

CULTIVATING DIGITAL MINDFULNESS IN AN ERA OF CONSTANT
CONNECTION: A PHENOMENOLOGICAL EXPLORATION
OF COLLEGE STUDENTS' DIGITAL DETOX

by

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THESIS ABSTRACT

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The “always on” culture of constant connectivity afforded by the ubiquity of smartphones and social media has profoundly influenced society, reorienting our sense of self and connection to others. This thesis particularly investigates the impact of these technologies on present-day college students, who are among the first to incorporate these tools into their ongoing identity development processes from adolescence into emerging adulthood. Specifically, it explores how the absence of everyday devices during a “digital detox” alters their experiences of self, socialization, and ways of being in the world. Phenomenological analysis through participant observation and interview methods reveals how the digital detox provides an opportunity for these emerging adults, who have grown up predominately using these technologies of virtual extension—values espoused in a culture of constant connection— to recognize the value of embodied experiences. The digital detox experience can encourage the cultivation of more digitally mindful media and technology use.

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Learning how to think really means learning how to exercise some control over how and what you think. It means being conscious and aware enough to choose what you pay attention to and to choose how you construct meaning from your experience. The alternative is unconsciousness, the default setting, the rat race, the constant gnawing sense of having had, and lost, some infinite thing.

-David Foster Wallace

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CHAPTER I
GROWING UP DIGITAL: UBIQUITOUS MEDIA & TECHNOLOGY
AS THE ‘DEFAULT MODE’

Born the same month the world wide web went public in August 1991, I have largely grown up incorporating various iterations of Internet-enabled media and technology throughout my development (Berners-Lee, 1993). Considering these formative engagements, in which I was practicing typing and “surfing the web” in computer class by third grade and regularly communicating with my school friends online through our AIM screennames by fifth grade, I have come to recognize my identity as a “digital native” (Palfrey & Gasser, 2010). The summer before high school, I created my first social media account on Myspace, which I replaced with Facebook by sophomore year of high school. I maintained this account for just over a decade before deactivating my Facebook account for good in 2016. I received my first laptop when I moved into my freshman college dorm and achieved pivotal digital immersion when I purchased my first smartphone, *sans data plan*, when I was twenty years old toward the end of my junior year of college in 2012.

Despite my recognition of the numerous ways my development has been influenced by mediations with these continually emerging media technologies, when I compare my experience to that of my youngest sibling, born seven-and-a-half years after me in 1999, I consider how vastly different her experiences must be to mine. While my birth was ushered in with the arrival of the net, hers was accompanied with the release of the first Blackberry smartphones. I purchased my first smartphone nearing the onset of emerging adulthood, while my youngest sister received her first hand-me-down

smartphone in eighth grade, in the midst of her early stages of adolescence. Although there may not appear to be too much disparity between her first social media account in sixth grade and mine in eighth, it is useful to consider that I developed my Myspace in 2005, the year after the social network launched, while she created her first Facebook account in 2012, eight years after the site was founded, during which time the social network had undergone a wide range of transformations to social norms.

Recognizing the ubiquity of highly-connected mobile media like smartphones with increasingly affordable data plans and the ever-expanding social media platforms beyond Facebook, now extending to Twitter, Instagram, Snapchat, and it is important to consider how these technologies may influence my sister's development when incorporating them into her life at the onset of adolescence. In a larger sense, I recognize that this as a critical juncture that poses a wealth of questions about the long-standing impact these new engagements will have on my sister and the generation of her peers.

Generation Z—considered those born in 1995 until about 2005—who have incorporated these highly connective forms of media and technology into their lives since young ages. They approach emerging adulthood and are entering college. How has growing up with these tools influenced their development? How do they continue to play into their ongoing development in emerging adulthood? Much of the existing literature on media and technology effects has focused on the “downstream” impact of web-enabled mobile media within positivist and post-positivist research paradigms, typically culminating with recommendations that posit the need to develop more sustainable media approaches. However, much of the literature falls short of laying out recommendations for how to accomplish such tasks. This investigation, accordingly, offers the digital detox

as a potential solution, enabling those raised in an era of constant connection now transitioning into emerging adulthood to establish more balanced media diets. This study posits that an effective first step is assessing the extent of media and technology's impact on young people's lives.

In 2005, Novelist David Foster Wallace delivered a commencement speech at Kenyon College, encouraging the graduates to consider awareness and choice as the true markers of education, preparing them for the “boredom, routine, and petty frustration” awaiting them in average adulthood (Foster Wallace, 2005). Early in the speech, he offers an allegory to demonstrate the simplicity of failing to recognize the nature of reality:

There are these two young fish swimming along and they happen to meet an older fish swimming the opposite way who nods at them and says, “Morning boys, how's the water?” And the two young fish swim on for a bit and then eventually one of them looks over to the other and asks, “What the hell is water?”

Foster Wallace describes these “automatic and unconscious” assumptions about the nature of reality—the “water” in this allegory—referring to this as our “natural default setting,” which he claims “tends to be so automatic and easy that it doesn't need to be a choice” (Foster Wallace, 2005). This natural default setting serves as an apt analogy to describe the state of constant connection experienced by many in contemporary society. Media and technology are so embedded in everyday life, particularly the lives of those who have grown up alongside it, that asking Generation Z students to critically assess the influence it has on various aspects of their lives may

prove challenging. However, by taking students out of the media and technology-saturated environments they are typically immersed in (Padilla-Walker & Coyne, 2011), *taking the fish out of water so to speak*, they may be better able to recognize and articulate the full range of influences that their various media and technologies exert upon their social lives, behavior and meaning-making practices.

Every term, an introductory Media and Society course offered in the University of Oregon School of Journalism and Communication typically assigns a “digital detox,” requiring students to refrain from all media use for eight hours and write a subsequent reflection on the experience. This thesis analyzes the digital detox assignment, using phenomenology as a theoretical grounding as well as a methodological approach with observation, interviews, and textual analysis. In doing so, it seeks to address how current college students who have grown up in an era of constant connection make sense of a digital detox experience and explores how a digital detox experience may serve as a catalyst to encourage emerging adults to critically assess their media engagements to cultivate digitally mindful practices. Further, this thesis conducts a critical analysis of research methodologies in this burgeoning field to consider what is gained by employing interpretivist methods of phenomenology. This thesis contributes to the growing acknowledgement in the field (Burke Johnson & Onwuegbuzie, 2014; Denissen, Neumann, van Zalk, 2010; Hjorth, Horst, Galloway, & Bell, 2017) of the need to develop collaborative research approaches, namely through mixed methodologies, a move that is particularly necessary “when analyzing cultural practices that are deeply enmeshed in and mediated by the Internet” (Hjorth et al., 2017).

Appraisal of the Current Media and Technology Landscape

The upswing of global Internet use in the past two decades has been prolific, demonstrated by the four billion people—just over half of the world’s population—who are active Internet users as of April 2018 (statistica, 2018) compared to the roughly 4% of the population that was online in 1999. This has produced a wide range of transformations for “communication, working, and being,” (Escobar, 1994, p. 214), opening new pathways for “the exploration of self and sociability,” among users (Turkle, 2005, p. 3). Such transformations have been afforded in part by web-enabled mobile devices like smartphones, which have become increasingly accessible and affordable in recent years. Of the 95% of Americans who own cell phones today, 77% of these are smartphones, a rise from 35% in 2011 (Pew Research Center, 2018).

Due to these rising rates of accessibility and affordability improving considerably in the U.S., certain aspects of the ‘digital divide’ produced by socioeconomic conditions have closed substantially in recent years. For instance, smartphone ownership, which was varied by racial category a decade ago, is now equitable across different racial categories, though other digital gaps persist (Perrin, 2017). The most significant socioeconomic determinant in the digital divide today is income, as the digital lives of high- and low-income Americans differ drastically (Anderson, 2017). For instance, the rates of smartphone ownership, desktop/computer ownership, and home broadband connection is nearly ubiquitous for Americans earning over \$30,000 a year¹, yet these rates drop dramatically for low-income Americans. One fifth of adults in low-income households rely on “smartphone-only” Internet access, while a larger percentage of Black and

¹ with not much disparity between middle-income Americans and those with high-income, over \$100,000 a year

Hispanic people have “smartphone-only” access compared to white people (Perrin, 2017). A majority of white people have a home desktop computer (83%) and home broadband internet (78%). These rates are much higher than that of Black or Hispanic people (Pew, 2017). There are repercussions for online activities such as job seeking, as well as completing online assignments, contributing to a persisting digital divide stemming from forms of home-access, for instance though a developing “homework gap” (Anderson, 2017).

Despite the persisting digital divides that remain, it is clear that the increasing accessibility and affordability of web-enabled devices and smartphones has resulted in significant adoption rates in the past decade. Within ten years of the launch of Facebook, for instance, the site now has over two billion active users, and of the four billion global active internet users, three billion use some form of social media daily (statistica, 2018.) In this relatively short time, the smartphone and social networks in particular have had a profound influence on reorienting our sense of self in the world.

Growing Up with Media Ubiquity

These new media technologies have been particularly impactful among youth populations, as longitudinal studies tracking exposure reveal that youth media exposure has been steadily rising. A 2010 Kaiser Family Foundation report found that people between 8-18 years old encountered a daily average of 10 hours and 45 minutes of media when accounting for media multitasking, an increase of 25% from the daily average in their 2004 findings (Rideout et al., 2010). Tracking the average mobile media time 0-8-year-olds encounter daily, Common Sense Media has found the rate to triple in every

study released: 5 mins in 2011 tripled to 15 in 2013; this average tripled again in their 2017 report, with daily time averaging 48 minutes (Rideout, 2017).

A 2015 report by Common Sense Media, which excluded media encountered for schoolwork from their data, divided young people into groups of tweens (8-13-year-olds) and teens (14-18-year-olds), and found that tweens encountered an average of nearly six (5:55) hours of entertainment media per day—of which 74% is screen-based, while teens encountered an average nearly nine (8:56) hour of media per day, of which 75% is screen-based (Rideout, 2015). The Kaiser Family Foundation and Common Sense reports employed different methodologies examining populations and therefore data cannot be directly compared. But it is nonetheless apparent in assessing the reports that media consumption is a substantial component of young people’s day-to-day lives.

Through data collected in a nationally representative survey, Common Sense reports demonstrates how media diets vary widely among individuals and across age groups. In noting that the total screen time “can mask substantial variations in the types of media young people ate devoting their time to,” the researchers developed ‘media profiles’ to categorize users based on a factor analysis of time spent in various media activities; these profiles were typically defined by those in at least the 75th percentile for use of a particular medium and included: ‘mobile gamers’—averaging 2 daily hours; ‘social networkers’—with at least 85 daily minutes; ‘heavy viewers’—with at least 210 minutes; ‘video gamers’—an exclusive tween category; ‘readers’—those who spent 30 minutes or more reading or writing, ‘gamer/computer users’—with at least 180 minutes of daily use, and ‘light users’—for those who didn’t fall into any category (Rideout, 2015, p. 27).

Examining the averages among different media profiles developed by Common Sense, such variations in use becomes more evident. While tweens on average encountered nearly six hours of media per day, those considered ‘social networkers’—70% of whom are girls—averaged nearly ten hours (9:59), while those categorized as ‘lighter users’ encountered an average of over two hours (2:16) daily. Similarly, on average teens encounter nearly nine hours of media daily, yet ‘light users’ averaged significantly less (3:40), while “heavy viewers”—which described one in four teens—were the highest media consumers, averaging 16 hours and 24 minutes of media daily—81% of which is screen-based. Given all of this diversity, some commonalities exist, particularly in that teens report using traditional forms of media like television and music at higher rates than newer forms like social media, though the way they are consumed by teens has shifted to highly mobile methods (Rideout, 2015).

Internet access and mobile phone use has become common place for most youth today. The average age for a child to receive their first smartphone was age ten according to a 2016 poll from Influence Central, which also found 50% of children to have social media accounts by age twelve. According to a 2015 Pew report, 88% of American teenagers had access to a cell phone, of which 73% were smartphones; by the end of 2016, 89% of teens had smartphones (Lenhart, 2015). The report further stated that 92% of teens go online daily, and 24% reported being online “almost constantly.” With large swaths of time devoted to digital devices and virtual connection, concern has been raised as public health experts contend that youth well-being, social connectedness and empathy are under threat in digital life (James et al., 2017).

New Media & Adolescence Development

It is crucial to investigate the influence of media use among contemporary youth, given what is known about the periods of adolescence and emerging adulthood both in terms of the developmental goals of these life stages and the increasing ubiquity of media presence during this time. This becomes all the more crucial to explore as many of those who have grown up incorporating highly immersive and connective forms of mobile media like smartphones and social media into their lives are now transitioning from adolescence to emerging adulthood. The high rates of media use among adolescents has led scholars to question the extent to which these teens have allotted time for solitude, particularly given the highly social nature of many of the forms of media and technology they engage with (Thomas & Azmitia, 2014; Turkle, 2015).

Winnicott (1958) theorized that the capacity to be alone is a critical marker of psychological health, and researchers have subsequently established that the capacity for solitude is crystalized during adolescence (Larson, 1997; Marcoen & Goossens, 1993). Solitude serves the adolescent as a “strategic retreat that complements social experience,” enhancing capacity for emotional self-regulation (Larson, 1997, p.81). It provides teens with the needed “opportunity to relax and step back from the demands of enacting a public self with peers” (Marcoen & Goossens, 1993, p. 90-91).

Evidence from neuroscience research reveals that solitude contributes to forming identity, as when adolescents are alone they are able to engage in what is known as the brain’s “default mode network” without interruption, which allows individuals to build a stable sense of an autobiographical past (Spreng, Mar & Kim, 2009). The task of developing a stable, coherent identity as espoused by Erikson (1968) comes as

adolescents face an “identity crisis” which he terms the “identity vs. isolation stage” during which time an adolescent must overcome uncertainty and become more self-aware in order to define themselves, their values and their direction in life. Failing to resolve this identity crisis can leave an adolescent unprepared for later stages leading to adulthood (Erikson, 1950).

Social media is not private like a diary that can be locked away, as Turkle (2015) explains, “it’s a new thing: a public space that we may nevertheless experience as the most private thing in the world,” which questions how truthful one should be and what this means for self-reflection (p. 85). Adolescent use of social media sites has continually increased, spreading to additional platforms besides the most dominant Facebook, to those like Instagram, Twitter and Snapchat, creating more social spaces to interact with others online (Duggan et al., 2015). While Facebook and Instagram were the most used, each by 77% of young people in 2016, the use of other sites is climbing, as 49% participate in Twitter and 47% in Snapchat (Influence Central, 2016).

In addition to interaction, social media creates new spaces for identity exploration and self-reflection, albeit in publicly networked spaces (Turkle, 2015). Of their 800 million users, an impressive 500 million visit Instagram daily, and 95 million images are uploaded to app daily, demonstrating how this sharing is additionally shifting to increasingly visual formats. As such, the question emerges of when, and to what extent, adolescents have moments of respite, to attend to themselves in solitude—especially as these individuals transition into emerging adulthood.

Transitioning into Emerging Adulthood

Emerging adults spend more of their leisure time alone than any other group aside from the elderly (Larson, 1990). It is therefore important to investigate the extent to which foundational practices of solitude have been established in adolescence in order to consider how this may influence the major developmental tasks of emerging adulthood. As young people now take more time to transition between childhood and adulthood, delaying the social roles of marriage child-rearing, and full-time employment, a new developmental category has emerged to define the period typically between adolescence and adulthood, termed “emerging adulthood” (Arnett, 2000).

Emerging adulthood is marked by the distinctive features of being an age of identity exploration, instability, self-focus, feelings of in-between and possibilities (Arnett, 2000; 2004; 2007). This is a developmental period devoted to individualistic-oriented goals over other-oriented goals, a time for experimenting with work, relationships, and worldviews (Nelson & Barry, 2005). It is also a period in which media use takes up more time than any other daily activity, with the average emerging adult engaging with media for 12 hours a day (Coyne, Padilla-Walker, & Howard, 2013; Alloy Media Marketing, 2009). As such, it is similarly important to examine how and why these emerging adults use media and technology to better understand what influence it has on their continual development.

Research has explored the extent to which media use has both facilitated and potentially inhibited the tasks of this critical stage. Pew polling reveals emerging adults’ conceptions of media differ from those of older populations, as 93% report they use their smartphones to avoid being bored, while nearly half (47%) report using their

smartphones to avoid people around them; these are significantly higher rates than those reported by Generation X or older (Smith, 2015). Such data seem to align with Turkle's (2015) suggestion² that young people "can't develop the capacity for solitude if they don't have the experience of being 'bored' and then turning within rather than to a screen" (p. 77).

Examining New Media & Technology Impact on Youth Populations

The socioemotional and cognitive impacts of new media technologies have been extensively explored as a multidisciplinary research field for over twenty years, including fields such as communication, sociology, anthropology, psychology, education, public health, and transportation science. Notably, a number of studies and indeed an entire genre of journals have been developed to investigate the effects of social media use, given the rapid adoption rates of these media platforms.

It can be argued that, given the novelty of these digital technologies and the accompanying phenomena that have emerged through engagement with them, the fields studying media technology and communication are still in the nascent stages of (re)establishing their footing (Denissen, et al., 2010). Different multidisciplinary approaches articulate these phenomena in different ways, such as "computer-human interaction," "cyberpsychology," "computer-mediated communication," "cyborg anthropology," and "social media research." In addition to the challenges in defining the different aspects of the field, another challenge researchers face is the lack of consensus in the results that have emerged in studies of both adolescent and emerging adult populations.

² based on a five-year ethnographic study of the impact of media use on conversation and self-reflection as reported in *Reclaiming Conversation* (2015).

A number of studies point to a positive correlation between media and technology use and adolescent and emerging adult well-being. Research suggests that social media use in particular contributes to increasing self-esteem and reducing social isolation and social anxiety in adolescence (Davis, 2012; Dolev-Cohen, & Barak, 2013; Gross, 2009; Livingstone, 2008; Valkenburg & Peter, 2009) and purports the positive social and psychological benefits of use in emerging adulthood (Ellison, Steinfield & Lampe, 2011; Gonzalez & Hancock, 2011; Kim & Lee, 2011; Lin & Lu, 2011; Utz & Breuer, 2017). However, these results are by no means conclusive, as a number of studies point to the detrimental effects of social media on young users' psychological well-being and social relationships (Chou & Edge, 2012; Davila et al., 2012; Hanna et al., 2017; Kalipduo, Costin & Morris, 2011; Primack et al., 2017).

In terms of benefits, online friendship in adolescence and emerging adulthood has been found to increase perceived social support, offer opportunities for emotional relief, increase social integration, peer acceptance, and widen an individual's social networks by bridging their 'social capital' and improving their subjective well-being through positive self-representation online, much of which in turn has been found to influence identity formation and the development of intimate and family relationships (Ahn, 2012; Coyne, et al., 2013; Ellison, Steinfield, & Lamp, 2011; Kim & Lee, 2011; Ko & Kuo, 2009; Leung, 2011; Manago, Taylor, & Greenfield, 2012; Tomai et al., 2010 Utz & Brauer, 2017). Among undergraduate students, Facebook plays an important role in the maintenance and development of social networks, acting as the social lubricant that leads to the acquisition of social capital (Ellison et al., 2011). Researchers have suggested that the Internet may enhance family cohesion "by allowing more day-to-day communication"

(Gordon, Juang & Syed, 2007, p. 685), finding that college students contact home an average of ten times a week (Hofer & Moore, 2010) with female students calling up to three or four times a day (Chen & Katz, 2009). However, researchers have questioned if this daily or frequent communication may inhibit other important tasks of emerging adulthood, such as identity exploration and establishing autonomy (Padilla-Walker & Nelson, 2012; Parker, Lüdkte, Trautwein & Robert, 2012; Miller-Ott, Kelly, Duran, 2014). In addition to improving subjective well-being (Kim & Lee, 2011), self-presentation online has been found to increase emerging adult's self-awareness, which can enhance self-esteem (Gonzalez & Hancock, 2011).

The relationship between media and technology use and well-being among adolescents and emerging adults is complex, revealing a host of both beneficial and detrimental outcomes ripe with caveats. For instance, studies reveal that while emerging adult social media users report more online social support than non-users, they also report higher stress levels (Utz & Breuer, 2017), and greater feelings of social isolation than their counterparts with low social media use (Primack et al., 2017). Additionally, while favorable self-presentations may enhance users' self-esteem, exposure to social media leads to social comparison, which may alter one's perception of others. Multiple studies have found evidence that time spent on Facebook is positively correlated with the tendency to think life is unfair and that others are happier and lead better lives, supporting the idea that Facebook contributes to social comparison and self-objectification among emerging adults, finding that this, in turn, contributes to lower self-esteem, poorer mental health, and greater body shame (Chou & Edge, 2011; Hanna et al., 2017).

Regarding negative outcomes of use, researchers have suggested a relationship between increased exposure to media use and potential for loneliness, particularly when withdrawing from the “social pains” of real-world interactions (Nowland, Necka, & Cacioppo, 2017) or decreased psychosocial well-being merely through online interaction (Devine & Lloyd, 2012; Jelenchick, Eickhoff, & Moreno, 2013; Pea et al., 2012). However, a meta-analysis of adolescent media effects has revealed that the majority of these findings are mixed (Best, Manktelow, & Taylor, 2014). Though a number of studies have reported a correlation between young people’s social media use and depressive symptoms (Davila et al., 2012; Kalipduo et al., 2011) others could not confirm such correlation (Jelenchick et al., 2013), demonstrating the mounting challenge in the field regarding the lack of ability to generate a consensus on the overall effects of engagement. Some have suggested that the impact of the technologies may be dependent on the individual users’ subjective well-being prior to and outside of their engagements with technology, further demonstrating the need to account for such contextual features when designing studies (Amichai Hamburger & Hayat, 2011; Hammon, 1999; Shapiro, 1999).

With the complexity of existing findings, researchers suggest that it is not so much the quantity of time spent online that correlates with well-being, but the quality of online activities that influence well-being outcomes, which are additionally influenced by offline factors (Gordon et al., 2007; Mokhtari, Reichard, & Garner, 2009). While certain stages of childhood and adolescence allow parents greater control to monitor and limit media, during emerging adulthood, individuals have the freedom to make their own decisions regarding their media use, both in terms of time spent and content accessed (Padilla-Walker & Coyne, 2013; Walsh et al., 2013). Given the major changes occurring

during the transition to college life during emerging adulthood, it becomes important to explore how media and technology use impacts development (Walsh et al., 2013).

In addition to this research, a wealth of polls and surveys have been conducted to assess the attitudes and behaviors among larger segments of the population, allowing for a greater comparison among age demographics. The most recent poll from Pew reports that one third of young adults say that they are online almost constantly, and nearly half (47%) go online multiple times a day (Perrin & Jiang, 2017). There is a lack of longitudinal studies of emerging adults' media use compared to a wealth of such data for adolescents, presenting a challenge in which the majority of research related to media use and well-being consists of short-term or cross-sectional studies (Walsh et al., 2013, Trepte & Scharkow, 2016).

These overlapping and at times oppositional research findings reveal that in many cases, the phenomena underlying investigations related to these new media and technologies are multi-layered. In considering how users engage with multiple platforms, which additionally reveal continually evolving norms (van Dijck, 2013) the full range of effects on users and relationships between individuals remain to be seen. Further, it could additionally be the case that the effects of engagement between users and media evolve over time, or that the effects differ widely by person, or perhaps even further that results are dependent upon methods and the lens of focus applied by researchers. With the range of findings in the current literature, a number of scholars have concluded that the impact is dependent upon how the media technology is *used*, a notion in line with the pervasive logic of the sociotechnical framework of instrumentalism, which will be explored in greater detail in Chapter III.

The range of both positive and negative findings in existing literature, at times presenting inconsistent findings on particular research topics does not discount the value of these contributions. That there can be validity to seemingly oppositional findings points to the need to re-examine how research in this field is being developed, illustrating the importance of incorporating additional, mixed methods. Balancing methods can help the field develop consensus as to develop research that better reflects lives of users, facilitating valid findings that can deliver potent, realistic, and effective strategies and policies going forward.

CHAPTER II

EXPLORING THE RISE AND IMPACT CONSTANT CONNECTION

Mixed as the current findings of the effects of new media and technologies may be, one agreement has emerged: the need to shift attitudes about media use and develop more balanced approaches and strategies for how users engage with and consume media. Sherry Turkle (2015) contends that “we have not accessed the full human consequences of digital media” and suggests that as consumers of such technology, we need to consider both our well-being and health and partner with industries that will work to promote the values we collectively establish as a culture (p.17).

Despite the physical, cognitive and socioemotional development that young people experience through adolescence and emerging adulthood—which is now coupled with incorporating an onslaught of new media technologies—there is a limited amount of research on strategies to develop healthier digital lifestyles (Felt & Robb, 2016). Many researchers have suggested developing and implementing educational intervention programs, contending that programs promoting balanced use are particularly important for young users (Lee, Chang, Ling, & Cheng, 2014; Samaha & Hawi, 2016; Thomeé, Harenstam, & Hagsberg, 2016; Twenge, 2017). Within this discussion, researchers emphasize the need to more deeply explore *both* the beneficial and negative outcomes of our technological engagements (Harwood, Dooley, Scott, & Joiner, 2014; Reinecke, et al., 2016; Turkle, 2015; Twenge, 2017). For instance, Reiencke et al., (2016) posit that in light of the current blend of findings highlighting the positive experiences of use and those that have demonstrated detrimental outcomes, future research “needs to integrate findings on the positive versus negative effects...more systematically and coherently” (p.

21). Through qualitative assessments of use, researchers must work “towards complicating simple tropes of good and bad,” acknowledging that “neither values nor subjectivities are stable” when considering individual’s media use (Harmon & Mazmanian, 2013, p. 2).

In April 2018, Pew Research Center released a report that surveyed over 1100 technology experts about the future of digital life and well-being. Of those surveyed, 47% predicted that individuals will be more helped than harmed by digital life in the next decade while 32% suggested the opposite. Many who predicted harm to well-being acknowledge that there is no turning back as a technological society, believe that digital tools will enhance various aspects of life in the future and suggest interventions to mitigate problems and emphasize benefits in the coming years (Anderson & Rainie, 2018). These suggested interventions focus on redesigning systems of human-computer interaction, redesigning the technology, creating regulations, reconsidering media literacy, and redefining social expectations (Pew Research, 2018).

It is clear that in this flourishing field, the need to investigate the impacts of these continually emerging technologies on youth populations—among the first to grow up with constant contact through web-enabled mobile communication—is of high concern to a number of stakeholders: parents, educators, public health officials, the individuals themselves. In late 2017, Facebook research scientists revealed the companies pledge to commit \$1 million to “better understand the relationship between media technologies, youth development and well-being,” and how to “better support them as they transition through the stages of life³,” citing plans to host a summit addressing issues of digital

³ Around time of this press release, Facebook launched a standalone Messenger Kids app aimed at children under 13, designed to connect them to relatives and friends through text, photo and

distraction and “factors that can pull people away from face-to-face interactions” (Ginsberg & Burke, 2017). Findings from recent studies have led scholars to theorize that different age groups engage with technology differently, which presents implications for the meanings and values they attribute to their use of these technologies (Mäntymäki & Riemer, 2014; Reinecke et al., 2016). The meanings, values, and understandings young people ascribe to these technologies, their interactions with them, and indeed their ability to conceive of the boundary between organic, human capacities and the prosthetic, digital extensions of their technologies may be unique to their generation and merit continual investigation.

Development of an ‘Always-On’ Culture

The influx of Internet-enabled media and technology in recent years has profoundly influenced society, reorienting our sense of self and sense of place in the world as conditions for communication are plentiful (Burchell, 2015; Escobar 1994). With the swift rise in the availability and use of online connections in a considerably small amount of time, in almost all contexts of this new networked world we have witnessed a hybridization of interpersonal and mass media communication, leading to “new forms of social relationships, manifestations of communicative behavior and discussions about norms and expectations” (Vorderer, Krömer & Schneider, 2016, p. 694). Such plentiful opportunities for connection, particularly through the web-enabled mobile phone and social media, have matriculated into a culture in which we are increasingly available through these devices, a concept that has been increasingly

video chat while making parents the gatekeepers. The release was met with an open letter from over 100 children development experts and advocates calling for Zuckerberg to halt the app (Gibbs, 2018).

explored by media and communication scholars. This concept has been explored by scholars as a state of “perpetual contact” (Katz & Aakhaus, 2002), “connected presence” (Licoppe, 2004), “networked time” (Burchell, 2015), “permanently online” (Vorderer & Kohring, 2013), “permanently connected” (Vorderer et al., 2016) and as an “always-on culture” (Turkle, 2008) in which we are “tethered” to each other through our devices.

In exploring narratives of smartphones in everyday discourse, Harmon & Mazmanian (2013) identified two competing narratives dominant in contemporary society: the first compels users to *integrate* the device, “promising new forms of mobility and connectivity that transform users into multitaskers,” while the second story positions users as “distracted addicts” who could become more “authentic humans” by *dis-integrating* their smartphone use (p. 2). What both of these narratives acknowledge is that within constant networked communication, the temporality and embodied practices of everyday life are altered through the “habitual, time-consuming, physical” degree that such a communication system necessarily depends upon (Burchell, 2015, p. 42).

Licoppe (2004) considers a state of “connected presence” in which we always have the ability to be present, even in absence, as we are connected through our devices. With connected presence, styles of communication shift with the introduction of the mobile phone, enabling individuals to foster mutual engagement through a continuous maintenance of “mostly short and frequent communicative gestures,” interacting between devices and platform interfaces (Licoppe, 2004, p.152). This concept has been similarly presented by Turkle (2008) who offers that when *tethered* to our “always-on, always-on us” devices, the existence of separated “plugged” and “unplugged” worlds recedes, as “the self, now attached to its devices, occupies a

liminal space between the physical real and life on screen” (p. 122). Through tethering Turkle contends we participate in both worlds simultaneously, positing a new form of presence similar to that espoused by Licoppe.

As information and communication technologies are increasingly woven into the fabric of everyday life, we become “connected by default,” creating a condition in which media use is part of “*participation* in everyday life,” subsuming both work and social life “into the context and practices of constant networked connection” (Burchell, 2015, p. 41; 44). Such merging contributes to the “acceleration of the erosion of the public-private distinction” in society, reshaping the social norms of connection and availability that go along with it (Katz & Aakhaus, 2002, p. 8).

“What Hath God Wrought?”: The Impact of Constant Connection

In just over a decade, the smartphone has significantly transformed daily life; indeed, nearly half of Americans couldn’t imagine life without it and 70% report that their smartphone has made their life better (Pew, 2015). The average smartphone user taps or swipes their phone 2,617 times a day according to recent marketing data (dscout, 2016), with the average American adult averaging nearly three hours on the device daily (comScore, 2017). The smartphone is a key device ushering in new ways of publicizing our identities and organizing our lives, used to both generate and access information, and altering the boundary between public and private life through two-way modes of communication (Carah & Louw, 2015). Paradoxically, the device is both heralded for its affordances, while also blamed for the threat it poses to users’ autonomy. Whether the mobile phone is conceived of as a value or vice “represents concern about control over

the new degree of contact and availability the mobile telephone makes possible” (Katz & Aakhaus, 2002, p. 9).

In one view, the affordances of the device have created an *entrapment-freedom dialectic* (Baron, 2011) for many users, wherein the conveniences of connection also serve as a point of tension and anxiety for users by creating a heightened expectation of availability. (Baron, 2008; Hall & Baym, 2012; Katz & Aakhaus, 2002; Ling & Yttri, 2002). While this conception originally applied to professional workplace settings, it has quickly extended to social and personal lives with the ubiquitous rise of cell phone use. Such conditions of an entrapment-freedom dialectic may lead to experiences of *hyper-coordination*, in which mobile phone use transforms from merely instrumental—a functional activity allowing for security and interaction through the device—to more expressive functions—when it is used beyond coordination for social and emotional purposes of interaction—particularly as it is used in the social presentation of self (Ling & Yttri, 2002, p. 141).

While hyper-coordination can be enjoyable, it can also provoke anxiety through relational dependence, particularly when enacted by adolescents, who frequently employ hyper-coordination in their mobile phone use (Ling & Yttri, 2006). Such tensions have been explored as forms of entrapment and overdependence (Baym, 2010) in which “constant maintenance may allow friends to feel included” at the cost of “restricting privacy and freedom” (p. 321). Friends come to privilege “connectedness over autonomy, which exacerbates the dialectical tension of interdependence,” inherent in the mobile relationship, potentially reducing satisfaction in friendships (Hall & Baym, 2012, p. 321).

With the sense of constant connection that comes with incorporating the internet and smartphones into increasing facets of daily life, certain psychological and physiological outcomes have emerged (Beyens, Frison, & Eggermont, 2016; Cheever, Rosen, Carrier, & Chavez, 2014; Hoffner & Lee 2015; King et al. 2013; Przybylski, Murayama, DeHaan, & Gladwell 2013; Ward, Duke, Gneezy, & Bos, 2017). Nomophobia, a portmanteau for “no mobile phone phobia,” is one such outcome, developed to describe the psychological discomfort of not being in contact with one’s mobile device (King et al., 2013). Research by Cheever et al. (2014) reveals that moderate and frequent phone users experience increased anxiety when the device is absent. Other studies with similar findings suggest this demonstrates how individuals are able to perceive of their phones as an object of their extended self, which can be negatively impacted during separation (Clayton, Leshner, & Almond, 2015). Recently, research has demonstrated how the psychological impact of mobile phone connection has been need not require the phone’s absence, as Ward et al., (2017) found that even “the mere presence” of a mobile device can be a “brain drain” on cognitive resources. In this study, researchers found that a user must exert more cognitive resources to inhibit distractions in the presence of their device, leaving “fewer attentional resources available or engaging with the task at hand” (Ward et al., 2017, p. 140).

The term FOMO—an abbreviated moniker of “fear of missing out”—has likewise emerged to describe “fears, worries and anxieties people may have in relation to being in (or out of) touch with events, experience and conversations happening across their extended social circles,” which is perpetuated by social norms of frequent sharing through social media (Przybylski et al., 2013, p. 1842) Research has found a relation

between the phenomena of nomophobia and FOMO, wherein the need to touch a smartphone was revealed as a critical mechanism accounting for problematic smartphone use leading to FOMO, associated with depression and anxiety and cited as a source for intense smartphone use for a habitual means of emotional suppression (Elhai, Levine, Dvorak, & Hall, 2016; Hoffner & Lee, 2015). Investigating a phenomenon experienced at high rates by young users, particularly among adolescent girls, research reveals FOMO is a driving force behind social media use motivated by a need to belong and the need for popularity, likely to be experienced by those who engage in distracted driving and media multitask during class, (Beyens et al., 2016; Przybylski et al, 2013).

The emergence of phenomena like nomophobia and FOMO marks the larger acknowledgement of the problematic aspects of constant connection as it becomes habitual. There has also been increased concern raised among public health professionals, scholars, educators, and media users themselves about the impact of mobile media technology on users' self-control and awareness. Despite advocacy efforts, Internet addiction has not been recognized as a mental disorder through inclusion in the DSM-V, though recently internet gaming disorder has been added as a "condition requiring further research" (Pies, 2009, LaRose, 2012). A number of approaches have been developed to attempt to categorize and diagnose the severity of what is commonly referred to as problematic media use regardless of recognition by the American Psychological Association (publishers of the DSM)). Problematic media use encompasses the many dysfunctional ways of engaging with media and is characterized by use that is "compulsive, obsessive or unhealthy" (Felt & Robb, 2016).

Turkle (2015) offers that, in the new communication culture, “interruption is not experienced as interruption but as another connection,” where the buzz or chime of the device is not considered a distraction but an additional line of communication to attend to (p. 37). However, she proposes that in the case of young people, “there is no simple narrative of digital natives at ease in the world they grew up; instead “it is a story of conflict on the landscape of clear expectations” (Turkle, 2015, p. 31). In exploring the relationship between problematic media use and constant connection among young people, this conflict is evident. While 93% of millennials report being comfortable with technology, they also report the highest stress level related to technology when compared with all other age categories (APA, 2017, p.14). Indeed, the opportunity for constant connection is one that young people meet with ambivalence, “since they often describe wanting closeness but simultaneously feel overwhelmed by the frequency of communication” (Weinstein & Selman, 2016, p. 41).

Studies have suggested that due to teens’ desire to connect with peers, digital stress flows naturally as a consequence of this desire (boyd, 2014; Gross 2009; Subrahmanyam & Greenfield, 2008) Younger users have been found to perceive the social capital of media communication to be more gratifying for maintaining relationships than older users (Ellison et al., 2014) promoting suggestions that this affects their stress appraisal process, in which the perceived benefits of connection “at least partly compensate for the strain” caused by connection load (Reinecke, et al., 2016, p. 20).

In a recent Cigna survey, Generation Z, categorized as 18 to 22-year-olds, reported the significantly highest levels of loneliness⁴; 69% reported feeling that “people around them are not really with them” (Cigna, 2018). The study reports that high rates of loneliness was not correlated with social media use, though it does not specify for media and technology use more broadly, for instance, accounting for texting messaging, video games, video “binging” (Cigna, 2018). Citing the sharp rise in youth depression rates since 2012, along with the rising ubiquity of screen-based media, researchers contend there is a pressing need to investigate how youth adjust to the already established anxieties and social pressures associated with the major life transitions of emerging adulthood (Twenge, Martin, & Campbell, 2018).

Based on a five-year ethnography of homes, schools, and workplaces, Turkle (2015) suggests that constant connection is “changing the way people think of themselves...shaping a new way of being” she calls ‘I share therefore I am’ in which “we share our thoughts and feelings in order to feel whole” (p. 47). According to one study, while 36% of millennials report that social media has helped them find their identity, nearly half (48%) report that they worry about the effects of social media on their physical and mental health (APA, 2017, p. 4). These various influences raise many questions about the current and future impact of constant connection on the identity development and individuals’ social and mental health. Despite raising concern about screen-based media use, Twenge et al., (2018) found that teens with one to five hours of weekly screen time reported highest levels of happiness, while no screen time correlates

⁴ agreeing with statements about feeling alone, isolated, left out, and like there is no one they can talk to at significantly higher rates than other ages groups in the study.

with unhappiness, as did higher than 20 weekly hours, lending support for the promises of establishing balance.

Digital Discontent: Mounting Public Pushback

In recent years, resistance has emerged as a reaction to the growing awareness of the problematic aspects of constant connection, evidenced by the public’s efforts to develop more balanced media habits. One response has been the practice known as a “digital detox” or “unplugging” within mainstream culture—a period of time in which one abstains from use of electronic devices or Internet use. Digital detox is defined by the Oxford Online Dictionary as “an opportunity to reduce stress or focus on social interaction in the physical world” (2013). A 2017 report on Stress in America found that 65% of Americans believe that occasionally “unplugging” or taking a “digital detox” was important for mental health, although only 28% report actually doing it (APA, 2017, p.3).

The concept of a digital detox has garnered attention within mainstream media, as articles about the practice have featured frequently in publications like *The New York Times*, *The Atlantic*, *WIRED*, *Forbes*, *Fast Company*, and *The New Yorker*. Coverage has been especially frequent in *The New York Times*—their first article about “how to do a digital detox” was published in 2010, three years after the introduction of the iPhone and Facebook’s transition to a public platform. Since 2010, the Sabbath Manifesto has organized the National Day of Unplugging. Inspired by the Jewish tradition of Sabbath, this event encourages people to pledge to slow down and regularly unplug from technology (Reboot, 2018). The company Digital Detox has gained prominence in the United States for organizing media-free retreats, known as Camp Grounded, which are designed to encourage people “to slow down and look up,” by “disconnecting from

devices and reconnecting with ourselves, each other, our communities, and the world around us” (Digital Detox, 2016). Sutton’s (2017) ethnographic study of Camp Grounded reveal that individual participate in the retreat for the additional desire to experience “authentic communication and authentic dwelling” while separated from their devices (np).

The concept of a digital detox as a retreat has been primarily studied in relation to the travel and tourism industry within academic literature. These studies explore users’ purposeful disconnection from media and technology when travelling or on retreat, finding that people partake in such due to a desire to disconnect from the stresses of over-connection in modern life (Dickinson, Hibbert & Filimonau, 2016; Pearce & Gretzel, 2012; Sutton, 2017). Studies have found that although tourists report wanting to “get away from it all” with a digital detox on vacation, (Dickinson, et al. 2016) and recognize that media multitasking and overuse can detract from their experience (Ayhe, 2017), they times reveal an ambivalence between the desire to disconnect and a hesitance to relinquish the conveniences of devices (Pearce & Gretzel, 2012).

In addition to media abstention detoxes and retreats, public pushback is demonstrated in the market through products offered to aid with the management of perceived lack of self-control with media use. Recognizing, for instance, that it takes on average 23 minutes to get back on task when distracted by an interruption (Levy, Rafaeli, & Ariel, 2016), a number of tools have emerged for use online and through smartphone applications to help users manage, track and prevent the use of certain features of their technology. These include examples such as Freedom, RescueTime, and SelfControl. The application Freedom, for example, works by blocking online distraction by allowing

users to create lists of websites and can automatically block specific websites at a pre-determined time (Marotta & Acquisiti, 2017). To access this feature, users can pay \$29 USD annually, \$6.99 USD monthly, or a one-time fee of \$129 USD.

A number of downloadable extensions have recently been developed to help users to reclaim attention from the Internet, which “by design, is an interruption system, a machine geared for dividing attention” (Carr, 2010, p. 131). These include extensions for the Google Chrome Web browser like the ‘Facebook Newsfeed Eradicator,’ which blurs distracting site notifications and removes the newsfeed to allow for more utilitarian access to the site⁵; Distraction-Free YouTube, which removes recommended videos from the sidebar; uBlock origin, which omits ads allowing readers to reclaim 30-40% of their attention; and InboxWhenReady, which requires users to press “show inbox” instead of alerting a user to each incoming message (CHT, 2018). Further demonstrating recognition of public pushback against problematic use, in May 2018 Google introduced a range of tools for Android phones aimed at improving users’ “digital well-being,” including tools that “track app usage, better manage screen time and limit the phone’s ability to distract.” This move was met by Apple the following month when they announced their “Digital Health” initiative, which will be released in its upcoming iOS 12 software update (Perez, 2018).

Smartphone applications like Moment, Thrive, Space and Hold track, monitor use, and enable consumers to set goals for use. The application Space claims to learn emotional triggers and collect data to help catch users in habitual actions on iOS devices,

⁵ For instance, as Facebook has increasingly been integrated into businesses, helping users to separate more utilitarian work purposes from more social and entraining purposes of the notifications and newsfeed

while Thrive allows for similar functions on Android devices. Space offers a \$8.99USD quarterly subscription that provides a social mode encouraging friends and families to participate in habit-restructuring. The application Moment sets daily limits on usage based on the desired daily limit set, and a Premium Moment subscription enables users to access a “Phone Bootcamp” featuring a course of lessons found to reduce the average use of phone time by 23 minutes.

Partnering with Time Well Spent⁶ to poll a subset of the app’s users, Moment researchers have found that those who are most happy with their phones are those who use it for its more utilitarian applications like weather, sleep cycle, music apps, and the meditation app Calm access these apps for an average of two to eleven minutes a day with between one to four daily “pick-ups” (Holesh, 2018). Contrarily, Moment found that more than half of users are unhappy with primarily social media app use like Instagram, Facebook, Tinder, Reddit and WeChat, which collectively, on average, are used between 43 minutes and 1 hour and 45 minutes daily, with users averaging between six and 35 daily “pick-ups” (Holesh, 2018).

Media consumption has been demonstrated to be a source of tension for parents and children, with studies revealing that approximately a third of parents struggle to limit their children’s use of media and technology (Rich, Bickham & Shrier, 2015). However, it should be noted that this is another instance where the findings are mixed, as other researchers have found 59% of parents are not worried about their children becoming addicted to technology (Wartella, Rideout, Lauricella, & Connell, 2013). Researchers have suggested that it is “unclear whether the frequency of media and technology use for

⁶ An initiative run by Silicon Valley activist and former Google Design Ethicist Tristan Harris’s company The Center for Human Technology

adults and children is becoming a new social norm or if parents are underestimating the impact of media and technology in family life” (Felt & Robb, 2016). Notably, parents acknowledge their role in these tensions, as more than half (55%) of parents report they feel they check their devices too frequently, and a quarter feel they do not set a good example of media use for their children (AVG technologies, 2015). The market has responded to these expressed tensions with a number of applications and software available for parents to purchase or download to monitor and limit their children’s media use with applications like Kidslox, Unglue, ScreenTime, and OurPact, which allow parents to block Internet-based apps and filter web content.

As Turkle (2010) suggests, when designing media strategies, it is important to not forget “that children who grow up in a world of digital devices don’t know that there is a difference or that things were ever different,” (22). The American Academy of Pediatrics recommendations suggest “parents can set expectations and boundaries to make sure their children’s media experience is a positive one,” and note that the “key is mindful use of media within a family,” offering material on their website to develop a family Media Use Plan (AAP, 2016). Embracing a balanced approach to media and technology should include “fostering awareness of media and self, embracing quality of media usage, selective single tasking, carving out times and places to disconnect, and nurturing relationships and face-to-face conversations” (Felt & Robb, 2016, p.8).

An approach gaining popularity in recent years in addressing effects of constant connection is applying the tenets of mindfulness practice, which is a form of attentional control training aimed at developing the ability to direct and maintain attention toward the present moment (Kabat-Zinn et al., 1992). Levy (2016) posits the need to “create the

space and time to observe and reflect on the ways we are using our digital tools and the effects they are having on us” (p. 4) and espouses the efficacy of “mindful tech” to help establish a balance between online and offline life. He has developed a course called Information and Contemplation at University of Washington intended to teach students how to apply mindfulness techniques like the body scan and mindful breathing, as well as “mindful unplugging”—consciously abstaining from media observing, attending to, and reflecting on the experience—in order to “explore challenges such as information overload and the fragmentation of attention from a contemplative angle” (Levy, 2016, p. 3).

Additionally, over 200 mobile meditation and mindfulness apps have emerged in recent years, including popular apps like Headspace and Calm that enable users to practice mindfulness mediation through their smartphone, encouraging stress and anxiety management while improving focus, concentration (Laurie & Blandford, 2016; Noone & Hogan, 2016). Twelve million users have downloaded Calm, earning Apple’s “App of the Year” when it ranked 50th in the app store⁷ in 2017 (Rosenburg, 2017). Calm is a free app, but additionally offers a yearly subscription for \$60USD that grants consumers access to a full library of meditation, music and sleep content. Headspace, with over six million users, is designed with the goal to teach the uninitiated user the foundational tenets of mindfulness mediation in the first ten sessions, which are offered free, after which users are offered subscription options of \$12.95USD for access monthly, \$95.98USD yearly, or \$399.99USD for lifetime access.

⁷ of the 2 million apps in the App store

Existing Research & Literature of Media Abstention Practices

While there has been considerable mainstream media attention, peer-reviewed investigations of digital non-use and media-abstention practices have been rather limited, typically confined to tourism and educational settings. Additionally, scholars have examined the phenomena from different angles, considering the intentionality behind Facebook refusal and subsequent returns (Portwood-Stacer, 2012) and different motivations behind use and non-use (Baumer et al., 2013), and have designed studies to test the cognitive benefits of extended time without media outdoors (Atchley, Strayer, & Atchley, 2012; Tehranian, 2013) using terminology ranging from “digital detox” to “unplugged/ unplugging” to “use/non-use” to “media abstention” to “media refusal.” Currently, there is a lack of consistent terminology for the practice of intentionally forgoing media and technology use.

Tehranian (2013) tested the social effects of a device-free summer camp for pre-teens, finding that those in the device-free condition were significantly better able to correctly infer emotions for facial cues presented in videos compared to the control group. These findings suggest that removing screen for five days improved preteens emotion recognition (Tehranian, 2013). Another study testing the cognitive benefits of a digital detox in a natural setting found that adults who spend four days in nature devoid of all access from electronic technology demonstrate an increase in creative problem-solving tasks (Atchley et al., 2012). Atchley et al., (2012) suggest that there are “cognitive costs associated with constant exposure to a technology-rich, suburban or urban environment, as contrasted with exposure to the natural environment that we experience when we are immersed in nature” (np). Accordingly, the results of this study

are attributed to the decrease in attending to sudden events, task-switching, maintaining task goals and irrelevant task inhibition that is typically required in a technology-rich environment.

In addition to tourism settings, there has also been a dedicated examination of media abstention within educational settings. Results within the context of education reveal the demonstrated theme of mixed results regarding the benefits or detriments of digital media use, with studies revealing that devices in the classroom present both distractions as well as opportunities for engagement (McCoy, 2016; Levy et al., 2011; Carrier, Rosen, & Rokkum, 2018; Uncapher et al., 2017; Rosen, Carrier & Cheever, 2013). The digital detox has become a commonplace assignment on campuses across the U.S.⁸. Recognizing the benefits of such practices, Dr. Hart Frejd of Liberty University has founded the nation's first on-campus Center for Digital Wellness, which promotes 24-hour digital fasts and mentors students on media use, offering guest lectures and workshops (Frost, 2016).

Research in education settings has included prompting college students to carry out media abstention and subsequently gathering of data through student reflections on experience (Garrison, 2017; White, 2013). Another prominent means to explore the impact of digital detox in educational settings has been through soliciting or obtaining students' online responses and conducting textual analysis (Morris & Cravens Pickens, 2017; Roberts & Koliska 2014). In an assignment requiring students to go "off-the grid" to consider the role of technology, Garrison (2017) finds that the practice raises students'

⁸ The following schools have digital-detox related programs or school articles about classes featuring this assignment online: University of Oregon, the University of San Francisco, Liberty University, Washington University, Walden University, Northeastern University, Louisiana State University, The New School, University of Michigan and Massachusetts Institute of Technology.

awareness of how “they are constrained by their technological choices” (p. 43). In classroom settings of middle and high school in which the researcher is also the class instructor, thus familiar with students prior to study, these studies produce unique ethnographic findings related to the impact of these media abstention practices on student behavior. For instance, instructor/researchers similarly noted a relationship between media abstention and their students’ verbal and oral communication, with Garrison (2017) noting students’ reflections of the experience were better articulate verbally than in writing, with White (2013) similarly finding that students struggled with verbal communication during the detox, but also suggesting “social media was negatively affecting their ability to communicate both orally and in writing” (p. 424).

Studies of college students’ experience of intentional media abstention reveal a prominent theme reported by students during the experience was feelings of anxiety about being disconnected (Roberts & Koliska, 2014). Those with previous unplugging experience do not encounter the prospect of disconnecting with media with anxiety, and even report looking forward to the experience based on their previous practice (Morris & Cravens Pickens, 2017; Roberts & Koliska, 2014; Thomas et al., 2016). The practice of unplugging has been found to raise students’ awareness of the extent to which the technologies are embedded in everyday life, finding them fundamental and using them without thinking (Roberts & Koliska, 2014) consistent with established findings of the domesticated and routinized norms of daily use (Burchell, 2015; Hand, 2014). The main reasons for unplugging were feeling too addicted or attached, feeling that media use wasted too much time or interfered with real world experiences, or that it caused feelings of information overload (Portwood-Stacer, 2012; Sutton, 2017; Thomas et al., 2016). In

addition to high rates of anxiety Roberts & Koliska (2014) found the most dominant theme to emerge from their analysis to be college students' dependence or self-described addiction to media. A commonly cited feeling was a sense of freedom or relief through escaping the necessity to consume media (Baumer et al., 2013; Roberts & Koliska, 2014; Sutton, 2017; Thomas et al. 2016). Other commonly reported sensations associated with unplugging included feelings of missing out (Baumer et al. 2013; Roberts & Koliska, 2014; Thomas et al., 2016), a sense of frustration due to the inability to carry out typical daily functions that are embedded with media (Roberts & Koliska, 2014) and a sense of authentic connection and ability to communicate with others during the experience (Sutton, 2017).

In a large lifespan pool with participants ranging from 14-79 years in age, Thomas et al. (2016) surveyed participants about attitudes regarding recent experiences with unplugging, electing open-responses through online surveys. Of all age cohorts, adolescents reported more negative emotions at the prospect of unplugging, particularly expectations of anxiety, boredom, loneliness and irritation. However, Thomas et al. (2016) stipulate that of these emotions, emerging adults cited anxiety at a higher frequency than adolescents, aligning with Roberts & Koliska's (2014) findings on the prominence of anxiety. Adolescents generated the fewest media-free activities when asked how they would spend time unplugged compared to all other age groups and about a quarter (23%) expected to gain "nothing" during the unplugging event, compared to just 3% of emerging adults, who were the age group that most frequently anticipated experiencing the unplugging event as "me time" to engage in self-reflection (Thomas et al., p 545). The researchers suggest that "perhaps because adolescents have grown up

with digital technology, they cannot imagine what they would gain from unplugging” (p. 547)

Researchers stipulate that future research of media abstention can be improved by examining how new social patterns are learned and old social abilities are neglected or “how these changes may have effects at a more fundamental level” (Roberts & Koliska, 2014). Thomas et al (2016) suggest future work “should examine how people actually behave and feel when they undergo an unplugging experience,” as their study relied on participant reflections after the fact (p. 548) and suggests comparing individual anticipated feelings and expected gains can be tested against the actual experience (p. 548). While acknowledging issues with problematic media use, digital distraction, and media multitasking perpetuated through the emergence of constant connection, it is increasingly important to explore the impact these technological advances have on those who have grown up incorporating these forms of media and technology into their development. With growing products aimed at establishing disconnection and managing use, existing research demonstrates how media abstention is experienced and conceived of differently among different generations.

CHAPTER III

CRITICAL ANALYSIS OF SOCIOTECHNICAL FRAMEWORKS

Critical Analysis of the Dominant Research Paradigms

Many of the current approaches to studying the impact of digital technologies take on the dominant paradigms of positivism and post-positivism pervasive in social sciences, typically utilizing surveys and experiments to yield empirical data (Brandtzæg, 2010; Zillien & Hargittai, 2009). Both of these paradigms are epistemological positions that attempt to reveal natural laws through experiments of manipulation and observation. Post-positivism emerged in the mid-twentieth century as a critical response to positivism's goal of uncovering the truth of reality with certainty, recognizing the possible fallibility of observation (Creswell, 2013; Hacking, 1993). Further, post-positivism distinguishes itself from positivism through the stance that the "quantification and use of sophisticated statistical methods and mathematical models in itself and a priori do not enable the attainment of scientifically relevant insights" (Adam, 2014, p. 6).

By suggesting that the conflicting or incompatible results in existing research may stem from the limitations of these paradigms' methodological ability to account for the complexities of human-technology interactions, this does *not* suggest that existing findings should be invalidated or minimized for their contributions to the field. The fact that existing results thus far have been mixed points to the notion that engagement with technology is multifaceted and evolving—that it is possible for these engagements to elicit a multitude of effects, not only across populations but also upon a single individual (Arnold, 2003; Ihde, 1990; Harmon & Mazmanian, 2013). Indeed, the data and evidence cited to describe the issues and phenomena under investigation and featured in the first

two chapters of this thesis are contributions from positivist and post-positivist research paradigms.

Research from these dominant paradigms, as frameworks to achieve knowledge concerned with pre-existing hard reality (Latour, 1993) provide valuable data by allowing researchers to systematically establish potential cause-and-effect relationships and are useful for studying large numbers of people (Creswell, 2013; Burke Johnson & Onwuegbuzie, 2014). While mixed methodological research exists that employs both quantitative and qualitative approaches, typically positivist and post-positivist researchers gather quantitative data from the position of a detached outsider.

Some positivists have critiqued research methodologies of outside paradigms for a perceived lack of adherence to objectivism, raising concerns that qualitative methods, for instance, in considering the researcher as a tool for data collection, presents challenges in granting equal weight to the reliability, validity and generalizability of qualitative data (Kvale, 1995; Mays & Pope, 2000; Tobin & Begley, 2004). (Denzin & Lincoln, 2000; Kvale, 1995; Mays & Pope, 2000). A critique of positivism by some from outside paradigms that employ qualitative research methods which have, for instance, challenged positivism's conception that science is that which can be confirmed or falsified, while disregarding that a variety of human factors shape what is intended to be impartial non-biased research. These human factors include "deciding what to study, developing instruments that are believed to measure what the researcher views as being the target construct, choosing the specific tests and items for measurements,"... "deciding what elements of the data to emphasize or publish, and deciding what findings are practically significant." (Burke Johnson & Onwuegbuzie, 2004, p. 15-16).

Conflicts in approaches related to the value of objectivity-versus-subjectivity and deductive-versus-inductive inquiry between researchers in different paradigms have given rise to notions such as the incompatibility thesis (Howe, 1988), which holds that qualitative and quantitative research and their associated methods cannot be mixed. However, the long-standing schism between research paradigms has also been criticized as an unproductive debate about the “superiority of deep, rich observational data” in one camp and “hard, generalizable data” in the other (Seiber, 1973, p. 1335).

It has also been suggested that, with “a long history of producing important findings, quantitative research has become the language of research rather than the language of a particular paradigm” (Tobar & Begley, 2004 p. 389). This raises concerns when delving into this new field of study; it is necessary grant legitimacy to qualitative methods, given the highly complex nature of human-technology interactions. Positivist and post-positivist researchers, aiming to conduct research as detached, unbiased observers, do not typically face the on-going efforts to validating their legitimacy, reliability and reproducibility of their methods to produce empirical findings as some qualitative researchers feel they must continue to do in social science research (Tobar & Begley, 2004). Accordingly, the critique of positivism and post-positivism here lies not in their methodologies or theoretical frameworks per se, but rather in the tendency for the paradigms to dominate social science fields, inadvertently relegating alternative sociotechnical frameworks to the margins.

Despite emphasis on divisions, distinctions, and shortcomings of respective methodologies among sociotechnical frameworks, qualitative and quantitative methods are inherently intertwined in the early phases of any science’s development. Indeed, all

research in the social sciences, regardless of approach, “represents an attempt to provide warranted assertions about human beings (or specific groups of human beings) and the environments in which they live and evolve” (Burke Johnson & Onwuegbuzie, 2004, p. 15). As Russel-Bernard (2017) explains, any early science relies on qualitative data, and “as the science matures, it inevitably comes to depend more and more on quantitative data and quantitative tests of qualitatively described relations” (p. 20). These qualitative descriptions, often born from an interpretive-phenomenological approach most prevalent in the human sciences, provide a type of measurement that is an integral part of the complexity comprising scientific inquiry. Qualitative methods are useful for exploring the *processes* of behavior, and quantitative methods, typically in translating words and images to numbers, are useful for processing data and recognizing patterns (Russell-Bernard, 2017).

With the rapid rise in popularity of online communication and social media in particular in the last decade, a wealth of research has been dedicated to examining the impact of our human engagements with these technologies. Through attempts to obtain knowledge through objectivity, positivist and post-positivist research tends to adopt a determinist framework, which holds technology as autonomous from society, establishing a binary between cause and effect through which researchers seek to assess technology as a tool “with an essential character and known or knowable impacts or effects” (Arnold, 2003, p. 236). Much of the existing research in the field has been approached within the dominant, positivist framework for instance by psychological researchers—within the seeking to examine the cognitive, social and developmental impacts of our interactions with technology as well as through traditional and new media effects lenses.

It is crucial to acknowledge, however, that what is being explored is a nascent and highly multidisciplinary phenomenon, involving not only psychology and media effects, but also communication, sociology, anthropology, public health, education, and philosophy, among others (Denissen, Neumann, & van Zalk, 2010). It is important, as Harmon & Mazmanian (2013) contend, that when reporting findings, researchers “should be steadfast in refusing to sweep under the rug the messy cultural, social, economic, political, and institutional pressures that shape use and experience beyond the moment of a user’s physical interaction with a technological object” (p.2). They demonstrate this in their review of the influence of smartphone narratives in everyday life, which reveals that a same user can experience a shift in values and subjectivities regarding their device that can “shift in a matter of minutes” (p. 2).

Alternative Sociotechnical Frameworks?

The deterministic framework inherent in much of positivist and post-positivist research is valuable to establish a binary between humans and technology so as to enable researchers to examine cause and effect. Looking at alternative sociotechnical frameworks to consider how knowledge emerges from interpretivist-phenomenological paradigms may serve to complement the incongruence of existing research findings. The possibility of alternative theoretical approaches to determinism were first opened up through the field of Science of Technology Studies, which radically altered the past approach by displacing the linear view that science and technology produce autonomous progress; these alternatives were driven by social constructivism, which held that “social processes were inherent to technological innovation” (Escobar, 1994, p. 212). Other alternatives included network models like the actor-network theory of Latour & Law, as

well as radical substantive critiques like those of Heidegger, Ellul, and Postman (Escobar, 1993).

Heidegger (1964) presents a “treatment of technology as a paradigmatic practice of modernity” offering that rather than autonomous from the society, technology “enframes” the world. The radical shift Heidegger provides through an enframed worldview shifts from holding an instrumental view of technology to an ontological view altering how reality is experienced (Thomson, 2000). In this way, technology is “not merely the servant of some predefining social purpose, it is an environment within which a way of life is elaborated” (Feenberg, 1999, p. 127). The Science and Technology Studies movement brought forth the idea of scientific methods as technologies themselves, leading to the construction of scientific facts (Latour, 1987) by which certain aspects of the world are brought into awareness by the directed interests of scientists, which always leaves open the possibility for other understandings directed by other interests and methods.

Aside from the deterministic framework employed in positivist paradigms that can exclude some of the dialectical complexities of experience, a challenging dominant assertion that extends across paradigms is the largely unchallenged claims of instrumentalism. The idea of value-neutral technology with outcomes dependent on human forces demonstrates the logic of instrumentalism, which is “the most widely accepted view of technology” in public discourse (Feenberg, 1990, p. 6). The instrumentalist framework asserts that technology is “socially, culturally, and morally neutral” (Barnard, 1997, p. 127). Such assertions contend that technology is a dispassionate tool, “merely in service to the goals we choose as we wish,” which leads to

the propagation of notions that, for example, “guns don’t kill people, people kill people” (Feenberg, 1990, p. 5). Some scholars have cited to the inability of society to recognize the influence of the technological environments we live in as the source of why the instrumental view of technology is perceived as commonplace (Ellul, 1968; Winner, 1986; Postman, 1992). This conception persists in public discourse, as notions that technologies like the internet, smartphones, social media and big data are purported to be value-neutral and with outcomes dependent on user intention (Chomsky, 2014; Smolan, 2012).

The logic of instrumentalism is also prevalent in new media research. For instance, in a systematic meta-analysis of studies associated with adolescent media use and well-being, researchers assert in their conclusion: “It must be recognized that technology acts merely as a facilitator of human interaction and is value-free, neither promoting the good nor the bad” (Best, Manktelow, & Taylor, 2014, p. 35). In a December 2017 report, Facebook research scientists maintain that “according to the research, it really comes down to *how* you use the technology,” (Ginsburg & Burke, 2017), a conclusion similarly reached in a recent review of literature on social network sites and subjective well-being (Verduyn, Ybarra, Résibois, Jonides, & Kross, 2017). Such assertions of the centrality of human intention on supposedly value-neutral technology demonstrates how instrumentalism’s logic is embedded within current research in the field.

The Ethics of Persuasive Design: A Blow to Instrumentalism’s Neutrality?

Despite the persistent logic of instrumentalism pervading contemporary research frameworks, the political, moral, and social values embedded in technology have been

recognized by scholars in the fields of philosophy and ethics of technology and are increasingly emerging as important research topics (Manders-Huits, 2011; van den Hoven, 2005; 2008). Such researchers assert that the belief that technology is human controlled and value-free “demonstrates little acknowledgement or insight into the logical character of the society in which we live;” a society that influences our values, which in turn influence the technology we develop (Bernard, 1997, p.128). An examination of modern society reveals that technology “not merely aids to human activity, but also acts as powerful forces that reshape activity and meaning,” as Winner (2004) notes that this relationship is neither neutral nor unidirectional (p. 105).

With Latour’s (1994) social network theory, a rebuttal is presented to instrumentalism’s “guns don’t kill people, people kill people” motif, positing that when the human-subject and technology-object act together, the action is co-produced so that neither guns kill nor people kill; rather, killing is an action they can only produce together. As Latour (1994) contends, “you are different with the gun in your hand, the gun is different with you holding it. You are another subject because of the gun, the gun is another object because it has entered into a relationship with you” (p. 33.)

When addressing the concerns of problematic media use, it may be apt to employ this conception, considering that when humans use smartphones, a new situation arises in which the human subject and smartphone object form a new relationship through which actions are co-produced. Anthropologist Dow-Schüll (2012) applies such a lens in exploring the addictive design of slot machines, finding that when gamblers engage with the machine, they experience what she terms the “machine zone.” When using the technology-object of the slot machine, gamblers are changed as subjects when in the

“machine zone,” entering into a relationship co-produced with the slot machine that Dow-Schüll reveals “has the effect of *diminishing* their sensory and bodily awareness, suspending them in a zone where the continuity of electronic play supersedes the physical and temporal continuity of organic being” (p. 125).

Considering the claims and critiques of former and current employees of the world’s largest media and technology companies reveals how the logic of instrumentalism, while comforting, may no longer be feasible in light of the “machine zone” being co-produced through humans and their digital devices, due in part to the ethics of persuasive design in the emerging attention economy.

In early 2018, it was revealed that the political data firm Cambridge Analytica harvested data from some 50 million Facebook users who had taken a personality quiz through the app, which was then used by the firm to systematically target users’ social networks with political ads aimed to influence opinions for the 2016 presidential election. When Facebook’s CEO Mark Zuckerberg appeared before the U.S. House and Congress to address concerns about the company’s management of user data, the incident became indicative of Facebook users’ mounting concerns regarding how their data is used and protected, evidenced by the large #deleteFacebook movement shortly thereafter in which up to 9% of Americans deleted their accounts (Milanesi, 2018). However, it also revealed another concern regarding the use of their Facebook data: Cambridge Analytica’s ad-targeting revealed Facebook’s ability to manipulate users’ behavior through the site’s content.

Facebook has been public about its manipulation of the site’s presentation and content in the past, albeit retroactively at times, which is a common practice employed

among other major companies like Google, Amazon, and Yahoo to test and improve user experience (Hill, 2004). In one instance, Facebook researchers manipulated the accounts of over 680,000 users for one week by altering the number of positive or negative posts in their newsfeed, then used this data to work with academic researchers to find that emotion is a “social contagion” on the site (Kramer, Guillory & Hancock, 2014). Publication of the research raised concern regarding the ethics of gathering this human subject data, but a spokesperson for the Facebook noted that the user agreement stipulates how information provided to the site by an individual may be used for research “to improve services and to make the content people see on Facebook as relevant and engaging as possible” (Hill, 2014).

These manipulations are not always as transparent. For instance, in May 2017, the national newspaper *The Australian* leaked internal Facebook documents pitched by advertising executives; the documents revealed that the company quietly conducted research to accurately identify teen users’ emotional states, predicting when they feel “insecure,” “worthless,” “overwhelmed,” “defeated,” “anxious,” “stressed,” “stupid,” “silly,” “nervous,” “in need of a confidence boost,” and like a “failure” (Sinn & Fernandez, 2018). Facebook representatives responded that the document prepared with “internal Facebook data” not available to the public was “intended to help marketers understand how people express themselves,” as the company can analyze how users “are representing emotion and communicating visually” (Levin, 2017).

These instances reveal how major technology companies’ use of patented algorithms employ persuasive design principles, in which technology developers experiment with psychological techniques that can be algorithmically tailored for

individuals in ways to capture attention and develop habits (Fogg, 2009, 2012; Lewis, 2017). B.J. Fogg, founder of Stanford's Behavior Design Lab, explains that persuasive design deploys novelty as a distraction mechanism to encourage continual use, as people in novel situations "not only lack expertise but are distracted by the experience, which impedes their ability to focus on the content presented" (2012, p. 215). Nir Eyal author of *Hooked: How to Build Habit-Forming Products* (2013) notes how incorporating novelty into design has contributed to the success of social media sites, wherein features like endless newsfeeds and alluring notification badges keep a user engaged and encouraged to return for more novel activities and content, reinforcing habitual use in the process.

With regard to the ethics of persuasive design, Fogg (2002) holds that there are practices that clearly violate ethical guidelines precluding deception and coercion, yet notes other methods raise "ethical red flags" depending on the intent of design, for instance, in the case of operant conditioning. As anthropologist Dow-Schüll (2012) discovered in the ethnography of slot-machine addicts, when it comes to design, "by setting the parameters for a user's actions, a given product and by implication its design team play a role in guiding their behavior" (p. 21). Latour acknowledges that objects can be inscribed with a certain mode of use that then carries scripts that "inhibit or precede certain actions while inviting or demanding others upon the subject (Latour, 1994, p. 31). In 2002, Fogg noted the design method was limited to gaming contexts but opined that "one could imagine a future where operant conditioning is commonly used to change people's behavior, sometimes without their direct consent or without them realizing what's going on," which is where ethical concerns would arise (p. 225).

Over the past decade Fogg's prediction has materialized, as operant conditioning has emerged as a prominent persuasive design principle for a number of popular media and technology companies. Former Google design ethicist Tristan Harris⁹, has been a prominent figure in the movement to reveal the ethics of persuasive design in Silicon Valley, founding the Center for Humane Technology to combat what he sees as a growing problem in the industry. He reveals that much of technology today operates like slot machines, exploiting the same psychological mechanisms that Dow-Schüll reveals makes gambling so compulsive, by offering variable rewards to encourage continual use, thus contributing to the development of habits and even addiction (Harris, 2016).

Persuasive design methods that incorporate a social component present a particular allure, producing "a variety of social cues that elicit social responses from the human users" (Fogg, 2002, p. 89). When designing addictive technology by eliciting a social response, designers model a "target behavior or attitude" and enforce it by "rewarding people with positive feedback and social support" which can come through the social media notifications of likes, retweets, and comments (Fogg, 2002, p.90). As such, it becomes apparent how social media and smartphones, as evocative objects come to possess a certain "holding power" through deployment of persuasive design principles, acting as a "powerful projective medium" through which the "machine can act as a projection as part of the self, a mirror of the mind," pointing to the social nature of human interactions with technology (Turkle, 1984, p. 20).

Former Facebook president Sean Parker has publicly confirmed that when developing the site, planners asked "how do we consume as much of your time and

⁹ prior to this, he was a student of B.J. Fogg when studying at Stanford

attention as possible?” (Solon, 2017). He explains that the company designed Facebook to achieve this goal by creating a “social validation feedback loop... exploiting a vulnerability in the human condition,” wherein users seek out the next dopamine reward that a notification offers (Solon, 2017). This raises serious implications for how issues like problematic media use and addiction are approached, as these revelations demonstrate how unwanted media habits are not solely attributable to users’ agency and volition but also to the very design of the technology itself¹⁰.

As evidenced by the admissions and revelations from the engineers and designers of Silicon Valley, a value-free conception of technology is no longer viable, as the decisions these companies make can result in technologies that “promote or undermine specific human values” (Manders-Huits, 2011, p. 274). Oxford Internet Institute researcher James Williams is currently researching the ethics of persuasive design and offers that the current models of smartphones and social media are “structurally designed to undermine human will” (Lewis, 2017). When it comes to human-technology mediations, “human actors bear particular accountabilities,” particularly “designers, markets and managers are in a position to act on others at a distance... delegating tasks of soliciting and sustaining specific kinds of human behavior (Dow-Schüll, 2012, p.21). As such, it is important to consider not only how problematic media use is developed through user characteristics and behavior, but how these practices are habituated and reinforced through design, considering the persuasive design scripts inherent in these technologies.

¹⁰ This not only applies to socially-oriented media, but to any medium that can systematically capitalize on distracting users, giving rise to the phenomenon of binge-watching. Netflix CEO Reed Hastings has offered that other streaming services are not his competition but rather he feels he is “competing with sleep,” acknowledging that people will stay up later at night when they get addicted to a show.

Phenomenological Philosophies of Technology

When designing research, it is important to consider an enframed world view wherein technology and society are both causes and effects in co-production with each other (Heidegger 1964; Latour, 1994; Orlikowski, 2000). McLuhan famously acknowledged this relationship, noting how “we shape our tools and our tools thereafter shape us” (Culkin, 1967, p. 70), which Carr (2010) expounds upon, offering that “the tight bonds we form with our tools go both ways. Even as our technologies become extensions of ourselves, we become extensions of our technologies” (p. 209). An appropriate theoretical/methodological framework that may adequately account for such complexities of experiences with technology is phenomenology.

As both a philosophical and pragmatic approach to social science research, phenomenology takes the meaning-making processes and lived experiences of subjects as central. As Horst & Miller (2012) have noted, “the pervasiveness of digital media and technology have spurred renewed attention” in a variety of phenomenologically rooted concepts, considering the “particular capacities, affordances...constraining and enabling possibilities of media” (p. 86). Edmund Husserl, an early influential scholar in the philosophy of phenomenology, emphasized the centrality of the human context in understanding life; that is, “researchers and readers of research can understand human experience because they are participants in the human experience,” (Bloor & Wood, 2006, p. 137).

The paradigmatic/ironic positions of our relationship with technology have been explored with different philosophies of technology, which serve to further articulate the complexities and nuances of the “character of the technological society in which we live”

(Barnard, 1997, p. 128). Arnold (2003) contends, “seeing the world as ‘enframed’ allows us to grasp the ironies of our position,” as the conception of technology shifts from instrumental to metaphysical (p. 236). For Heidegger, this irony is exemplified in how the use of modern communication technologies with the intent to connect people by abolishing distance, have created a state of *ent-feren* (un-distance) in which all people are equally near and far, simultaneously. The paradoxical result of un-distance is that “in destroying distance, we destroy closeness” (Arnold, 2003, p. 236).

In another instance, Ihde (1990) explores the structure of the human-technology experience, avoiding the strict materialism of determinism and instrumentalism by instead using phenomenology to focus on how humans and technology act together through their encounters as subjects and objects. He puts forth an amplification/reduction paradigm as a means of describing the ironies of this experience. In line with McLuhan’s (1962) conception that ratios of the senses are altered, or amplified, through the introduction of a new technology, Ihde (1979) similarly offers that an interaction with a certain technology mediates and transforms our sensory perception of reality, asserting that certain aspects of this reality will be amplified, extended or enhanced at the cost of reducing or limiting other aspects of this reality. For instance, when communicating through text or social media on a mobile phone, the communication is enhanced through the amplification of visual information like the incoming messages and images presented on the phone’s screen, though this comes through a necessary reduction in the visual field of one’s immediate physical environment.

Another philosophy of technology that demonstrates the ironies of our position has been demonstrated by Borgmann (1987) who puts forth a “device paradigm.”

Borgmann explains that “it is the pervasive transformation of things into devices that is changing commerce with reality from engagement to the disengagement of consumption and labor” (p. 61). When technology emerges as a response to societal ills offering “great transformative power,” it leads to promises of liberating and enriching society by eliminating these ills (p. 76). The irony here for Borgmann is that when “liberation by way of disburdenment yields to disengagement, enrichment by way of diversion is overtaken by distraction and conquest makes way first to domination and then loneliness” (p. 76).

Essentially, he posits that the ambition and intentions of technology while seeking to solve certain issues, may inadvertently yield unintentional outputs requiring additional labor yielding potential disengagement, distraction, and loneliness. Take for instance, the emergence of streaming video services, which seemingly offer the promise of increased entertainment while providing viewing options no longer limited to the programs airing through a cable package in real time. However, the streaming service may inadvertently make the intended leisure activity of television viewing more laborious as one struggles to decide what to watch among the plethora of choices, wherein the disburdenment of being restricted to cable offerings is shifted to disengagement due to the additional time, labor and potential distraction involved in additional decision-making.

Writing with a substantive tradition echoing Heidegger, Borgmann’s device paradigm fits within the conception of a world enframed by technology. He contends that as devices become increasingly efficient in facilitating our desired outcomes, we do not engage with the technology to *perform* the task, but to *change* the task, ultimately eliminating ourselves from engaging with the task. When machines are unobtrusive “we

take up in labor by constructing and maintaining the devices of technology” (p. 77). The paradoxical result of *our* disengagement through *our technology’s* engagement reflects the processes by which through increasing the application of technology into diverse facets of life, we come to perform less of these functions existentially, eliminating our “connection with the natural, social and material world in which we live” (Arnold, 2003, p. 241).

Arnold (2003) offers a phenomenological conception of the ironies of human-technology interactions through the metaphorical description of being “Janus-faced,” a reference to the two-faced Roman deity “cursed and blessed with the necessity of facing in two directions at once” (p. 232). In contrast to Ihde’s amplification/reduction paradigm, in which technology enhances one perception of reality at the cost of reducing another, Arnold’s (2003) Janus-face metaphor allows for the conception of both effects being experienced simultaneously, without one occurring at the cost of another, so that “interpretations remain open to the possibility of moves in all directions, including incompatible directions” (p. 251).

Arnold presents an example of the Janus-faced nature of mobile phones by explaining how a mobile phone can indicate that a person is connected, conspicuously available, with a “social life or business life that is dynamic, lively often unpredictable, but certainly full” (p. 244). Simultaneously, this mobile phone presence can signify the person is wanted, but also that the person may want to be wanted, “facilitating both independence and co-dependence” as one can’t denote that they are “booked-up” and in demand without also being demonstrating that they are available (p. 244).

A Call to Move Forward with More Nuanced Approaches

Viewing different philosophies through a phenomenological lens suggests the efficacy of utilizing qualitative approaches to study interactions with technology, demonstrating how qualitative methods can capture the complexity and nuance of these experiences that may not be accounted for using solely quantitative methods of dominant positivist and post-positivist paradigms. Interpretivist methods, by avoiding the trappings of determinism and instrumentalism, can offer insights that account for the varied paradoxical and ironic contexts of our engagements and interactions with technology and would be a beneficial complement to positivist research in this regard.

In a systematic analysis of 43 original research papers exploring the effect of online technologies on adolescent well-being, researchers found that studies employing quantitative methods outnumber qualitative studies four to one and outnumber mixed methods sixteen to one (Best, Manktelow & Taylor, 2014). Recognizing the tendency of quantitative methods to dominate across research paradigms, the researchers conclude that “a greater number of mixed method designs would be welcomed within the literature” (Best et al., 2014, p. 34). Using mixed methodology allows researchers to add insights and understanding that might be missed when only a single method is used and can “produce more complete knowledge necessary to inform theory and practice” (Burke Johnson & Onwuegbuzie, 2004; Maxell & Loomis, 2003; Morgan, 1998). Given the increasing interdisciplinary and dynamic nature of today’s research, Burke Johnson & Onwuegbuzie (2004) recommend that “all researchers need a solid understanding of multiple methods used by other scholars to facilitate communication, to promote collaboration, and to provide superior research” (p. 15).

When studying media and technology, particularly in the advent of the Internet, researchers (Brandtzæg, 2010; Couldry, 2004; Livingstone & Helsper, 2007; Zillien & Hargittai, 2009) have suggested that within the field, more nuanced approaches are needed to investigate the association between media usage and social implications that “transcend simple binaries of access/no-access or use/non-use” to instead “capture the range and quality of use” (Livingstone & Hepster, 2007, p. 67). Some such methods that can be employed through qualitative research to effectively capture such complexities may be ethnography and phenomenology (Sartoretto, 2016; Horst & Miller, 2012; Pink, et al. 2016; Poyntz & Kennelly, 2016; Verbeek, 2008). Ethnography, in endeavoring to “find systems of meaning, social structures and rationales that lie deeper than what is observed on the surface,” is one such approach that may be potent in addressing such complexities (Sartoretto, 2016, p.191) Similarly, phenomenology as both a philosophical and pragmatic can be applicable, as it takes the meaning-making processes and lived experiences of subjects as central to research (Poyntz & Kennelly, 2015). In particular, researchers have offered that phenomenology “provides a solution to the quandary of the inability to attend to the online, digital” aspects of life while also “accounting for the material, social, and embodied experiences within and alongside which the online and digital are situated” (Richardson & Keogh, 2017, p. 212).

The interpretivist framework of phenomenology thus offers opportunities to capture the ironies and paradoxes of humans’ lived experiences with and through media and technology. This demonstrates how the field would benefit from mixed methodology by incorporating more interpretivist methods, which may help to bridge some of the current lack of consistency in existing findings, especially given that the “technological

development of the internet is still moving at breakneck speed,” meaning that “reviews of the phenomenon quickly become outdated” (Denissen et al., 2010, p. 564).

Research Questions

This current research seeks to contribute to existing gaps in the literature by revealing insights of members Generation Z experience and behave during a media abstention practice through a digital detox assignment by providing one of the first known investigations to gather data through participant observation *during* students’ media abstention. Further, by developing a phenomenological account of young people’s digital detox experiences with an interpretivist approach, the thesis seeks to address the following questions:

RQ1: How do current college students, who have grown up in an era of constant connection, make sense of a digital detox experience?

RQ 2: How, or to what extent, does a digital detox experience influence emerging adults to cultivate digitally mindful practices?

RQ 3: What is gained by employing interpretivist methods of observation and phenomenology in this study?

CHAPTER IV

METHODS

This thesis carries out dual functions, providing a phenomenological account of the digital detox experience of current-day college students, while also presenting an exemplar of the benefits of employing an interpretivist approach as suggested in the previous chapter. I chose phenomenology—as both a theoretical framework and a pragmatic approach to social sciences—for this thesis because I believe it most effectively enables me to demonstrate the meaning-making processes of college freshmen’s lived experiences growing up in an era of constant connection, and how these lived experiences subsequently influence their experience of a digital detox. I employed participant observations and interview methods in two case studies and synthesized the results to develop a phenomenological account. In this chapter, I provide a description and rationale for these methods, outlining the population involved in the study and the procedures for gathering, analyzing and presenting the research data. The chapter concludes by considering the role of reflexivity in this research and discussing my positionality as a researcher.

With phenomenology, this thesis uses a qualitative research approach within an interpretivist philosophical position, which I argue serves as a potent foundation to complement positivist investigations of media and technology studies. As it is concerned with interpreting phenomena in its natural setting in order to make sense of the meanings people bring to the world, I feel this qualitative method, I believe, effectively accounts for the context of experiences involved with human-technology interactions depicted in the previous chapter (Denzin & Lincoln, 1984). As such, I demonstrate the value of these

methods which can be incorporated to develop mixed methodological approaches, encouraging greater collaboration between positivist and interpretivist approaches in future media and technology research.

Theoretical and Philosophical Premises of Phenomenology

Because I feel it is important to include an approach that will empower participants to share narratives of their unique experiences with the digital detox, I employ the phenomenological method, to enable the emerging adults in this investigation to authenticate their stories through their own voices and meaning-making processes (Creswell, 2007; Rudestam & Newton, 2001). According to Creswell (2012) a researcher would “be remiss to not include some discussion about the philosophical presuppositions of phenomenology” along with its methods; therefore, I will first provide a historical account its premises (pg. 78).

The methodological development of phenomenology is generally attributed to Edmund Husserl, who in the early twentieth century sought to create a “rigorous science based on philosophy, sound perceptions, ideas and judgements” (Moustakas, 1994, p. 45). Husserl’s phenomenology, rooted in the traditions of Descartes, Hume, and Kant, calls for an epistemologically oriented, systematic and disciplined process, emphasizing subjectivity and discovery of the “essences of experience” in order to procure knowledge. (1965, p. 5). As such, Husserl (1975) asserts that “the world is nothing other than what I am aware of and what appears valid in my *cognitions*,” cementing the central importance of subjectivity in offering, “I cannot live, experience, think, value and act in any world which is not in some sense in me, and derives its meaning and truth from me” (p. 8).

Phenomenological principles, for Husserl, hold that scientific investigation is valid when the knowledge it arrives at is ascertained through descriptions that provide an understanding of meanings and “essences of experiences” (Moustakas, 1994 p. 84). Such essences of lived experience are aimed to be captured without interpretation or explanation, though we need not only the intuition, presenting the evidence through careful description” to confirm the adequacy of the intuition (van Manan & Adams, 2009, p. 96). While the essence is aimed to be captured without interpretation or explanation, phenomenology is an inherently interpretative process by which the researcher “mediates” between the different meanings of lived experience provided by participants (van Manen, 1990, p. 26).

Phenomenological Method

In order to explore social phenomena, a qualitative researcher “builds a complex, holistic picture, analyzes words, reports detailed views of informants and conducts the study in a natural setting (Creswell, 1998, p. 99). While at one level, phenomenology “can be seen as a re-voicing of individual experience,” the method is “perhaps more useful if the researcher is able to generalize beyond the individual and articulate transferable meanings” of what constitutes the experience (Bloor & Wood, 2006, p. 138). As a method, phenomenology has a temporal quality of exploring phenomena as they appear and in this “encounter with things and events in the world,” as van Manen & Adams (2009) contend, the gaze is directed “towards the regions where meanings and understandings originate, well up, and percolate through the porous membranes of past sedimentations” (p. 26-27). An advantage to phenomenology is that in positing “experiences as emerging from a past, while lived in the present,” this permits an

analysis of contemporary meaning-making processes within the context of a larger historical framework as opposed to the potential for fragmented and ahistorical ‘voice-centered’ interpretations of young people’s experiences in other approaches that can “render young people’s lives as separated from the structures and histories that shape them” (Kennelly & Poyntz, 2015, p.3). In this way, I could explore how subjects’ prior experience, namely their development in an era of constant connection, had inevitably contributed to how they experience the phenomena throughout the digital detox.

Different approaches have been put forth to systematically analyze and present a phenomenological account of data (Creswell, 2007; Moustakas, 1994; Sanders, 1982.) This thesis will employ the analysis put forth by Sanders (1982) who presents four levels of phenomenological analysis: descriptions of phenomena through narratives, identification of themes from descriptions, development of subjective reflections (noetic correlates) from themes, and abstracting essences from themes and subjective reflections. (Jarmon, 2014).

First, the researcher describes the narratives gathered from participants, to “identify and describe the qualities of human experience and consciousness that give the person being studied his or her unique outlook” (Sanders, 1982, p. 357). In the second level, the researcher identifies the themes or invariants of the description, which refer to the “commonalities present within and between narratives” to include in the phenomenology which are identified “based on the importance and centrality accorded to them rather than on the frequency with which they occur” (Sanders, 1982, p. 357). Next, in the third level of analysis, the noetic correlates are developed. Such correlates are the subjective reflections that reveal participants personal perceptions of the nature of the

phenomena in question, wherein the interpretation is essential to the identifying the essences of an experience. These first three stages will be presented as findings in Chapter V to follow. In the final stage of analysis, the essences are abstracted from the noetic/noematic correlates, which Sanders (1982) says is accomplished “through intuition and reflection” (p. 357). The culminating aspect of a phenomenological study is the descriptive passage that describes an experience’s *essence* for individuals, which incorporates a detailing of what they have experienced with descriptive accounts of *how* they have experienced it (Creswell, 2012). This final stage of the process will be presented within Chapter VI, the concluding chapter of the thesis, building upon the observations presented through the first three steps of the analysis in the chapter to follow.

Procedure

In order to arrive at this phenomenological account, the stages are developed through two case studies employing the ethnographic methods of participant observation, semi-structured interview, and textual analysis. The first case study was an exploratory study carried out in the fall term and was followed by a formalized IRB-approved study in the winter. Non-identifiable information of human subjects gathered from the preliminary exploratory case study in the fall was approved for inclusion by the University of Oregon’s Institutional Review Board.

In case studies, the investigator “explores a bounded system (a case) or builds multiple bounded systems (cases), over time, through detailed, in-depth data collection involving multiple sources of information (Creswell, 2007, p. 73). While the “bounded system” notion of case studies has been deemed unhelpful, as it can be difficult to define

the temporal and spatial boundaries of a given social system (Atkinson & Delamont, 1995; Creswell, 1998), it is also “considered valuable where the research context is too complex for experimental to survey research” due to its ability to capture “unique characteristics of people and groups” (Bloor & Wood, 2006, p. 27). With the goal of this research to consider the influence of life experiences prior to the detox, a temporally ambiguous boundary, and the effect of these prior experiences on the digital detox, a temporally bounded event, the case studies were deemed appropriate.

i. Study Populations and Recruitment

The exploratory study was carried out between October 2017 and December of 2017, and involved students enrolled in a large introductory media studies course J201: Media and Society typically assigns the approximately 400 students enrolled in the course to complete a ‘digital detox’ in which they abstain from all media for an extended period of time¹¹ and submit a written reflection about the experience. During the fall term, the J201 instructor was additionally leading a one-credit First Year Interest Group (FIG) course called ‘Anti-Social Media,’ comprised of twenty freshmen also enrolled in the larger J201 section. While students from the larger class had a choice regarding how to carry out the detox, all of the J201 students who were additionally enrolled in the FIG (N=20) completed the digital detox together at a pre-determined date and time on a Saturday midway through the academic term.

To follow up with findings from the exploratory study that I deemed merited further investigation after analyzing the data, a formal study was developed to further test findings from the fall digital detox study. The proposed research was granted Institutional

¹¹ Assignment length has ranged from 8 hours to 10 hours

Review Board approval in January and second digital detox study was carried out in winter term between January 2018 and March 2018. With no FIG class this term, students who volunteered to participate in the group detox for their assignment received three extra credit points towards their overall J201 grade¹².

The formalized winter study altered three major aspects of the exploratory study in the fall. First, the J201 instructor allowed the students in the fall's exploratory study to make their own decisions about bringing their phones along for the detox. Students who brought their devices overwhelmingly reported negative distractions and unwanted temptations from the devices' presence. Therefore, in the winter study, all participants (N=18) powered down their devices at the start of the detox, relinquishing them to a Tupperware container, which remained in my possession during the detox. This additionally presented a control for this study, in which all students were equally phoneless.

Secondly, in the fall detox all FIG students met at a school parking lot at the beginning of the day and departed for a day trip, which consisted of three locations: first, a short hike to a waterfall; second—with the instructor's intention of providing some sense of a media-saturated environment—the students spent 45 minutes in the large retail store Fred Meyer; third, we went to the beach, which was the most substantial leg of the day. Students reported that this organized trip made the detox seem easier, offering an escape that they wouldn't have experienced had they remained on campus. In order to mitigate the feelings of escapism and perceived ease these off-campus

¹² Students who did not participate in this study were offered an alternative assignment by the J201 professor, per IRB requirements

locations provided students in the fall, the winter study was designed to include immersion in their everyday environment on campus. The detox started by meeting on campus before transporting students to a national park by van to hike approximately an hour away. Halfway through the detox, students returned to campus and were given one-and-a-half hours of free time, offering them an opportunity to experience campus life without media.

The third alteration to emerge from exploratory study findings was designed to incorporate opportunity for solitude into the group detox. Some FIG students in the fall reported that with the highly conversational nature of the group detox, they felt deterred from having time alone with their thoughts, perceiving pressure to be continually social in the group. Accordingly, I organized an hour of introductory mindfulness exercises with a mindfulness instructor on campus for the remaining hour of the winter detox to incorporate structured solitude into the experience.

i. Participant Observation

After the J201 and (Anti-)Social Media FIG instructor granted me access to sit in on weekly FIG class sessions and additionally accompany the group on their digital detox, I attended seven (Anti) Social Media FIG classes, totaling roughly ten hours of participant observation fieldwork. By attending four class session prior to the detox, I was able to both familiarize the students with my presence as an observer and gain familiarity of with their group dynamics and interactions¹³. An additional eight hours of observational fieldwork was conducted on the Saturday of the digital detox.

¹³ By abstaining from media during the detox with the students, I gained access to what Goffman (1990) refers to as informants “backstage” behavior, shifting to an observant participant and gaining the “ability to see beyond the social front that informants present to strangers in everyday lives” (Morean, 2009, p. 148).

For the winter detox, I employed similar methods to the exploratory study when accompanying the students during their digital detox. With no FIG class to observe in a classroom setting this term, additional participant observation was granted by sitting in on the 400-student lecture J201 lectures, enabling me to gather observational insight on conventional classroom behavior and students' interactions. Sixteen class sessions were attended in the winter term, totaling approximately 21 hours of classroom observation in addition to another eight hours of participation observation during the detox. Field notes were gathered using a stepwise fashion (Snow, 1986) making mental and jotted notes in the field including key phrases and behavioral descriptions, which were later expanded in detailed and extensive field narratives following the days' observations.

ii. Gathering Data through Participant Narrative: Interview & Textual Analysis

After reviewing the field notes and reflecting on my own experience of the detox, I developed guiding questions for semi-structured interviews. Participants were recruited for interviews by posting an IRB-approved recruitment flyer to the J201 online Canvas page. Students were compensated for their time in interviews with an Amazon gift card. In total, eight interviews were conducted, each one hour. All participants were informed that names would be omitted and all identifying information would be removed, and additionally were sent copies of the interview transcript and encouraged to review and respond with any desires to clarify or redact statements from the record.

The semi-structured interview was intentionally conversational in nature to encourage an open dialogue in order to capture the "thoughts, feelings, beliefs, values and assumptive worlds of participants" to gain deeper insights to their meaning-making processes (Marshall & Rossman, 1999, p. 57), and open new lines of inquiry (Campbell

& Lassiter, 2014, p. 100). While a particular set of guiding questions was posed to all four respondents, with the flexibility of the semi-structured interview, new questions emerged as participants were encouraged to offer any information regardless of its relevance to the questions asked (Patton, 1990). In this way, the semi-structured interview encouraged control and authority to be shared between the researcher and participants (Campbell & Lassiter, 2014). The interviews were transcribed and subjected to rounds of coding in dialogue with the literature and field notes, using an abductive approach so as to recognize salient patterns within the data and develop prominent themes connected to the research questions.

Findings from the interviews and observational fieldwork were further triangulated with a textual analysis of the student digital detox reflections that were submitted for their J201 course. The textual analysis, as “an attempt to gather information about sense-making practices” is employed in the study to establish a richer understanding of how the FIG as a whole experienced and made sense of the digital detox (McKee 2003, p.14). The textual analysis is both qualitative and quantitative in nature. I first conducted a content analysis, breaking down components of the text into countable units in order to ascertain how representative or generalizable experiences from the detox reported in the reflection were for the class as a whole. In both case studies, students enrolled in J201 were required to submit a written reflection of the digital detox experience. While a phenomenological investigator should be neither non-directive nor suggest descriptions for the participants, they may encourage participants to “give full description of their experience, including their thoughts, feelings, images, sensations, memories, stream of consciousness, along with a description of the situations in which

the experience occurred” (Waters, 2017). The guidelines given to the students in J201 aligned consistently with those recommended by phenomenological research methods, suggesting students might respond to the following prompts in their reflections:

- How did you feel about this assignment going into it?
- Which media were the most difficult to avoid? Was that what you expected?
- How did you feel midway through the exercise?
- Which media did you miss most during the exercise?
- How did you occupy your time? What differences did you notice in your body and your brain during this exercise? Be detailed, specific and complete in your timeline of what you literally did during this exercise.
- How did you feel when this was over? Describe your range of emotions and feelings. What did you do when it was over, and why?

I analyzed 367 pages of data featured typed, double-paced text. I coded the reflections to assess the commonality of their experiences, counting the number of times certain words or phrases appeared. As I did not have a second researcher code 10% of the reflections, I was not able to establish intercoder reliability to contribute a quantitative content analysis. The qualitative content of the reflections was further analyzed as I gathered exemplars of student writing judged to make most visible their sense-making practices.

In addition to analyzing the content of the reflections of eighteen students who attended the winter digital detox trip, I additionally analyzed student responses from the larger J201 class in order to get a broader sense of what an individualized digital detox experience was like for students (N=92), enabling me to offer compare the group and individualized detox experiences. The analysis concluded when it was determined to have

reached a saturation point (Glaser & Straus, 1967) in which no additional or novel data or codes were revealed in assessing additional reflections and when I arrived at “mounting instances of the same codes but no new ones” (Urqhart, 2013, p. 194).

For instance, codes included in this qualitative analysis included references to: expectations/obligations (N=43); constant connection (N=73); self-reflection (N=55); productivity (N=21); being “present/in the moment” (N=43); avoiding boredom *and* socially awkward moments (N=27); previous abstention experience (N=23); phone’s intentional absence (N=27); alone/loneliness (N=26), etc.

Acknowledging Reflexivity & Positionality

Through an interpretivist framework, scholars “positions themselves” within the research, acknowledging that their own interpretations are inextricably shaped by and flow from “their own personal, cultural, and historical experiences” (Creswell, 2007, p. 25). This process of a “continual internal dialogue and critical self-evaluation of researcher’s positionality, as well as active acknowledge and explicit recognition that this position may affect the research process and outcome,” is commonly known as reflexivity (Berger, 2012, p. 220). Within qualitative research, reflexivity has been increasingly recognized as a crucial strategy for generating knowledge (Ahmed Dunya, Lewando, & Blackburn, 2011; Blaxter, Hughes, & Tight, 2006; D’Cruz, Gillingham, & Melendez, 2007; Guillemin & Gillam, 2004; Mason, 1996; Pillow, 2003). As an “active process” of co-constructing meaning, qualitative research requires “scrutiny, reflection, and interrogation of the data, the researcher, the participants and the contexts that they inhabit” (Guillemin & Gilliam, 2004, p. 274). Reflexivity enhances the rigor of qualitative investigation by encouraging researchers to consider how they both assist and

hinder the process, efforts “that increase our confidence that our findings represent the meanings presented by our participants,” Lietz et al. (2006, p. 443).

Accounting for my own positionality, biases, and experiences has therefore been a crucial component of this investigation, from the initial stages of formulating research questions and throughout the processes of data collection and analysis. This current work continues a research tradition that I have employed in past research, when I began using qualitative methods to explore how my own generation made sense of our increasingly virtual performances on digital spaces of social media as so-called “digital natives” (Palfrey & Gasser, 2003). My initial identification as a digital native derived from my recognition that I had largely grown up alongside the Internet. I have largely incorporated the tools made available by this technology into my development and acknowledge that my personal and historical experiences with such tools has thusly influenced how I shape and interpret my research. As such, I provide this reflexive account of my positionality in order to demonstrate how it has influenced the development of this research and how reflexivity was continually woven into the process of collecting and analyzing data in collaboration with participants, so as to co-construct meaning in a manner that would ensure integrity in the design.

The first time I was able to use a smartphone to notify a professor through email that I was running late, I experienced a newfound sense of dominion over time and space while rushing across campus, gaining the ability to extend myself virtually beyond the confines of my physical embodiment. I had this first significant recognition of the smartphone’s affordances as a junior in college at age twenty, recognizing the new sense of efficiency and productivity they granted me in the transition to adult life after college.

Through the process of analyzing the first round of data in the exploratory study for this research project, I came to recognize more precisely how different my conception of growing up with constant connection differed from these current-day undergraduate students, most of whom had their first phones by sixth grade and all of whom had smartphones before high school. As such, the affordances that I perceived arrived at age twenty, and thus my meaning-making processes about them are significantly different for this study's students, who largely received these connective capabilities at the onset of adolescence.

While in time I have come to question how my media and technology use influences distraction, procrastination, attention, memory, anxiety, and challenges with conversation in my own life, I have come to recognize the benefit of media abstention. I acknowledge, however, that I still engage in problematic media use, particularly use related to emotional suppression and means to avoid anxiety-inducing tasks. Sharing this with the participants in the conversational interviews, despite seemingly "knowing better," fostered a dialogue of mutual understanding. The students recognized that they weren't being approached with such tropes as "media-addicted millennials," but by someone equally susceptible to the allure of devices and someone raised alongside them, albeit to different extents, who was attempting to co-construct meaning and represent their experiences authentically.

Based on the understanding that my own reflexivity of my media history has contributed to my understanding of my current engagements, I likewise found it pertinent to investigate the media histories of my participants, asking when they started using their devices and what they remembered about their earlier use, opening possibilities for

forgotten realizations to unfold in a similar manner to my own. This further allowed for greater opportunities to recognize the extent to which their lives of constant connection had contributed to their current state of lived experiences in an always-on culture.

CHAPTER V

FINDINGS

This chapter presents major findings that emerged by collecting and analyzing data about the digital detox, including descriptive narratives gathered by participants through interviews and textual analyses in the fall (N=20) and winter (N=18) group detox conditions. Additionally, the findings include descriptions from textual analyses of reflections from students in the larger J201 section (N=92) in order to offer a comparison between completing the digital detox in a group or individual setting. In accordance with Sanders' (1982) four-step process for phenomenological analysis, the common themes emerging from the collected participant data are presented and discussed, as are the subjective reflections of participant's experiences during the digital detox. Findings presented in this chapter are further discussed and analyzed within a larger theoretical framework in the concluding chapter to follow.

Activities Generated Unplugged

Aside from the transportation of the students to the various locations in both group detox conditions, no structured activity was organized for the students; the only exception was the final hour of the winter detox set aside for students to receive an introductory mindfulness lesson from a professor and instructor of Mindfulness-Based Stress Reduction. Students were otherwise required to decide how time would be spent during their digital detox.

A notable activity generated by students in both group detox sections was observed as they collaborated among themselves in groups to replicate games and acts of

imaginative play reminiscent of their early childhood¹⁴. While transporting students to different locations in 12-passenger vans, students entertained themselves with various word games and riddles. Some students referenced how these activities reminded them of riding the bus to school. Often, a significant portion of play would involve negotiating and adjusting rules, with students articulating the different variations of how games were played among their various childhood experiences.

In one game introduced by students, the objective was to build a story by having each successive participant contributing one word to the story. Students also played a riddle game they referred to as the “green glass door,” which emerged while being transported by van when one student mentioned “Remember... you can bring a puppy, but you can’t bring a dog?” This immediately triggered a bout of nostalgia with varied reactions, as some students earnestly offered their own examples, while others expressed their frustration about never being able to solve the riddle. Typically, most games did not evolve to the point of play, but upon deliberation of rules, the games would dissolve into conversation prompting students to share personal memories with each other. Other games were reminiscent of playground activities typically requiring group participation. For instance, the FIG students organized games of red rover and played a version of capture the flag while at the beach.

In the winter detox, the planned mindfulness session ended about 30 minutes early, as the instructor sensed restlessness and fatigue among the students. As a result, I presented students with the option to decide how they would spend the remaining half hour of the detox, including the option to access their phones early. Of the eighteen

¹⁴ It is interesting to note that while this occurred organically in both group detox settings, play is purposefully incorporated into the structure of the Camp Grounded digital detox retreats (Sutton, 2017).

students, three decided to retrieve their phones, though the vocal majority of students decided that they wanted to “stick it out” for the last half hour. One student who retrieved their phone early left the classroom, while the other two stayed with the remaining fifteen students, who had fashioned the classroom desks into a circle. They proceeded to play different strategy games for the rest of the detox. One was a clapping game that required attention and strategy, adding difficulty with an emphasis on the speed of play; another was a detective-strategy type game in which one would leave the room and upon return have to figure out who the decided “murderer” was. While only a few in the room were familiar with either game initially, everyone in the class was able to participate after the first trial run through.

In both of these games there was a genuine sense of enjoyment, sustained engagement, and frequent laughter. At one point, a student who chose to retrieve his phone and stay with the group tried to participate in the clapping game but ended a considerably long-running streak when he missed his turn as he was distracted by his phone. As students reacted excitably, the student with the phone looked up with an expression of confusion, prompting a bout of raucous laughter from the group, as if to signal to each other a recognition that they would not have been able to engage in this enjoyable experience if they had been attending to their phones as well.

In the mindfulness exercise incorporated into the last hour of the winter group detox, students were instructed to meet in a classroom on campus at 4:00 p.m., with warning to keep track of time without their phones. Most of the eighteen arrived on time, with the full group in attendance by 4:10. Dr. Lisa Freinkel, a professor at the university who teaches a Mindfulness-Based Stress Reduction course started the lesson by

explaining the concept of mindfulness practice, telling the students that evolutionarily, humans have adapted by shifting our attention for survival, though we no longer face the same threats that we did thousands of years ago and now have tools that increase our attention-scattering. She addressed a common misnomer, explaining that the goal of mindfulness meditation was not to empty the mind, which is not possible for anyone, but rather to focus the attention on a particular aspect of consciousness, like the breath or areas of the body.

Students were told that mind wandering is natural, and that the mindfulness practice seeks to catch when the mind is wandering without judgment and bring the attention back to the breath or the body. Students followed along with a number of warm-up exercises, including a body scan and practices with mindful breathing techniques. Dr. Freinkel recognized fatigue among the students, who had endured a long day of hiking and van rides and decided to end the session about 30 minutes early. After she left, students expressed concern about Dr. Freinkel's impression of them and felt bad, but many acknowledged that they were exhausted from the day of hiking and were struggling to stay awake during the mediation.

A number of students reflected upon the experience of the mindfulness meditation with a sense of appreciation. One student explained that it "made me more aware of my body and breathing and they were very peaceful," and another offered they were "just able to accept my surroundings." This was particularly beneficial for one student, who explained that this helped her to recognize how tense she had been since returning to campus after being on the hike where she described feeling more relaxed and free. Though some reported benefits from the mindfulness exercises, others described the

struggle of the experience, describing it as “torture for a fidgety person with a low attention span such as myself,” and offering that they enjoyed the experience but by this time were ready to be done with the study and have their phones back. Another explained that during the mindfulness lesson, her “attention span was at an all-time-low,” which made it feel like the exercises “were dragging on for what seemed like forever.”

For those in the larger J201 section, two prominent themes emerged regarding how students occupied themselves during the digital detox exercise. Some reported that the detox minimized the distractions typically invoked by media use, enabling them to participate in tasks they typically avoided or neglected. For other students, this lack of distraction without media posed a challenge, and they reported struggling to find ways to pass time throughout the detox and experiencing “excessive boredom.”

Of the coded reflections, 16% of students that noted the detox provided an opportunity to engage in previously neglected activities, including tasks they procrastinate approaching with media use, as well as activities that they had seemingly forgotten they enjoyed with the typical distraction their entertainment media use presents, in line with previous findings (Roberts & Koliska, 2014; Morris & Cravens Pickens, 2017). Such activities included acts of self-care including exercise, specifically walking, as well as cleaning and organizing living spaces. Other students noted they engaged in creative pursuits they “never take time” to include their daily routine, like writing music, practicing instruments, painting, drawing, developing film photography, and most frequently, writing. Those who spent time writing recurrently noted feeling the benefits of this activity, explaining that “it was nice to feel creative for the first time in a while.”

Some noted that they didn't sense the pressure they associated with others' judgements when they share creatively online, which made them enjoy these activities even more.

For some of these students, beyond merely presenting time for "doings things I forgot I loved," it compelled critiques of the impact of their typical media use. One student questioned, "Does media really make me that lazy and procrastinate doing activities that will benefit my life?" This denoted a sense of valuing "me time," which the majority of emerging adults in Thomas et al. (2016) study cited as a reason they looked forward to unplugging. This suggests the required removal of their devices through the assignment allowed these students, early in the transition into emerging adults, to recognize the value of such "me time."

Alternatively, a number of students also stated that their detox was characterized by boredom and an inability to fill the time, with over half (53%) of the written reflections referencing a struggle to figure out how to spend time during the detox, with some expressing that this was the most difficult part. Students described feeling "unsure of what to do" with themselves, making the time seem to pass slowly as it felt like "grasping at straws figuring out how to pass time." Others explained that they "felt anxious without having a schedule," and many revealed they planned for the detox the night before, some looking up ideas online. Those who "ran out of those things to do" throughout the day explained that this made them want to give up on the detox early, supporting earlier findings (Morris & Cravens Pickens, 2017; Roberts & Koliska, 2014; Thomas et al., 2016). That they struggled to generate activities further aligns with the Thomas et al. (2016) findings on adolescents' attitudes and anxieties about the prospects of unplugging.

Challenging the Pace of Networked Time

Part of the challenge for some students arose from adjusting to the pace of life during the detox compared to the pace set in their daily lives of constant connection or “networked time” (Burchell, 2015). Of the coded reflections, nearly a quarter of students (23%) referenced the importance or necessity of feeling productive. As one student explained, passing time doodling brought tranquility, but they still felt they weren’t being productive. This student explained it led them to wonder “why I felt the constant need to be ‘productive,’ and what was my definition of productivity?” For another student, the detox was challenging as “relaxing sometimes bears a subtle element of stress. There is always something to work towards and taking a break can feel like procrastination.” Such revelations point to the 11% of students who mention feeling uneasy without something to do during the detox, associating a sense of discomfort with downtime. One student realized their need for “immediate gratification” through the detox, causing them to suggest “I think that I need to improve the art of doing nothing and doing nothing happily.”

Students not only considered constant connection to be an expectation but also suggest that there is a social stigma to disconnection, which would be, in their words, a “liability.” Students overwhelmingly expressed both discomfort and disdain with perceiving they have “nothing to do.” They offered that distraction is a welcomed alternative to boredom, with 28% mentioning using media as a form of distraction in their everyday lives. Indeed, many revealed how they pretend to use their phone sometimes rather than do nothing. A student explained to me that she when alone, she preferred to be

occupied rather than be bored, because for her it is boring to be alone with her thoughts; “I already know everything that I’m thinking.”

Without the opportunities for digital distraction, students in both the group detox settings and those in their larger J201 class reported that the absence of media provided increased opportunities for self-reflection, which is in line with existing media abstinence findings (Roberts & Koliska, 2014; Sutton, 2017; Thomas et al., 2016; White, 2013). Indeed, within the written reflections, 60% of the students offered that the detox provided opportunities for self-reflection, which many explain “rarely happens” in their day-to-day lives. This ability to self-reflect was experienced in various ways, ranging from novel and beneficial to uncomfortable and jarring; students mainly reported that the absence of media increased their ability to focus, yet some reported that this conversely made it harder to focus. For instance, in noting the benefits of media’s absence, many described how it enabled them to engage in thought processes they otherwise were able to avoid through media, including attending to feelings and engaging in deep reflection. One student offered, “I had to acknowledge my emotions and deal with them rather than just paint over them with social media and Netflix.” Another student noted how during the detox, she was able to just “sit down and think for the first time in a long time,” without someone else’s lyrics filling her head through music, which she explained plays constantly in the background of daily life. During the detox, this student reflected on the recent transition to college, explaining she thought about “the new place I was in, how I was feeling about it, what my worries and goals were, and how I would accomplish them.”

As is the case with phenomenological experiences with technology, the increased opportunity for self-reflection was less ideal for others, as some described how they realized they use media as a distraction “from the present and my own thoughts.” For these students, the detox was challenging; “once the media was removed,” they were “still looking for alternatives to fill the void.” One student wrote about the challenge a media-free drive presented, explaining that they considered pulling over at multiple points, finding it hard to pay attention to the road as their thoughts were “too distracting.”

Socialization & Interpersonal Communication

In the day-to-day interactions observed in both the larger lectures and the smaller FIG sessions, students tended to keep to themselves without much self-prompted conversation. After the digital detox assignment was announced, students most commonly expressed expecting the detox to be awkward without media. Just over a third (34%) of the students mentioned using their phone to ease social anxiety or to avoid “socially awkward” situations in everyday life. On the day of the digital detox, however, students were highly social and conversation remained consistently steady throughout the eight hours in both fall and winter sessions, contrary to the noted apprehension. They described how the group dynamic made the detox easier than they believe it would have been had they carried it out on their own. As one student explains, “I personally preferred to be surrounded by others who did not have access to any kind of media because it makes the whole group dynamics thing less intimidating.”

Students explained that in attempting in-person conversation with someone in everyday situations, they can be met with the “constant pressure to prove yourself to be more interesting than the easily accessible media in their pocket.” To complicate this,

students noted that they both feel rejected when someone chooses a phone screen over them, while at the same time, admit that they unwittingly do this to their friends as well and can therefore understand and forgive when their friends do this to them. During the group detox, many noted how everyone was open to communication when no one had the potential of being shut down by a phone. By learning to “embrace the awkwardness” students gained affirmation about the vulnerability of social interaction during the detox, as one explained:

I learned something I always knew but was afraid to try: that I have to remember that people are just people and are nervous, scared, excited, caring, emotional just like I am and that I shouldn't be afraid to just set down the technology and be able to say 'hi.'

Negotiating the vulnerabilities of in-person conversation in everyday life can be draining, as one student explained, “It's hard to interrupt someone from their phone because you don't know what their looking at and how important it is.” She explained that on campus, attempting to meet new people in spaces like the student center where everyone is on their phone and laptop “gets exhausting.” She revealed that if a friend uses a phone in front of her, she will play with her calculator to give the illusion of productivity rather than “have nothing to do.” When I inquired if she had considered that the people she worries about interrupting on their phones might be similarly using their devices to avoid boredom, she said she gives them the benefit of the doubt in this hypothetical scenario, suggesting that if one is on their phone, it is probably important. She appreciated that the detox provided an opportunity to form deeper connections with

her classmates than is usually possible when there is “that boundary between you” that phones present. She wished that there was a specific area that existed she could go to on campus “where people just aren’t on their phones and they just want to have meaningful conversations.”

In addition to the shift in openness to approach conversation, students also described an increase in conversation quality, attributing both changes to the lack of distractions. “I was really able to think about what we had just talked about, which I really enjoyed,” one student reflected about her experience on the group detox. She compared this to her typical conversations, explaining that when they end, “normally I would just go on my phone and forget about what I had just talked about with someone or not further think about the conversation.” Similarly, many from the larger J201 class described increased shifts in quality and approach to conversation. For some, the detox offered novel forms of connection, as they were “completely invested in what was going on,” which allowed them to be “there in the moment” with their friends like they “never had been before.” Similarly, students cited that the awareness of their immediate environment during the detox opened them up for avenues of conversation that they otherwise would have missed if they were on their phone.

However, this was not a universal theme in the detox, with 39% of students referencing that being around those not on a detox presented difficulties and several noting that being around others not detoxing was the most challenging aspect of the assignment. Students explained they felt especially bored and out of place when they were the only one not looking down at a phone, describing the experience as “isolating,” “irritating,” “frustrating,” “disheartening,” and “uncomfortable.” Some students reported

that by observing their friends' media use without being able to participate themselves, they were able to gain greater awareness about their own media habits.

One student, hesitant about her ability to complete the eight-hour assignment from the start, described that when out to eat with her friends, "I sat at the table with six other girls and watched as they ate with their noses shoved in their phones, I ate my food in silence, questioning the meaning of all this." She explained how observing her friends' habits actually served as a catalyst to challenge her to follow through the detox. When out to dinner, another student explained that she was initially upset when she couldn't go on her phone like everyone else, especially as this halted the conversations they were having; however, when she looked over at her friend taking a picture of her food, she explained, "I just kind of laughed, I feel like I saw so many things I wouldn't have noticed if I was on my phone."

What was often described as an "inability to communicate" without access to media was a frustration described by many in the larger J201 class. Many discussed how the inability to contact friends through their typical modes of communication imposed on their social lives, making it difficult to coordinate plans. It was especially difficult to avoid texting for one student, who felt like she "couldn't function without communicating with people" she wasn't with. She explained, "I couldn't handle not having a concrete plan, something that texting enabled me to do at a moment's notice." The perceived obligations associated with constant connection was a commonality that emerged through responses, mentioned by nearly half of the students (48%); even more so was the expectation of immediate gratification and instant communication through media, referenced in 79% of reflections. With "no way of instantly communicating with

someone rather than face-to-face,” students explained, it felt like the detox greatly impeded on their daily functioning. Students also felt a sense of anxiety during the detox, concerned not only about what they might be missing from other people’s posts, but also about how their digital absence would be perceived by others. One student demonstrated the logic behind this anxiety, describing that she was stressed during the detox because “I felt like my relationships and friendships hindered on me answering my texts and Snapchats in order to maintain them.”

Without their normal modes of instant communication, students emphasized resorting to certain forms of communication that felt “strange” or “archaic.” One student described how normally when picking up her friend, she would send a quick “outside” text to let her know she was there, but this time was different. She realized that she did not know her friend’s apartment number and couldn’t get buzzed in, and as a result gave up trying to meet her. Similarly, another student explained how they “physically walked over and knocked” on a friend’s doors, noting that knocking is something they “haven’t done in ages.” Prior to knocking, the student noted their concern that this odd tactic may have caught his friend off guard and worried his unconventional invitation (knocking) might be rejected as a result. Without being able to text, another explained how

I had to actually use my feet and walk to their apartment like I lived in the Stone Age because in order to make plans with anyone else I had to either go to their house, which people no longer do unannounced, or I have to text or call, which I was not allowed to do.

In this way, the constraints of their physicality limited their perceived ability to communicate, a limitation that was met with feelings of insecurity, frustration, and helplessness. This highlighted the value of the instant gratification that phones provide in terms of effortless and asynchronous coordination (Bayer, Campbell, & Ling, 2015; Bayer, Ellison, Schoenebeck & Falk, 2015; Mai et al. 2010; Baym & Hall, 2010). Further, this points to Borgmann's (1987) device paradigm, wherein through the use of technology, as the device performs more of the task, one performs less existentially, separating from their material, natural, and social worlds. These instances demonstrate the extent to which communication through text has separated individuals from their material and natural worlds, as they struggled to engage with their environments given the norms that knocking and walking to a phone unannounced discourage through devices.

Dialectical Tensions of FOMO

Media's presence lingered throughout the detox, even in its physical absence, mostly notably demonstrated through students' admission that their inability to fully enjoy the detox hinged on their acknowledgement that it was a temporary escape from the "chaos of the real world" that awaited them on their return to their devices. While noting feelings of freedom by being able to briefly escape the obligations of their online lives during detox, this feeling of freedom was met with paradoxical tensions. Many expressed feeling simultaneous emotions—as one put it, "a 50/50 phenomenon"—they were both stressed to be missing out while also relieved to take a break from perpetual contact and updates. Another explained that "despite having a sense of freedom from my media

shackles,” this experience was muddied by pangs of FOMO as they worried about the notifications and news updates they were missing during the detox.

Students who revealed they kept their phones with them throughout the detox unanimously referenced a hyperawareness of their phones’ presence, which presented a distraction or temptation, taking them out of “enjoying the moment” or preventing them being able to “fully reap the benefits of the assignment,” as one described it. One student explained the impact of the phone’s presence by noting that “my brain overall felt a tug to check my phone if it was in sight. If it was out of sight I would only really think about it when others were on their phone.” Such a noted impact of a phones presence was referenced by 18% of students in their reflections. Students in the larger J201 class more frequently chose to participate in the detox with the absence of their media and technology devices, with a considerable 40% of reflections noting that these were either hidden out of sight or kept by a friend during the assignment.

In both group and individual settings, students frequently noted reaching for their absent phones throughout the detox, which they described as habitual and instinctual. For many students, this “mindless” reaching was an “eye-opener” that made them realize how frequently they use their media without any intended purpose. At the end of the group detox, I witnessed a domino effect of sorts: while many mentioned during the detox feeling no urge to check their phones, in the van on the way back to campus, when driving through a recognizable area of town, one of the students looked up to the small digital clock display on the van and said, “Oh, look! It’s almost time!” The display revealed it was 5:54 p.m., prompting a palpable sense of eagerness to power on phones. A student that felt like she could have kept going with the detox explained that this

intention was shattered upon “seeing everyone pull out their phones” when they got out of the vans, creating a sense of panic that drew her back to her phone.

The dialectical tension expressed in returning to devices at the end of the detox was pronounced. Some explained that they were upset to have to return to the world of hectic media. While there was a sense of freedom in the detox, this feeling would not be extending beyond the assignment for some. Students explained how it would be an aberration to go without media, noting “you’d be on the outskirts of society.” Indeed, a paradox exists in which some students referenced that they felt addicted and had considered going off the grid, feeling like most people without social media are more genuine, while others offered an alternative conception, explaining it would be “weird if someone didn’t have social media... I would register them as sketchy if they didn’t have a snapchat, I would think, *what are you hiding?*”

A Demonstrated Proclivity for Visual Communication

Throughout the detox, the predilection for visual communication among the students was evidenced by the frequency with which the students attempted to supplement their conversations with imagery from their phones. Prior to the detox, I noted that in typical conversations, many students would simultaneously scroll through their phone while relaying a story in order to pull up an image relevant to the conversation. In other instances, the imagery serves as the substantive portion of communication. In one FIG session for example, the professor asked students about their weekend, and a student shared that she had attended a live performance of The Rocky Horror Picture Show. When asked if she had a good time she responded, “yeah, look!”

and proceeded to swipe through her camera roll, presenting images from the show, serving as a visual way to articulate her enjoyment.

With such visual supplements provided by the “always-on you” phone, students explained that they necessarily had to be more descriptive in their stories during the detox, as one explained “rather than give a brief explanation and showing what I was talking about on my phone.” While one interviewee noted that this required her to “put so much more effort into communication,” it also partially made her realize how bad she was at conversation and she says she appreciates experience for forcing herself to practice these skills without being able to “fade off into [her] phone.”

Students revealed that maintaining a coherent narrative of identity through social media posts in day-to-day life typically required that one take near-constant pictures (Hand, 2014). The absence of media particularly in the form of the smartphone’s camera thusly served as another prevalent theme challenging students during the detox. The inability to capture the day in photographs demonstrated the logic associated with networked presence of Turkle’s (2015) “I share therefore I am” as well as the norms of constant sharing that attribute to a “pics or it didn’t happen” mentality.

Demonstrating the logic of “I share therefore I am,” is a student who “basically [has] a second life on Snapchat,” explaining that he “cannot live without it.” As he described his experience with Snapchat, “I wake up and that is the first think I do until I go to sleep. I like to update my story constantly and let people know what I am doing.” Accordingly, being cut off from this “second life” during the detox presented a considerable challenge, which for this student manifested through “feeling the urge” to “upload every little activity throughout the eight hours” to Snapchat. He reflected at the

onset of the detox how he thought it would be a cool activity to vlog, which was a thought he describes constantly popped into his head throughout the day, retrospectively noting that he wished he had enlisted friends to record on his behalf. Another student acknowledged that it “may seem silly or unimportant,” but she was “bummed” that she couldn’t post a picture of her sushi to Instagram; through the inability presented by the detox, she realized posting pictures to her account “is an essential part of my experience.”

Though this logic of “I share therefore I am” posed a challenge for some students, the absence of smartphones and their web-enabled cameras for others offered an opportunity to be more critical of these practices. For instance, a student who explained that she typically likes to post pictures of her acai bowls to Snapchat and Instagram described how she was initially upset when she was prevented from posting during the detox. However, she noted that “after thinking about it, I figured why do people need to know I ate an acai bowl anyways?” She concluded that while they are aesthetically pleasing, “ultimately everyone, myself included, would not be missing anything if I did not post a picture of my acai bowl.”

Similarly associated with the logic of constructing one’s identity online through frequent sharing is the notion of “pics or it didn’t happen,” a common moniker emerging from internet culture to reference an event that is unverifiable without archived images. The meaning has been adapted to more broadly be applied as a sarcastic aphorism on social media, signifying that experiences are not as valid if not captured through photographs. Throughout the detox, there were frequent utterances of “instagrammable” or “snap-worthy” moments. As a student reflected, “I did not miss my phone as much as I missed the opportunity to capture a moment.” She said she had a great time during the

group detox, though when looking through her phone's camera roll in her dorm later that day, she had a strange feeling not having any images of the day, prompting her to jokingly ask, "Wait, did I really have that experience?"

Visceral reactions related to the inability to capture experiences through photographs are referenced by 21% of students in the reflections, who described the inability as "heartbreaking," "crushing," "frustrating," and "difficult to wrap my head around." Another explained that when visiting a new place, she typically likes to take pictures to remember it. She reflected that "when I think about places I have gone where I have taken my phone, I cannot remember them as vividly," and notes that though she "felt inclined to photograph" during the detox, she actually thought she remembered it better "because I couldn't document it at all." As such, this demonstrates how the inability to photograph during the detox provided an opportunity, as one student described, to "live in the moment and have greater memories than a film strip can capture." Another added, "It forced me to be in the moment, and store the memories in my mind rather than my camera roll." 35% of students referenced appreciating this shift in perspective the lack of camera provided, encouraging them to "live in the moment." Others revealed how it opened them up to experiences they would have otherwise missed or wouldn't have been the same if they were trying to capture it; another reflected that "it's better to experience life thru one's own eyes rather than thru ur screen"

Another student critically reflected on how the ability to endlessly capture experiences with her phone changed her engagement with those experiences, noting that on the detox hike, she was intently studying a waterfall scene she encountered, intent on honing in on all of the details. In the process, it led her to question if she would have

stayed as long as she did if she could have captured the scene with her camera. She considered this, writing:

I wondered, would I be less reluctant about leaving if I had the ability to look at my photography later? Unfortunately, I think a part of me wouldn't have felt the need to sit on that rock and memorize its beauty.

Lastly, another significant commonality to emerge through analysis of student narratives references valuing social media was that it provided them with a sense of being “in the loop” as referenced in 43% of reflections. Some expressed extreme anxiety about not being “in the loop,” wanting to know what “friends were up to every second of the day” through their social media posts. Such admissions point to a certain level of surveillance and monitoring that becomes normalized through social media. This is enacted in a number of ways, demonstrated most significantly in this study through Snapchat.

Further, with an impetus placed on constant sharing comes the constant vulnerability of being captured and archived in this process. This first became evident to during the detox when the instructor fell out of a fold-out camping chair on the beach. The instructor jokingly remarked, “That’s embarrassing!”, but a student promptly corrected No its not, no one got it on video.” The offering of oneself up for constant identity and memory co-construction through the archival process of sharing through social media like Snapchat demonstrates a taxing vulnerability to have to contend with. However, as described by these students, this vulnerability is articulated more so as a cost of connection than as an actual privacy concern or viable threat to identity. This is

demonstrated by one student who offered in her reflection that it was easier to hike without her phone, not only because she didn't have to worry about destroying her phone when she fell in the adjacent river, but also because she didn't have to "worry about seeing it on someone's [snapchat] story later on." She noted that though she might have been cold for the rest of the day due to this unintentional dip, she was provided some solace: "at least the whole world doesn't know clumsy I am on slippery rocks" as no one had a phone to capture and post the embarrassing moment to Snapchat.

A student again pointed to this normative social surveillance through Snapchat when referencing the FIG game of red rover, explaining that when she fell down in the sand, she was "expecting someone to take a picture to post later, but they didn't," as again the risk was removed with their collective phonelessness. Noting that her classmates helped her up, she explained, "I noticed it was easier to laugh at myself when I was surrounded by people that weren't recording my every mistake." In a similar sense, a student from the larger J201 class notes that typically when trying something new, she likes to look it up online first so that she doesn't "make a fool" out of herself; but she was forced to dive in and risk embarrassment when she went roller-skating with a group of friends during the detox, a first for her.

This sense of social surveillance is not always perceived as a threat; it is also referenced as a utility or social resource for students. For instance, one student noted that during the detox she went shopping and was having trouble deciding on a pair of shoes. She explained that she wasn't able to take a picture to send to her friends and discuss and that she felt that she made the wrong decision without being able to share her experience to elicit opinions with friends. Surveillance, more so perceived as group influence in this

sense, is recognized as a positive value among students. For instance, one student noted upon starting the detox, “I get to experience the world without other people’s views being forced on me;” she revealed that while “it sounds terrible, but I *wanted* people’s views forced on me” and consequently she “didn’t want to unplug.”

In all, these narratives in some ways confirm existing findings of college students’ digital detox experiences, such as the impact of feelings of freedom, anxiety, self-reflection and improved ability to engage in communication (Morris & Cravens Pickens, 2017; Roberts & Koliska, 2014; Sutton, 2017; Thomas et al., 2014). In other ways, the direct observations and subsequent phenomenological findings also complicate existing literature on what is known about the digital detox, for instance revealing the paradoxical and ironic contingencies of the feelings of freedom, sources of anxiety, reasons for unplugging and forces deterring the practice, as well as revealing challenges to cultivating digital mindfulness.

A discussion is presented in the concluding chapter of the thesis to follow, conducting the fourth stage of Sanders (1982) phenomenological analysis and further contextualizing this within the larger framework of this research.

CHAPTER VI

DISCUSSION & CONCLUSION

This investigation offers new contributions to understanding the impact of media and technology use among a generation raised in an era of constant connection, demonstrating the value of applying phenomenological methods to research. Further, it demonstrates how a digital detox can contribute to heightening these individuals' own awareness of such impacts and offer opportunities to cultivate digital mindfulness.

With regard to RQ 1, the responses provided throughout this investigation reveal that for current college students who have grown up in an era of constant connection, the digital detox experience is one ripe with dialectical tensions. While some prominent themes emerge that appear prevalent among the majority of students, the experiences of the digital detox are often paradoxical and ironic, and it is thusly difficult to establish a universal description of the essence of the digital detox experienced by *all* students.

As Harmon & Mazmanian (2013) posit, our culture propagates two dominant yet conflicting narratives related to smartphones in society, suggesting the value of both integration and dis-integration; these are the narratives that emerging adults of today find themselves pinned between. These students revealed that growing up in a culture that has espoused the values of virtual extension through continually evolving and advancing web-enabled technologies has resulted in a situation by which the current social norms of constant connection stress that one must be productive, efficient, and always available (Hartman & Mazmanian, 2013; Burchell, 2015). With depictions of Generation Z as “screen-obsessed” “smartphones addicts,” these labels and stereotypes serve as catalysts inspiring some Generation Z students to approach the detox with a sense of motivation.

For others, it serves as a self-fulfilling prophecy, contributing to a resigned indifference about their perceived problematic attachments to media. When it comes to Harmon & Mazmanian's (2013) second narrative, the prospect of achieving the more authentic humanness by dis-integrating with their devices is conceived as a lofty and unachievable ambition, an idealized yet unrealistic notion for today's world of constant obligations in networked time (Burchell, 2015). Some students succumb to the stereotypical notions that they are as hopelessly media-obsessed as society makes them out to be, explaining that the detox confirms their suspected media "addictions" and demonstrating the power of those labels imposed on them. In many cases, challenges with problematic media use and the adoption of media-addicted millennial tropes seem to bar these emerging adults from tapping into their agentive power to reconfigure their relationships with technology.

Students reveal the ambivalence of managing time during the detox, with some conceiving of the time as a welcome opportunity to revisit neglected tasks and hobbies; yet others describe their discomfort with downtime, explaining how they struggled to figure out how to occupy their time during the detox and were challenged with experiences of excessive boredom. This suggests when productivity and multitasking are promoted as ideals throughout these individuals' development in an era of constant connection, moments of solitude are equated with boredom or "free time" that could be better utilized by attending to some task, *any task* (Turkle, 2015). One student acknowledged this in their reflection, explaining that "given the ability to never have to unplug from media we now live in a society where it is standard to be constantly distracted." This, as a consequence, can inadvertently discourage some of these emerging adults from the prospect of disconnecting.

This current investigation expands upon these findings, as many students revealed the contingencies of this situation. Some explained that they *know* it would be good for them to disconnect, though they had never made attempts prior to the assignment. Others who referenced experiencing great benefits from the experience and described a sadness in the detox coming to end, wishing it would be offered again as an assignment in another class, and seemed to solely conceive of the detox as an assignment, a one-time opportunity, rather than recognizing it as a practice that could be enacted at any point, by any person, with any form of media.

Persuasive Design & The Invisible Hand of the Attention Economy

Another finding related to RQ 1 revealed through this investigation is that when it comes to adjusting to and dealing with the demands of emerging adulthood, the concept of disconnecting for purposes of enhancing well-being may not present itself as an option for many of these who have grown up with the affordances of connectivity and mobility, along with a culture praising such capabilities. Findings from this investigation reveal that some students were skeptical about the benefits of the digital detox, conceiving it as an inconvenience, aligning with findings from Thomas et al. (2016) about adolescents, who were the most likely to report expecting to gain “nothing” from unplugging. While many emerging adults in previous studies (Sutton, 2017; Thomas et al., 2016) significantly report looking forward to the “me time” of unplugging, adolescents report high levels of anxiety about the prospect of unplugging, with the exception of those with previous unplugging experiences (Roberts & Koliska, 2014; Thomas et al. 2014). Further, Thomas et al. (2016) reveal that adolescents are most likely to report expecting to gain “nothing” from unplugging.

This investigation revealed mixed findings in regard to the relationship between attitudes about media abstention and the ability to benefit from unplugged solitude. Some students noted appreciating being able to address thoughts they recognized are typically suppressed or re-directed by the constant presence of media in their everyday life. Students who did not appreciate but rather experienced varying levels of discomfort with the digital detox suggested there is a relationship between a desire for constant connection or media multitasking and the pull of persuasive design techniques in the attention economy. For instance, some of those who described feeling uncomfortable without media explained that this was partially due to concern about what they could potentially be missing while they are away, while also pointing to concerns about how their media absence may be interpreted by their peers. As such, this also reveals the extent to which the systematic incorporation of social feedback and real-time user-generated updates make smartphones and social media of today distinct from previous media—unlike the radio or television, through every engagement with much of the media and technology of today, a user will be increasingly offered enticing content based off of algorithmic feedback of user preferences from these engagements (Carr, 2010; Harris, 2016).

The overwhelmingly frequency with which students reached for their phone throughout the detox again points to the persuasive power of the attention economy, as many describe this reach as an automatic impulse rather than the result of a conscious desire to engage with their smartphones. Such revelations point to the extent that technological designs have been implicated in developing and sustaining expectations of constant connection. The mindless compulsion to look at a screen full of notifications, as

one student described it, points to the success of operant conditioning incorporated through persuasive design, encouraging continual engagement with the product.

Resisting the ‘Natural Default Setting’ Through Digital Mindfulness

While the affordances of virtual extension have been lauded with the continual advances of digital media and technology over the past thirty years, those raised in this era have inherited cultural ideals about experiences of self-reflection, identity, and socialization that can be extended through digital prosthetics of mobile media and social networks. These extended experiences, as such, come to be valued or receive precedence over the embodied experiences that utilize one’s own organic capacities. However, in reference to RQ 2, this investigation reveals the digital detox provides students an opportunity to awaken to the ‘water,’ or “natural default setting” in Foster Wallace’s sense, that is their day-to-day lives saturated with media and technology.

By reversing typical media-saturated experiences, one can cultivate digital mindfulness by consciously shutting off the “natural default setting” during the detox, gaining greater awareness of how this reduces their extended experiences of their digital prosthetics, which necessarily enhances the amplification of mediations in their immediate physical environment (Ihde 1990). This allows students to gain a greater awareness of their embodied experiences by shifting attention away from the extended, digital qualities and instead attending to the qualities of ‘IRL’ experienced of embodied cognition and mindfulness during the detox and their reflections.

Students in the winter group had the additional design in their detox of an introductory mindfulness session. Despite the fatigue experienced by some, which admittedly challenged their receptivity of the mindfulness training, students from the

study no less reported gains from the session that they connected to their own typical engagements with media in their reflections and interviews. These students offered insights about how the digital detox experience had encouraged them to cultivate more digitally mindful practices. Some noted that since the detox, they had intentionally left a device in their dorm room when going out to dinner to going to class. Others noted they had shared what they learned in the detox with friends, for instance, encouraging each other not to media multitask when watching a movie together, or suggesting a group of friends stack their phones on the table to discourage constant use when going out to dinner.

Ultimately, the digital detox offers an opportunity for these current-day Generation Z students to be embodied in the present moment rather than extended through their devices and in this way, when returning to their devices they can practice more digital mindfulness, paying attention to how they use their devices in conjunction with their day-to-day lives. By recognizing the differences in the qualities of attending to the present during the digital detox and comparing them to the qualities of attending to digitally extended experiences that can at times distract or scatter attention through multitasking, they may be encouraged to develop the capacity for practicing digital mindfulness.

Digital Witnesses: The Norms of Archive Fever and Social Surveillance

Digital witnesses

What's the point of even sleeping?

If I can't show it, you can't see me

What's the point of doing anything

This is no time for confession

-St. Vincent (2014)

In further response to RQ 2, abstaining from media and technology during the digital detox facilitated the cultivation of digital mindfulness by enabling students to critically consider their proclivity for archival and visual communication in everyday life, becoming “digital witnesses” to each other’s online lives, to adapt St. Vincent’s phrase (2014). When young people have a conception of the experiential present with a “pics or it didn’t happen” mentality, as observed throughout the detox, this can posit challenges in accessing the value-proposition of a moment that cannot be documented for a visual archive. This conception illustrates Derrida’s archive fever (1996) adapted by Barnet (2001), in which one is “at once pack rat and amnesiac, never to rest from the search for information ‘right when it slips away’—it is to archive obsessively and in the fevered consciousness to witness the death of memory” (p. 218). As Barnet and Derrida offer, the irony of extending and archiving a moment is that, as the moment is captured and co-opted for future memory, the memory itself of the moment is “killed” through the act of capturing it rather than experiencing it through one’s own senses. Caught up in the process of co-construction of memory online and archival for self-identity, with the ability to save for later, one may run the risk of favoring or enacting this archive fever over embodied experiences with the moment.

St. Vincent (2014) satirizing the logic of digital witnesses, singing “what’s the point of even sleeping? If I can’t show it you can’t see me, what’s the point of doing anything?” In this song, she probes listeners to question the “pics or it didn’t happen” mentality in which individuals assess an experience for its potential archival value in social media. Many students, with the absence of their devices during the detox, were

able to recognize and critically assess these archival impulses, considering the motivations behind them. Through the absence of media and technology that would typically allow for this archiving and extension, the digital detox provided an opportunity for some students to tune into the quality and recognize certain values of the present moment.

Humphreys (2018) has recently suggested that the everyday “media accounting” by posting of mundane aspects of everyday life contributes not to narcissism, but to a well-rounded “qualified self,” which is “an important way through which we come to understand processes and changes—changes about ourselves and others” (p. 3). Unlike the purely statistics-driven “quantified self,” by sharing mediated memories, we “come to understand ourselves in a new way through the representations of ourselves that we create to be consumed” (np.) However, the narratives of many emerging adults in this study, with the ‘pics or it didn’t happen’ conception as digital witnesses suggests that they are very much interested in a quantified version of self, one that can be assessed and valued through the numbers of likes and comments their media accounting elicits. The device paradigm (Borgmann, 1987) complicates the extent to which these understandings can be accomplished through the media accounting Humphreys (2018) suggests.

The sharing of images on Instagram offers a potent example of how the device paradigm operates through these emerging adults’ practices as ‘digital witnesses,’ through which the human tasks of identity explorations and socialization, for instance, are performed more and more through the technology, resulting in humans performing these tasks less existentially, and, in doing so, separating themselves from their natural, material and social worlds. Students revealed that for many, Instagram has become a

space in which there is a high degree of pressure and judgement attached to how one's posted images are received by peers online. One student explained, for example, how the instant any of her friends post a selfie to Instagram, they send a group text soliciting each other to like and comment on the post. She explained that this practice upsets her because it doesn't feel genuine, and she finds it upsetting that her friends will delete a post that doesn't garner the desired amount of likes or comments within the first few hours of posting, even if she tells them "to their face that they look gorgeous in it."

Another student describes how prior to rushing for a sorority, she spent hours organizing a folder on her phone of photos that she deemed would be appropriate for future Instagram posts, which she perceived ascribed to the similar aesthetic of others in the sororities accounts. Additionally, hyperaware of how their account serves as a representation for themselves, students revealed how they had created a secondary Instagram account they call "finsta"—short for "fake Insta" or "fun Insta"—an account typically set to private with a limited amount of accepted followers who can view their more vulnerable material, including images or videos of them crying, sexually suggestive content, or any other content they want to share but do not feel comfortable posting on their main account, or "rinsta"—*real Insta*.

The chronicling of future posts in various folders and maintenance of multiple Instagram accounts demonstrates that, while the app may be designed to facilitate chronicling and sharing of one's lived experiences, it can paradoxically create more labor for users that may stifle expression as users put great effort into constructing a specific sense of online presence that will garner particular feedback, given emerging adults' stated value of the quantified self. This further suggests that these emerging adults may

not be using these applications to share the mundane aspects of everyday life to contribute to a qualified self, as Humphreys (2018) suggests. Further, that the students seek to validate their chronicling of self through quantification of likes and comments, while rejecting a friend's verbal praise of a posted image—as this has no visibility online—demonstrates the extent to which the device paradigm is at work, as these explorations of self are performed more through the devices and less existentially, separating users from their material, natural and social worlds.

Additionally, students' references of social surveillance, desiring to use their media and technology to be constantly up-to-date and "in the loop" about their friends' postings, further demonstrates how Borgmann's device paradigm aligns with the concept of being a 'digital witness.' When using technology with the intent of connection, but paradoxically engaging in acts of connection less existentially, the user becomes disconnected in a sense, as this task is replaced by connection through the device. For instance, students who described using the Snapchat app feature of the Snapmap, which presents an avatar representation of their friends' geographical locations, explained that instead of contacting a friend to ask where they are or what they are doing, they could look on their Snapmap to see where their friend was or perhaps who they were with, and make inferences based on this social surveillance that changes the nature of connection. As one student explained, when she opens her Snapmap and sees all of her friends at the same location without her, it proves that "they actually do hate me," feeding into the implications and ambiguities that connections through the device provide. By engaging in connection less existentially and more through the device, the user is disconnecting from her social and material worlds, becoming paradoxically disconnected through her device.

Be Here Now(ish): Between Organic Embodiment & Digital Extension

Considering RQ 3, employing interpretivist methods of observation and phenomenology in this study, the investigation contributes insights that challenge or complicate the existing findings in the field by revealing how interactions between humans and technology, even in the absence of technology, at are times paradoxical, dialectical and ironic. Through the phenomenological approach, for instance, interviews become a process of revelation in which students' memories from their past media experiences unfold, contributing important insights into their current relationship with media, which is understood as dynamic and emerging from a history rather than addressing their current engagements as a static relationship. These approaches, I argue, are beneficial for research as they allow researchers to better account for the contextual aspects of the lived experiences of interactions with media and technology. In doing so researchers could construct more comprehensive studies, develop more effective policies and design technology that can better account for the on-the-ground needs expressed by users' lived experiences.

The prominent themes to emerge in this investigation demonstrate the efficacy of incorporating interpretivist methods into research to account for the phenomenological complexities of human-technology relationships, thus addressing RQ 3. For instance, the notion of the detox providing freedom from demands of connection (Morris & Cravens Pickens, 2017; Roberts & Koliska, 2014; Thomas et al., 2016) was complicated through student narratives, where they expressed a clear dialectal tension when discussing the sense of freedom and escape they experienced during the detox; this demonstrates the will of the attention economy playing out. Though some noted feeling like they were

offered a true escape, feeling that their “brain could breathe” for instance, many more offered a description that creates a murkier conception of the beneficial notions of a digital detox; the sense of freedom is inherently packed with a sense of anxiety or dread as they acknowledged that the momentary freedom came at the cost of disconnecting from the obligations and expectations of their various digital connections.

This caused them not only to potentially miss out on digital happenings during the detox, but to be fully cognizant of the connected world they left behind and the additional work that they would have to invest to “get caught up” with various feedback and notifications. In this sense, the “50/50” phenomenon, as one student described, demonstrates how a digital detox has a Janus-faced effect (Arnold, 2003), in which it provides simultaneous feelings of relief and anxiety, freedom and confinement.

The logic of “I share therefore I am” is another aspect of the investigation that was revealed through the use of interpretivist methods, particularly through observation. The constant co-construction of self largely through sharing images online (van Dijck, 2013) adds another layer of meaning to the real-time mediation of everyday life, by which real-time moments of life can be both broadcasted and archived (Bennet, 2012; Carah & Louw, 2015). These practices of witnessing, recording, presenting and archiving (Couldry, 2012) publicize identities, connecting them to networks of attention created through smartphones and social media (Carah & Louw, 2015). As Turkle notes, this sharing occurs in “in order to feel whole,” and as with other touted elements of digital culture, the arrival of possibility to continually archive with increasingly high pixels and larger storage capacities, that are virtually limitless online. Social media norms emerge as a result that encourage an enactment and maintenance of narrative self-reference, through

which experiences in the present are being co-opted, documented and archived for future memory.

Abstaining from media and technology during the digital detox removed distractions, which allowed for moments of self-reflection and unobstructed thought. A significant finding of this study revealed through student's phenomenological revelations, and one that may complicate existing findings as it relates to media use and development in emerging adulthood, is that with the absence of media and technology, students are able to engage in deep reflection and confront emotions that they would otherwise be able to divert or avoid with media.

However, this is not a universal response, as other student reported struggling significantly with self-reflection in the absence of media, describing the novelty of the experience and feelings of being unaccustomed with how to manage the flow of conscious thoughts without being able to divert attention with music or background media as a distraction. One student, acknowledging that it was sad, said he didn't know if he would do the detox again because it made him realize that he did not like to be alone with himself and his "wild thoughts;" he offered that maybe one day, when he is more comfortable with himself, he will try again.

Another complex finding gained through interpretivist methods demonstrates a paradox of devices in the contemporary culture of constant connection referenced by Turkle (2015), whereby we are inattentive to one another when together, but when apart, we become hypervigilant. She further suggests that when cleaning up the messiness of human communication by controlling it with technology, "we move from conversation to the efficiency of mere connection," and she fears we forget the difference (p. 21). Such a

paradox can be illustrated with the surveillance and monitoring employed in the use of devices that reinforce obligations and expectations of constant connection. For instance, the device paradigm of constant connection was not only demonstrated with students shifting engagements with their immediate environments—having to knock on doors, walk to dorms instead of text—this was also demonstrated with the nature and demands of Snapchat.

While the pressures and norms of constant connection are not exclusive to members of Generation Z but are experienced across age groups, this research reveals how constant connection is experienced for those who have grown up alongside web-enabled technologies, as there are intense norms and pressure built into constant connection obligations; not responding in a certain amount of time may be inadvertently saying something about the nature of a relationship (Hall, 2017; Ling & Yttri, 2006). In considering the typical media use on an application like Snapchat, which encourages constant connection through features like “streaks,” and Instagram and Facebook, which encourage engagement and connection through “likes” and “shares,” it becomes evident how the allure of immediacy that the devices and apps offer in effect alter the nature of the task the technology was assigned to carry out—which was connection or communication (Borgmann, 1987).

New norms and behaviors have emerged demonstrating the device paradigm and its transformation of human tasks of communication—leaving someone “on read” or “sending them to voicemail”—imply that, beyond unavailability, there is a sense of intentional rejection or avoidance. Interacting through phones with all their ascribed meanings is different from interacting existentially, which is perhaps why so many in the

study revealed the concept of being alone in public without a phone or a friend to be socially awkward. The vulnerability of in-person interaction is replaced with controllable interaction through the device; the paradox of the device is that we engage less existentially, demonstrated by the awakening of the students who had to knock and communicate in person.

Some students described returning to their media and technology at the end of the detox with a sense of disillusionment, similar to previous detox findings (Roberts & Koliska, 2014; Morris & Cravens Pickens, 2017). Many expressed an outright lack of interest to get caught up, not wanting to take the time to catch up, and similarly, upon catching up, many expressed feelings that they hadn't missed anything after eight hours away, claiming "people just went about their daily lives and posted about it." Others referenced a more Janus-faced experience (Arnold, 2003) noting, for instance, it was a "two sides of the coin phenomenon," regarding the detox coming to an end. As one student explained, "part of me was relieved to have social media back...at the same time, another part of me resented the instantly-returning feeling of needing to thoroughly scroll through my feed and catch up with my peers." The end of the detox was met with simultaneous experiences of disenchantment and compulsion, as one student revealed:

"I checked my notifications and all of my social media platforms, I knew it was going to take a while to get through everything. I honestly did not even want to check out what I missed. It was going to be stressful and take some time to go through everything I had missed for eight hours. After taking about 30 minutes, I checked Instagram and Snapchat, not even getting to Twitter and Facebook."

Limitations & Future Research

With the focus of qualitative research centering on the experiences of a few in an effort to gain insight into a phenomenon involving many, a limitation to this research is that the phenomenological design of the investigation necessarily required a small and specific study population (Creswell, 2003). This research focused on the experiences of a digital detox among current-day college students in the transition to emerging adulthood to specifically consider how this experience is influenced by their development in an era of constant connection. As such, the research is limited to specific groups of college-enrolled individuals between the ages of eighteen and nineteen who grew up with access to new media and technology from young ages. While out-of-state students are featured in the study, the study is limited to the digital detox experiences that take place in a specific geographical area in the Pacific Northwest; others in different geographical regions may have radically different experiences and narratives to report of the detox, having no access to the coast or a national forest, for instance.

The investigation was limited to the experiences of the college student participants featured, as well as to my own experience assessed reflexively throughout the research. As referenced in Chapter IV, I actively incorporated reflexivity and acknowledged my positionality in this investigation, not only to contribute to greater co-construction of meaning with participants, but also in an attempt to account for and set aside personal biases when conducting this research. Conducting pre- and post- detox questionnaires to gather statistics on the influence of the digital detox assignment would provide additional information. This would elicit data that may be valuable to inform future policy development (LeCompte & Schensul, 2003).

This investigation raises a number of questions that may be explored in future research. Many students reported a sense of emptiness in not being able to elicit feedback through sharing their thoughts and experiences on social media. They additionally noted a preference for or habit of documenting experiences so as to share them on their network rather than engaging in these experiences “in the moment.” This raises interesting queries for the future regarding the perceived value of online-versus-offline experiences of self. This also raises questions to be explored in future research regarding the ability to establish a stable sense of identity through co-construction online and limited experiences with solitude, particularly about the nature of identity formation for emerging adults in today’s world.

This research also raises a number of interesting points regarding social connection and communication that may continue to become more complex as the adoption of new and more immersive forms of technology emerge and the sense of connection with individuals online and offline become increasingly blurred. With the Cigna (2018) survey of loneliness finding Generation Z to be the significantly loneliest age cohort, future research may wish to explore whether the continual removing of the self from the task of communication existentially, through text messaging for instance, has an impact on isolating individuals or contributing to a sense of perceived companionship that does not offer the same benefits as other, more synchronous forms of communication.

With emerging cultural values placing an emphasis on constant connection, another area that deserves greater attention is the extent to which the opportunity to engage in moments of “in real life” connection through media dis-integration (Harmon &

Mazmanian, 2013) are viable and socially acceptable among future generations. Despite the dominance of the always-on/always-on-you (Turkle, 2008) culture of constant connection, there was nonetheless ambivalence expressed by these students, who were refreshed by the experience of connecting with people in real space without having to compete for attention with their phones. The novelty with which some students describe experiences of self-reflection or conversations uninterrupted or mediated by devices, it also raises questions about how they can recognize potential values of embodied experiences if they have limited prior experience with them.

While many students today seem to express a sentiment of reluctant acceptance with the status quo of the culture of constant connectivity, the digital detox experience offers an opportunity for them to consider an alternative. While scholars have contended that connected presence (Licoppe, 2004) enabled by tethering through our devices (Turkle, 2008) blurs the distinction between online and offline life, questions are raised about when young people should adopt the values of networked time (Burchell, 2015) and to what extent foundational cornerstones of development, including identity construction and socialization should be co-facilitated in the virtual spaces afforded through their various digital prosthetics.

As the more ethically red flag-raising methods of persuasive design become the norm in media and technology development, it is important for these practices to become more transparent in order for consumers to understand their role in the relationship with technology while also understanding the role that technology plays in the relationship. Such studies may make public awareness of how persuasive design principles can potentially contribute problematic attachment to devices, and consider how this relates to

the resigned indifferences articulated by emerging adults in this investigation. Such pulls from the attention economy, drawn through the methods of operant conditioning raise major ethical questions that will need to be explored more comprehensively in future research about value-laden technology design.

Finally, I contend that these findings have demonstrated the need for research within the dominant strains of positivism to grant more space and legitimacy to qualitative methods, allowing for more mixed-method studies in the future in order to effectively account for the complexities of the behavior and the phenomena being quantitatively assessed with positivist research methods. This will surely be a ripe field for investigation for years to come, and a digital detox seems to offer a promising step to allow larger segments of the populations to reassert cultural values, of which our technologies are supposed to be designed to serve, so that we may advocate to both design technologies and develop policies that better align with these values.

Conclusion

Marshall McLuhan profoundly shaped the understanding of media's impact with his famous proclamation that "the medium is the message" in *Understanding Media: Extensions of Man* (1964). With this notion, he suggested that it is the characteristics of a medium itself rather than the message or content carried through the medium that have the most profound influence on a society. This thesis, in all, purports the importance of recognizing the significance and impact of the we media engaged with, as it contributes to the quality of our engagements with the world, each other and the content that is created and consumed through the medium itself. Carr (2010) contends of McLuhan's writing about media, that the "warning about the threat the power possesses and the risk

of being oblivious to that threat” is oft overlooked” (p. 2). Such a warning evidenced with the distraction and habitual use that smartphones provide, which many students admit that there not aware of—or not aware of the extent of—until they were separated from media during the detox. As Carr offers regarding McLuhan’s famed phrase, “The content of the medium is just the juicy piece of meat carried by the burglar to distract the watchdog of the mind” (pg. 4), a phenomenon that many students evidenced through their revelations of their admittedly mindless and habitual use and attempts for use during the detox, most significantly when they were reaching for their phones despite having any intention or lacking desire. This raises considerable concerns for the ethics of the persuasive design incorporated into the popular media and technology of today from mobile media or social networks that encourage continuous partial attention and media multitasking as norms through their design and use.

For a generation that has grown up with these media and technology, as well as the evolving norms that have accompanied them, digital mindfulness is put forth as a value and potential tenet of new media literacy to enable a healthy balance between online and offline life. In bringing this enhanced awareness of embodied experiences back into members of Generation Z’s routinized media-saturated environment that is typically extended through digital prosthetics, digital detox can encourage the practice of digital mindfulness and further practices the ability to direct their attention and awareness of the present in the midst of constant connection.

In all, these findings reveal the extent to which these students, through their upbringing, they have come to prioritize extended experiences over embodied, and the digital detox offered an alternative means to experience the world in a more embodied

manner. This, I offer, is an opportunity to cultivate digital mindfulness which can lead to better management of the distraction that detrimentally impacts engagements with self-reflection, socialization, communication and engagements with the world. As Wu (2015) writes in referencing William James, “We must reflect that, when we reach the end of our days, our life experience will equal what we have paid attention to, whether by choice or default.” Wu warns that “we are at risk, without fully realizing it, of living lives that are less our own than we imagine,” through the persuasive design tactics of the attention economy (p. 328). Therefore, I suggest digital detox is an opportunity for emerging adults to recognize alternative qualities of experience and be empowered to make more conscious choices with their media and technology use.

REFERENCES CITED

- Adam, F. (2014). Methodological and epistemic framework: From positivism to post-positivism. In F. Adam (Ed.) *Measuring National Innovation performance*. (pp. 5-7). Berlin: Springer Briefs in Economics.
- Ahmed Dunya, A. A., Lewando, H. G., & Blackburn, C. (2011). Issues of gender, reflexivity and positionality in the field of disability: researching visual impairment in an Arab society. *Qualitative Social Work, 10*(4): 467–484.
- Ahn, J. (2012). The effect of social network sites on adolescents' social and academic development: Current theories and controversies. *Journal of the American Society for Information Science and Technology, 62*(8), 1435–1445.
- Alloy Media & Marketing. (2009). 9th Annual College Explorer Survey. Retrieved, from <http://www.marketingcharts.com/television/college-students-spend-12-hoursday-with-media-gadgets-11195/>
- American Academy of Pediatrics (2016). Media and young mind. *Council on communications and Media. Pediatrics*.
- American Psychological Association. (2017). *Stress in America: Coping with change*. Technology and social media. Stress in America™ survey.
- Amichai-Hamburger, Y. & Hayat, Z. (2011). The impact on the social lives of users: a representative sample from 12 countries. *Computers in Human Behavior, 27*, 585-589.
- Anderson, J. & Rainie, L. (2018). The future of well-being in a tech-saturated world. *Pew Research Center*, Washington, D.C.
- Anderson, M. (2017). Digital divide persists even as lower-income Americans make gains in tech adoption. Report, Pew Research Center. Washington, D.C.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55*, 469–480.
- Arnett, J. J. (2004). *Emerging adulthood: The winding road from the late teens through the twenties* (2nd ed.). New York, NY: Oxford University Press.
- Arnett, J.J. (2007). Emerging Adulthood: What Is It, and What Is It Good For? *Child Development Perspectives, 1*(2), 68-73.
- Arnold, M. (2003). On the phenomenology of technology: the “Janus” faces of mobile phones. *Information and Organization, 13*, 231-256.

- Atchley, R. A., Strayer, D. L., & Atchley, P. (2012). Creativity in the wild: improving creative reasoning through immersion in natural settings. *PLoS ONE*, 7(12), 1e3.
- Atkinson, P. & Delamont, S. (1995). *Fighting familiarity: essays on education and ethnography*. New York, NY: Hampton Press.
- AVG. (2015). Kids competing with mobile phones for parents' attention. Research Now, Amsterdam. Retrieved from <https://now.avg.com/digital-diaries-kids-competing-with-mobile-phones-for-parents-attention/>
- Ayeh, J. (2017). Distracted gaze: Problematic use of mobile technologies in vacation contexts. *Tourism Management Perspectives*, 26, 31-38.
- Barnard, A. (1997). A critical review of the belief that technology is a neutral object and nurses are its master. *Journal of Advanced Nursing*, 26, 126-131.
- Baron, N. (2008). *Always on: Language in an online and mobile*. New York: Oxford University.
- Baron, N. (2011). Concerns about mobile phones: A cross-national study. *First Monday* 16(8).
- Bayer, J. B., Campbell, S.W., & Ling, R. (2015). Connection cues: Activating the norms and habits of social connectedness. *Communication Theory*, 2(1), 128-149.
- Bayer, J. B., Ellison, N. B., Schoenebeck, S. Y., & Falk, E. B. (2015). Sharing the small moments: Ephemeral social interaction on Snapchat. *Information, Communication & Society*, 19(7), 956-977.
- Baumer, E., Adams, P., Khovanskaya, V. T. Liao, T., Smith, M., V. Schwanda, Sosik, & Williams, K. (2013). Limiting, leaving, and (re) lapsing: An exploration of Facebook non-use practices and experiences. *CHI '13: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, pp. 3,257–3, 266.
- Baym, N.K. (2010). *Personal connections in the digital age*. Malden, MA: Polity.
- Bennett, L. (2012). Patterns of listening through social media: Online fan engagement with the live experience. *Social Semiotics*, 22, 545-557.
- Berger, R. (2015). Now I see it, now I don't: researcher's position and reflexivity in qualitative research. *Qualitative Research*, 15(2), 219-234.
- Berners-Lee, T. (1993). A brief history of the web. *World Wide Web Consortium*.

- Best, P., Manktelow, R., & Taylor, B. (2014). Online communication, social media and adolescent wellbeing: A systematic narrative review. *Children and Youth Services Review, 41*, 27-36.
- Beyens, I., Frison, E., & Eggermont, S. (2016). I don't want to miss a thing: Adolescents' fear of missing out and its relationship to adolescents' social needs, Facebook use, and Facebook related stress. *Computers in Human Behavior, 64*, 1-8.
- Blaxter, L., Hughes, C., & Tight, M. (2006). *How to research*. Milton Keynes: Open University Press.
- Bleakly, A., Ellithorpe, M., Romer, D. (2016). The role of parents in problematic internet use among U.S. adolescents. *Media and Communication, 4*(3), 24-34.
- Bloor, M. & Wood, F. (2006). *Keywords in qualitative methods: A vocabulary of research concepts*. Thousand Oaks, CA: SAGE.
- Borgmann, A. (1987). *Technology and the character of contemporary life: A philosophical inquiry*. Chicago, IL: university of Chicago Press.
- boyd, danah. (2008). "Why youth <3 social network sites: The role of networked publics in teenage social life." In D. Buckingham (Ed.) *Youth, identity, and digital media*. The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning. (pp. 119–142.) Cambridge, MA: The MIT Press.
- Brandtzæg, P. (2010). Towards a unified Media-User Typology (MUT): A meta-analysis and review of the research literature on media-user typology. *Computers in Human Behavior, 26*(5), 940-956.
- Brown, J. (2006). Emerging adults in a media-saturated world. In J. Arnett, & J. Tanner (Eds.), *Emerging adults in America: Coming of age in the 21st century*. (pp. 279–299). NY: American Psychological Association.
- Buckingham, D. (2008) *Youth, identity and digital media*. Cambridge, MA: MIT Press.
- Burchell, K. (2015). Tasking the everyday: Where mobile and online communication take time. *Mobile Media & Communication, 3*, 36-52.
- Burke Johnson, R., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigms whose time has come. *Educational Researcher, 33*(7), 14-26.
- Campbell, E. & Lassiter, L. E. (2014). *Doing ethnography today: Theories, methods, and exercises. 1st edition*. West Sussex, UK: John Wiley & Sons.
- Carah, N. & Louw, E. (2015). *Media & society: Production, content and participation*. Thousand Oaks, CA: Sage.

- Carr, N. (2010). *The shallows: What the internet is doing to our brains*. New York, NY: Norton.
- Carrier, L. M., Rosen, L. D. & Rökkum, J. N. (2018). Productivity in peril: Higher and higher rates of technology multitasking. *Behavioral Scientist*.
- Cheever, N. A., Rosen, L. D., Carrier, L. M., & Chavez, A. (2014). Out of sight is not out of mind: The impact of restricting wireless device use in anxiety levels among low, moderate and high users. *Computers in Human Behavior*, 37, 290-297.
- Chen, Y., & Katz, J. E. (2009). Extending family to school life: College students' use of the mobile phone. *International Journal of Human-Computer Studies*, 67, 179–191.
- Chou, H.T. G., & Edge, N. (2012). “They are happier and having better lives than I am”: The impact of using Facebook on perceptions of others' lives. *Cyberpsychology, Behavior, & Social Networking*, 15(2), 117–121.
- Cigna. (2018). Cigna U.S. loneliness index: Survey of 20,000 American examining behaviors driving loneliness in the United States. Cigna Ipsos.
- Clark, A. (2014). Digital witness. Performed by St. Vincent on *St. Vincent*. Beverly Hills, Ca: Loma Vista.
- Clayton, R., Leshner, G., & Almond, A. (2015) The extended iSelf: The impact of iPhone separation on cognition, emotion, and physiology. *Journal of Computer-Mediated Communication*, 20(2), 119–135.
- Coleman, J. (1974). *Relationships in adolescence*. London: Routledge and Kegan Paul.
- Couldry, N. (2004). Theorising media as a practice. *Social Semiotics*, 14(2)-115-132.
- Couldry, N. (2012). *Media, society, world: Social theory and digital media practice*. London: Polity.
- Coyne, S. M., Padilla-Walker, L. M. & Howard, E. (2013). Emerging in a digital world: A decade review of media use, effects, and gratifications in emerging adulthood. *Emerging Adulthood*, 1(2), 125-137.
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: Sage.
- Creswell, J. W. (2012). *Qualitative inquiry and research design: Choosing among five approaches* (3rd ed.) Thousand Oaks, CA: Sage.

- Crone, E. A. & Konijn, E. A. (2018). Media use and brain development during adolescence. *Nature Communications*, 9, 588-568.
- D’Cruz, H., Gillingham, P. & Melendez, S. (2007). Reflexivity, its meaning and relevance for social work: a critical review of the literature. *British Journal of Social Work*, 37, 73–90.
- Davila, J., Hershenberg, R., Feinstein, B.A., Goran K., Bhatia, V., & Starr, L.R. (2012). Frequency and quality of social networking among young adults: associations with depressive symptoms rumination and co-rumination. *Psychology Popular Media Culture* 1(2), 72-86.
- Davis, K. (2012). Friendship 2.0: Adolescents' experiences of belonging and self-disclosure online. *Journal of Adolescence*, 35(6), 1527–153.
- Denissen, J. J. A., Neumann, L., & van Zalk, M. (2010). How the internet is changing the implementation of traditional research methods, people’s daily lives, and the way in which developmental scientists conduct research. *International Journal of Behavioral Developmental*, 34(6), 564-575.
- Denzin, N. K. & Lincoln, Y. S. (1984). *Handbook of qualitative research*. Newbury Park: Sage.
- Denzin, N. K. & Lincoln, Y. S. (2000). *Handbook of qualitative research*. 2nd edition. Thousand Oaks: Sage.
- Dickinson, J. E., Hibbert, J. F., & Filimonau, V. (2016). Mobile technology and the tourist experience: (Dis)connection at the campsite. *Tourism Management*, 57, 193-201.
- Dolev-Cohen, M., & Barak, A. (2013). Adolescents' use of Instant Messaging as a means of emotional relief. *Computers in Human Behavior*, 29(1), 58–63.
- Dow Schüll, N. (2012). *Addiction by design: Machine gambling in Las Vegas*. Princeton, NJ: Princeton University Press.
- Dscout (2016). Mobile touches: dscout’s inaugural study in humans and their tech, report. https://blog.dscout.com/hubfs/downloads/dscout_mobile_touches_study_2016.pdf
- Duggan, M., Ellison, N. B., Lampe, C., Lenhart, A., & Madden, M. (2015). Social media update 2014. Pew Research Center, Washington, D.C.
- Elhai, J. D., Levine, J. C., Dvorak, R. D., & Hall, B. J. (2016). Fear of missing out, need for touch, anxiety and depression are related to problematic smartphone use. *Computers in Human Behavior*, 63, 506-516.

- Ellison, N.B., Steinfield, C. & Lampe, C. (2011). Connection strategies: social capital implications of Facebook-enabled communication practices. *New Media & Society XX(X)*, 1-20.
- Erikson, E. H. (1950). *Childhood and society*. New York: Norton.
- Erikson, E. (1968). *Identity, youth and crisis*. New York, NY: W.W. Norton Company.
- Escobar, A. (1994). Welcome to Cyberia: Notes on the anthropology of cyberculture. *Current Anthropology*, 35(3), 211-231.
- Eyal, N. (2014). *Hooked: How to build habit-forming products*. New York: Penguin.
- Fasching, D. (1981). *The thoughts of Jacques Ellul: A systematic expedition*. Lewiston, NY: Edwin Mellen Press.
- Feenberg, A. (1990). *Critical theory of technology*. Oxford: Oxford University Press.
- Feenberg, A. (1999). *Questioning Technology*. London: Routledge.
- Felt, L.J., Robb, M.B. (2016). *Technology addiction: Concern, controversy and finding balance*. San Francisco, CA: Common Sense Media.
- Fogg, B. J. (2002). Computers as persuasive social actors. In B.J. Fogg (Ed.) *Persuasive technology: Using computers to change what we think and do*. (pp. 89-120). San Francisco, CA: Morgan Kaufman Publishers.
- Foster Wallace, D. (2005). *This Is Water Commencement Speech*. Kenyon College, Gambier, Ohio. May 21.
- Garrison, K. (2017). Unplugging with off-the- gridders. In S. Pixy Ferris & H.A. Wilder (Eds.), *Unplugging the classroom: Teaching with technologies to promote student lifelong learning*. (pp. 37-45). Cambridge, MA: Chandos.
- Ginsberg, D. & Burke, M. (2017, December, 15). Hard questions; Is spending time on social media bad for us? Facebook Newsroom. Menlo Park, Ca. Retrieved from: <https://newsroom.fb.com/news/2017/12/hard-questions-is-spending-time-on-social-media-bad-for-us/>
- Gordon, C. F., Juang, L. P., & Syed, M. (2007). Internet use and well-being among college students: Beyond frequency of use. *Journal of College Student Development*, 48, 674-688.

- Gonzales, A. L., & Hancock, J. T. (2011). Mirror, mirror on my Facebook wall: Effects of exposure to Facebook on self-esteem. *Cyberpsychology, Behavior & Social Networking*, *14*(1/2), 79–83.
- Greenwood, D. N., Long, C. R. (2009). Psychological predictors of media involvement: Solitude experiences and the need to belong. *Communication Research*, *36*, 637-654.
- Gross, E. F. (2009). Logging on, bouncing back: An experiential investigation of online communication following social exclusion. *Developmental Psychology*, *45*, 1787–1793.
- Guillemin, M., & Gillam, L. (2004). Ethics, reflexivity and ‘ethically important moments’ in research. *Qualitative Inquiry*, *10*, 261–280.
- Hacking, I. (1993). *Representing and Intervening, Introductory Topics in the Philosophy of Natural Science*, Cambridge, UK: Cambridge University Press.
- Hall, J. (2017). The experience of mobile entrapment in daily life. *Journal of Media Psychology* *29*(3), 148-158.
- Hall, J. A., & Baym, N. A. (2012). Calling and texting (too much): Mobile media maintenance, expectations, (over)dependence, entrapment, and friendship satisfaction. *New Media & Society*, *14*, 134-153.
- Hall, J. A., Baym, N. K., & Miltner, K. M. (2014). Put down that phone and talk to me: Understanding the roles of mobile phone norm adherence and similarity in relationships. *Mobile Media & Communication*, *2*(2), 134-153.
- Hammon, R.B. (1999). Computer networks linking communities: A study of the effects of computer network use upon pre-existing communities. In U. Tiedke, (Ed.) *Virtual Groups: Characteristics and Problematic Dimensions Wiesbaden* Germany: Westdeutscher Verlag.
- Hand, M. (2014) Digitization and memory: Researching practices of adaptation to visual and textual data in everyday life. In M. Hand & S. Hillyard (Eds.) *Big Data? Qualitative Approaches to Digital Research*, pp. 205-228. Bingley, UK: Emerald Limited Publishing.
- Hanna, E., Ward, L. M., Seabrook, R. C., Jerald, M., Reed, L., Giaccardi, S., & Lippman, J. R. (2017). Contributions of social comparison and self-objectification in mediating associations between Facebook use and emergent adults' psychological well-being. *Cyberpsychology, Behavior & Social Networking*, *20*(3).

- Hargittai, E. (2003). The digital divide and what to do about it. In D. C. Jones, (Ed.), *The New Economy Handbook*. San Diego, CA: Academic Press.
- Hargittai E. (2008). Whose space? Differences among users and non-users of social network sites. *Journal of Computer Mediated Communication*, 13(1), 276–297.
- Harmon, E., & Mazmanian, M. (2013). Stories of the smartphone in everyday discourse: conflict, tension and instability. *Proceedings of the SIGCHI Conference of Human Factors in Computing Systems*. (pp. 1051-1060). New York, NY: ACM.
- Harris, T. (2016). How technology hijacks people’s minds—from a magician and Google’s design ethicist. Retrieved from <http://www.tristanharris.com/essays/> 19 May 2016.
- Harwood, J., Dooley, J. J., Scott, & A. J., Joiner, R. (2014). Constantly connected—the effects of smart-devices on mental health. *Computers in Human Behavior*, 34, 267-272.
- Hefner, D., & Vorderer, P. (2017). Digital stress: Permanent connectedness and multitasking. In L. Reinecke & M. B. Oliver (Eds.), *The Routledge handbook of media use and well-being*. (pp. 237–249). New York, NY: Routledge.
- Heidegger, M. (1964). *Discourse on thinking*. New York, NY: Harper & Row.
- Hill, K. (2014, June 29). Facebook doesn't understand the fuss about its emotion manipulation study. *Forbes*. Retrieved from <https://www.forbes.com/sites/kashmirhill/2014/06/29/facebook-doesnt-understand-the-fuss-about-its-emotion-manipulation-study/#3c1c9c4866db>
- Hjorth, L., Horst, H., Galloway, A., & Bell, G. (2017). *The Routledge Companion to Digital Ethnography*. New York, NY: Taylor & Francis.
- Hofer, B. K., & Moore, A. S. (2010). *The iConnected parent: Staying close to your kids in college (and beyond) while letting them grow up*. New York, NY: The Free Press.
- Hoffner, C.A., & Lee, S. (2015). Mobile phone use, emotion regulation and well-being. *Cyberpsychology, Behavior & Social Networking*, 18(7), 411-416.
- Holesh, K. (2018). Moment: Top 5 most used iOs Apps. Retrieved from <https://inthemoment.io/apps>
- Horst, H. & Miller, D. (2015). *Digital anthropology*. Oxford: Berg Publishers.

- Howe, K. R. (1988). Against the quantitative-qualitative incompatibility thesis or dogmas die hard. *Educational Researcher*, 17, 10-16.
- Hu, M. (2009). Will online chat help alleviate mood loneliness? *Cyberpsychology & Behavior*, 12, 219-223.
- Humphreys, L. (2018). *The Qualified Self*. Cambridge, MIT Press.
- Ihde, D. (1979). *Technics and Praxis*. Dordrecht, Holland: Reidel.
- Ihde, D. (1990). *Technology and the lifeworld: From garden to earth*. Bloomington, IN: Indiana University Press.
- Influence Central (2016). Smartphones and the dramatic reshaping of American families. Influence Central 2016 Digital Trends Study. Retrieved from: <http://influence-central.com/smartphones-the-dramatic-reshaping-of-american-families/>
- Jacobsen, W., & Forste, R. (2010). The wired generation: Academic and social outcomes of electronic media use among university students. *Cyberpsychology, Behavior, & Social Networking*, 45, 275–280.
- James, C., Davis, K., Charmaraman, L., Konrath, S., Slovak, P., Weinstein, E. & Yarosh, L. (2017). Digital life and youth well-being, social connectedness, empathy and narcissism. *Pediatrics*, 140(S2), S71-75.
- Jarmon, L. J. (2014). "Cracking the glass ceiling: A phenomenological study of women administrators in higher education" (2014). Graduate Theses and Dissertations. 13789.
- Jelenchick, L. A., Eickhoff, J. C., & Moreno, M. A. (2013). "Facebook depression?" Social networking site use and depression in older adolescents. *Journal of Adolescent Health*, 52(1), 128–130.
- Jiang, J. (2018). Millennials stand out for their technology use, but older generations also embrace digital life. Pew Research Center: Washington, D.C.
- Kabat-Zinn, J., Massion, A. O., Kristeller, J., Peterson, L. G., Fletcher, K. E., Pbert, L., Lenderking, W. R., & Santorelli, S. F. (1992). Effectiveness of a meditation-based stress reduction program in the treatment of anxiety disorders. *American Journal of Psychiatry*, 149(7), 936-943.
- Kalipduo, M., Costin, D. & Morris, J. (2011). The relationship between Facebook and the well-being of undergraduate college students. *Cyberpsychology, Behavior & Social Networking*, 14(4), 183-189.

- Katz J. E., & Aakhaus, M. (2002). Introduction: Framing the issues. In: J. E. Katz & M. Aakhaus (Eds.), *Perpetual Contact: Mobile Communication, Private Talk, Public Performance*. (pp.1-13) Cambridge, MA: Cambridge University Press.
- Kennelly, J., & Poyntz, S. R. (2015). Introduction. In S. R. Poyntz & J. Kennelly (Eds.) *Phenomenology of youth cultures and globalization: Lifeworlds and surplus meaning in changing times*. (pp.1-23). New York, NY: Routledge.
- Kim, J., & Lee, J.E. R. (2011). The Facebook paths to happiness: Effects of the number of Facebook friends and self-presentation on subjective well-being. *Cyberpsychology, Behavior & Social Networking*, 14(6), 359–364.
- King, A. L. S., Valença, A. M., Silva, A. C. O., Baczynski, T., Carvalho, M. R., & Nardi, A. E. (2013). Nomophobia: Dependency on virtual environments or social phobia? *Computers in Human Behavior*, 31, 343-350.
- Ko, H. C., & Kuo, F. Y. (2009). Can blogging enhance subjective well-being through self- disclosure? *Cyberpsychology & Behavior*, 12(1), 75–79.
- Kramer, A. D., Guillory, J. E., & Hancock, J. (2014). Experimental evidence of massive-scale emotional contagion through social networks. *Proceedings of the National Academy of Sciences of the United States of America* 111(24), 8788-8790.
- Kvale, S. (1995). The social construction of validity. *Qualitative Inquiry*, 1(1), 19-40.
- Lakoff, G. & Johnson, M. (1999). *Philosophy in the flesh: Embodied mind and it's challenge to western thought*. New York, NY: Harper Collins.
- LaRose, R. (2012). Uses and gratifications of Internet addiction. In K. S. Young & C. N. de Abreu (Eds.), *Internet addiction: a handbook and guide to evaluation and treatment*. (pp. 55–72). Hoboken: Wiley.
- Larson, R.W. (1990). The solitary side of life: An examination of the time people spend alone from childhood to old age. *Developmental Review*, 10(2), 155–183.
- Larson, R.W. (1997). The emergence of solitude as a constructive domain of experience in early adolescence. *Child Development*, 68(1), 80-93.
- Latour, B. (1994). On technical mediation—Philosophy, sociology, genealogy. *Common Knowledge*, 3(2), 29-65.
- Laurie, J., & Blandford, A. (2016). Making time for mindfulness. *International Journal of Informatics*, 96, 38-50.

- LeCompte, M. D. & Schensul, J. J. (2003). *Designing and conducting ethnographic research: An ethnographer's toolkit, second edition*. Landham, Alta Mira Press.
- Lee, C. S., & Ma, L. (2012). News sharing in social media: The effect of gratifications and prior experience. *Computers in Human Behavior, 28*(2), 331–339.
- Lee, Y. K., Chang, C. T., Lin, Y. & Cheng, Z. H. (2014). The dark side of smartphone usage: Psychological traits, compulsive behaviors and technostress. *Computers in Human Behavior, 31*, 373-383.
- Lenhart, A. (2015). Teens, social media and technology overview 2015. Pew Research Report. Washington, D.C.
- Leung, L. (2011). Loneliness, social support, and preference for online social interaction: The mediating effects of identity experimentation online among children and adolescents. *Chinese Journal of Communication, 4*(4).
- Levin, S. (2017, May 1). Facebook told advertisers it can identify teens feeling 'insecure' and 'worthless'. *The Guardian*. Retrieved from <https://www.theguardian.com/technology/2017/may/01/facebook-advertising-data-insecure-teens>
- Levy, D. M., Nardick, D. L., Turner, J. W., & McWatters, L. (2011). No cellphone? No internet? So much less stress. *Chronicle of Higher Education*.
- Levy, E. C., Rafaeli, S., & Ariel, Y. (2016). The effect of online interruptions on the quality of cognitive performance. *Telematics & Informatics, 33*(4), 1014-1021.
- Lewis, P. (2017). Our minds can be hijacked: The tech insiders who fear a smartphone dystopia. *The Guardian*. Oct. 16, 2017. <https://www.theguardian.com/technology/2017/oct/05/smartphone-addiction-silicon-valley-dystopia>
- Licoppe, C. (2004). Connected presence: The emergence of a new repertoire for managing social relationships in a changing communication technoscape. *Society and Space 22*(1), 135-156.
- Lietz, C. A., Langer, C. L., & Furman, R. (2006). Establishing trustworthiness in qualitative research in social work: implications from a study regarding spirituality. *Qualitative Social Work, 5*, 441–458.
- Lin, K. Y., & Lu, H. P. (2011). Why people use social networking sites: An empirical study integrating network externalities and motivation theory. *Computers in Human Behavior, 27*(3), 1152-1161.

- Ling, R. (2016). Soft coercion: Reciprocal expectations of availability in the use of mobile communication. *First Monday*, 21(5).
- Ling, R., & Yttri, B. (2002). Hyper-coordination via mobile phones in Norway. In Katz, J. E. & Aakhaus, M. (Eds.) *Perpetual contact: Mobile communication, private talk, public performance*. (pp. 139-169). Cambridge, MA: Cambridge University Press.
- Ling, R., & Yttri, B. (2006). Control, emancipation, and status: The mobile telephone in teens' parental and peer relationships. In R. Kraut, M. Brynin & S. Kiesler (Eds.), *Computers, phones, and the internet: Domesticating information technology*. (pp. 219–234). New York, NY: Oxford University Press.
- Livingstone, S. & Helsper, E. (2007). Gradations in digital inclusion: Children, young people and the digital divide. *New Media & Society*, 9(4), 671-696.
- Livingstone, S. (2008). Taking risky opportunities in youthful content creation: Teenagers' use of social networking sites for intimacy, privacy and self-expression. *New Media & Society*, 10, 393–411.
- Manago, A. M., Taylor, T., & Greenfield, P. M. (2012). Me and my 400 friends: The anatomy of college students' Facebook networks, their communication patterns, and well-being. *Developmental Psychology*, 48, 369–380.
- Manders-Huits, N. (2011). What values in design? The challenge of incorporating moral values into design. *Science and Engineering Ethics*, 17(2), 271-287.
- Mani, M., Kavanagh, D. J., Hides, L., & Stoyanov, S. R. (2015). Review and evaluation of mindfulness-based iPhone apps. *JMIR mHealth and uHealth*, 3(3), e82.
- Mäntymäki, M., & Riemer, K. (2014). Digital natives in social virtual worlds: A multi-method study of gratifications and social influences in Habbo Hotel. *International Journal of Information management*, 34(2), 210-220.
- Marcoen, A., & Goossens, L. (1993). Loneliness, attitude towards aloneness and solitude: Age differences and developmental significance during adolescence. In S. Jackson & H. Rodriguez-Tome (Eds.) *Adolescence and it's social worlds*. (pp. 197-227). Hillsdale, NJ: Erlbaum.
- Marotta, V., & Acquisiti, A. (2017). Online distractions, website blockers, and economic productivity: A randomized field experiment. (np).
- Marshall, C., & Rossman, G. B. (1999). *Designing qualitative research*. Thousand Oaks, CA: Sage.
- Mason, J. (1996). *Qualitative researching*. London: Sage.

- Maxell, J. A., & Loomis, D. M. (2003). Mixed methods design: An alternative approach. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 241-272). Thousand Oaks, CA: Sage.
- Mays, N. & Pope, C. (2000). Qualitative research in health care: Assessing quality in qualitative research... first in a series of three articles. *British Medical Journal*, 320(7226), 50-52.
- McCoy, B. (2016). Digital distractions in the classroom: student classroom use of digital devices for non-class related purposes. *The Journal of Media Education*, 4(4), 5-14.
- McKee, A. (2003). *Textual analysis: A beginner's guide*. London: SAGE Publishing.
- McLuhan. M. (1962). *The Gutenberg galaxy*. Toronto: University of Toronto Press.
- McLuhan. M. (1964). *Understanding media: The extensions of man*. Cambridge, MA: MIT Press.
- Mihailidis, P. (2014). A tethered generation: Exploring the role of mobile phones in the daily life of young people. *Mobile Media & Communication*, 2(1), 58-72.
- Milanesi, C. (2018, April, 11). US consumers want more transparency from Facebook. *Creative Strategies*. Retrieved from <https://techpinions.com/us-consumers-want-more-transparency-from-facebook/52653>.
- Miller-Ott, A. E., Kelly, L., & Duran, R.L. (2014). Cell phone usage expectations, closeness, and relationship satisfaction between parents and their emerging adults in college. *Emerging Adulthood*, 2(4), 313-323.
- Mokhtari, K., Reichard, C. A., & Gardner, A. (2009). The impact of Internet and television use on the reading habits and practices of college students. *Journal of Adolescent & Adult Literacy*, 52, 609-619.
- Montag, C., & Walla, P. (2016). Carpe diem instead of losing your social mind: Beyond digital addiction and why we all suffer from digital overuse. *Cogent Psychology*, 1, 1-9.
- Morgan, D. L. (1998). Mixed methods and the politics of human research: The transformative-emancipatory perspective. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 135-164). Thousand Oaks, CA: Sage.
- Morris, N. & Cravens Pickens, J. D. (2017). "I am not a gadget": A grounded theory of unplugging. *The American Journal of Family Therapy*, 45(5), 264-282.

- Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: Sage.
- Nelson, L. J., & Barry, C. M. (2005). Distinguishing features of emerging adulthood: The role of self-classification as an adult. *Journal of Adolescent Research, 20*, 242–262.
- Noone, C., & Hogan, M. J. (2016). A protocol for a randomised active-controlled trial to evaluate the effects of an online mindfulness intervention on executive control, critical thinking and key thinking dispositions in a university student sample. *BMC Psychology, 4*(17), 1-12.
- Nowland, R., Necka, E. A., & Cacioppo, J. T. (2017). Loneliness and social internet use: Pathways to reconnection in a digital world? *Perspectives on Psychological Science, 13*(1), 70-87.
- Ohannessian, C. M., Vannucci, A., Flannery, K. M., & Khan, S. (2017). Social media use and substance use during emerging adulthood. *Emerging Adulthood, 5*(5), 364-370.
- O’Keeffe, G., & Clarke-Pearson, K. (2011). Clinical report on the impact of social media on children, adolescents and families. *Pediatrics, 127*, 800-804.
- Ophir, E., Nass, C. I., & Wagner, A. D. (2009). Cognitive control in media multitaskers. *Proceedings of the National Academy of Sciences, 106*(35), 15583–15587.
- Orlikowski, W. J. (2000). Using technology and constituting structures: A practice lens for studying technology in organization. *Organisation Science, 11*(4), 404-428.
- Oxford Dictionary Online (2013). Definition of digital detox. Retrieved from: https://en.oxforddictionaries.com/definition/digital_detox
- Padilla-Walker, L. M., & Coyne, S. M. (2011). “Turn that thing off!” Parent and adolescent predictors of proactive media monitoring. *Journal of Adolescence, 34*, 705–715.
- Padilla-Walker, L. M., & Nelson, L. J. (2012). Black Hawk Down? Establishing helicopter parenting as a distinct construct from other forms of parental control during emerging adulthood. *Journal of Adolescence, 35*, 1177–1190.
- Palfrey, J., & Gasser, U. (2008). *Born digital: Understanding the first generation of digital natives*. New York, NY: Basic Books.
- Parker, P. D., Lüdkte, O., Trautwein, U., & Roberts, B. W. (2012). Personality and relationship quality during the transition from high school to early adulthood. *Journal of Personality, 80*, 1061-1089.

- Patton, M. Q. (1990). *Qualitative evaluation and research methods*. (2nd ed.). Newbury Park, CA: Sage.
- Pea, R., Nass, C., Meheula, L., Rance, M., Kumar, A.M. Bamford, ... Zhou, M. (2009). Media use, face-to-face communication, media multitasking, and social well-being among 9-12 year old girls. *Developmental Psychology* 48(2), 327-336.
- Pearce, P., & Gretzel, U. (2012). Tourism in technology dead zones: Documenting experiential dimensions. *Faculty of Business-Papers*, 1-20.
- Peper, E., & Harvey, R. (2018). Digital addiction: Increased loneliness, anxiety, and depression. *NeuroRegulation*, 5(1), 3.
- Perez, S. (2018). Apple to launch its own ‘digital health’ features in iOS 12, says report. *TechCrunch*, San Francisco, CA. Retrieved from: <https://techcrunch.com/2018/06/01/apple-to-launch-its-own-digital-health-features-in-ios-12-says-report/>
- Perrin, A. (2015). Social networking usage: 2005-2015. Report, Pew Research Center. Washington, D.C.
- Perrin, A. (2017). Smartphones help blacks Hispanics bridge some—but not all—digital gaps with whites. Report, Pew Research Center. Washington, D.C.
- Perrin, A., & Jiang, J. (2018). About a quarter of U.S. adults say they are ‘almost constantly’ online. Pew Research Center. Washington, D.C.
- Pew Research Center. (2010). The millennials: Confident, connected, open to change, Report, Pew Research Center. Washington, D.C.
- Pew Research Center. (2015). U.S. Smartphone Use in 2015, Report, Pew Research Center. Washington, D.C.
- Pew Research Center. (2018). Mobile fact sheet, Report, Pew Research Center. Washington, D.C.
- Pies, R. (2009). Should DSM-V designate “Internet addiction” a mental disorder? *Psychiatry* 6(2), 31-37.
- Pillow, W. S. (2003). Confession, catharsis, or cure? Rethinking the uses of reflexivity as methodological power in qualitative research. *International Journal of Qualitative Studies in Education*, 16, 175–196.
- Pink, S., Horst, H., Postill, J., Hjorth, L., Lewis, T., & Tacchi, J. (2016). *Digital ethnography*. New York: Routledge.

- Portwood-Stacer, L. (2012). Media refusal and conscious non-consumption: The performative and political dimensions of Facebook abstention. *New Media & Society* 15(7), 1041-1057.
- Poyntz, S. R., & Kennelly, J. (2015). *Phenomenology of youth cultures and globalization: lifeworlds and surplus meaning in changing times*. New York, NY: Routledge.
- Primack, B. A., Shensa, A., Sidani, J. E., Whaite, E. O., Lin, L. Y., Rosen, D. Colditz, J. B., Rodvic, A., & Miller, E. (2017). Social media use and perceived social isolation among adults in the US. *American Journal of Preventative Medicine*, 53(1), 1-8.
- Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior*, 29(4), 1841-1848.
- Raichle, M. E. (2015). The brain's default mode network. *Annual Review of Neuroscience*, 38, 433-447.
- Reinecke, L. Aufenanger, S., Beutel, M. E. Dreier, M., Quiring, O., Stark, B., Wolfling, K., & Müller, K.W. (2016). Digital stress over the lifespan: The effects of communication load and internet multitasking on perceived stress and psychological health impairments in German probability scale. *Media Psychology*, 0, 1-26.
- Reinecke, L., & Eden, A. (2017). Media use and well-being: An introduction to the special issue. *Journal of Media Psychology: Theories, Methods, and Applications*, 29(3), 111-114.
- Rich, M., Bickham, D. S., & Shrier, L. A. (2015). Measuring youth media exposure: A multimodal method for investigating the influence of media on digital natives. *American Behavioral Scientist*, 59, 1736-1754.
- Richardson, I. & Keogh, B. (2017). Mobile media matters: the ethnography and phenomenology of itinerant interfaces. In L. Hjorth, H. Horst, A. Galloway & G. Bell (Eds.) *The Routledge Companion to Digital Ethnography*. (pp. 211-220). New York: Routledge.
- Rideout, V., Foehr, U. G., & Roberts, D. F. (2010). Generation M2: Media in the lives of 8-18-year-olds. *A Kaiser Family Foundation Study*. Menlo Park, CA: Kaiser Family Foundation.
- Rideout, V. (2015). *The Common Sense census: Media use by tweens and teens*. San Francisco, CA: Common Sense Media, Inc.

- Rideout, V. (2017). *The Common Sense census: Media use by kids age zero to eight*. San Francisco, CA: Common Sense Media.
- Roberts, J., & Koliska, M. (2014). The effects of ambient media: what unplugging reveals about being plugged in. *First Monday*, 19(8).
- Rosen, L. D., Carrier, L. M., & Cheever, N. A. (2013). Facebook and texting made me do it: Media-induced task switching while studying. *Computers in Human Behavior*, 29(3), 948-958.
- Rosenberg, S. (13 August 2017). The unbearable irony of meditation apps. *Wired*. Retrieved from <https://www.wired.com/story/the-unbearable-irony-of-meditation-apps/>
- Rudestam, K. E. & Newton, R.R. (2001). *Surviving your dissertation: a comprehensive guide to content and process*. Thousand Oaks, CA: Sage.
- Russell Bernard, H. (2017). *Research methods in anthropology: Qualitative and quantitative approaches*. Landham, MD: Rowman & Littlefield.
- Samaha, M., & Hawi, N. S. (2016). Relationships among smartphone addiction, stress, academic performance, and satisfaction with life. *Computers in Human Behavior*, 57, 321-325.
- Sanders, P. (1982). Phenomenology: A new way of viewing organizational research. *Academy of Management Review*, 7(3), 353–360.
- Sarriera, J. C., Abs, D., Casas, F., & Bedin, L. M. (2012). Relations between media, perceived social support and personal well-being in adolescence. *Social Indicators Research*, 106(3), 545–561.
- Sartoretto, P. (2016). Exploring inclusive ethnography as a methodology to account for multiple experiences. In S. Kubitschko and A. Kaun (Eds.), *Innovative methods in media and communication research*. (pp. 189-203). Cham, Switzerland: Springer International.
- Shapira N. A., Lessig, M. C., & Goldsmith T. D. (2003). Problematic Internet use: Proposed classification and diagnostic criteria. *Depression and Anxiety* 17(1), 207–216.
- Shapiro, J. S. (1999). Loneliness: Paradox or artifact? *The American Psychologist*, 54(9), 782-783.
- Sieber, S. D. (1973). The integration of fieldwork and survey methods. *American Journal of Sociology*, 78(6), 1335-1359.

- Snow, D. A. (1987). Identity work among the homeless: The verbal construction and avowal of personal identities. *American Journal of Sociology*, 92(6), 336-371.
- Solon, O. (2017). Ex-Facebook president Sean Parker: site made to exploit human 'vulnerabilities.' *The Guardian*. Nov 9 Retrieved: <https://www.theguardian.com/technology/2017/nov/09/facebook-sean-parker-vulnerability-brain-psychology>
- Spreng, R. N., Mar, R. A., & Kim, A. S. N. (2009). The common neural basis of autobiographical memory, prospection, navigation, theory of mind, and the default mode: A quantitative meta-analysis. *Journal of Cognitive Neuroscience*, 21(3), 489-510.
- Steinfeld, C., Ellison, N. B., & Lampe, C. (2008). Social capital, self-esteem, and use of online social network sites: A longitudinal analysis. *Journal of Applied Developmental Psychology*, 29, 434-44N5.
- Subrahmanyam, K., & Greenfield, P. M. (2008). Communicating online: Adolescent relationships and the media. *The future of children: Children and Media Technology*, 18, 119-146.
- Sutton, T. (2017). Disconnect to reconnect: The food/technology metaphor in digital detoxing. *First Monday*, 22(6).
- Tehrani, Y. (2013). *Social media, social kids: Sociocultural implications of the 21st century media for development of the pre-teen period* (doctoral dissertation).
- Thomas, V., & Azmitia, M. (2014). Motivation Matters: Development of a Short Form Measure of Solitude for Adolescents and Emerging Adults. *UC Santa Cruz: Division of Graduate Studies*. Retrieved from: <https://escholarship.org/uc/item/3414t2qv>
- Thomas, V., Azmitia, M., & Whittaker, S. (2016). Unplugged: Exploring the costs of constant connection. *Computers in Human Behavior*, 63, 540-548.
- Thomé, S., Harenstam, A., & Hagberg, M. (2011). Mobile phone use and stress, sleep disturbances and symptoms of depression among young adults – A prospective cohort study. *BMC Public Health*, 11(66).
- Thomson, I. (2000). From the question concerning technology to the quest for a democratic technology: Heidegger, Marcuse, Feenberg. *Inquiry*, 43, 203-216.
- Tobin, G. A. & Begley, C. M. (2004) Methodological rigour within a qualitative framework. *Journal of Advanced Nursing*, 48, 388-396.

- Tomai, M., Rosa, V., Mebane, M. E., D'Acunti, A., Benedetti, M., & Francescato, D. (2010). Virtual communities in schools as tools to promote social capital with high school students. *Computers & Education*, 54, 265–274.
- Trepte, S., & Scharkow, M. (2016). How social capital and social support received in media environments contribute to well-being. In Reinecke L. & Oliver M. B. (Eds.), *The Routledge handbook of media use and well-being: International perspectives on theory and research on positive media effects*. (pp. 304–316). New York, NY: Routledge.
- Turkle, S. (1995). *Life on the screen: Identity in the age of the internet*. New York: Simon and Schuster.
- Turkle, S. (2005). *The second self: Computers and the human spirit*. Cambridge, MA: The MIT Press.
- Turkle, S. (2008) Always-on/always-on-you: The tethered self. In: Katz J.E. (Ed.) *Handbook of mobile communication studies*. (pp. 121–138). Cambridge, MA: MIT.
- Turkle, S. (2015). *Reclaiming conversation: The power of talk in a digital age*. New York, NY: Penguin.
- Twenge, J. (2017). Have smartphones destroyed a generation? *The Atlantic*. September 2017 Issue.
- Twenge, J., Martin, G. N., & Campbell, W. K. (2018). Decreases in psychological well-being among American adolescents after 2012 and links to screen time during the rise of smartphone technology. *Emotion*. Advance online publication. <http://dx.doi.org/10.1037/emo0000403>
- Uncapher, M. R., Lin, L., Rosen, L. D., Kirkorian, H. L., Baron, N. S., Cantor, J., ... & Wagner, A. D. (2017). Media multitasking and cognitive, psychological, neural, and learning differences. *Pediatrics*, 140(2), S62-S66.
- Utz, S., & Breuer, J. (2017). The relationship between use of social network sites, online social support, and well-being: Results from a 6-wave longitudinal study. *Journal of Media Psychology*, 29, 115–125.
- Valkenburg, P. M., Peter, J., & Schouten, A. P. (2006). Friend networking sites and their relationship to adolescents' well-being and social self-esteem. *Cyberpsychology & Behavior*, 9(5), 584–590.

- Valkenburg, P. M., & Peter, J. (2009). Social consequences of the internet for adolescents: A decade of research. *Current Directions in Psychological Science*, 18(1), 1-5.
- Valkenburg, P. M., & Peter, J. (2011). Online communication among adolescents: an integrated model of its attraction, opportunities, and risks. *Journal of Adolescent Health*, 48(2), 121-127.
- van den Eijnden, R. J. J. M., Meerkerk, G. J., Vermulst, A. A., Spijkerman, R., & Engels, R. C. M. E. (2008). Online communication, compulsive internet use, and psychosocial wellbeing among adolescents: A longitudinal study. *Developmental Psychology*, 44(3), 655–665.
- van den Hoven, J. (2005). Design for values and values for design. *Information Age*, 4–7.
- van den Hoven, J. (2008). Moral methodology and information technology. In K. E. Himma & H. T. Tavani (Eds.), *The handbook of information and computer ethics*. (pp. 49–69). New York: Wiley.
- van Dijck, J. (2013). *The culture of connectivity: A critical history of social media*. Oxford: Oxford University Press.
- van Manen, M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy*. London: Althouse Press.
- van Manen, M., & Adams, C. (2009). The phenomenology of space in writing online. *Educational Philosophy and Theory*, 41(1), 10-21.
- Verduyn, P., Ybarra, O., Résibois, M., Jonides, J., & Kross, E. (2017). Do social network sites enhance or undermine subjective well-being? A critical review. *Special Issues and Policy Review*, 11(1), 274-302.
- Vorderer, P., & Köhring, M. (2013). Permanently online: A challenge for media and communication research. *International Journal of Communication*, 7, 188-196.
- Vorderer, P., Krömer, N., & Schneider, F. M. (2016). Permanently online – Permanently connected: Explorations into university students’ use of social media and mobile smart devices. *Computers in Human Behavior*, 63, 694–703.
- Walsh, J. L., Fielder, R. L., Carey, K. B., & Carey, M. P. (2013). Female College Students’ Media Use and Academic Outcomes: Results from a Longitudinal Cohort Study. *Emerging Adulthood*, 1(3), 219-232.
- Wang, Z., Tchernev, J. M., & Solloway, T. (2012). A dynamic longitudinal examination of social media use, needs, and gratifications among college students. *Computers*

- in Human Behavior*, 28, 1829–1839.
- Ward, A. F., Duke, K., Gneezy, A., & Bos, M. W. (2017). Brain drain: The mere presence of one's own smartphone reduces available cognitive capacity. *Journal for Consumer Research* 2(2), 140-154.
- Wartella, E. A., Rideout, V. J., Lauricella, A., & Connell, S. (2013). *Parenting in the age of digital technology*. Chicago, IL: Center of Media and Human Development, School of Communication, Northwestern University.
- Waters, J. (2017). Phenomenological research guidelines. *Capilano University*. Retrieved from <https://www.capilanou.ca/psychology/student-resources/research-guidelines/Phenomenological-Research-Guidelines/>
- We Are Social (2018). Global digital population as of April 2018 (in millions). In *Statistica- The Statistics Portal*. Retrieved April 26, 2018, from <https://www.staistica.com/statistics/617136/digital-population-worldwide/>.
- Weinstein, E. C., & Selman, R. L. (2016). Digital stress: Adolescents' personal accounts. *New Media & Society*, 18(3), 391-409.
- White, T. R. (2013). Digital social media detox (DSMD): Responding to a culture of interconnectivity. In B. Patrut, M. Patrut & C. Cmeciu (Eds.) *Social media and the new academic environment: Pedagogical challenges*. (pp. 416-462). Hershey, PA: Information Science Reference.
- Winner, L. (2004). Technologies as forms of life. In D. M. Kaplan (Ed.) *Readings in the philosophy of technology*. (pp. 251-263). Lanham, MD: Rowman & Littlefield.
- Winnicott, D.W. (1958). The capacity to be alone. *International Journal of Psycho-Analysis*, 39, 416-420.
- Wu, T. (2016). *The attention merchants: The epic scramble to get inside our heads*. New York, NY: Vintage Books: A division of Penguin Random House.
- Zillien, N., & Hargittai, E. (2009). Digital distinction: Status-specific internet users. *Social Science Quarterly*, 90(2), 274-291.