, p. 678). While the amount of content and ways in which we consume

media content have changed drastically, the “important aspects” of content have not changed.

> Certainly today’s expanded technological media environment provides more content-specific programs dealing with any number of life-related issues (weddings, divorces, courts, food, pets, etc.), as well as the traditional fictional ‘‘stories.’’ And there is no question that certain venues are offering some programs of unusually high aesthetic and critical quality (at a price). There is more TV than ever before. But some common messages and lessons—regarding violence, victimization, gender, power, class, race, and much more—are remarkably persistent. (Morgan et al., 2015, p. 686)

Recent Studies

One of the more current developments in cultivation research is genre-specific analysis (Morgan & Shanahan, 2010). Genre specific analysis came in response to the critique that cultivation analysis made no distinction between television shows, “as if there were no appreciable differences between Laverne and Shirley and Starsky and Hutch” (Morgan et al. 2010, p. 340).

A number of studies have looked at daytime talk shows. Rössler and Brosius (2001) examined whether or not cultivation effects were present in adolescents who watched daily talk shows (e.g. Oprah Winfrey Show). They found cultivation effects were present in subjects with regards to perceptions of gay people, but not transsexual people or body piercing (Rössler et al., 2001). In studying their effects on perceptions of government involvement in social programs, Glynn, Huge, Reineke, Hardy, and Shanahan (2007) found that daytime talk shows play a significant role in forming public opinion. Evidence of cultivation was also found in heavy viewers of daytime talk shows with regards to messages about

marital infidelity, running away from home, and premarital sex (Woo & Dominick, 2001).

Cosmetic surgery and makeover shows have also received some attention. Nabi (2009) found evidence of cultivation in young adults who were exposed to programs highlighting cosmetic surgery. While cosmetic surgery shows did not affect perceptions of body image, a relationship was found between the shows and desire to undergo cosmetic surgery (Nabi, 2009). Further, heavy exposure to makeover shows was found to cultivate perceptions of self-esteem, perfectionism, and body dissatisfaction (Kubic & Chory, 2007).

Considering their pervasiveness it's no surprise reality shows have also been the focus of a number of studies. Ferris, Smith, Greenburg, and Smith (2007) found that young male heavy viewers of reality dating shows were more likely to have attitudes toward dating similar to those of individuals in the shows. Similarly, Ward (2002) found undergraduate students who were heavy viewers were more likely to support sexual stereotypes portrayed in television shows.

In addition to genre specific research, new studies on cultivation effects have looked at portrayals of mental health issues. Diefenbach and West (2007) found support for their hypothesis that public attitudes toward mental health were affected by negative media stereotypes. Similarly, Granello and Pauley (2000) found further evidence that heavy viewers were more likely to have intolerant views of people with mental health issues.

Television has also been found to affect perceptions of gays and lesbians. Whereas prior to the 1980s, homosexuals were portrayed in a negative light, since then portrayals of gay and lesbian characters "clearly shifted toward more positive (or less negative) and more 'normalized' images" (Morgan et al., 2010 p. 346). For

example, Calzo and Ward (2009) found that religious males who were heavy viewers were more likely to view homosexuality as an acceptable lifestyle.

Viewers' perceptions of science have also been studied. Original findings on science found that people perceived it to be potentially dangerous and that scientists were strange (Gerbner et al., 1994). Nisbet (2002) found that heavy viewers were more likely to be leery about science, but were also more likely to believe in the "promise" of science.

Video games have received some attention from cultivation researchers. Hopp, Parrott, & Wang (2018) investigated first person shooter (FPS) games. They found that individuals who play FPS games at a greater frequency report stronger feelings of moral disengagement (Hopp et al., 2018). Moral disengagement is the concept that people can re-classify immoral acts as something that is "worthy, just, necessary, or inconsequential" (Hartmann, Krakowiak, & Tsay-Vogel, 2014, p.3).

Whether it is video games, genre specific content, or traditional cultivation research, all of these studies still use the method of analysis originally developed by Gerbner.

Cultivation Research

Cultivation research has three steps (Gerbner et al., 1994). First, am institutional process analysis is conducted (Gerbner et al., 1994). Institutional process analysis investigates the how policies that direct the flow of mass media messages are formed institutional processes behind the flow of mass media messages are analyzed (Gerbner et al., 1994). In this step Second, samples of media messages are collected and analyzed "in order to reliably delineate selected features and trends in the world that television presents to its viewers" (Gerbner et al., 1994, p. 22). From this "message system analysis" Gerbner would create "hypotheses about what people would think about various aspects of 'reality' if everything they

knew about some issue or phenomenon were derived from television's dominant portrayals" (Morgan et al., 2010, p. 339). Third, the analyzed content is then used to create questions, which are given to people with varying amounts of television exposure (Gerbner et al., 1994).

It is the second step that will be the focus of cultivation analysis in this paper. That is, this paper will try to identify "consistent images, portrayals, and values" (Gerbner et al., 1994, p. 25) of smartphones in children's television shows.

The paper looks through the lens of cultivation theory because it is one of the most enduring theories of mass communication (Morgan et al., 2015). In fact, it is one of the most cited theories, if not the most cited theory, in mass communication journals (Morgan et al., 2015). Cultivation theory has been "a standby, warhorse, paradigmatic theory for mass communication theory for decades" (Morgan et al., 2015, p. 677).

Social Cognitive Theory

In addition to cultivation theory, social cognitive theory can also be used as a research tool or framework for analyzing mass media communication. Social cognitive theory looks at behavior though an agentic perspective (Bandura, 1986, 2001). Bandura used the term "agentic" to mean that people are not only shaped by their environment, but are also shapers of their environment (Bandura, 1986, 2001). In other words, "People are self organizing, proactive, self-reflecting, and self-regulating, not just reactive organisms shaped and shepherded by environmental events or inner forces" (Bandura, 2001 pp. 266). Simply stated, human agency works in concert with social structure (Bandura, 2001).

Bandura created a triadic model to explain social cognitive theory. Three "determinants influence each other bidirectionally" (Bandura, 2001 p. 266). They

are personal determinants, environmental determinants and behavioral determinants (Bandura, 2001). Most other theories argued that human behavior was controlled by a unidirectional process based on either environmental influences or traits of the individual (Bandura, 2001). Bandura (2001) argues the process is not an "either-or" situation. Rather, one's environment, personal traits, behavior all work in reciprocity with one another (Bandura, 2001).

Human behavior is not just affected directly by environmental factors; rather, human behavior is also affected by cognitive processes (Bandura, 2001). Our cognitive abilities allow us to learn from direct and vicarious experiences. Vicarious experiences allow us to learn without being directly affected. We can learn by watching (Bandura, 2001). One does not need to test the heat of a stovetop after watching a friend burn their hand on it. If this were not the case, "human development would be greatly retarded, not to mention exceedingly tedious and hazardous" (Bandura, 2001 p. 270).

According to Bandura (2001), four processes govern observational learning. First, attentional processes determine what we pay attention to (Bandura, 2001). Second, representational processes determine what we retain from observing modeled behavior (Bandura, 2001). Third, behavior processes occur when we determine which course of action to take based on observed behavior (Bandura, 2001). Fourth, motivational processes concern whether or not we will perform an observed behavior (Bandura, 2001).

Three types of major motivators influence motivational processes: direct, vicarious, and self-produced (Bandura, 2001). Direct motivational processes have to do with rewards and punishments we receive for acting out certain behaviors (Bandura, 2001). Of more importance to the study at hand are vicarious motivational processes (Bandura, 2001). When we observe a person perform a

certain behavior and the consequences of the behavior, we vicariously learn whether or not we should perform the same behavior (Bandura, 2001). Bandura (2001) notes that "People are motivated by the successes of others who are similar to themselves, but are discouraged from pursuing courses of behavior that they have seen often result in adverse consequences." This is similar to the situation where a younger sibling observes an older sibling rewarded for good grades and punished for skipping class; the younger sibling learns the rules of the road, while the older sibling was a crash test dummy. Third, there are self-produced motivational processes, which are personal standards or morals that determine what observationally learned behaviors one will act out (Bandura, 2001).

In the famous "Bobo Doll" study Bandura, Ross and Ross (1963), exposed children to models acting out aggressive behaviors on a Bobo Doll. The subjects were split into three experimental groups and a control group (Bandura et al., 1963). One group was exposed to a real-life model. Another group was exposed to film of a real-life model (Bandura et al., 1963). The final group was exposed to a cartoon model called Herman the Cat (Bandura et al., 1963). The models were rewarded or scolded for their aggressive behaviors. Bandura et al (1963) found that the children who were exposed to models who were rewarded for their behavior were more likely to exhibit aggression. Further, subjects exposed to the "human and cartoon models on film exhibited nearly twice as much aggression than subjects in the control group who were not exposed to aggressive film content" (Bandura et al., 1963 p. 9).

There has been some relatively recent research on social cognitive theory and new technologies. Campeau and Higgins (1995) found that behavior modeling was more effective than traditional lecture method for learning. Compeau, Higgins and Huff (1999) conducted another study on social cognitive theory and computing

technology. They found that the higher self-efficacy towards computers, the higher likelihood individuals would use and enjoy computers (Compeau et al., 1999). Further, the higher an individual's outcome expectations for using computers, the higher likelihood they would use and enjoy computers (Compeau et al., 1999).

A study looking at young people's intentions to use mobile banking technology found that greater exposure to media about mobile banking led to greater intention to use it (Ratten & Ratten, 2007). Greater outcomes for using mobile banking also led to greater intention to use mobile banking (Ratten et al., 2007).

Using social cognitive theory as a framework, Ahn, Johnsen Moore, Brown, Biersmith, and Ball (2016) created a virtual dog to try to get kids to eat their fruits and vegetables. There were three groups of children: those who received no treatment, those who used a computer, and those who used a computer with a virtual dog (Ahn et al., 2016). The computer program without the dog and the computer program with the virtual dog encouraged the children to eat fruits and vegetables. The difference was the dog's health would either improve or deteriorate depending on whether the dog consumed its fruits and vegetables. Children who interacted with the virtual dog on the computer were more likely to request greater amounts of fruits and vegetables than the other groups (Ahn et al., 2016). The virtual dog group and the computer group also ate more fruits and vegetables than the group who received no treatment at all (Ahn et al., 2016).

While there is research applying social cognitive theory and cultivation theory to technologies of different sorts, there is little research regarding those theories and smartphones specifically.

Research Questions

This study is important because smartphone use is widespread among children and is associated with a number of problems outlined above. Even if the negative effects of smartphone use are exaggerated, it is still important to study their effects simply because smartphone use is so widespread.

This analysis focused on four children's programs in which smartphones are used and sought answers to the following research questions:

(RQ1a) Who uses smartphones?

(RQ1b) Why are smartphones used?

(RQ2) What are the outcomes for using smartphones in children's television shows?

Chapter 2
Methods

A textual analysis was conducted of children's cartoons. A qualitative method was chosen because unlike quantitative methods, it allows for greater focus to be placed on underlying ideologies and cultural assumptions (Fursich, 2009). Further, textual analysis not only "allows the researcher to discern latent meaning, but also implicit patterns, assumptions and omissions of a text" (Fursich, 2009 p. 241). Textual analysis allows for greater exploration of those aspects of children's cartoons with regard to smartphone use. While this is labeled as a textual analysis, it should be noted that this is an exploratory study using content analysis to provide descriptive data.

A total of four television shows were analyzed. All of the shows are computer animated. The shows were chosen based on whether characters used smartphones and on the popularity of the programs as rated by a 2018 study by Parrot Analytics and a search on IMDb.com of TV series in the "Family" genre. Two male themed shows and two female themed shows were chosen to control for gender differences. The lead characters in *Paw Patrol* and *Nature Cat* are male and the lead characters in *Vampirina* and *Miraculous* are female. Because smartphones are a relatively new technology, only episodes released in 2018 were analyzed. Of the 42 total episodes 35 included smartphone use. The breakdown of episodes containing smartphones is found in Appendex A. The following shows were chosen: *Vampirina*; *Miracluous: Tales of Ladybug and Cat Noir*; *Nature Cat*; and *PAW Patrol*.

Vampirina is about a young girl who is a vampire. Her family moved from Transylvania to Pennsylvania to open a bed and breakfast. The show mainly focuses on how she and her family adjust to living with humans. Her neighbor, Edgar Peepleson, uses his smartphone to work on his vlog.

Vampirina appears on the Disney Junior and based on a series of children's books called Vampirina Ballerina. Disney's mission "is to entertain, inform and inspire people around the globe through the power of unparalleled storytelling, reflecting the iconic brands, creative minds and innovative technologies that make ours the world's premier entertainment company" (thewaltdisneycompany.com). The show is produced by Brown Bag Films.

Miraculous: Tales of Ladybug and Cat Noir is about two teenagers named Marinette Dupain-Cheng and Adrien Agreste who live in Paris. They transform into the superheroes Ladybug and Cat Noir. The evil Moth Hawk tries to uses little butterflies to turn people evil so they can try to steal Ladybug and Cat Noir's super powers. Marinette and Adrien both own smartphones. Alya Cesaire, Marinette's best friend, also owns a smartphone. Alya uses her phone to capture content for her vlog.

Miraculous first appeared on Nickelodeon in 2015. Nickelodeon's parent company is Viacom whose mission statement states, "[t]hrough television, film, digital content, live events, merchandise, studio production and more, we connect with billions of people in nearly every country in the world" (viacom.com). It is co-produced by Zagtoon, Method Animation, De Agostini Editore, Toei Animation, and SAMG Animation.

Paw Patrol also appears on Nickelodeon and is co-produced by Guru Studios and Spin Master Entertainment. *PAW Patrol* is about a boy named Ryder and his six dogs; Marshall, Chase, Zooma, Sky, Rocky, and Ruble. They protect

their town, Adventure Bay, from various threats. Ryder uses his smartphone to communicate with his dogs and others. There are a number of other reoccurring characters. Mayor Goodwig is the mayor of Adventure Bay. Mayor Humdinger is the mayor of the neighboring town, Foggy Bottom. Mayor Humdinger is the show's villain. Captain Tubort and his cousin Francois are also in many of the episodes. They also live in Adventure Bay and seem to get themselves in situations where they have to be saved.

Nature Cat is about a cat and his three friends: Daisy the Bunny, Squeaks the mouse and Hal the dog. They explore nature and in the process they learn about different animals, plants, and ecosystems. Daisy the Bunny uses her smartphone to look up information, take photos, and record and watch videos.

Nature Cat first appeared on PBS kids in 2015. Their mission statement states, "PBS offers programming that expands the minds of children, documentaries that open up new worlds, non-commercialized news programs that keep citizens informed on world events and cultures and programs that expose America to the worlds of music, theater, dance and art" (pbs.org). It is produced by Spiffy Pictures.

Episodes from the 2018 series for each show were analyzed. The following was documented: the frequency in which characters use smartphones; the reasons for using smartphones; how smartphones were used; and whether or not their use had a positive or negative outcome for the characters. The coding instrument was revised as needed. The final code sheet is available in Appendix B.

Specifically, as to cultivation theory this analysis focuses on "consistent images, portrayals, and values" (Gerbner et al. 1994 p. 25) of smartphones. For example, smartphones can be portrayed as something useful like in *Nature Cat* when Daisy the Bunny uses her smartphone to look up a type of plant. Or

smartphones can be portrayed as a distraction like when Edgar Peepleson has a hard time holding a conversation because he is on his smartphone.

Specifically, as to social cognitive theory, this analysis focuses on characters who model smartphone behavior, and the outcomes for characters for using smartphones. For example, who are using smartphones? Is it the “good guys” or the “bad guys”? When Daisy the Bunny uses a smartphone what are the consequences or outcomes? Will Daisy be rewarded for using her smartphone?

Chapter 3
Results

In general, this study found that the characters who modeled smartphone use tended to be those who helped others, in other words the "good guys." Smartphone uses included placing calls, taking photos and videos, and researching information. The majority of the outcomes for using smartphones were positive for the characters.

RQ1 a: Who uses smartphones?

In *Nature Cat*, Daisy is the only smartphone user for the vast majority of the episodes. Houston uses a phone once, but it is not clear whether it is a smart phone. Daisy is one of the main characters on the show and appears in every episode. She usually acts as a teacher to the other characters because she has a smartphone, which can access information. There are no villains in *Nature Cat*. Ronald comes the closest to a villain, but he presents more of a challenge than danger.

In *Vampirina*, Edgar is the only smartphone user. For the majority of each episode Edgar is looking at his smartphone screen or trying to take videos or photos with it. Edgar is depicted as constantly distracted.

In *Paw Patrol*, many of the characters have smartphones, but Ryder uses his smartphone the most. He is the hero. Ryder is never depicted as having any negatives traits or qualities. The only person who could be considered a villain on the show, Mayor Humdinger, never uses a smartphone.

In *Miraculous*, many of the characters have smartphones. The two heroes, Marinette and Adrien, have smartphones. The villain, Moth Hawk, does not have a smartphone. Alya, Marinette's best friend, is the main smartphone user on the show. Alya is a good friend to Marinette. Alya is always trying to convince Marinette to tell Adrien she has a crush on him. In that sense, Alya is depicted as a confident individual. The only time Alya makes mistakes is when she is on her smartphone trying to capture content for her vlog. For example, Alya's smartphone use leads to her capture and Marinette's potential demise in The Pharoah episode.

RQ1 b: Why are smartphones used?

The characters used smartphones for a number of reasons including looking up information, taking photos and video, and making calls. Phone calls are overwhelmingly used to ask for help. Characters in *Vampirina* and *Miraculous* take photos and videos for their vlogs. In *Nature Cat*, the smartphone is used to learn. A more detailed breakdown of the reasons for using smartphones follows.

Researching Information

First, only in the show *Nature Cat* were smartphones utilized to research information. On *Nature Cat*, Daisy is the only character to use a smartphone to conduct research. Daisy uses her smartphone to conduct research in eight out of 12 of the episodes analyzed. In all the *Nature Cat* episodes analyzed the characters need to learn something about nature. The smartphone takes a central role in this process. For example, in the "Moth Frolic Fest" the characters find a moth and are curious what it is. Daisy looked it up on her smartphone. Only in one episode does smartphone use lead to a negative outcome. In the episode "Stop and Hear the Cicadas" Daisy's smartphone is portrayed as a distraction. In that episode Daisy participated in a nature quiz. While she was studying nature facts on her

smartphone, she almost missed learning from being in nature itself. She wins the competition because she was eventually able to put her smartphone away and talk to a cicada. At the end of the episode Daisy's opponent Ronald complains that his book did not contain the winning fact. Ronald's complaint put books on the same level of distractibility as smartphones. The vast majority of the time, outcomes result in the characters learning about nature and using their newfound knowledge to solve problems. For example, in the episode "Dune Patrol" while the characters are at the beach, Ronald tramples the dunes. Daisy researches ways to protect and restore the dunes. The characters learn they need to install signs, fences, and crosswalks to keep people from destroying the dunes. The characters spend the rest of the episode installing fences, signs, and crosswalks.

Taking Photos and Video

Second, the camera feature on smartphones was also used by the characters. Characters use their smartphones to take photos or videos for a number of reasons. The characters use their smartphone cameras to document things and happenings. Smartphone cameras also present a means to gain notoriety or become famous by creating content for vlogs.

In *Vampirina*, Edgar is the only character to use the camera on a smartphone. In the majority of episodes in which Edgar appears he is trying to capture content for his vlog. For example, the very first episode titled "Going Batty," Edgar, believing Vampirina's house is haunted, brings his phone over to capture something creepy. Even though Edgar is persistent in his quest to capture something creepy he fails every time. Edgar uses his smartphone in all of the episodes he is in, except for the episode titled "Vampirina Ballerina" in which his role is limited to the episode's last two minutes.

Similar to Edgar in *Vampirina*, one of the characters in *Miraculous* uses her smartphone to capture content for her vlog. Marinette's best friend Alya starts vlogging in episode 4 season 1 titled "Timebreaker." In that episode, Alya is briefly shown recording a rollerblade race to put on her vlog. In the following episode titled "Copy Cat," once again Alya is briefly shown taking some photos for her vlog. In the remaining episode however, Alya spent the majority of her time capturing video for her vlog. In the episode "The Pharaoh" Alya's quest to capture content causes her to be kidnapped. While the Pharaoh and Ladybug are fighting Alya gets too close to the action and the Pharaoh captures her to use as a human sacrifice. At the end of the episode Alya is saved by Ladybug. Alya's smartphone also acted as a distraction for Ladybug. On two separate occasions in "The Pharaoh" Alya distracted Ladybug from fighting the bad guy because Alya wanted to capture video content for her vlog.

In *Paw Patrol*, the only time the camera feature on a smartphone was used was in episode six of season ten part one titled "Pups Save a Royal Concert." In that episode Luke Stars, a musician, takes a selfie at the castle where he performs a concert. Later in the episode, Sweetie the cat asks if she could get a selfie with Luke. Sweetie distracts Luke, steals his phone, and locks him in a tower.

In *Nature Cat*, Daisy uses her smartphone twice to take photos. She photographs a moth in the "Moth Frolic Fest." She takes another photo in the episode titled "Nature Art," which she later uses in an art show. Daisy's participation in the art show was peripheral to Nature Cat's role in that episode, so whether Daisy was going to win the art show was not addressed.

Thematically speaking, smartphone cameras are portrayed as a way to increase social standing. This is manifested in Alya's and Edgar's eagerness to

capture content even in the face of danger. This is manifested to a lesser extent by Daisy using her photos for an art show and Luke's selfie in the castle.

Placing Calls

With the exception of the show *Vampirina*, many of characters use smartphones to place calls. Paw Patrol had the most calls. *Paw Patrol* episodes routinely began with someone calling Ryder for help. Ryder also uses his smartphone to communicate with the dogs while they are conducting rescues. Ryder utilizes a video calling feature similar to Facetime when he makes calls.

Nature Cat had much fewer calls. Houston received a call from his cousin who was coming to visit. Interestingly, in episode three of season six titled "Lights out for Sea Turtles" Daisy uses a different phone to make an emergency call to the pets of the neighborhood. It did not appear to have any of the capabilities of a smartphone other than the ability to place calls. This phone is never mentioned again.

In *Miraculous*, Alya and Marinette call each other twice. Marinette calls Adrien once. When he doesn't answer she ends up accidently leaving a message telling him she has a crush on him. Marinette ends up secretly erasing the message before Adrien listens to it.

Phone calls were rarely placed in *Nature Cat*, *Miraculous*, and *Vampirina*. In contrast, smartphones were used to place calls multiple times in all the episodes of *Paw Patrol*. The overarching theme in *Paw Patrol* is that smartphones can save you from dangerous situations.

Utilities

In the *Nature Cat* episode titled "Moth Frolic Fest" Daisy uses the flashlight on her smartphone. In the *Vampirina* episode titled "Vamping Trip" Edgar attempted to use his flashlight and GPS, but his phone's battery died. In *Miraculous*,

Marinette uses her phone's alarm in the episode titled "The Bubbler" and she uses her smartphone to check the time in the "Mr. Pigeon" episode.

Ryder's Presentations

The use of smartphones to help facilitate presentations is unique to *Paw Patrol*. In all of the episodes, Ryder summons the dogs to headquarters using his smartphone by sending an alert signal to the dogs' collars. Once the dogs convene Ryder gives a presentation of what has happened and what they have to do. In "Pups and the Werepuppy" Captain Turbot and his cousin François get stuck on the side of a mountain. Ryder gives a presentation explaining to the dogs that the cousins are stuck. Ryder asks Marshall to use the ladder on his firetruck to get the Turbots down. Ryder's smartphone is synced to a large screen which all of the dogs can see at once. Ryder uses his phone to flip through slides similar to a Microsoft PowerPoint presentation.

RQ2: What are the outcomes for smartphone use?

One of the main themes throughout all of the shows is that smartphones are helpful. You can learn things like the characters in *Nature Cat* or you can save yourself and/or others like the characters in *Paw Patrol*. While smartphones are depicted as mostly helpful, they are also depicted as a distraction.

Positive Outcomes

In *Paw Patrol*, the plans Ryder gives in his presentations always work. Also, in every episode someone calls Ryder for help and they receive help.

On one occasion Ryder isn't able to summon one of the dogs. In "Rocky Saves Himself," Ryder uses his smartphone to summon the dogs, but Rocky doesn't show up. Ryder then uses a GPS type device to try to locate Rocky. Rocky's collar had fallen off in his sleep, so the GPS was showing Rocky in his

sleeping bag even though he was not. In the end, however, Ryder was able to locate Rocky by tracking his paw prints.

In the vast majority of situations phone calls are successful. The only exception was in "Pups save the tigers" when Captain Turbot drops his phone while being chased by a Tiger. Ryder tries to call but is unsuccessful. Captain Turbot is eventually saved. Overall, the calls to Ryder for help were answered and the individual(s) were saved.

In *Nature Cat*, Daisy primarily used her smartphone to research information. The information Daisy would find was always helpful, with the exception of the "Stop and hear the cicadas" episode. Daisy's smartphone is depicted as the main source of information.

In *Vampirina*, Edgar's smartphone never led to any necessarily positive outcomes. For example, he never used his phone to save himself or anyone else. Edgar's vlog was never portrayed as popular, despite his best efforts to capture content. Further, Edgar never used his phone to research information like Daisy in *Nature Cat*.

In *Miraculous*, besides Alya's vlogging, smartphone use was quite perfunctory. For example, Marinette would use her phone to check the time or as an alarm.

Negative Outcomes

In *Nature Cat*, the information Daisy looks up is always helpful, with one notable exception. In the episode titled "Stop and hear the cicadas" Daisy's smartphone use almost prevents her from winning the nature quiz show. Daisy ended up winning because she put her phone away to experience nature and while doing so learned about cicadas.

In the *Vampirina* episode titled “Vamping Trip” Edgar tries to use his phone’s flashlight and GPS, but the battery was dead. Edgar’s smartphone is depicted as a distraction. Nothing necessarily bad happens to him, but he is constantly enamored in his smartphone.

In *Miraculous*, this is taken one step further. Alya’s smartphone use, in the form of vlogging, led to her capture by The Pharaoh. Further, Alya also distracts Ladybug causing her to almost lose her battle against The Pharaoh. In the end, however, Alya is saved by Ladybug.

In *Paw Patrol*, the only somewhat negative outcome is when Captain Turbot loses his phone in the “Pups save tigers” episode.

Summary of Results

In all of the shows, smartphones were used by either the main character or one of the main character’s friends. Smartphones where never used by villains. The characters used smartphones to capture video for their vlogs. Smartphones were also used to answer novel questions and rescue those in danger. Positive outcomes outweighed negative outcomes. A notable exception is that smartphone use was sometimes portrayed as a distraction.

Chapter 4
Discussion

This study focused on what mass media, specifically children's cartoons, tell us about using smartphones. The study furthers research in cultivation and social cognitive theory by investigating a specific social phenomenon portrayed in media programs – use of smartphones. These theories help us understand how media affect how we look at the world or model mediated behavior. Cultivation theory explains how media can affect heavy viewers' world views when themes and images are consistently portrayed over time. This study was consistent with the second step in cultivation analysis – the examination of the themes and values regarding smartphone use in the programs. Such study is important as a precursor to the third step, which is establishing and testing hypotheses about the effect those images have on people's perceptions. For example, do people view smartphones the same way they are portrayed on TV? Are smartphones viewed as a bank of knowledge? Are smartphones viewed as a distraction?

The study also looked through the lens of social cognitive theory. Social cognitive theory explains that humans can learn vicariously through observation of models and the outcomes the models receive for engaging in certain behaviors. Vicarious learning can occur through messages mediated by mass media. This study analyzed models and outcomes for using smartphones in the genre of children's cartoons. This is an important precursor for testing Bandura's hypotheses regarding the effects of observing modeled behavior and its outcomes.

The characters who modeled smartphones were heroes, like in *Miraculous* and *Patrol Paw*, or friends of the main characters, like in *Nature Cat* and

Vampirina. In that sense, characters who use smartphones are presented as likable. None of the characters who caused trouble or tried to hurt others (i.e. villains) used smartphones.

The outcomes (i.e. the rewards and punishments) that characters received for using smartphones were somewhat mixed. In *Nature Cat*, outcomes were overwhelmingly positive. Daisy consistently used her smartphone to learn about nature and then share that knowledge with the other characters. There is one *Nature Cat* episode in which smartphone use led to a negative outcome. Daisy was using her smartphone to study for a nature quiz show. Daisy was on her phone so much while she was walking around in nature that she nearly missed learning about cicadas, which was the winning answer. The losing character, Ronald, used a book to study. When he lost the contest he complained that the winning answer was not in his book. Daisy reminded him the best way to learn about nature is to experience it. Therefore, Ronald's book was as equally distracting as Daisy's smartphone.

Nearly all the outcomes in *Paw Patrol* were positive. When characters were in danger they called Ryder for help and Ryder would oblige. The only somewhat negative outcome was when Captain Turbot lost his phone, but this was not much of a problem because he had already called Ryder for help and Ryder was on his way.

Causing a distraction was the most common negative outcome. Edgar Peopleson epitomizes this. Edgar's face is constantly staring at his smartphone. He is portrayed as enamored with capturing content to popularize his vlog. The show portrays vlogging and the pursuit of capturing content as a distraction from engaging in real life. Alya, in *Miraculous* suffered from the same affliction, except she was so distracted she was captured and almost sacrificed.

This study has a number of limitations. First, this study's sample size of four shows is quite small. Further, Gerbner's studies were longitudal. Also, there is the question of whether cultivation theory is still relevant in today's fractured media landscape.

The main limitation of this study in regards to social cognitive theory is this study, being a qualitative study, didn't test Bandura's theory. This study does however, suggest a place to start.

The implications of this study are that children are learning how to use smartphones before they can read or write. Parents who choose to prohibit smartphone ownership until their children are in their teens should be aware of the conflicting messages given by certain cartoons.

Future research into the area of resonance and smartphone use could be insightful when children are from homes where family members are heavy smartphone users. In that case, any cultivation effects should be increased (Morgan et al., 2015).

Conclusion

So what does all this mean? To the characters in these shows smartphones represented a bank of knowledge, a way to gain notoriety, and at times a distraction. Overwhelmingly, however, smartphones are portrayed as helpful. Like it or not, smartphones are not going away anytime soon. The number of people using smartphones has been steadily increasing since the first iPhone was released. Smartphone research however, is still in its infancy and further research is inevitable.

This study explored messages one technology sends about another newer technology. This study also shows that one technology teaches us about newer

technologies in ways we don't even notice. Before children can read or write they are being taught how to use smartphones via cartoons. Many parents may find this troubling and rightly so. Research on the effects of smartphone use range from poor academic performance to a loss of white matter in the brain.

While this is cause for concern, it is really not much different however, than the first cartoons with computers in them. If nothing else, this study highlights the continuous cycle of media imitating real life and real-life imitating media.

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Appendix A

Table 1.1 Episodes Containing Smartphones

Name of Program	Number of Episodes with Smartphones	Total Number of Episodes
Nature Cat	10	12 (six two-part episodes)
Vampirina	7	12 (six two-part episodes)
Miraculous	6	6 (one-part episodes)
Paw Patrol	12	12 (six two-part episodes)

Appendix B

Table 1.2 Summary of Episodes

Episode	Character	Reason	How used	Outcome	Misc.
Nature Cat					
Season 6 Episode 1 Part 1 "Mothfrolic-fest"	Daisy	Reminisce of time they frolicking with butterflies	Watching Video	It was enjoyable	When Hal shows up a second later the other group members don't want home to know he missed out on the butterflies. They feel bad and tell Hal. Hal gets sad he missed it but is hopeful he will see more.
	Daisy	To make Hal Feel Better	Looking up info on Butterflies	It makes Hal feel better	They find out even though butterflies won't be out (it's dusk) they can still find moths.
	Daisy	Record the experience	Takes photo of moth	neutral	
	Daisy	Attract Moths	Uses flashlight	Hal is able to frolic with moths because they are attracted to the light	
	Daisy	Find out the type of moth	Looks up type of moth	They find out	

Season 6 Episode 1 Part 2 “Dune Patrol”	Daisy	Fix dunes	Looks up info on dunes	They are able to fix the dunes.	
Season 6 Episode 2 Part 1 “Stop and hear the circles”	Daisy	Study nature facts	Looks up info	Gets distracted from learning from nature	Daisy eventually puts the phone down and talks to a cicada. Later there ends up being a question about cicadas and she gets it right. She wouldn’t have if she had stayed on the phone. You would think that this is showing the negative side to being on the phone however the same thing happens to Ronald but with a book
Season 6 Episode 2 Part 2 “Cold Blooded”	Daisy	Figure out what type of tracks were left behind	looks up info	Learns they were left by a snake	
	Daisy	Figure out what type of snake	Looks up info	determine it's a garder snake.	The overall outcome is that Daisy figure out what kept knocking over her pinecone pals.

Season 6 Episode 3 Part 1 “Lights out for sear turtles”	Daisy	call other pets to ask them to turn off their house lights	Call	The town's pets turn off their lights.	This is interesting because it is the only time Daisy makes a phone call, but rather than her normal smartphone, she uses a flip phone just for pet emergencies.
Season 6 Episode 3 Part 2 “Nature Art”	Daisy	Create art for art show	takes photos	Creates art	
Season 6 Episode 4 “Houston's Outdoor Adventure”	Daisy and Houston	Playing game	Playing game	Has fun	
	Houston	talk to cousin	receives phone call	Cousin tells Houston he is coming to visit.	
Season 6 Episode 4 Part 2 “Hotel Hal”	No Phone				
Season 6 Episode 5 part 1 “Let's talk Turkey Vulture”	Daisy	find out what "scavengers" means	Looks up info	Learns what a scavenger.	Finds out the importance of Turkey Vultures when everyone else is grossed out. Helps her be a more understanding person.

Season 6 Episode 5 part 2 “Prescription Nature”	No Phone				
Season 6 Episode 6 Part 1 “Enter the Dragonfly”	Daisy	Show Ronald what a dragonfly is	Looks up info	Ronald learns	
	Daisy	learn about dragonflies	Looks up info	Everyone learns	
	Daisy	Learn why an animal could lose its skin	looks up info	Ronald learns	They find a bunch of dragonflies.
Season 6 Episode 6 Part 2 “Water Woes”	Daisy	Learn why lake is dry.	looks up info	Learn that the town gets their drinking water from the lake.	
	Daisy	Learn what they can do to make it rain	looks up info	There is nothing they can do to make it rain.	
	Daisy	Learn how they can make water last longer	Looks up info by literally asking phone like siri	A video shows them how. They are able to save water.	

Vampirina					
Season 1 Episode 1 Part 1 “Going Batty”	Edgar Peopleson	Put something spooky on Vlog	Uses camera	Doesn't find anything.	V says “You have a webshow that's cool how many viewers. He says 6 including his grandma and dog.
	Edgar Peopleson	Put something spooky on Vlog	Uses camera	Takes pic of V's parents	
	Edgar Peopleson	Playing game	Playing game	Gets bored and leaves	
	Edgar Peopleson	Put something spooky on Vlog	Uses camera	Doesn’t find anything.	
Season 1 Episode 1 Part 2 “Scare B and B”	Edgar Peopleson	Retrieve phone from room where he forgot it	Retrieves phone	Retrieves phone	Doesn't say why he looked for phone.
Episode 2 Season 1 Part 1 “The Sleep Over”	Edgar Peopleson	Take picture of something spooky presumably for his vlog	Uses camera	takes picture of the statue	

	Edgar Peopleson	Find werewolf for blog	Uses video camera to stream live on his vlog	Sees werewolf and starts screaming "The werewolf ate my phone"	
Episode 2 Season 1 Part 2 “Portrait of a Vampire”	No Phone				
Episode 4 Season 1 Part 1 “The Plant Predicament ”	No Phone				
Episode 4 Season 1 Part 2 “Mummy Mayhem”	Poppy Peopleson	Make The Mummy feel better	Shows news video of people looking for him	The mummy feels better because he is wanted.	The mummy is sad because the kids rather look at the dinosaur exhibit.
	Edgar Peopleson	Take photo of Mummy at exhibit	Takes photo	Gets a photo	Doesn't say if he will put it on his blog.
Episode 6 Season 1 Part 1 “Vamping Trip”	Edgar Peopleson	capture bigfoot for his webshow	Never gets to take a photo	Never gets to take a photo	

	Edgar Peopleson	Work on Webshow	Doesn't Show exactly but it looks like he is typing		He is preocupied with his phone on and off for the majority of the first half of the episode.
	Edgar Peopleson	Find way out of the woods	Flashlight and gps	Can't use it because phone dies	He went on a walk with his mom and they got lost.
	Edgar Peopleson	capture bigfoot	Phone camera	Can't use it because phone dies	The werewolf turns back to normal. Edgar ends up apologizing for not doing that much camping stuff. His mom asks him if he wants her to charge it in the car and he says not because he wants to do stuff together.
Episode 6 Season 1 Part 2 “The Monster Snore”	Edgar Peopleson	Capture viral video everyone will want to see	Phone Camera	Never finds the monster	Bridgette had a monster under her bed that Edgar was trying to find for his Vlog.
Season 1 Episode 7 Part 1 “Bone Appetite”	No Phone				No Edgar
Episode 7 Season 1 Part 2 “Woodchuck Woodsie”	No Phone				No Edgar

Episode 17 Season 1 Part 1 “Vampirina Ballerina”	No Phone				Edgar is in Episode briefly but without his phone.
Episode 17 Season 1 Part 2 “Treasure Hunters”	No Phone				No Edgar
Miraculous					
Episode 1 Season 1 “The Bubbler”	Marinette	Alarm to remind her of Adrien's Bday	The alarm goes off	She wakes up happy b/c it's Adrien's Bday	She has a crush on Adrien
Episode 2 Season 1 “Mr. Pigeon”	Marinette	Check time to see how long she has until contest is over	Looks at phone	knows time	
	Sabrina	Steal Marinette's hat design	Uses Camera	Is able to take a picture while Marinette isn't looking	
	Marinette	Check time to see how long she has until contest is over	Looks at phone	knows time	

	Marinette	Check time to see how long she has until contest is over	Looks at phone	knows time	
	Ayla	Check on Marinette to see why she isn't at the contest	Calls her	Marinette doesn't answer	A second later Marinette arrives with the hat she designed.
Episode 3 Season 1 “Stormy Weather”	Little girl	Vote in contest on TV	types in phone	votes	
Episode 4 Season 1 “Timebreaker”	Classmate /Time-breaker				Dad gives her a new watch for her birthday. She says she doesn't need it because she already has a watch that is synced with her phone
	Ayla	Call Marinette to ask her to bring a banner to a rollerblade competition	Calls her	Marinette forgot but quickly makes it and bring it to race.	
	Ayla	Capture the race for her vlog	Uses the phone camera	Doesn't really say	

	Lady at bakery	Calls Marinette's dad to find out why the Bakery is closed.	Calls him	He gets worried.	Marinette show up like a minute later.
Episode 5 Season 1 “Copy Cat”	Marinette	Get Adrien's cell number	Calls Ayla	She give it to her	
	Marinette	Talk to Adrien without being so nervous because they won't be in person	Calls Adrien	He doesn't answer. He goes to his voice mail. Marinette accidently says she has a crush on him.	
	Adrien	Check Phone for calls/messages	Goes to look at it	Then remembers he is late for a statue ceremony	
	Ayla	taking phots for blog	Uses camera		
	Marinette	erase message	Can't figure it out	Can't figure it out right away	eventually figures it out.
Episode 6 Season 1 “The Pharaoh”	Ayla	Video of Ladybug for Vlog	Uses camera	Captures Ladybug inaction for Vlog	It's live streaming

	Marinette				Watching the Vlog the next day. Her kwami named Tikki says Ayla is really devoted to her vlog.
	Ayla	Video of Ladybug for Vlog	Uses camera	Captures video of hieroglyphics	Adrien is watching and gets super excited Ladybug could be a classmate. Ayla comments that the hieroglyphics better be blog worthy
	Ayla	Video of Ladybug for Vlog	Uses camera	Capture video for blog	Gets kidnapped by Pharaoh
	Ayla	tries to interview ladybug for vlog	Uses camera	Distracts ladybug and she is thrown into a wall by The Pharaoh	
	Ayla	tries to interview The Pharaoh for vlog	Uses camera	Distracts him a little but not enough to escape	
	Ayla	tries to interview ladybug for vlog	Uses camera	Distracts ladybug and she is knocked over by The Pharaoh	Ladybug wins a second later

	Ayla	interviews ladybug for vlog	Uses camera	Ladybug answer a question about her age. She says she is 5000	
Paw Patrol					
Episode 1 Season 10 "Pups save the Tigers"	Captain Tubot	Needs help	Calls Ryder via facetime like app	Gets saved	
	Ryder	Receives call from Cpt. Tubot			His phone is strapped to his wrist
	Captain Tubot				Loses phone while being chased by a tiger
	Ryder	Gather the dogs	Uses phone to send an alert to the dogs collars	Dogs get the alert	They do the presentation
	Ryder	Presentation on what happen and what they have to do	uses phone synced with big screen	Dogs understand plan	
	Ryder	Find Turbot	calls Turbot	Turbot doesn't answer	Capt. Tubot lost his phone when the tiger chased him.
Episode 2 Season 10 Part 1 "Rocky Saves Himself	Captain Tubot	Needs help	Calls Ryder	Ryder answers	Ryder has his phone in his pocket.

	Ryder	Receives call from Cpt. Tubot			Capt. Turbot called him because Mayor Hundinger's cats are polluting the ocean.
	Ryder	Gather the dogs	Uses phone to send an altert to the dogs collars	Dogs get the alert	They do the presentation
	Ryder	Communicate with Sky	Calls via phone mounted on jetski	They communicate successfully	
Episode 2 Season 10 Part 2 “Pups and the Mystery of the Riderless Snow Cat”	Snowmobile Owner	Calls for help	uses phone	Gets help	
	Ryder	Presentation on what happen and what they have to do	uses phone synced with big screen	Stops the snowmobile	
	Ryder	Communicate with Sky	Tell her to turn of Danny's remote	She turns off Danny's remote	
Episode 3 Season 10 “Pups Save the Movie Monster”	Ryder	Gather the dogs	Uses phone to send an alert to the dogs collars	Dogs get the alert	

	Ryder	Presentation on what happen and what they have to do	uses phone synced with big screen	Stops monster	
	Ryder	Communicate with Sky	uses screen on ATV	They communicate successfully	His eyes to appear to be on the road, but he has a helmet on.
	Sky	Communicate with Ryder	tell him where the monster is	They communicate successfully	
Episode 4 Season 10 Part 1 “Pups Save the Trick-o-Treaters”	Neighbor hood kids	Call Ryder for help	Tell him someone is taking all the candy	Stops the Spider	
	Ryder	Presentation on what happen and what they have to do	uses phone synced with big screen	Stops the Spider	
	Ryder	Communicate with Sky	Get a scarecrow to scare away an eagle	Sky scares away the eagle	
Episode 4 Season 10 Part 2 “Pups Save an out of Control Mini Pup”	Cow Groomer	Orders shampoo	Calls Vender	gets shampoo	

	Darring Danny X	Call Ryder for help	Calls Ryder	Gets help	
	Ryder	Presentation on what happen and what they have to do	uses phone synced with big screen	Stops Rocket Bike	
	Ryder	Communicate with Zooma	uses phone mounted on ATV	Zooma saves Alex	
Episode 5 Season 10 Part 1 “Pups and the Werepuppy”	Captain Tubot	Call Ryder for help	uses phone	He gets rescued	
	Ryder	Find Rocky	GPS device on phone that locates the dogs collars	Didn't find him.	They eventually find him but not due to the GPS
	Ryder	Presentation on what happen and what they have to do	uses phone synced with big screen	Finds Rocky	
	Ryder	Communicate with Sky	uses phone	doesn't see rocky	
	Zooma	Communicate with Ryder	uses phone	Tells him about some tracks	Helps them find Rocky
	Old Lady	Call Ryder for help	uses phone	Gets help	

Episode 5 Season 10 Part 2 “Pups Save a Sleep Walking Mayor”	Mr. Wingnut	Call Ryder for help	uses phone	Gets help	When his phone rings Ryder is sleeping. He answers right away. The phone must have been extremely close.
	Ryder	Presentation on what happen and what they have to do	uses phone synced with big screen	Save the piglets, Mr. Wingnut, and Mayor Goodwig	
Episode 6 Season 10 Part 1 “Pups Save a Royal Concert”	Luke Stars	Take selfie	Uses camera	Gets selfie	
	Sweetie the Dog				She asks Luke for a selfie, but pretends to have lost her actual camera. He gets his phone and the dog gets a selfie stick. They never take the photo though because Sweetie traps him in the castle tower and steals his phone and microphone.
	The Earle	Call Ryder for help finding Luke	uses phone	Finds Luke	

	Ryder	Presentation on what happen and what they have to do	uses phone synced with big screen	They find Luke	
	Mayor Goodwig	Calls Luke's phone to find it.	uses phone	The phone rings in Sweetie's pocket	They catch Sweetie for stealing Lukes phone.
	Ryder	Communicate with Sky	uses phone	Catch Sweetie	
Episode 6 Season 10 Part 2 “Pups Save the Princess Pals”	The Earle	Call Ryder for help	uses phone	Ryder helps him	
	Ryder	Presentation on what happen and what they have to do	uses phone synced with big screen	They save the animals and The Earle	They catch Sweetie.