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DIGITAL MEDIA USE AND ADOLESCENT CHRISTIAN FORMATION:  
A CORRELATION STUDY

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A Thesis  
Presented to  
the Faculty of  
The Southern Baptist Theological Seminary

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In Partial Fulfillment  
of the Requirements for the Degree  
Doctor of Education

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by  
Matthew Judson Dixon  
December 2014

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DIGITAL MEDIA USE AND ADOLESCENT CHRISTIAN FORMATION:  
A CORRELATION STUDY

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To Sarah Corrine

my loving and supportive wife, who daily demonstrates  
the importance of growing closer with Christ  
causing myself and others to want to do the same. I love you.

And, to Brenda Joyce Dixon, my mom,  
who finished her race on this earth before the completion of this thesis.

Her confidence and never-ending support for me helped me continually strive to do more.

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## PREFACE

As I think back on the process of doing not only this research, but even my doctoral studies, I cannot help but acknowledge how much God has continually led and provided along the way. I am truly grateful for His loving-kindness, His graciousness and His provision. Apart from Him I am nothing.

Additionally, I am extremely thankful for my loving wife, Sarah, who continually challenged me to do more and allowed me countless hours to pursue my studies. We even had our first child, Isaiah, amidst this program, and my family has continually been nothing but supportive.

Both my immediate family, specifically my mom and dad, and my extended family, specifically Grandma Voth, were very supportive financially, for without them this program would not have been possible. Thank you.

I am grateful for my time at Southern Seminary and the opportunity to sit under a well-equipped faculty that cares deeply about the truth of God's Word and the growth of His people. Dr. Troy Temple, Dr. Michael Wilder, and Dr. Timothy Paul Jones have been instrumental in helping me think deeply about the truths of God's Word and how those truths can and will impact both my current and future ministry.

Finally, I am thankful for the help and support of Trinity Classical Academy, not only for allowing me to use them as a testing ground for my research, but also in allowing me the time and resources to pursue further education. It is my hope and prayer that any insight I gain will directly impact this institution and the students and families we serve for the kingdom.

“Do not be conformed to this world, but be transformed by the renewal of your mind, that by testing you may discern what is the will of God, what is good and

acceptable and perfect” (Rom 12:2)

“Now to him who is able to do far more abundantly than all that we ask or think, according to the power at work within us, to him be glory in the church and in Christ Jesus throughout all generations, forever and ever. Amen” (Eph 3:20-21).

Matthew J. Dixon

Valencia, California

December 2014

## CHAPTER 1

### INTRODUCTION TO THE RESEARCH PROBLEM

In American culture today digital media is pervasive; it is all-encompassing. Most people are unable to recall the last time they were in a public place where they were *not* surrounded by people intently focused on some type of digital device.<sup>1</sup> People acting as if they were blind because their eyes were fixed upon a screen, acting as if they were deaf because their hearing was limited due to blaring music coming from ear buds stuck in their head, and overall completely oblivious to the “real world” around them because of a preoccupation with some form of a digital world that has them transfixed.

Originally, technological advances were made in an effort to help increase communication capabilities. In 1844, Samuel Morse, used a telegraph to tap the words of Numbers 23:23, “What hath God wrought!” through 37 miles of cable stretching from the Old Supreme Court Chamber in the US Capitol in Washington, DC, to Mount Clare Station in Baltimore. As he successfully accomplished this memorable task, he inadvertently kicked off the Information Age.<sup>2</sup> Alexander Graham Bell, the inventor of the telephone made way for communication across great distances from the comforts of home, instantly! As technology progressed, the phone became wireless, then the cell phone and now the smartphone. With the rise of television and computers, alongside the addition of the Internet, communication has soared even more with tools such as email, instant messaging,

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<sup>1</sup>Barbara Frederickson, “Your Phone vs. Your Heart,” *New York Times*, March 23, 2013, accessed December 20, 2013, [http://www.nytimes.com/2013/03/24/opinion/sunday/your-phone-vs-your-heart.html?\\_r=3&](http://www.nytimes.com/2013/03/24/opinion/sunday/your-phone-vs-your-heart.html?_r=3&).

<sup>2</sup>Tim Challies, *The Next Story: Life and Faith after the Digital Explosion* (Grand Rapids: Zondervan, 2005), 748-51, Kindle.

texting, social media, and the list could continue. Using these resources, people have discovered (and continue to discover) new ways to communicate instantaneously. “This digital world is a world of communication—constant, pervasive communication.”<sup>3</sup> Yet questions remain: is more always better when it comes to using digital media to communicate? Additionally, does the constant need for communication drive users into a deeper relationship with those they are conversing with or perhaps only with the connecting medium itself? Overall, there is a cause for concern regarding the potentially negative effects of both the duration and nature introduced into culture by digital media today. Of particular interest is the adolescent population as they are characterized as one of the largest and most avid users of digital media.

### **Presentation of Research Problem**

According to Pew Research, “95% of all teens ages 12-17 are now online,” and that number continues to grow.<sup>4</sup> Further demonstrating the all-encompassing pervasiveness of digital media in today’s world, teens not only have access to various online materials, but many are able to do so nearly anywhere and at any time. “As of September 2012, 78% of teens had a cell phone and almost half (47%) of those own smartphones. That translates into 37% of all teens who have smartphones, a figure that has increased from just 23% in 2011.”<sup>5</sup> Not only is the digital world quite literally at our fingertips, but is continually expanding and moving faster than most research can even keep up with. This often leaves more questions than answers when seeking to understand the true usefulness and effectiveness of new technologies. In another article, Pew Research explains,

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<sup>3</sup>Ibid., 1168.

<sup>4</sup>Joanna Brenner, “Pew Internet: Teens,” May 21, 2012, accessed December 20, 2013, <http://pewinternet.org/Commentary/2012/April/Pew-Internet-Teens.aspx>.

<sup>5</sup>Ibid.

The nature of teens' internet use has transformed dramatically—from stationary connections tied to shared desktops in the home to always-on connections that move with them throughout the day,” said Mary Madden, Senior Researcher for the Pew Research Center’s Internet Project and co-author of the report. “In many ways, teens represent the leading edge of mobile connectivity, and the patterns of their technology use often signal future changes in the adult population.<sup>6</sup>

For an adolescent, the stimulation they receive from frequent beeping and buzzing notifications from a digital device can prove to be addicting. A slavery to constantly checking texts, emails, and other social media sites has been likened to someone playing slot machines:

Most of them are run-of-the-mill communications, but every once in a while you get a really good one telling you your Uncle Norbert died and left you \$100,000, or in the case of a teenager, the girl or guy of your dreams (this week) has agreed to hang out with you.<sup>7</sup>

The stimulation received becomes addictive over time with heightened and more excessive digital media use. However, because of the rate of change in which digital media continues to take shape, little effort is made to properly assess the usefulness or potential negative aspects packaged with these technologies. In fact, before a new feature is properly understood, it seems that another has already been created.

Regardless of the potential usefulness of newly created technologies, the practical application inevitably will be used by some in inappropriate ways. Studies have been published that merely show digital media use among adolescents, presenting a somewhat neutral presentation of facts. Sadly, there are other more heart-wrenching statistics as well. Every second \$3,075.64 is spent on pornography, 28,258 people are viewing pornography, and 372 people are typing adult terms into search engines.<sup>8</sup> *Every*

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<sup>6</sup>Mary Madden et al., “Teens and Technology 2013,” March 13, 2013, accessed December 20, 2013, <http://pewinternet.org/Reports/2013/Teens-and-Tech.aspx>.

<sup>7</sup>Susan Schaefer, “Can You Become Addicted to Digital Media Devices,” February 28, 2012, accessed November 13, 2013, <http://montville-ct.patch.com/articles/can-you-become-addicted-to-digital-media-devices-435d0c79>.

<sup>8</sup>“Internet Pornography Statistics,” accessed October 8, 2013, <http://internet-filter-review.toptenreviews.com/internet-pornography-statistics.html>.

*second!* Fiscally speaking, \$13.33 billion were spent in the porn industry in 2006 with US porn revenue exceeding the combined revenues of ABC, CBS, and NBC.<sup>9</sup>

Understanding this statistic concerning digital media use, it is no wonder that 11 is the average age of the first internet porn exposure for children.<sup>10</sup> *Eleven!*

The implications that can be made from such statistical facts demand inquiry into the proper understanding of digital media use. Assessment and evaluation is important as it permeates throughout all aspects of culture. Is it good that such a high percentage of teenagers are now online? Is it wise for them to have immediate internet access through personal handheld devices? Perhaps some have utilized these new technologies in positive, uplifting ways. Conversely, as evidenced in pornography data, perhaps they are being used in ways that are actually more harmful than hurtful. Understanding the use of digital media should be of primary concern simply because of the ever-present accessibility and subsequent potential for negative uses.

Looking at digital media use from a Christian perspective, it is easy to recognize that people are experience rich and theology poor. Many Christians have had plenty of experience with technology, but few have the theoretical or theological tools to make sense of the consequences of technology.<sup>11</sup> Too often, users of digital media can be overtaken with its many, potential downfalls. It is easy to think that the newest technology is “neutral” or “harmless” as users are “drawn to the benefits and opportunities of new technologies but rarely pause to consider the risks.”<sup>12</sup> How much more then can an adolescent, one who is already dealing with a plethora of social pressures alongside continued physical and spiritual development, be able to properly process digital media

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<sup>9</sup>Ibid.

<sup>10</sup>Ibid.

<sup>11</sup>Challies, *The Next Story*, 141-42.

<sup>12</sup>Ibid., 497-98.



use and its possible hazardous conditions? “It is not the technology itself that is good or evil; it is the human application of that technology.”<sup>13</sup>

However, amidst this understanding of digital media, its intended uses and potential dangers, it is apparent that something has been lost. As the world has become intimately connected online, many have lost personal connection with those right in their midst. Ironically, it could be argued that the rise of digital connection has actually caused greater disconnection. Some have rightly said that American culture now lives in a state that exists *alone together*. A sort of isolation caused by the use (and overuse) of digital media.

### **Current Status of Research Problem**

Authors such as Sherry Turkle, who wrote *Alone Together*, and Nicholas Carr, who wrote *The Shallows*, recognize some crucial points to consider when delving into the world of technology and digital media. They recognize the great power and, at the same time, the great danger that comes with the use of digital media. Specifically, Turkle points to the most recent generation alive today. It is these young people who

are among the first to grow up with an expectation of continuous connection: always on, and always on them. And they are among the first to grow up not necessarily thinking of simulation as second best. All of this makes them fluent with technology but brings a set of new insecurities. They nurture friendships on social-networking sites and then wonder if they are among friends. They are connected all day but are not sure if they have communicated. They become confused about companionship.<sup>14</sup>

She recognizes that a cultural shift has truly occurred. Simulation, relationships, and, for that matter, reality has become skewed—at least to those who understand genuine, tangible life experience. Turkle rightly notes,

We make our technologies, and they, in turn, shape us. So, of every technology we must ask, ‘Does it serve our human purposes?’—a question that causes us to

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<sup>13</sup>Ibid., 287.

<sup>14</sup>Sherry Turkle, *Alone Together: Why We Expect More from Technology and Less from Each Other* (Philadelphia: Perseus, 2011), 17, Kindle.

reconsider what these purposes are. Technologies, in every generation, present opportunities to reflect on values and direction.<sup>15</sup>

Carr refers to Marshall McLuhan's *The Medium is the Message* as having a twofold message. First, he was acknowledging and even celebrating the transformative power contained with new communication technologies now available and continuing to progress—consistently improving. However, “he was also sounding a warning about the threat the power poses—and the risk of being oblivious to that threat.”<sup>16</sup> Carr asserts,

McLuhan understood that whenever a new medium comes along, people naturally get caught up in the information—the “content”—it carries. They care about the news in the newspaper, the music on the radio, the shows on the TV, the words spoken by the person on the far end of the phone line. The technology of the medium, however astonishing it may be, disappears behind whatever flows through it—facts, entertainment, instruction, conversation.<sup>17</sup>

Therefore, it could be argued that the medium is the message because the medium shapes the message. Depending on the medium used the content may not change, but its mode of communication calls for different emphases which in turn changes the consumer's reaction to the message presented. Carr makes a valid argument in recognizing that many times it is not the content that is the problem. The content of a medium is just “the juicy piece of meat carried by the burglar to distract the watchdog of the mind.”<sup>18</sup> Often times, it is not even the medium used that is the problem even though the medium has a lasting affect. It is the producer and the consumer: “The products of modern science are not in themselves good or bad; it is the way they are used [by both the producer and consumer] that determines their value.”<sup>19</sup> For example, in today's world the

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<sup>15</sup>Ibid., 19.

<sup>16</sup>Nicholas Carr, *The Shallows: What the Internet Is Doing to Our Brains* (New York: Norton, 2011), 110, Kindle.

<sup>17</sup>Ibid, 113-16.

<sup>18</sup>Ibid., 142-44.

<sup>19</sup>Ibid., 139-40, quoting David Sarnoff, the media mogul who pioneered radio at RCA and television at NBC, in a speech at the University of Notre Dame in 1955.

producer provides a constant stream of data, content, and information that the consumer can access through a number of mediums—especially since the rise of the internet. However, because of this deadly combination both the producer and the consumer find information to be king. The media producer recognizes the apparent need for information and the consumer cannot get enough of it, so the cycle continues. Rather than having a depth of information on a few subject areas, people know tidbits about a multitude of areas. Carr, as a result, likens knowledge to the vastness of the oceans in breadth and depth: “Once I was a scuba diver in the sea of words. Now I zip along the surface like a guy on a Jet Ski.”<sup>20</sup> People have become vast, yet shallow, in their understanding due to continued technological advances and continued integration of digital media.

### **McLuhan, *The Medium is the Message***

In *The Medium is the Message*, a book many consider his most popular work, McLuhan writes,

The medium, or process, of our time—electronic technology—is shaping and restructuring patterns of social interdependence and every aspect of our personal life. . . . Societies have always been shaped more by the nature of the media by which men communicate than by the content of the communication.<sup>21</sup>

He argues that, to some degree, the format for which people consume media affects them just as much (if not more) than the message itself. Today’s world has shifted from that of time, patience, and hearing, to a world that is time-less, fast-paced, and visual. McLuhan argues that people now live in “a brand new world of allatonceness. ‘Time’ has ceased, ‘space’ has vanished. We now live in a global village . . . a simultaneous happening.”<sup>22</sup> He recalls a time where Homer’s *Iliad* used rhythmic meter for better communication and memorization and how *The Republic* by Plato “vigorously attacked the oral, poetized form

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<sup>20</sup>Ibid., 181-84.

<sup>21</sup>Marshall McLuhan, *The Medium Is the Message* (Berkeley, CA: Ginko, 1967), 8.

<sup>22</sup>Ibid., 63.

as a vehicle for communicating knowledge . . . plead[ing] for a more precise method of communication and classification.”<sup>23</sup> McLuhan likens this to a technological world that “forces us to live mythically, but we continue to think fragmentarily.”<sup>24</sup> He additionally notes that many “suspect the ear . . . [and] feel more secure when things are visible, when we can ‘see things for ourselves.’ . . . [Our culture admonishes children to] . . . believe only half of what they see, and nothing of what they hear.”<sup>25</sup>

### **Postman, *Amusing Ourselves to Death***

A contemporary of McLuhan, Neil Postman, helps readers better understand the impact of digital media on society as well. Postman, speaking in a broad sense, asserts that “the clearest way to see through a culture is to attend to its tools for conversation.”<sup>26</sup> Where do issues of politics, ethics, and morality occur most frequently? Postman worried for American society in recognizing that a culture is not measured by its output of undisguised trivialities, but rather by what it claims as significant. Postman recorded this very fear in reference to the use of television in American culture: “For television is at its most trivial and, therefore, most dangerous when its aspirations are high, when it presents itself as a carrier of important cultural conversations.”<sup>27</sup>

Writing of the television, Postman notes that communication primarily occurs through visual imagery. In other words, television provides a conversation predominantly in images, not words. This is not claiming that television is implicitly entertaining. Rather, “it has made entertainment itself the natural format for the representation of all

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<sup>23</sup>Ibid, 113.

<sup>24</sup>Ibid., 114.

<sup>25</sup>Ibid., 117.

<sup>26</sup>Neil Postman, *Amusing Ourselves to Death: Public Discourse in the Age of Show Business* (New York: Penguin, 2005), 348-49, Kindle.

<sup>27</sup>Ibid., 464-66.

experience.”<sup>28</sup> Clearly stated, all subject matter is not necessarily entertaining, but inevitably, it is presented as entertainment. Even seemingly educational-type channels or programs are created with an intended audience in mind—for the purpose of their entertainment. When this type of mentality pervades, often user experience dominates over subject matter authenticity and primacy. The viewer passively rests in the place of disengagement rather than necessary, active involvement. For the educator, this is of noteworthy value.

As technology has influenced communication, a clear progression from oral to text to visual imagery can also be seen. And, alongside this shift, a progression of the value of truth has shifted with it. However, alongside this change in method, the content remains but the message (or at least the perceived message) often changes. Postman quotes Nietzsche,

Every philosophy is the philosophy of a stage of life,” Nietzsche remarked. “To which we might add that every epistemology is the epistemology of a stage of media development. Truth, like time itself, is a product of a conversation man has with himself about and through the techniques of communication he has invented.”<sup>29</sup>

Postman later gives an example of this in the emergence of the image-manager in the political arena and the concomitant decline of the speech writer.<sup>30</sup> He argues that this reality further demonstrates that the culture’s adaptation to different forms of media attest to the fact that television demands a different kind of content from other media.

As mediums change, so do its surrounding necessities. The content may not change, but the message can be altered through each shift in presentation. Postman writes, “Each medium, like language itself . . . makes possible a unique mode of discourse by providing a new orientation for thought, for expression, for sensibility.”<sup>31</sup> He even notes

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<sup>28</sup>Ibid., 1549-51.

<sup>29</sup>Ibid., 593-96.

<sup>30</sup>Ibid., 326-29.

<sup>31</sup>Ibid., 369-70.

that the God of the Jews existed in the Word and through the Word which required the highest order of abstract thinking.<sup>32</sup>

In light of this understanding of the use of digital media, many must be concerned how the medium is then shaping them personally. Specifically pertaining to Christians, of supreme concern should be the spiritual condition and growth toward Christ of each individual.

### **Estep and Kim, *Christian Formation***

Looking at digital media from the vantage point of individual Christian growth, it is crucial to understand the nature of spiritual or, more specifically for this study, Christian formation:

Biblically speaking, the formation of faith is anchored to the complex interworking of the Holy Spirit and the human intellect. The dialectic fusion between spiritual (i.e., supernatural) and intellectual (i.e., natural) forces generates a meta cognitive knowledge (Latin, *notia* [knowledge]), trust (Latin, *fiducia* [trust]), and deep-seated assurance/conviction (Latin, *assensus* [assent]) called faith when the human mind recognizes and responds to the effectual call of God grounded in His truth and grace.<sup>33</sup>

Jonathan Kim further defines the *process* of Christian formation from a Biblical foundation:

At conversion, a person, who was in a stage of spiritual deadness (i.e., natural [*psuchikos*] person, 1 Corinthians 2:14), becomes alive; regains his spiritual consciousness (i.e., spiritual [*pneumatikos*] person, 1 Corinthians 2:15); and begins to commune with God (Romans 5:12,14-21). As the person seeks to walk with God, the Holy Spirit—with the goal of fully restoring the cohesive selfhood—works directly within the person’s heart (Romans 8:16,9:1). The Holy Spirit constantly communicates God’s intent and purpose and draws the person close to God (John 12:32; 14:16; 16:13; Romans 8:14-17,26-28; Ephesians 3:16).<sup>34</sup>

Christian formation has also been defined as (1) “the whole person in relationship with God, within the community of believers, growing in Christlikeness,

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<sup>32</sup>Ibid., 357-58.

<sup>33</sup>James R. Estep and Jonathan H. Kim, *Christian Formation* (Nashville: B & H, 2010), 81, Kindle.

<sup>34</sup>Ibid., 113.

reflected in a Spirit-directed, disciplined lifestyle, and demonstrated in redemptive action in our world”; (2) the “process of being conformed to the image of Christ, a journey into becoming persons of compassion, persons who forgive, persons who care deeply for others and the world”; and (3) Dallas Willard offers a definition in stating that “without regard to any specifically religious context or tradition, is the process by which the human spirit or will is given a definite ‘form’ or character.”<sup>35</sup> Willard later says that Christian formation “is the process whereby the inmost being of the individual (the heart, will, or spirit) takes on the quality or character of Jesus Himself.”<sup>36</sup>

Overall, it is important to understand that “until we reach the heavenly realm, Christian formation will continue. As long as we are living here on Earth, there will be a continuous responsibility to get involved in the process of renewal and formation.”<sup>37</sup> Growing in Christ-likeness is a lifetime journey and therefore must continually be assessed in light of the cultural setting in which we live. Without doing so, many will fail to properly understand, apply, and live-out the gospel due to a lack of cultural awareness. Before simply embracing technologies that alter the way daily life is conducted, consideration must be given to the implications imposed on one’s relationship with Christ. These factors, when coupled with eternal considerations, demonstrate the necessity of understanding the effects of digital media on adolescent Christian formation today.

### **Research Question**

In light of the given information, it is apparent that there was much research to access on the ever-growing statistics on digital media use among adolescents. However, limitations exist as “research is scant on the behavioral and developmental affects of

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<sup>35</sup>Ibid., 241.

<sup>36</sup>Ibid.

<sup>37</sup>Ibid., 114.

technology on youth.”<sup>38</sup> It is factual—adolescents are using digital media and, as a result, a concern for a better of digital media use and its affects on development must be made. An application of this understanding to the formation of Christian character is of paramount priority. As a result, the research question explored in this study was as follows: What is the relationship, if any, between frequency and form of digital media use and the Christian formation of adolescents?

### **Methodological Overview**

In order to fulfill this purpose, a two-part correlation study was implemented seeking to evaluate, first, one’s relationship with Christ and, second, their use of digital media both in the frequency (how much?) and the form (what kind?). Through a proper understanding of one’s current state as a follower of Christ (Christian formation) a baseline may be established to properly analyze the potential correlation with either the positive or negative uses of the ever-growing world of digital media use—specifically among adolescents. A utilization of a tested instrument such as the Faith Maturity Scale (FMS) provided further insight into a comparative analysis of one’s current status in their maturity of faith and Christian formation.<sup>39</sup>

By utilizing a two-part, quantitative survey, this study sought to best determine the potential correlation between Christian formation and the frequency and form of digital media use. Leedy and Ormrod write,

A correlational study examines the extent to which differences in one characteristic or variable are related to differences in one or more other characteristics or

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<sup>38</sup>Cecilia Kang, “Many Teens Tell Survey They’re Addicted to Social Media, Texting,” *The Washington Post*, June 26, 2012, accessed August 22, 2013, [http://www.washingtonpost.com/blogs/post-tech/post/many-teens-tell-survey-theyre-addicted-to-social-media-texting/2012/06/25/gJQAvZc72V\\_blog.html](http://www.washingtonpost.com/blogs/post-tech/post/many-teens-tell-survey-theyre-addicted-to-social-media-texting/2012/06/25/gJQAvZc72V_blog.html).

<sup>39</sup>Further rationale is given in subsequent chapters for the use of the Faith Maturity Scale (FMS) as a viable instrument in this study. Additionally, insight is given to the relationship and proper terminology related to one’s current status in their relationship with Christ (spiritual maturity, faith maturity, Christian formation, etc.).



variables. A correlation exists if, when one variable increases, another variable either increases or decreases in a somewhat predictable fashion.<sup>40</sup>

In this particular context, data was gathered about two specific characteristics of a population of Christian high school students to see if the data would reflect specific measurements within the specific characteristics related to faith maturity and the frequency and form of digital media use. An online survey was conducted through the use of Survey Monkey where students answered questions related to their faith and specific aspects of digital media use.

The overall score from the Faith Maturity Scale was compared the results from the digital media portion of the survey seeking a possible correlation. Specific areas within digital media that were explored in analyzing the data included the amount of time digital media was accessed in a given day, the use of digital media primarily for the purpose of entertainment, the use of digital media primarily for the purpose of accessing social media, the use of digital media primarily for the purpose of reading/homework along with specific areas within the FMS that could be further explored for future research as they demonstrated strong correlations with a student's faith maturity.

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<sup>40</sup>Paul D. Leedy and Jeanne Ellis Ormrod, *Practical Research: Planning and Design*, 10<sup>th</sup> ed. (Harlow, England: Pearson, 2012), 185, Kindle.

## CHAPTER 2

### REVIEW OF PRECEDENT LITERATURE

In today's technological world it is virtually unfathomable to completely "unplug." The notion of being removed from the lights, buzzes, and noise that demands attention dominates much of American culture. For many, the idea of living in the absence of such "convenience" is absurd as it has always been a component of their typical lifestyle. These digital natives live and operate in such a way, ignorant of any notion that the world could be different. Older generations on the other hand, the digital immigrants, know of a simpler time. Some might argue that life was better "back then" whereas others would make a case for the technological advances of today. Either way, it is evident that digital media (in all its forms) is here to stay—like it or not.

However, a cautionary approach must be taken when something, anything, permeates cultural norms in such a pervasive way. Ralph Waldo Emerson has been credited with saying, "That which dominates our imaginations and our thoughts will determine our lives, and our character. Therefore, it behooves us to be careful what we worship, for what we are worshipping we are becoming." Could one make such a claim that culture today worships digital media? Does it dominate the imaginations, thoughts, and minds of the people? Specifically, what about tech-savvy adolescents? This specific demographic surfaces time and time again when it comes to market research:

Based upon current youth penetration and usage, projected cumulative revenue from youths in emerging digital streams over the next three years tops \$15 billion across mobile advertising, mobile apps, on-demand digital video, and social network advertising.<sup>1</sup>

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<sup>1</sup>McKinsey's Global iConsumer Research, "The Young and the Digital: A Glimpse into Future Market Evolution," January 2012, accessed December 29, 2013,

According to a 2011 survey, fully 95 percent of all teens ages 12 to 17 are online, and 80 percent of those online teens are users of social media sites.<sup>2</sup> Additionally, many teens in the US even admit to being addicted to things such as social media and texting and, at times, even desire to “unplug” due to overuse.<sup>3</sup> Constantly, the media habits of young people are being analyzed, monitored, studied and interpreted. That is because there is so much at stake. As the Nielsen Company observed in a recent report, there are approximately 33 million teenagers ages 13 to 19 in the United States. Due to various reasons, including sheer mass, this demographic wields tremendous influence—on their peers, their parents, and the culture at large.

From a Christian worldview perspective, believers need to consider the impact something of this magnitude has on the lives and spiritual growth of adolescents within the church. Even though there are aspects of digital media that, like many other things, have the ability to be used for good, the question of how it is being used in the hearts and lives of Christian adolescents surfaces. In order to best answer these questions, a proper understanding of digital media must first be addressed, followed by a grounded knowledge of the true impact it is having on today’s adolescent culture. Once initial comprehension of digital media is achieved, Christian formation must be addressed in an

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[http://www.mckinsey.com/~/media/mckinsey/dotcom/client\\_service/high%20tech/pdfs/young\\_and\\_digital.ashx](http://www.mckinsey.com/~/media/mckinsey/dotcom/client_service/high%20tech/pdfs/young_and_digital.ashx).

<sup>2</sup>Based on the question, “On which social networking site or sites do you have a profile account?” the answers included Facebook, Twitter, Instagram, MySpace, YouTube, and Tumblr as the majority used and accessed. Joanna Brenner, “Pew Internet: Teens,” May 21, 2012, accessed December 29, 2013, <http://pewinternet.org/Commentary/2012/April/Pew-Internet-Teens.aspx>. The Pew Research Center’s Internet and American Life Teen-Parent survey, July 26-September 30, 2012. n=802 for teens 12-17 and parents, including oversample of minority families. Interviews were conducted in English and Spanish. The margin of error for teen social media users is +/- 5.1 percentage points.

<sup>3</sup>Cecilia Kang, “Many Teens Tell Survey They’re Addicted to Social Media, Texting,” *The Washington Post*, June 26, 2012, accessed December 12, 2013, [http://www.washingtonpost.com/blogs/post-tech/post/many-teens-tell-survey-theyre-addicted-to-social-media-texting/2012/06/25/gJQAvZc72V\\_blog.html](http://www.washingtonpost.com/blogs/post-tech/post/many-teens-tell-survey-theyre-addicted-to-social-media-texting/2012/06/25/gJQAvZc72V_blog.html).

effort to project the potential effects of digital media on the next generation sitting in in the church—both positive and negative. The use of digital media among adolescents has caused a sense of false togetherness, which ultimately has led to an increased isolation. A proper, biblical understanding of Christian formation demonstrates that Christian character development happens while an individual is in community with others.<sup>4</sup> As seen in both the frequency and form of digital media usage among adolescents, even though there are many tools that can and sometimes are utilized for positive Christian formation, as a whole, they can have a negative impact due to the isolation it causes and promotes.

With this in mind, this chapter seeks to understand the current status of digital media in the world today with particular emphasis given to the use in both frequency and form. Current statistics and facts are presented to reflect the urgency and reality of understanding digital media use today. Additionally, a proper theological framework is presented for understanding the importance of Christian formation in the life of the believer. Clarification is given to the terminology used to discuss the process of how one changes and grows in Christ-likeness as a believer. Both digital media and Christian formation must be understood before synthesizing and assessing the value they hold in the life of the believer.

### **Understanding Christian Formation**

In broad terms, many might refer to Christian formation simply as spiritual formation. In definition, Dallas Willard states that “spiritual formation, without regard to any specifically religious context or tradition, is the process by which the human spirit or

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<sup>4</sup>Samuel E. Ebersole and Robert H. Woods, “Virtual Community: Koinonia or Compromise? Theological Implications of Community in Cyberspace,” *The Journal of Education* 13, no. 10 (2003): 187. Ebersole notes that true, biblical community promotes Christian formation while recognizing that this (community) *can* happen within various contexts—including the world of digital media.

will is given a definite ‘form’ or character.”<sup>5</sup> But, what then is the difference between spiritual formation and Christian formation?<sup>6</sup> James Wilhoit does an excellent job differentiating Christian formation from the more broad understanding of spiritual formation: “Spiritual formation is the intentional communal process of growing in our relationship with God and becoming conformed to Christ through the power of the Holy Spirit.”<sup>7</sup> His emphasis on “intentional processes” helps distinguish it from the broad sense in which spiritual formation refers to all cultural forces, activities, and experiences that come together what many often refer to as their spiritual lives.<sup>8</sup> Estep and Kim write,

For Wilhoit, spiritual formation is comprised of intentional and deliberate actions whereby a person is being transformed into the image of Christ. Historically, the Church has discovered that certain disciplines, devotional skills and practices, and acts of Christian service keep us in the presence of Christ where the Holy Spirit has an opportunity to go on transforming us.<sup>9</sup>

Essentially, Christian formation “is about pilgrims—Christians, being on a journey to become more Christian.”<sup>10</sup> Similarly, Robert Molholland defines it as “a process of being conformed to the image of Christ, a journey into becoming persons of compassion, persons who forgive, persons who care deeply for others and the world.”<sup>11</sup>

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<sup>5</sup>Dallas Willard, *Renovation of the Heart: Putting on the Character of Christ* (Colorado Springs: Navpress, 2002), 19.

<sup>6</sup>The focus of this study centers primarily around Christian adolescents. Although spiritual formation can be used somewhat synonymously with Christian formation in the context of Christian culture, for the purposes of this study this growth process is referred to as Christian formation. Additionally, the term “Christian” formation is derived primarily from James R. Estep and Jonathan H. Kim, *Christian Formation* (Nashville: B & H, 2010).

<sup>7</sup>James C. Wilhoit, *Spiritual Formation as If the Church Mattered* (Grand Rapids: Baker, 2008), 23.

<sup>8</sup>Ibid.

<sup>9</sup>Estep and Kim, *Christian Formation*, 242.

<sup>10</sup>Ibid., 241.

<sup>11</sup>M. Robert Molholland, Jr., *Invitation to a Journey: A Road Map for Spiritual Formation* (Downers Grove, IL: InterVarsity, 1993), 25.

In Christian formation, the human person is being transformed into the “image and likeness of Christ.” Scripturally, this concept is based upon Galatians 4:19 where Paul wrote, “My little children, for whom I am again in the anguish of childbirth until Christ is formed in you!” Paul uses the word *morphoo* (form), which is closely related to *metamorphoo* (transform), which refers to the essential nature of the inward being, rather than simply the outward manifestation. In this passage, Paul is praying that the inward nature of the Galatian believers would become so like Christ that anyone could say that Christ had been formed in them.<sup>12</sup>

With this understanding, it is evident that Scripture provides a developmental framework using the metaphor of moral growth articulated throughout the New Testament (1 Cor 2:1, 13:11; Heb 5:12-14; Phil 2:14; Eph 4:15). These passages identify the basic needs for Christian formation in the life of the believer. In order to be equipped to perform any action, it is crucial that the theory or methodology is understood. Once the expectations for how to live are learned, it is anticipated that these concepts will be put into practice. This discipline of intentionality is a necessary component in the Christian formation of adolescents because merely providing exposure to faith is not a substitute for teaching it to them.<sup>13</sup> As one grows towards Christ, they will slowly begin to be able to handle “solid food” after first understanding the essentials (“milk”) and will then be able to move forward in maturity. Hebrews 5:12-14 states,

You need someone to teach you again the basic principles of the oracles of God. You need milk, not solid food, for everyone who lives on milk is unskilled in the word of righteousness, since he is a child. But solid food is for the mature, for those who have their powers of discernment trained by constant practice to distinguish good from evil.<sup>14</sup>

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<sup>12</sup>Estep and Kim, *Christian Formation*, 240-41.

<sup>13</sup>Kenda Creasy Dean, *Almost Christian: What the Faith of Our Teenagers is Telling the American Church* (New York: Oxford University Press, 2010), 16, Kindle.

<sup>14</sup>All Scripture references are from the English Standard Version, unless otherwise noted.

Biblically speaking, however, it is evident that the formation of the believer is anchored to the complex interworking of the Holy Spirit and the human intellect.

Moreland and Issler write,

The dialectic fusion between spiritual (i.e., supernatural) and intellectual (i.e., natural) forces generates a meta cognitive knowledge (Latin, *notia* [knowledge]), trust (Latin, *fiducia* [trust]), and deep-seated assurance/conviction (Latin, *assensus* [assent]) called faith when the human mind recognizes and responds to the effectual call of God grounded in His truth and grace.<sup>15</sup>

The influence of the Holy Spirit, coupled with the teaching and intellectual aspects of growing and learning together, provides an accurate depiction of what is necessary for Christian formation. The Holy Spirit's influence is necessary prior to when conversion has taken place (John 16:8); in the process of conversion (Acts 2:38; 1 Cor 2:10-16; Rom 8:1 ff.); and after conversion (1 Cor 12:1ff; 2 Cor 13:14; Gal 5:2; Eph 4:3; Phil 2:1).<sup>16</sup> The process of sanctification, then, is dependent on the grace of God and not merely through the determination of self.<sup>17</sup>

In light of this, many would consider the Christian formation of those at vulnerable stages of their lives, such as adolescents, to be of primary concern. Studies have shown that the current generation of adolescents (often referred to as Millennials) “are the least religious of any generation in modern American history. [They] are still spiritual. Three out of four Millennials say they are spiritual but not religious.”<sup>18</sup> Sadly, adolescents tend to approach religious participation casually with only about 13 percent considering any type of spirituality important in their lives.<sup>19</sup> For them, religious

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<sup>15</sup>J. P. Moreland and Klaus Issler, *Releasing Faith: Transforming Belief into Confident Expectation* (Downers Grove, IL: InterVarsity, 2008); Wolfgang Pannenberg, *Systematic Theology*, trans. G. Bromiley (Grand Rapids: Eerdmans, 1991).

<sup>16</sup>Estep and Kim, *Christian Formation*, 130.

<sup>17</sup>Dean, *Almost Christian*, 15.

<sup>18</sup>Thom S. Rainer and Jess W. Rainer, *The Millennials* (Nashville: B & H, 2010), 47, Kindle.

<sup>19</sup>*Ibid.*, 22.

participation is practiced almost how some approach things like music and sports. They view it as a beneficial extracurricular activity, but not necessary for an integrated life.<sup>20</sup> This perspective needs to change, thus Christian formation should be strongly emphasized and considered when it comes to the well-being of adolescents.

### **Christian Formation in the Context of Community**

Biblically speaking, it is evident that Christian formation was intended to happen within the context of community. Just as the Spirit is necessary for Christian formation, the Bible clearly instructs believers in the importance of fellowship and interdependence (Heb 10:24-25; Acts 2:42-27; Gal 6:2; Rom 12:3-13; 1 Thess 5:14; Matt 22:37-40). As the Christ follower seeks to walk in the Spirit, Scripture lays a clear foundation for Christian community. In other words, Christian formation does not happen in isolation, but rather, in the context of a community of believers.<sup>21</sup> Christian formation, therefore, can best be understood as “the whole person in relationship with God, within the community of believers, growing in Christlikeness, reflected in a Spirit-directed, disciplined lifestyle, and demonstrated in redemptive action in our world.”<sup>22</sup>

Scholars today have acknowledged the need to consider the maturation of a Christ follower from an ecological vantage point rather than focusing on each individual in isolation from one another.<sup>23</sup> Even within the secular context, individual growth and maturity have been recognized to thrive in socialized individuals when considered in

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<sup>20</sup>Dean, *Almost Christian*, 6.

<sup>21</sup>Estep and Kim, *Christian Formation*, 242.

<sup>22</sup>Wesley D. Tracy, *The Upward Call: Spiritual Formation & the Holy Life* (Kansas City, MO: Beacon Hill, 1994), 12.

<sup>23</sup>Jacqueline S. Mattis et al., “Ethnicity, Culture, and Spritual Development,” in *The Handbook of Spiritual Development in Childhood and Adolescence*, ed. E. C. Roehlkepartain et al. (Thousand Oaks, CA: Sage, 2006), 293.



relation to personal development.<sup>24</sup>

From the early establishment of the church in Acts 2, it is evident that the process of Christian formation was not meant to be done alone, but in the context of community. In verse 42, the new believers were devoting themselves to teaching and fellowship, which is foundational for the model of church life as instructed by God. Fellowship is a necessary component for the functioning of the body of Christ. Verses 43 through 47 continue to demonstrate the “togetherness” of the body as they had all things in common and attended the temple together while also breaking bread in their homes. As seen from even the earliest establishment of the church, Christian formation takes place in the context of community with a real face-to-face contact that is best, that communicates most, and that builds true friendship and true intimacy.<sup>25</sup>

Later in the New Testament, Paul also provides instructions for the church in Corinth to live together in community while each member continues personal growth in the understanding and application of Scripture. In 1 Corinthians 12, Paul addresses spiritual gifts. These gifts, although unique to individual members, are instructed to be used to build up the body of Christ. Beginning in verse 4, Paul gives an overview for the purpose of gifts within the body:

Now there are varieties of gifts, but the same Spirit; and there are varieties of service, but the same Lord; and there are varieties of activities, but it is the same God who empowers them all in everyone. To each is given the manifestation of the Spirit for the common good. (1 Cor 12:4-7)

Since the gifts of the Spirit are given for the common good, they will not be fully released until followers of Christ are in Christian community. In this text, Paul demonstrates the necessity of community in the life of the believer. Moreover, he later asserts in verse 21

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<sup>24</sup>Urie Bronfenbrenner, *The Ecology of Human Development: Experiments by Nature and Design* (Cambridge, MA: Harvard University Press, 1979), 57, 65. Bronfenbrenner recognized that there are a series of stages in which development occurs in various ecological contexts based on the size and structure of one’s social setting.

<sup>25</sup>Tim Challies, *The Next Story: Life and Faith after the Digital Explosion* (Grand Rapids: Zondervan, 2005), 1654-55, Kindle.

how each part is necessary: “The eye cannot say to the hand, ‘I have no need of you,’ nor again the head to the feet, ‘I have no need of you.’” This reminds the church that Christian formation was not meant to be done in isolation, but in community. Lowe and Lowe write, “Christians grow through reciprocal interactions that occur in sociospiritual ecologies such as family, church, and school.”<sup>26</sup> Each of these ecological contexts provide a unique community of believers who, through authentic relationships, help those around them grow in their Christ-likeness. As God’s image-bearers, relationships with fellow image-bearer must be consistent with a relationship with God.<sup>27</sup> Until one reaches the heavenly realm, Christian formation will continue. As long as Christians are living here on Earth, there will be a continuous responsibility to get involved in the process of renewal and formation through the teaching of the Word, in community, by the power of the Holy Spirit.<sup>28</sup>

### **Assessing Christian Formation**

The discrepancies for those who claim to love Christ between the inspired Scriptures and the dynamics of the world demand an exploration of how one truly *assesses* the factors in influencing Christian formation in the life of a believer—specifically one who is in their adolescent stage of life. This notion is criticized as being judgmental as the assessment of the spiritual state is not something that is measurable by man, but only God can truly know the thoughts and intentions of the heart. Passages such as 1 Samuel 16:7, where Samuel questions the Lord’s choice in David to be the next king of Israel, demonstrate this understanding: “But the Lord said to Samuel, ‘Do not look on his

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<sup>26</sup>Stephen D. Lowe and Mary E. Lowe, “Reciprocal Ecology: A Comprehensive Model of Spiritual Formation in Theological Education,” *Theological Education* 48, no. 1 (2013): 3.

<sup>27</sup>Estep and Kim, *Christian Formation*, 14.

<sup>28</sup>*Ibid.*, 114.

appearance or on the height of his stature, because I have rejected him. For the Lord sees not as man sees: man looks on the outward appearance, but the Lord looks on the heart.” Similar passages demonstrate how one’s actions flow from their heart—something, again, only God is able to observe and assess (Ps 51:10; Prov 4:23; 2 Chron 16:9; Mark 7:21-23; Luke 6:45; 1 Thess 2:4).

However, passages such as James 2:14-26 seem to indicate the ability to see the outward working from what is true within the heart—something that is observable by others. True faith will be demonstrated by the outpouring of works or actions in one’s life. John Calvin in his Institutes is one of the first of a “long line of theologians who testifies that mature faith has observable consequences.”<sup>29</sup> Similarly, G. W. Allport posits that religiosity and the true change of one’s heart should demonstrate and produce a consistent morality.<sup>30</sup> What a person believes has everything to do with how they, in fact, will act.<sup>31</sup> Therefore, the assessment of outward actions has the ability to provide insight regarding what is true within a person’s heart.

With this understanding in mind, the Faith Maturity Scale (FMS), an empirical instrument developed in 1993 by Peter L. Benson, Michael J. Donahue, and Joseph A. Erickson, demonstrated itself to be a viable tool for this type of assessment. The FMS seeks to reflect both an individual’s understanding of their own relationship with God alongside the necessitated actions that, arguably, *should* follow. These two elements were weaved into eight core dimensions of faith maturity: (1) trusting in God’s saving

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<sup>29</sup>P. L. Benson, M. J. Donahue, and J. A. Erickson, “The Faith Maturity Scale: Conceptualization, Measurement, and Impirical Validation,” in *Research in the Social Scientific Study of Religion*, ed. M. L. Lynn and D. D. Moberg, vol. 5 (Greenwich, CT: JAI, 1993).

<sup>30</sup>G. W. Allport and J. M. Ross, “Personal Religious Orientation and Prejudice,” *Journal of Personality and Social Psychology* 5 (1967): 432-33.

<sup>31</sup>Brad Strawn, “Christian Education as Embodied and Embedded Virtue Formation” (presentation at the SPCE Conference, Plenary Session 2, Washington, DC, October 17, 2014).

grace and belief in the humanity and divinity of Jesus; (2) experiencing a sense of personal well-being, security and peace; (3) integrating faith and life, seeing work, family, social relationships, and political choices as a part of one's religious life; (4) seeking spiritual growth through study, reflection, prayer and discussion with others; (5) seeking to be a part of a community of believers in which people give witness to their faith and support and nourish one another; (6) holding life-affirming values including commitment to racial and gender equality, affirmation of cultural and religious diversity, and a personal sense of the welfare of others; (7) advocating social and global change to bring about greater social justice; and (8), serving humanity consistently and passionately through acts of love and justice.<sup>32</sup> Of particular benefit for the population under inquiry here, adolescent youth, the FMS is written in a common vernacular without assuming that all understand religious terminology. For example, statements such as "I go out of my way to show love to people I meet" and "I care a great deal about reducing poverty in the United States and throughout the world" eliminate confounding the interpretation of the data due to terminology. This aids in properly assessing the observable behaviors and mindsets of an individual person's Christian maturation while avoiding the assessment of practice to get lost in translation.

### **Using Proper Terminology**

Due to the nature of this study, Christian formation needed to be measured at a specific point in time. This fact convolutes the definition of formation which implies a continued action. Therefore, for the purposes of this research and terminology within this paper, Christian formation refers to the continual process of growing in Christ-likeness whereas faith maturity refers to the current status of one's process within the broader

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<sup>32</sup>Benson, Donahue and Erikson "The Faith Maturity Scale," 6.

scope of Christian formation. This clarification is essential for the interpretation of the results; the applications and implications for understanding.

### **Assessment In Context**

Applicable assessment must be done within the context of today's culture. With a proper understanding of what Christian formation is alongside recognizing the ideal context for it to take place, beneficial assessment must be completed within the context of digital media. As mentioned throughout chapter 1, it is clear that the use of digital media is ever pervasive—especially among the adolescent population. And, while understanding that much of the social interaction between people happens more and more through an online, digital world, in order to properly assess this idea of Christian formation in the context of community it is imperative for believers to properly understand the world of technology and digital media and all it has to offer; both in ways that could be beneficial as well as potential avenues for harm.

### **Understanding Digital Media**

A chasm seems to separate the generations when digital media is considered. The digital immigrants, those grandfathered into technology, have limited understanding of the world in which digital natives, those raised in a culture surrounded by technology, live and function.<sup>33</sup> In reality, an entire culture lives and breathes in the online world. Anticipation builds, evidenced in line ups hours in advance of the release of the next greatest gadget.<sup>34</sup> Each new device and breakthrough in technology is embraced by the

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<sup>33</sup>The terms “digital immigrant” and “digital native” were first coined by Marc Prensky in his work “Digital Natives, Digital Immigrants,” *On the Horizon* 9, no. 5 (2001), but John Palfrey and Urs Gasser carried this terminology into their popular work *Born Digital* (New York: Basic, 2008), and others have since used the terms as normative digital nomenclature when discussing digital awareness, intelligence and understanding.

<sup>34</sup>CBS New York, “Thousands Line Up Outside Apple Stores as iPhone 6 Goes on Sale,” September 19, 2014, accessed October 15, 2014, <http://newyork.cbslocal.com/2014/09/19/thousands-line-up-outside-apple-stores-as-iphone-6-goes-on-sale/>.

whole of culture, while some are cautious to embrace the new advances fearing potential dangers. Those who embrace the “new” often do so without thinking through potential ramifications that surround the blinded acceptance. In one of the foundational works on the subject of digital media, Marshall McLuhan warns the culture at large to cautiously embrace new mediums as they are presented.<sup>35</sup> The medium, in and of itself, he says, is the message.

When the television was invented, society quickly embraced the change and shifted to an image-based culture over a print-based culture. A bias was readily observed—instead of believing what was read, people began to believe only what they saw. Challies writes, “Where once words had conveyed truth, that truth was now being shared through pictures and video.”<sup>36</sup> However, “images communicate in a way that is very different than words. The initial impact of an image is not so much a thought as it is a feeling.”<sup>37</sup> Similarly, with the rise of the internet and other digital media-driven technologies, users now perpetually encounter a world that “promotes cursory reading, hurried and distracted thinking, and superficial learning.”<sup>38</sup> It is still possible for someone to “think deeply while surfing the Net, just as it’s possible to think shallowly while reading a book, but that’s not the type of thinking the technology encourages and rewards.”<sup>39</sup>

As McLuhan said, the medium is the message. The medium used will affect how the message is both received and perceived. In agreement, Carr writes, “Every

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<sup>35</sup>Marshall McLuhan, *The Medium Is the Message* (Berkeley, CA: Ginko, 1967).

<sup>36</sup>Challies, *The Next Story*, 827-28.

<sup>37</sup>Ibid., 829-30.

<sup>38</sup>Nicholas Carr, *The Shallows: What the Internet Is Doing to Our Brains* (New York: Norton, 2011), 815, Kindle.

<sup>39</sup>Ibid.

intellectual technology, to put it another way, embodies an intellectual ethic, a set of assumptions about how the human mind works or should work.”<sup>40</sup> “Ultimately, it’s an invention’s intellectual ethic that has the most profound effect on [the reader]. The intellectual ethic is the message that a medium or other tool transmits into the minds and culture of its users.”<sup>41</sup> Whenever a consumer utilizes a form of digital media device they welcome themselves into an ecosystem of interruption technologies.<sup>42</sup> Often times when a new tool, technology, or medium is embraced the user quickly asks what it will do *for* them. However, that is only half the question. Many fail to recognize not only what it will do *for* them, but also what it will do *to* them.<sup>43</sup> McLuhan recognized that whenever a new medium comes along, people are concerned with the information—the “content”—it carries.<sup>44</sup> People care about the news in the newspaper, the music on the radio, the shows on the TV, and the words spoken by the person on the far end of the phone line. The message—facts, entertainment, instruction or conversation—becomes the focus over the medium used to deliver it.<sup>45</sup> It is the very medium itself that determines not only what is contained in this information, but also the manner it is received thereby shaping the thoughts of the consumer.

### **Digital Media Consumption: Frequency**

As the consumer continues to focus solely on what technology can do for them,

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<sup>40</sup>Ibid., 815-16.

<sup>41</sup>Ibid., 822-24.

<sup>42</sup>Cory Doctorow, “Writing in the Age of Distraction,” *Locus* 62, no. 1 (2009).

<sup>43</sup>David T. Gordon, “A Foolish Medium,” March 27, 2013, accessed July 14, 2013, <http://www.sbts.edu/resources/lectures/a-foolish-medium/>.

<sup>44</sup>Marshall McLuhan, *Understanding Media: The Extensions of Man* (Corte Madera, CA: Gingko, 2003), 5.

<sup>45</sup>Carr, *The Shallows*, 108-16.

research affirms that the use of digital media is constantly on the rise. Those between the ages and 8 and 18 devote an average of 7 hours and 38 minutes to using digital media across a typical day (that is more than 53 hours a week!). Additionally, other statistics have shown higher numbers because they have found that often times this same age range will not only be media consumers from a single device, but often multiple devices simultaneously. And, “because they spend so much of that time ‘media multitasking’ (using more than one medium at a time), they actually manage to pack a total of 10 hours and 45 minutes (10:45) worth of media content into those 7½ hours.”<sup>46</sup>

With such a large portion of each day devoted to the use of digital media, an obvious concern arises. Carr has brought to the forefront many potential downfalls of media use because “media aren’t just channels of information. They supply the stuff of thought, but they also shape the process of thought.” Carr extends his concern to his own thought process. He has noted a decrease in his own capacity for concentration. With a diminishment in contemplation diminishing, he worries for the rest of culture. He reports that his mind now expects to receive information the way that various forms of digital media present it: “In a swiftly moving stream of particles.”<sup>47</sup> He compares his prior, deeper thought process to a scuba diver in the sea of words and his new, shallow to a Jet Ski zipping along the surface of the water. Likewise, McLuhan has famously warned that the medium *is* the message (as previously mentioned). While he was acknowledging and, in some ways, even celebrating these new forms of technological advancements and the power that they brought, McLuhan was also sounding a warning about the threat such power poses—and the risk of being oblivious to that threat: “The electric technology is

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<sup>46</sup>Henry J. Kaiser Family Foundation, “Daily Media Use among Children and Teens Up Dramatically from Five Years Ago,” January 20, 2010, accessed June 6, 2013, <http://kff.org/disparities-policy/press-release/daily-media-use-among-children-and-teens-up-dramatically-from-five-years-ago/>.

<sup>47</sup>Carr, *The Shallows*, 181-84.



within the gates . . . and we are numb, deaf, blind and mute about its encounter with the Gutenberg technology, on and through which the American way of life was formed.”<sup>48</sup>

According to a study completed in 2010, the previous five years had seen an increase of use of nearly every medium with the exception of print. Some of the statistics were an increase of 47 minutes a day for movies/audio, 38 for TV content, 27 for computers, and 24 for video games. TV remains the dominant type of media content consumed, at 4:29 a day, followed by music/audio at 2:31, computers at 1:29, video games at 1:13, print at :38, and movies at :25 per day.<sup>49</sup> Even though many people, most notably adolescents, are heavy users of digital media in today’s culture, the question arises, what forms are reaching the market the most? What medium is having the greatest impact on the potential degradation of American adolescents?

### **Digital Media Consumption: Form**

With the rise of the cell phone and, in particular, the smartphone, it has been found that

91% of the adult population now owns some kind of cell phone, which means that 56% of all American adults are now smartphone adopters. One third (35%) have some other kind of cell phone that is not a smartphone, and the remaining 9% of Americans do not own a cell phone at all.<sup>50</sup>

When the teenage population was considered in isolation, the data proved different. In fact 77 percent reportedly had smartphones (July 2011).<sup>51</sup> Typically, most teens report

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<sup>48</sup>McLuhan, *Understanding Media*, 5.

<sup>49</sup>Henry J. Kaiser Family Foundation, “Daily Media Use.”

<sup>50</sup>Aaron Smith, “Smartphone Ownership 2013,” June 5, 2013, accessed June 22, 2013, [http://pewinternet.org/Reports/2013/Smartphone-Ownership-2013.aspx?utm\\_source=feedly](http://pewinternet.org/Reports/2013/Smartphone-Ownership-2013.aspx?utm_source=feedly).

<sup>51</sup>Amanda Lenhart, “Teens Smartphones & Texting,” March 19, 2012, accessed July 8, 2013, <http://pewinternet.org/Reports/2012/Teens-and-smartphones.aspx>.

receiving their first cell phone at the age of 12 or 13.<sup>52</sup> Older teens, however, (ages 14 to 17) are more likely to have a cell phone than younger teens ages 12 and 13. Eighty-seven percent of older teens have a cell phone, compared with 57 percent of younger teens. With the rise of the smartphone, teens have not only been making more calls and sending more text messages, but nearly half (49 percent) of all American teens have gone online on their mobile phones in the last 30 days.<sup>53</sup>

Aside from cell phones, nearly 75 percent of teens own a desktop or laptop computer. Accessible by both computer and smartphone, one of the most popular attractions for teens is the social media arena. Teens are known to be avid, daily users of social media. A 2012 Pew Internet survey found that 80 percent of online teens use social network sites such as Facebook or MySpace, and 16 percent use Twitter. Among teen social media users 93 percent have an account on Facebook, 24 percent have an account on MySpace, 12 percent have an account on Twitter, 7 percent have an account on a Yahoo site, 6 percent have an account on YouTube, 2 percent have an account on each of the following: Skype, myYearbook, and Tumblr, 1 percent have an account on Google Buzz.<sup>54</sup>

Commonsense Media held a nearly identical survey. Published data demonstrated that almost all teenagers in America today have used social media. Nine out of 10 (90 percent) 13 to 17-year-olds have used some form of social media. Three out of four (75 percent) teenagers currently have a profile on a social networking site, and one in five (22 percent) have a current Twitter account (27 percent have used Twitter). Facebook proved to be the most dominant social networking site among teens: 68 percent

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<sup>52</sup>Amanda Lenhart, "Is the Age at which Kids Get Cell Phones Getting Younger," December 1, 2010, accessed June 22, 2013, <http://pewinternet.org/Commentary/2010/December/Is-the-age-at-which-kids-get-cell-phones-getting-younger.aspx>.

<sup>53</sup>Lenhart, "Teens Smartphones & Texting."

<sup>54</sup>Brenner, "Pew Internet: Teens."

of all teens say Facebook is their main social networking site, compared to 6 percent for Twitter, 1 percent for GooglePlus, and 1 percent for MySpace (25 percent do not have a social networking site).<sup>55</sup>

Not only do teens have accounts on these sites, but they, along with other forms of digital communication media have become a part of their daily lives. Two-thirds (68 percent) of teens text every day, half (51 percent) visit social networking sites daily, and 11 percent send or receive tweets at least once every day. In fact, “more than a third (34 percent) of teens visit their main social networking site several times a day. One in four (23 percent) teens is a ‘heavy’ social media user, meaning they use at least two different types of social media each and every day.”<sup>56</sup>

The integration of technology and access to digital media has only just begun. Every year new devices and new mediums are introduced to the public who, more often than not, quickly welcome them with open arms. The next big thing will be and is becoming wearable technology.<sup>57</sup> Devices such as Google Glass, Nike Fuel Band and Pebble Smart Watch have all demonstrated what this might look like for the next phase of digital media fully integrating into the lives of culture. Looking at history, it seems that each new technological development captures more time and more attention of its users. One might ask “what’s next?” and how will this medium affect culture?

### **The Positive Uses for Digital Media**

Throughout history, technological advances have constantly permitted faster

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<sup>55</sup>Ibid.

<sup>56</sup>Common Sense Media, “Social Media, Social Life: How Teens View Their Digital Lives,” June 26, 2012, accessed August 4, 2013, <http://www.commonsensemedia.org/research/social-media-social-life/key-finding-1%3A-teens-are-avid%2C-daily-users-of-social-media>.

<sup>57</sup>Rahul Patel, “Where Is Wearable Tech Headed?” September 28, 2013, accessed June 23, 2013, <http://gigaom.com/2013/09/28/where-is-wearable-tech-headed/>.

forms of communication. From the telegraph to the telephone to face time, communication is central to the very framework of life in the context of community. The transition from stone tablets to scrolls, from scrolls to the codex, from the codex to the book (alongside Gutenberg's invention of the printing press), all the way to the computers and smartphones used today have all demonstrated man's ability to create faster, cheaper, and more efficient forms of communication. When viewed within the context of human development, it is recognized that this enhanced ability to communicate also impacts the power to influence others. The power to influence others with whom we have social connections is even more evident in that influence does not require face-to-face interaction but simply requires the flow of information about the behaviors, attitudes, and emotion of others through various kinds of social contact.<sup>58</sup>

In many ways, digital media has helped to enhance this type of "faster" communication and influence; especially among the technologically connected Millennials. Winograd and Hais write, "At the heart of today's new technology, social networks, which Millennials use so well, is the ability to stay connected with a wide variety of friends, creating communities far larger and more diverse than those of previous generations."<sup>59</sup> The heavy use of social media may imply that those involved show how much relationships are prioritized by the valuation placed on the ability to always be connected with those around them.<sup>60</sup> Alongside this type of constant connectedness, there is a continual awareness of the needs of others giving users a broader perspective of those around them and those literally around the world.

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<sup>58</sup>Lowe and Lowe, "Reciprocal Ecology," 4; Stanley Wasserman and Joseph Galaskiewicz, *Advances in Social Network Analysis: Research in the Social Behavioral Sciences* (Thousand Oaks, CA: Sage, 1994).

<sup>59</sup>Morley Winograd and Michal D. Hais, *Millennial Momentum: How a New Generation Is Remaking America* (Piscataway, NJ: Rutgers University Press, 2011), 26.

<sup>60</sup>Kelli B. Trujillo, "Millennial Narcissists," *Relevant Magazine* 66 (November/December 2013).

## The Negative Effects of Digital Media

Considering the reality that there is such a heavy use of digital media among adolescents, it is foolish to say that a medium, any medium, is morally neutral and can simply be accepted as “good.” As many fail to think through the effects of digital media, countless studies have been completed that demonstrate what this technology has done *to* people (instead of merely just *for* them). These mediums exert an influence over their users in subtle but unmistakable ways—especially, the more they are utilized.<sup>61</sup> Alongside all of the glitz and glam of digital media use are numerous side effects for those overtaken by all that technology offers.

Before the rise of the invention of the photograph, eating disorders were not prevalent. Until the photograph, there was no objective source deemed the standard for beauty.<sup>62</sup> With the standard set visually before the eyes, people began to seek approval to meet this standard by doing whatever necessary to meet it.

The rise of childhood obesity has been attributed to increased media targeted to children including TV shows, videos, video games, computer activities, and web sites. Studies have shown that children spend an average of nearly six hours per day using some form of media—more time than they give to anything else in their day except sleeping. A dichotomy arises when the media that is “targeted to children is laden with elaborate advertising campaigns, many of which promote foods such as candy, soda, and snacks . . . [and] it is estimated that the typical child sees about 40,000 ads a year on TV alone.”<sup>63</sup>

Other studies have shown that adolescents, a group known for regular

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<sup>61</sup>Carr, *The Shallows*, 294-95.

<sup>62</sup>Gordon, “A Foolish Medium.”

<sup>63</sup>Henry J. Kaiser Family Foundation, “The Role of Media in Childhood Obesity,” February 2004, accessed February 8, 2013, <http://kaiserfamilyfoundation.files.wordpress.com/2013/01/the-role-of-media-in-childhood-obesity.pdf>.

integration with technology and digital media, actually forget things more than those in older generations. Traditionally, forgetfulness is equated with old age, yet adolescents may soon take over in this category. According to research, adolescents deal with much more stress as they try to take on more in their use of technology and “stress often leads to forgetfulness, depression and poor judgment.”<sup>64</sup> Because of this, studies have found that there are “higher rates of ADHD diagnoses in young adults” as this “population . . . has grown up multitasking using technology, often compounded by lack of sleep, all of which results in high levels of forgetfulness.”<sup>65</sup>

Teens have been found to have diminished attention spans when compared to previous generations—and there is no sightline for improvement on the horizon. A study completed by Lloyds TSB Insurance showed that attention spans have fallen to an average of five minutes, down from 12 minutes in the late 1990s.<sup>66</sup>

Other studies have found that about half (47 percent) of teens who are heavy media users say they usually get fair or poor grades (mostly Cs or lower), compared to about a quarter (23%) of light users. These differences may or may not be influenced by their media use patterns. (Heavy users are the 21% of young people who consume more than 16 hours of media a day, and light users are the 17% of young people who consume less than 3 hours of media a day.)<sup>67</sup>

Finally, children’s programming on television was found to portray more violence (69 percent) than any other genre (57 percent). In fact, these featured less than

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<sup>64</sup>Shelley Emling, “Study Shows Millennials Are More Forgetful than Seniors,” *The Huffington Post*, August 2, 2013, accessed August, 12, 2013, [http://www.huffingtonpost.com/2013/08/02/millennial-forgetfulness\\_n\\_3695512.html?ncid=edlinkusaolp00000009](http://www.huffingtonpost.com/2013/08/02/millennial-forgetfulness_n_3695512.html?ncid=edlinkusaolp00000009). This study is a result of The Trending Machine national poll of 800 adults 18+, representative of the US population of adults online.

<sup>65</sup>Ibid.

<sup>66</sup>Curt Devine, “Have Our Phones Changed the Way We Pray,” *Relevant Magazine*, June 5, 2013, accessed June 8, 2013, <http://www.relevantmagazine.com/god/have-our-phones-changed-way-we-pray>.

<sup>67</sup>Henry J. Kaiser Family Foundation, “Daily Media Use.”

half (6) of the amount of violent incidents in children’s programming (14).<sup>68</sup> According to this same study,

The average child who watches 2 hours of cartoons a day may see nearly 10,000 violent incidents each year, of which the researchers estimate that at least 500 pose a high risk for learning and imitating aggression and becoming desensitized to violence.<sup>69</sup>

Johnson writes,

Television exposure during adolescence has also been linked to subsequent aggression in young adulthood. A 17-year longitudinal study concluded that teens who watched more than one hour of TV a day were almost four times as likely as other teens to commit aggressive acts in adulthood (22% versus 6%), taking into account prior aggressiveness, psychiatric disorders, family income, parental education, childhood neglect, and neighborhood violence.<sup>70</sup>

### **Digital Media and the Family Dynamic**

Given the negative affects of digital media use among adolescents, an understanding of the potential implications present within the context of the family is imperative. Considering these same negative affects of digital media use, particularly among adolescents, it is logical to assume that parents and others in authority over teens would strive to limit media access and intake. However, this is not the case. In fact, among American households with 8 to 18-year-olds, 85 percent have personal computers. Not surprisingly, this study also showed that these devices are more often used for “recreational activities than for educational purposes . . . [with] their most common

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<sup>68</sup>Barbara Wilson et al., “Violence in Children’s Programming: Assessing the Risks,” *Journal of Communication* 52 (2002): 5-35.

<sup>69</sup>Ibid.

<sup>70</sup>Jeffrey Johnson et al., “Television Viewing and Aggressive Behavior During Adolescence and Adulthood,” *Science* 295 (March 29, 2002): 2468-71. The longitudinal study was conducted over a 17-year time span with a sample of 707 families. Criminal arrest and charge data (assault or physical fights resulting in injury, robbery, threats to injure someone, or weapon used to commit a crime) were obtained.

recreational activities [being] playing games and communicating through instant messaging.”<sup>71</sup>

Recreational activities aside, most parents do recognize the potential dangers looming around digital media use; both in quantity (the amount of use), and quality (what it is used for). In a 2012 report regarding parents, teens, and online privacy, the majority of parents acknowledged this notion. This report showed,

81% of parents of online teens say they are concerned about how much information advertisers can learn about their child’s online. . . . 72% of parents of online teens are concerned about how their child interacts online with people they do not know. . . . 69% of parents of online teens are concerned about how their child’s online activity might affect their future academic or employment opportunities. . . . 69% of parents of online teens are concerned about how their child manages his or her reputation online.<sup>72</sup>

Despite the acknowledgement and realization by parents of the potential dangers present, most parents do not believe that *their own* children are exposed to inappropriate or dangerous material in the media they use. Those who say they are very concerned about their children’s exposure to sex, violence, and adult language in the media, have consistently decreased over the past nine years.<sup>73</sup>

Although aware of the danger, those in authority would rather support governmental policies to restrict the amount of inappropriate content that was accessible and available on public television (especially shows marketed to children and teens) than limit the intake of or develop discerning viewers themselves. Amazingly, “only about three in ten young people say they have rules about how much time they can spend watching TV (28%) or playing video games (30%), and 36% say the same about using

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<sup>71</sup>Sook Jung Lee, “Online Communication and Adolescent Social Ties: Who benefits more from Internet use?” *Journal of Computer-Mediated Communication* 14 (2009): 509-31.

<sup>72</sup>Mary Madden, “Parents, Teens, and Online Privacy,” November 20, 2012, accessed June 4, 2013, <http://pewinternet.org/Reports/2012/Teens-and-Privacy.aspx>.

<sup>73</sup>Henry J. Kaiser Family Foundation, “Parents, Children & Media,” June 2007, accessed June 8, 2013, <http://kaiserfamilyfoundation.files.wordpress.com/2013/01/7638.pdf>.



the computer.” Despite obvious awareness and concern, there is a failure to act in establishing an effective abandonment of parental controls as evidenced by the lack of rules or restrictions. When families do set limits, studies have shown that “children spend less time with media: those with any media rules consume nearly 3 hours less media per day (2:52) than those with no rules.”<sup>74</sup>

In an alternative study, The Kaiser Family Foundation found that fewer than half of all 8 to 18-year-olds said they have rules about what television shows they can watch (46 percent), video games they can play (30 percent), or music they are allowed to listen to (26 percent)—the highest percentage (52 percent) saying they have rules about what they can do on the computer.<sup>75</sup>

Often times, even for those parents who do try to be involved, many teens attempt to hide their online activity and social media interactions from their parents as they “seek out corners of social media where they can communicate with their friends and peers away from the watchful eye, or embarrassing comments, of their parents.”<sup>76</sup> Studies have shown that 33 percent of 13 to 17-year-olds reported that their parents or guardians know “very little” or “nothing” about what they do on the internet while 48 percent of 16 to 17-year-olds said their parents or guardians know “very little” or “nothing” about their online activities. And, 22 percent reported that their parents or guardians have never even discussed internet safety with them.<sup>77</sup>

Despite their ignorance, the role of the parent matters most in the area of

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<sup>74</sup>Henry J. Kaiser Family Foundation, “Daily Media Use.”

<sup>75</sup>Ibid.

<sup>76</sup>Heather Kelly, “How Teens, Parents Struggle to Share Social Media,” *CNN*, August 30, 2013, accessed September 1, 2013, [http://us.cnn.com/2013/08/30/tech/social-media/social-media-teens-parents/index.html?sr=sharebar\\_twitter](http://us.cnn.com/2013/08/30/tech/social-media/social-media-teens-parents/index.html?sr=sharebar_twitter).

<sup>77</sup>Vicki Courtney, *Logged On and Tuned Out* (Nashville: B & H, 2010), 18, Kindle.

protecting by being intentional with parameters regarding their children's use of digital media. In a similar fashion, the religious formation of children is most influenced by parents. Dean writes, "While grandparents, other relatives, mentors, and youth ministers are also influential, parents are by far the most important predictors of teenagers' religious lives."<sup>78</sup> Despite all the negative effects that the use of digital media can have on adolescents, this is the most important question to ask in the life of the believer. What effect, if any, does the frequency and form of digital media use have on the Christian formation of adolescents?

### **Who Is to Blame?**

Considering contextual understandings of both the effects of digital media in the lives of adolescents alongside the necessity of Christian formation, one can quickly see the potential problem that is prevalent in American culture today. Some might quickly blame the church, as Kenda Dean suggests in *Almost Christian*:

The problem does not seem to be that churches are teaching young people badly, but that we are doing an exceedingly good job of teaching youth what we really believe: namely, that Christianity is not a big deal, that God requires little, and the church is a helpful social institution filled with nice people focused primarily on "folks like us"—which, of course, begs the question of whether we are really the church at all. What if the blasé religiosity of most American teenagers is not the result of poor communication but the result of excellent communication of a watered-down gospel so devoid of God's self-giving love in Jesus Christ, so immune to the sending love of the Holy Spirit that it might not be Christianity at all?<sup>79</sup>

Later, Dean offers a potential solution to the problem of the lack of Christian formation among adolescents stating that a proper adaptation of biblical community is needed:

We have known for some time that youth groups do important things for teenagers, providing moral formation, learned competencies, and social and organizational ties. But they seem less effective as catalysts for consequential faith, which is far more likely to take root in the rich relational soil of families, congregations, and mentor relationships where young people can see what faithful lives look like, and encounter the people who love them enacting a larger story of divine care and hope.<sup>80</sup>

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<sup>78</sup>Dean, *Almost Christian*, 18.

<sup>79</sup>Ibid., 11-12.

<sup>80</sup>Ibid., 11.

However, considering the strong pull that digital media is having on youth today, others quickly turn to technology to place blame when considering the distracted and immature teens in their midst. Sherry Turkle suggests,

Technology is seductive when what it offers meets our human vulnerabilities. And as it turns out, we are very vulnerable indeed. We are lonely but fearful of intimacy. Digital connections and the sociable robot may offer the illusion of companionship without the demands of friendship. Our networked life allows us to hide from each other, even as we are tethered to each other. We'd rather text than talk.<sup>81</sup>

Within the context of digital media, Turkle seems to recognize, as Paul asserts in his New Testament letter, that people are meant to live and grow within the context of community. In speaking of actions related to the use of technology to “connect,” Turkle continues,

As we distribute ourselves, we may abandon ourselves. Sometimes people experience no sense of having communicated after hours of connection. And they report feelings of closeness when they are paying little attention. In all of this, there is a nagging question: Does virtual intimacy degrade our experience of the other kind and, indeed, of all encounters, of any kind?<sup>82</sup>

Could technology, as great as it is and all that it provides *for* Christian adolescents, really be doing *to* them what Turkle suggests and what Paul warns against, particularly in his first letter to the church in Corinth? If so, to what degree is this taking place within the context of the Christian formation of adolescents? With this potential problem looming, one also begins to wonder what other factors play a part. As mentioned previously, what about the family? What about parental authority in the lives of Christian adolescents? Vicki Courtney sees this as a major concern as many parents are ignorant as to what their children are doing online—some because of a lack of knowledge and others simply because they do not seem to care. In their eyes, she suggests that “they would rather remain in good favor with their child (translation: be their buddy, ol' pal) than properly train them and draw boundaries (translation: be their God-ordained parent).”<sup>83</sup>

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<sup>81</sup>Sherry Turkle, *Alone Together: Why We Expect More from Technology and Less from Each Other* (New York: Perseus, 2011), 1, Kindle.

<sup>82</sup>*Ibid.*, 12.

<sup>83</sup>Courtney, *Logged On and Tuned Out*, 21.

Even in this context, although there are many options for parents by way of parental controls and other “technologies” that help them fight against all the negatives that digital media has to offer, it would appear this merely perpetuates the problem. Today, many seem to feel reassured that in a world of problems, technological advances will offer solutions.<sup>84</sup> When it comes to understanding technology and digital media, “buying more of them or abandoning them altogether are equally futile. Every challenge that may come by way of this fast-paced, digital world is addressed in the words of a book that is thousands of years old.”<sup>85</sup> In order to best understand the context of digital media in the lives of Christian adolescents it is most beneficial to seek answers foundationally noted in the truth found in God’s Word.

### **Digital Media from a Christian Worldview Perspective**

Looking at the concept of digital media and its potential effects on the Christian formation of adolescents, it is important to understand how to approach digital media from a biblical perspective seeking to understand it properly from a Christian worldview. Initially, it is important to note that it is futile to know how to use technology if the use of it has not first been adequately questioned. Even with this questioned insight, it is imperative that the God-given reason and purpose for technology is properly understood.<sup>86</sup> There is evidenced to be an inherent good in creating and using technology. From a biblical worldview perspective, Christians have the assigned duty and responsibility to subdue the earth using that which has been given for good and for the glory of God (Gen 1:28-31; 1 Cor 10:31). Specifically within the context of the role

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<sup>84</sup>Turkle, *Alone Together*, 11.

<sup>85</sup>Tim Challies, “When We Hate What We Love,” May 6, 2013, accessed May 25, 2013, <http://www.challies.com/christian-living/when-we-hate-what-we-love>.

<sup>86</sup>Challies, *The Next Story*, 166-67.

of digital media in the lives of Christian adolescents, it quickly becomes an inherent evil where it becomes abused and is assigned a near godlike prominence in their lives.<sup>87</sup> Even though it is not the technology itself that is good or evil; it is the human application of that technology to which these adjectives apply.<sup>88</sup> Therefore, Christian adolescents (and those who give input into their lives) should approach digital media with disciplined discernment. Challies writes, “In this approach, a Christian looks carefully at the new realities, weighs and evaluates them, and educates himself, thinking deeply about the potential consequences and effects of using a particular technology.”<sup>89</sup>

Ultimately, in a fallen, Genesis 3 world, technology enables human survival. It is all that stands between mankind and abject misery. The things people create can—and will—try to become idols in the hearts and lives of Christian adolescents. Even though there is a part of them that seems to breathe energy and life into the teenage culture that constantly allows them to “connect” with one another at a moment’s notice, the very aid they provide can also deceive in providing “a false sense of comfort and security, hiding [their] need for God and his grace. Though the devices and tools [they] create are inherently amoral, at the same time we would be foolish to believe that they are morally neutral.”<sup>90</sup> Inherently, these digital devices that promise to assist promoting and providing a softened version of the curse of sin in the hearts and lives of adolescents, they also draw hearts away from God as they promise to provide what can only be found in Him. Those digital devices in nearly every purse, every pocket, and every backpack of Christian adolescents are not “evil” devices. Yet they are prone to draw hearts away from God, to

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<sup>87</sup>Ibid., 301-03.

<sup>88</sup>Ibid., 287.

<sup>89</sup>Ibid., 179-81.

<sup>90</sup>Ibid., 273-82.

distract and enable a person to rely on their own abilities rather than trusting God.<sup>91</sup>

### **Research Considerations**

The presentation of prior data concerning use of digital media among adolescents and the understanding of Christian formation, both in ideal process and assessment, presents a valid case for concern regarding the potential negative effects that digital media could have on adolescent Christian formation. While many variables could be considered and this research could have considered multiple possibilities to seek as indicators regarding both the ‘why’ and ‘how’ of the relationship between digital media use and adolescent Christian formation, a proper starting point must be established in seeking a potential correlation thereof—if even on a rudimentary level. Therefore, this study primarily looked at the relationship between the frequency (how often?) and form (what kind?) of digital media use and the Christian formation of adolescents. How concerned should the Christian community be regarding the use of digital media devices in the lives of Christian adolescents? This study provides, at minimum, a starting point for understanding.

### **Definitions**

*Adolescents.* Not be confused with the extended use of this term as seen in various places referring to “extended adolescents” which refers to 20-somethings who fail to grow up, this study uses the term ‘adolescents’ to refer to children (ages 12 to 18) who are currently in the process of developing into an adult.<sup>92</sup> For the purpose of this research, the term *adolescents* is primarily referring to high school students. The focus of this study focuses on adolescents due to the urgency of life transformation and Christian

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<sup>91</sup>Ibid.

<sup>92</sup>Kara E. Powell and Chap Clark, *Sticky Faith: Everyday Ideas to Build Lasting Faith in Your Kids* (Grand Rapids: Zondervan, 2001), 51-52, Kindle.

formation that the Christian community desires for this demographic along with the apparent dichotomy between adolescents (digital natives) and their parents (digital immigrants) when it comes to the use and early adoption of various digital media platforms.<sup>93</sup>

*Digital media.* Digital media, properly understood, is any digitized content (text, graphics, audio and video) that can be transferred over the internet or other computer networks and can then be accessed using various digital mediums. In many ways, *digital media* encompasses a vast, expanding market of content available on various devices or mediums. A digital medium is a device that “stands between the one who creates sounds or images and the one who receives them.” In concrete terms, *digital media* simply refers to

our computers and iPods and e-readers and cell phones and all those electronic devices that have some kind of a screen that allows us to communicate visually. Through these devices we receive sounds and images and words. Through these devices we live much of our lives.<sup>94</sup>

Early adoptions included access on devices such as the radio and television set, whereas today there are laptops, tablets, smartphones, and even various forms of wearable devices that provide access to digital media in one form or another. Some have called much of the ever-changing mediums within digital media the “new media” as they incorporate two-way communication and some form of interactivity versus the “old media” where people were simply consumers.<sup>95</sup> In summation, digital media includes any type of technology that produces “extensions of the human body and senses, from clothing to the

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<sup>93</sup>The terms “digital immigrant” and “digital native” were first coined by Marc Prensky in his work “Digital Natives, Digital Immigrants,” *On the Horizon* 9, no. 5 (2001), but John Palfrey and Urs Gasser carried this terminology into their popular work *Born Digital* (New York: Basic, 2008), and others have since used the terms as normative digital nomenclature when discussing digital awareness, intelligence and understanding.

<sup>94</sup>Challies, *The Next Story*, 1529-32.

<sup>95</sup>Robert K. Logan, *Understanding New Media* (New York: Peter Lang, 2010), 4.

computer.”<sup>96</sup> All forms of digital media mentioned and defined here encompass what is simply termed as “digital media” throughout the context of this thesis.

*Christian formation.* Many wrongly refer to Christian formation simply as spiritual formation. For example, Dallas Willard states that “spiritual formation, without regard to any specifically religious context or tradition, is the process by which the human spirit or will is given a definite ‘form’ or character.”<sup>97</sup> However, Christian formation recognizes that, essentially, it is a process of growing in Christ-likeness and “being on a journey to become more Christian.”<sup>98</sup> While the focus of this study centers primarily on Christian adolescents, Christian formation was used to properly differentiate from spiritual formation. Although spiritual formation can be used somewhat synonymously with Christian formation in the context of Christian culture, for the purposes of this study this growth process is referred to as Christian formation. Additionally, the term *Christian formation* is derived primarily from James R. Estep and Jonathan H. Kim’s *Christian Formation*.<sup>99</sup>

*Faith maturity.* According to Benson, Donahue and Erickson, “faith maturity is the degree to which a person embodies the priority, commitments, and perspectives

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<sup>96</sup>Eric McLuhan and Frank Zingrone, *Essential McLuhan* (Ontario: Anasi, 1995), 238-39. “McLuhan's definition helps to show just how submersed we are in the culture that we live in since everything human-made is included in McLuhan's definition of media. This definition is easier to believe if it is thought of in terms of the clothes that people wear. A man in a suit and tie is often defined as a businessperson whereas a person in raggedy clothes is often defined as homeless. The clothes that the two different people are wearing communicated to the audience (in this case people passing in the street) what would seem to be the likely vocation of the person wearing the clothes. Using this definition of media it is easier to understand why the media should be studied. The fact that it envelops every facet of today's society suggests that media have a profound effect on a person's life.” Eric McLuhan and Frank Zingrone, “Marshall McLuhan: What Is Media and Why should they Be Studied,” accessed October 19, 2014, <http://dantapley.com/webpgs/mcluhan/media.htm>.

<sup>97</sup>Willard, *Renovation of the Heart*, 19.

<sup>98</sup>Estep and Kim, *Christian Formation*, 241.

<sup>99</sup>Ibid.



characteristic of vibrant and life-transforming faith.”<sup>100</sup> Similar to Christian formation, faith maturity looks at a specific moment in time of one’s process of Christian formation. For purposes of this study, faith maturity is necessary as its goal was to understand what an individual’s current status of Christian formation (faith maturity) was in comparison to their current use of digital media in both frequency and form.

*Form.* Within the context of digital media use, form indicates the type or kind of digital media being utilized. Various *forms* of digital media can have a profound impact on how one lives simply through forms of imitation.<sup>101</sup> Form can relate to both the medium or device itself (such as a laptop computer, tablet or smartphone) as well as the content accessed on a given device.<sup>102</sup> Content can be both broad in category (such as entertainment, social media, or reading) and specific in its particular use (talking on the phone, looking at Facebook, or texting a friend would all qualify as specific or particular uses). For the purpose of this study, form primarily relates to the broad category of use as a broad category as a foundational understanding in adolescent use. This is of primary concern to this study in understanding the affect the form of digital media use has on adolescent Christian formation.

*Frequency.* Within the context of digital media, frequency directly correlates with the amount of time one has access to and utilizes some form of digital media.<sup>103</sup> Statistics related to the frequency of usage has been mentioned from previous studies in both chapters one and two and will be referenced in chapter five’s conclusions comparing and contrasting findings from this study. As previously addressed, the pervasiveness of digital media (specifically in the life of adolescents) has created the increasing use or

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<sup>100</sup>Benson, Donahue, and Erickson, “The Faith Maturity Scale.”

<sup>101</sup>Carr, Nicholas, *The Shallows*, 3560-61.

<sup>102</sup>Challies, *The Next Story*, 1170.

<sup>103</sup>Carr, *The Shallows*, 2277, 2652, 2693, 3699.

frequency of usage. This is of primary concern to this study in understanding the affect frequency of digital media use has on adolescent Christian formation.

### **Research Hypothesis**

The use of digital media among adolescents has caused a sense of false togetherness which ultimately has led to increased isolation. Both from an empirical standpoint and from a biblical standpoint, it was evident that spiritual growth happens while an individual is in community with others. As seen in both the frequency and form of digital media usage among adolescents, even though there were many tools that can and sometimes are utilized for positive Christian formation, as a whole, they will prove to have a negative effect on their Christian formation due to both the isolation it causes and promotes as well as the content being utilized in the use of digital media.

## CHAPTER 3

### RESEARCH METHODOLOGY

#### **Purpose**

The purpose of this thesis was to seek a potential correlation between the frequency and form of digital media use and the Christian formation of adolescents. While research has been completed by way of both digital media use among adolescents and the qualities contained within what is termed Christian formation, the landscape of the affects of digital media use is still relatively new. Therefore, research in this particular area seemed necessary for the continual understanding of the ever-changing digital world many have so naively embraced. This research was intended to be foundational in understanding this potential relationship recognizing that much research is still needed. By no means would this study provide comprehensive results. Rather, it serves to better clarify the proper questions and instrumentation that should be asked and utilized by the evangelical community for the purpose of kingdom ministry.

Chapter 1 of this thesis reviewed the research problem by noting the rapid growth of digital media. Statistics demonstrated the growing adoption of digital media as a part of everyday life—especially for adolescents. Authors such as Marshall McLuhan, Neil Postman, Nicholas Carr, and Sherry Turkle have all sounded warnings as to the dangers associated with the continuing presence of digital media within culture today. Additionally, essentials of Christian formation were discussed to better understand the primary concern in the life of the believer in relationship to digital media use.

Chapter 2 of this thesis reviewed foundational literature seeking to better understand both digital media use and the concept of Christian formation in today's ever-changing landscape. Looking at the relationship of digital media and the Christian

formation of adolescents, it is evident that little has been done by way of properly understanding this relationship and, for the sake of the gospel, there is much yet to accomplish. Christian formation was properly understood as the process of growing in Christ-likeness or as the journey to become more Christian.<sup>1</sup> On the other hand, digital media was recognized to accompany a wide variety of forms from ‘old media’ which encompasses those mediums where users were simply consumers all the way to ‘new media,’ which has changed to provide opportunities for users to not only consume but also contribute to the present media.<sup>2</sup> Essentially, digital media was understood as any type of technology that produces an extension of the human body and senses, from clothing to the computer.<sup>3</sup> Essentially, the possible correlation between Christian formation and the digital media use of adolescents was presented as foundational in order to begin to properly understand the affects they have upon each other.

The following chapter seeks to describe the research methodology that this thesis utilized in order to establish a proper instrumentation, administer the instrumentation, analyze the data and see whether or not there was a correlation between Christian formation and digital media use among adolescents. The chapter is organized around the following categories: design overview, population, sample, delimitation, limitations of generalization, instrumentation and procedures.

### **Design Overview**

This study utilized a two-part, quantitative survey to best determine the potential correlation between Christian formation and the frequency and form of digital

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<sup>1</sup>James R. Estep and Jonathan H. Kim, *Christian Formation* (Nashville: B & H, 2010), 241, Kindle.

<sup>2</sup>Robert K. Logan, *Understanding New Media* (New York: Peter Lang, 2010), 4.

<sup>3</sup>Eric McLuhan and Frank Zingrone, *Essential McLuhan* (Ontario: Anasi, 1995), 238-39.

media use. According to Leedy and Ormrod,

A correlational study examines the extent to which differences in one characteristic or variable are related to differences in one or more other characteristics or variables. A correlation exists if, when one variable increases, another variable either increases or decreases in a somewhat predictable fashion.”<sup>4</sup>

Additionally, in a correlation study, the researcher gathers data about two or more characteristics for a particular group of people whereby the data reflects specific measurements within the characteristics in question.<sup>5</sup> This study sought a potential, correlative relationship between an adolescent’s faith maturity and their use of digital media in both frequency and form.

### **The Faith Maturity Scale**

In this particular study, a proven, tested instrument was utilized for the first part of the quantitative questionnaire by means of establishing the first characteristic of the sample: the Faith Maturity Scale. As previously discussed in chapter 2, the FMS was initially developed in 1993 by Peter L. Benson, Michal J. Donahue, and Joseph A. Erickson as a criterion-based instrument that formulated by following the naming of eight core dimensions of faith maturity and thirty-eight indicators of those dimensions, with the assistance of several panels of experts.<sup>6</sup> The present research notes the heritage of study that attempts to distinguish between adaptive and maladaptive (mature and immature; healthy and unhealthy) forms of personal religion.<sup>7</sup> Rather than measuring faith itself, the

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<sup>4</sup>Paul D. Leedy and Jeanne Ellis Ormrod, *Practical Research: Planning and Design*, 10<sup>th</sup> ed. (Harlow, England: Pearson, 2012), 185, Kindle.

<sup>5</sup>Ibid.

<sup>6</sup>P. L. Benson, M. J. Donahue, and J. A. Erickson, “The Faith Maturity Scale: Conceptualization, Measurement, and Impirical Validation,” in *Research in the Social Scientific Study of Religion*, ed. M. L. Lynn and D.D. Moberg (Greenwich, CT: JAI, 1993), 5:1-26.

<sup>7</sup>Ibid., 2. The “heritage” referred to includes the work of authors such as W. James, *The Varieties of Religious Experience* (New York: The Modern Library, 1902); G. W. Allport, *The individual and His Religion: A Psychological Interpretation* (New York: Macmillan, 1950); C. D. Batson and W. L. Ventis, *The Religious Experience: A Social Psychological Perspective* (New York: Oxford University Press, 1982); R. L. Dudley and

FMS focused on what Benson, Donahue, and Erickson describe as “the degree to which a person embodies the priorities, commitments, and perspectives characteristic of vibrant and life-transforming faith, as these have been understood in mainline Protestant traditions.”<sup>8</sup> Therefore, in this model, faith is a way of living, not just knowledge of or adherence to doctrine, dogma, or tradition. This distinction sets this scale apart from most scales of personal religiosity, which emphasize orthodox beliefs and ritualistic practices, or the process of spiritual or faith development, not the substance of faith as manifested in daily life.<sup>9</sup> By utilizing the FMS in the first section of the survey, this study sought to provide a basic framework and understanding of the ideas laid forth in the literature review by measuring the process of Christian formation through the indicated level of one’s current faith maturity.

### **Measuring Digital Media Use**

The second part of the survey, however, focused primarily on the secondary characteristic of the sample: the frequency and form of digital media use. As discussed in chapters 1 and 2, adolescent digital media use is pervasive in everyday life. With a large

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R. J. Cruise, “Measuring Religious Maturity: A Proposed Scale,” *Review of Religious Research* 32 (1990): 97-109; D. Duncombe, *The Shape of the Christian Life* (New York: Abingdon, 1969); H. N. Maloney, “Assessing Religious Maturity,” in *Psychotherapy and the Religiously Committed Patient*, ed. E. M. Stern (New York: Haworth, 1985); R. F. Paloutzian and C. W. Ellison, “Loneliness, Spiritual Well-Being, and the Quality of Life,” in *Loneliness: A Sourcebook of Current Theory, Research, and Therapy*, ed. L. A. Peplau and D. Perlman (New York: Wiley, 1982); B. Spilka and M. Mullin, “Personal Religion and Psychological Schemata: A Research Approach to a Theological Psychology of Religion,” *Character Potential* 8 (1977): 57-66; and O. Strunk, *Mature Religion, A Psychological Study* (New York: Abingdon, 1965). Additionally, the authors note more recent conversations (in relationship to their study and analysis) related to faith maturity by A. E. Bergin, “Values and Religious Issues in Psychotherapy and Mental Health,” *American Psychologist* 46 (1991): 394-403; and A. Ellis, “Do I really Hold that Religiousness Is Irrational and Equivalent to Emotional Disturbance?” *American Psychologist* 47 (1992): 428-29.

<sup>8</sup>Benson, Donahue, and Erickson, “The Faith Maturity Scale,” 5:1-26.

<sup>9</sup>Ibid.

majority of adolescents having access to some form of online communication, through not only computers but through the ever-portable cell phones and smartphones, they are being given digital access at all times.<sup>10</sup> In particular, adolescent digital media use is of interest because “the nature of teens’ internet use has transformed dramatically—from stationary connections tied to shared desktops in the home to always-on connections that move with them throughout the day,” says Mary Madden, Senior Researcher for the Pew Research Center’s Internet Project and co-author of the report. “In many ways, teens represent the leading edge of mobile connectivity, and the patterns of their technology use often signal future changes in the adult population.”<sup>11</sup> With this in mind, understanding the habits of adolescent digital media use in light of Christian formation is of primary importance.

### **Population and Sample**

Since this study sought to understand the correlation between the Christian formation of adolescents and their use of digital media, three Christian high schools were utilized as a population. Students who attend an open-enrolment non-denominational school, a classical school, and an independent, non-denominational closed enrollment school were observed. High school students included all four grades: freshman, sophomore, junior, and senior classes—male and female. The sample of the population used in this study was chosen by random selection from participating schools.<sup>12</sup> The total population available within the three schools was 895, while the total sample (those who

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<sup>10</sup>Joanna Brenner, “Pew Internet: Teens,” May 21, 2012, accessed December 20, 2013, <http://pewinternet.org/Commentary/2012/April/Pew-Internet-Teens.aspx>.

<sup>11</sup>Mary Madden et al., “Teens and Technology 2013,” March 13, 2013, accessed December 20, 2013, <http://pewinternet.org/Reports/2013/Teens-and-Tech.aspx>.

<sup>12</sup>The three schools included in the survey were Trinity Classical Academy in Valencia, CA, high school population 115; Heritage Christian School in Indianapolis, IN, high school population 500; and Silverdale Baptist Academy in Chattanooga, TN, high school population 280.

completed the survey) was 421. Given the total population, the sample size provided an adequate number for research based upon the sample size calculator as minimum of 269 students were needed for confidence interval of +/- 5.<sup>13</sup>

### **Delimitations**

The research findings are limited to studying the media intake behavior, faith maturity and habits of Christian adolescents (ages 12 to 18 years old) at private, Christian high schools.

### **Limitations of Generalization**

The findings from this study and generalizations from the research only apply to those students in the particular selected schools.

### **Instrumentation**

A two-part survey was utilized that employed closed form responses to determine whether or not there was a correlation in the faith maturity of adolescents and the frequency and form of their digital media use. The two-part survey gathered demographic information as well as quantitative data relating to one's use of digital media in order to find a potential correlation with their faith maturity as determined by the FMS. In order to maintain quantitative authenticity, closed questioning was utilized to ensure accurate results.<sup>14</sup> The quantitative survey was put into an online format using Survey Monkey and students accessed the survey via the Internet in its distribution. The FMS was unaltered other than the addition of a second part to this quantitative survey. In part 2, students had the opportunity to choose from predetermined answers that laid out the most probable answers available given the subject matter of the current culture of

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<sup>13</sup>Creative Research Systems, "Sample Sizde Calculator," accessed February 12, 2013, <http://www.surveysystem.com/sscalc.htm>.

<sup>14</sup>See Appendix 1 for an example of the survey.



digital media.<sup>15</sup> Ultimately, the second part of the survey sought to understand how often adolescents used digital media, what devices are most utilized, and what content is being accessed. Using the FMS as a foundation, this study built upon this understanding of Christian formation and what impact digital media has on the Christian formation of adolescents. Faith maturity was measured concurrently alongside the adolescents' understanding of Christian formation, while it also sought to understand the frequency and form of digital media use. By utilizing these questions, this study sought to better understand the correlation between the frequency and form of digital media use with the Christian formation of adolescents.

### **Frequency and Form Survey Development**

Based upon a similar study, specifically relating to the smartphone use of teens by Pew Research, an instrument was formed to help determine the frequency and form of digital media use of adolescents. Once finalized, this portion of the instrument was field tested with three high school students from Trinity Classical Academy in grades 10, 11 and 12. After completing the survey, feedback was given and no changes were necessary. After the two-part instrument was finalized, a formal request to use human subjects was made by submitting the Assessment of Risk to Human Subjects in Research form to the Research Ethics Committee of The Southern Baptist Theological Seminary.

### **Procedures**

Initially, research was collected to better understand digital media use and Christian formation. After initial resources were procured, a basic knowledge of the

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<sup>15</sup>In order to choose the best possible questions and outcomes for the second part of the quantitative survey, questions were based upon similar studies recently conducted by The Pew Charitable Trusts related to technology and media use. The Pew Charitable Trusts, "More than Half of Americans Own a Smartphone," June 5, 2013, accessed January 4, 2013, [http://www.pewtrusts.org/our\\_work\\_report\\_detail.aspx?id=85899481530](http://www.pewtrusts.org/our_work_report_detail.aspx?id=85899481530).

digital media use of adolescents was sought based upon recent journal articles, new articles, and various texts noted in the bibliography. With an essential knowledge base formed, the completion of chapters 1 and 2 were finalized in order to assess proper instrumentation for research.

Instrumentation was initially made by determining that the use of a correlation study would prove to be the most beneficial considering the research question at hand: what affect, if any, does the frequency and form of digital media use have on the Christian formation of adolescents? It was understood that, somehow, the frequency and form of digital media use had to be compared to adolescent Christian formation while seeking a potential correlation between the two variables.

The FMS was chosen as a viable option for part 1 of the instrumentation due to the recommendation and the benefits of building upon a proven, tested instrument. However, since this instrument was owned by Search Institute ([www.search-institute.org](http://www.search-institute.org)), permission had to be granted for official use. After contacting Search Institute via email (see appendix 2), a response indicated that there would not be a fee required to use the FMS and that a form simply needed to be filled out for permission to use the instrument (see appendix 3 and 4). After a simple submission, the use of the instrument was approved for use during the months of April and May 2014 for the purpose of research.<sup>16</sup>

Part 2 of the instrument included the need to understand the frequency and form of digital media use among adolescents to properly assess the possible correlation between the two variables. As a result, similar studies from Pew Research were utilized to create the proper instrumentation. Primarily, questions were taken from a study titled “Pew Internet: Teens” and altered to fit the purposes of this study.<sup>17</sup> Once initial

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<sup>16</sup>See finalized approval form in appendix 5 and approval letter in appendix 6.

<sup>17</sup>Brenner, “Pew Internet.”

research, writing, and instrumentation were completed, which comprised the majority of chapters 1, 2 and 3, all information was presented and subsequently approved at a prospectus hearing.

Upon approval of the prospectus, steps were taken to administer the surveys to the three Christian schools. In order to properly utilize and execute this instrumentation, the following actions were taken. First, permission was obtained from the administration at each respective school to have access to students for the purposes of research. Since surveys would be administered while on school property, during schools hours, and by school employees, it was necessary to receive administrative approval. Permission was gained through verbal discourse among the research team and each school's administration.

Second, the instrument was transferred into an acceptable online format that maintained the integrity of the study. As previously mentioned, Survey Monkey was utilized as an appropriate online format for data collection and analyzation.

Third, parental consent was obtained so that students would be able to complete the survey. In order to have a quick and efficient method of consent, Google Docs was utilized to create a parental permission form that was then emailed to the parents of high school students at each of the three schools. Students were not permitted to take the survey without parental consent.<sup>18</sup>

Fourth, once everything was in place, research representatives from each school administered the survey in the way they found to work best considering the school's resources and culture to best promote completion. Each school enlisted help from co-workers to help distribute the survey in various contexts over the course of a few days to complete the collection of data.<sup>19</sup> Heritage Christian utilized Bible teachers for

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<sup>18</sup>See appendix 8 and 9 for emails sent to parents. Additionally, see appendix 7 for Parental Consent Form.

<sup>19</sup>By using an online format, many methods proved successful for completion including, but not limited to (1) within the classroom, 2) at home, accessed via an all-school email (sent with school permission), or 3) by contacting students individually

surveys to be completed during class time. This proved successful as school administration granted permission for completion and each student had their own device on which they could complete the survey. As a result, surveys were completed over a period of 3 days. Trinity Classical Academy utilized student's lunch time and the computer lab for completion as access to students in academic classes during the day was limited alongside student access to devices to complete the survey. Various classes were scheduled to complete the survey during their lunch period over a period of 4 days. Silverdale Baptist Academy utilized student-given iPads and a multi-purpose room during open periods to complete surveys over a period of about a week.

Finally, once all surveys were completed, the data was initially analyzed in Survey Monkey for intended results. However, due to both the anonymity of the surveys and the need for scoring within the FMS to be compared to specific questions from part 2 of the survey, results were exported to Excel in order to find the necessary correlation coefficients for the purpose of understanding the relationship between digital media use and the Christian formation of adolescents.

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through classroom visits, flyers, or through personal interaction.

## CHAPTER 4

### ANALYSIS OF FINDINGS

This chapter presents the research findings gathered using the research design discussed in the previous chapter. The data being displayed are the relevant statistical findings from participants' responses provided from the Faith Maturity Scale (FMS) and questions related to understanding the frequency and form of digital media use. The findings were analyzed according to the original purpose of the study that sought to better understand the correlation between adolescent faith maturity and the use of digital media; specifically in both the frequency and form. This chapter shows the raw data as well as tables and/or figures to help the reader understand the collection method and portray the correlation of the findings from the FMS and the frequency and form of digital media use among adolescents. This chapter serves to present the data while the following chapter seeks to give interpretations and conclusions. The final section of this chapter evaluates the strengths and weaknesses of the research design and offers recommendations for improving the strength and accuracy of the design.

#### **Compilation Protocols**

Prior to administering the survey, each member of the research team secured approval from each school's administration for research. Once approval was given, the research team contacted the parents of the students who were to be surveyed for approval using an online form.<sup>1</sup> Once parental consent was given, the research team administered the surveys at their respective schools at various classroom times. The research team

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<sup>1</sup>The parental consent form was made on Google Docs per the guidelines set forth by the SBTS Doctoral Studies Office (see appendix 7).

used an online-based resource, [www.surveymonkey.com](http://www.surveymonkey.com), to both host and administer the survey. During predetermined class times, students were given the web address to access the survey.<sup>2</sup>

The data from the online-based survey was then exported as an Excel file for further analysis. The export allowed me to properly analyze and create the necessary tables and graphs for the presentation of data. Based on the original research question, I chose to highlight the following specific areas: (1) the correlation of FMS scores to the amount of time digital media is used in a given day, (2) the correlation of FMS scores to students using digital media primarily for entertainment, (3) the correlation of FMS scores to students using digital media primarily for access to social media, (4) the correlation of FMS scores to students using digital media primarily for reading/homework, (5) the correlation of FMS scores to students using digital media primarily for other (as indicated on the survey), and (6) the average FMS score related to demographics and particular entertainment choices of primacy that adolescents indicated on the survey including television/movies, video games/gaming, music/radio and other.<sup>3</sup>

I used the FMS to establish Christian maturity in adolescents from the indicated Christian high schools and the frequency and form data to find a correlation between Christian maturity and digital media use in this two-part survey. Basic demographic information was asked in addition to the survey questions for a deeper understanding of possible trends among adolescents while keeping the survey anonymous to help promote honesty and alleviate bias.

Based on the initial population at each school, there was a possibility of receiving 895 student surveys (500 Heritage Christian School students, 280 Silverdale

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<sup>2</sup>See appendix 1 for an example of the survey instrument.

<sup>3</sup>“Other” selections included, but were not limited to, social media, texting, sports, and watching YouTube.

Baptist Academy students, and Trinity Classical Academy 115 students). However, because the surveys were taken by choice (of both the student and their parents), 520 parental consent forms were received (284 Heritage Christian School, 133 Silverdale Baptist Academy, and 103 Trinity Classical Academy) for a 58 percent completion rate. From the 520 completed parental consent forms, 445 survey responses were received, boasting an 86 percent completion rate (264 Heritage, 97 Silverdale, and 84 Trinity). Finally, from the 445 survey responses, 24 surveys were started and never fully completed, which provided inconclusive and inaccurate data providing a 95 percent completion rate (n=421). The criteria for inclusion of survey responses in data analysis included completion of both the FMS and the frequency and form of digital media use surveys. In conclusion, 421 responses were received and usable for data analysis. Based on the original population sample (n=895) I accessed and used 47 percent (n=421) of completed student surveys from the three sampled schools, which falls within the acceptable sample size according to Creative Research Systems online Sample Size Calculator. The online sample size calculator determined that a sample size of 382 would be needed allowing for a confidence level of 99 percent and confidence interval of 5%.<sup>4</sup>

Table 1. Breakdown of participants by school

School	Frequency	Percent (%)	Cumulative percent (%)
Heritage Christian School	257	61	61
Silverdale Baptist Academy	86	20	81
Trinity Classical Academy	78	19	100
Totals	421	100	

Note: Confidence interval = +/- 5%

<sup>4</sup>Creative Research Systems, "Sample Size Calculator," accessed August 7, 2014, <http://www.surveysystem.com/sscalc.htm>.

## Summary of Findings

This section presents the results of both the Faith Maturity Scale (FMS) and the frequency and form of digital media use among adolescents by displaying the data into two main categories. The first category presents the data in six main correlations and comparisons: (1) the correlation of FMS scores to the amount of time digital media is used in a given day, (2) the correlation of FMS scores to students using digital media primarily for entertainment, (3) the correlation of FMS scores to students using digital media primarily for access to social media, (4) the correlation of FMS scores to students using digital media primarily for reading/homework, (5) the correlation of FMS scores to students using digital media primarily for other (as indicated on the survey), and (6) the average FMS score related to demographics and particular entertainment choices of primacy that adolescents indicated on the survey including television/movies, video games/gaming, music/radio and other.<sup>5</sup> These correlations attempt to show the relationship between the various aspects of the given research within the context of the original research question.

The second category focuses on individual questions from both the FMS and the frequency and form survey that provide further insight for understanding the original research question that demonstrate findings of significance. This section also includes figures to demonstrate how demographics impacted the study as it relates to the given research question.

As a reference point, I compared the average FMS scores from the original research completed by Benson, Donahue and Erickson at the inception of the Faith Maturity Scale.<sup>6</sup> In their research the FMS was used to find the faith maturity across five

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<sup>5</sup>“Other” selections included, but were not limited to, social media, texting, sports, and watching YouTube.

<sup>6</sup>For more information regarding original research completed using the FMS, reference the original study. Certain aspects of this research were mentioned in order to demonstrate the validity of the current research in comparison to the original creation of the FSM. P. L. Benson, M. J. Donahue, and J. A. Erickson, “The Faith Maturity Scale:



different denominations. These denominations included the Christian Church: Disciples of Christ, Evangelical Lutheran Church in America, Presbyterian Church (U.S.A), United Church of Christ, and the United Methodist Church. Through this research they found the combined mean across all researched denominations to be 4.63 with scores ranging from 1.6 to 6.8. In comparison, this research produced a mean of 4.60 with scores ranging from 2.44 to 6.44.

**Demographic Characteristics of the Sample**

From the 421 completed surveys, 56 percent (n=237) were female while 44 percent (n=184) were male. Little to no variance was present in comparing FMS scores of males and females as seen in Table 2.

Table 2. Breakdown of students surveyed by gender with FMS score (mean)

Gender	Frequency	FMS Score (Mean)
Female	237	4.72
Male	184	4.46
Total	421	

Note: Confidence interval = +/- 5%

Additionally, from the 421 completed surveys, 28 percent (n=119) were students in 9<sup>th</sup> grade, 29 percent (n=122) were students in 10<sup>th</sup> grade, 17 percent (n=73) were students in 11<sup>th</sup> grade, and 26 percent (n=111) were students in 12<sup>th</sup> grade. This data is portrayed in Table 3. Additionally, a comparison of the mean FMS score from each grade is listed in Table 4, demonstrating minimal variance from grade to grade.

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Conceptualization, Measurement, and Impirical Validation,” in *Research in the Social Scientific Study of Religion*, ed. M. L. Lynn and D. D. Moberg (Greenwich, CT: JAI, 1993), 5:1-26.

Table 3. Breakdown of students surveyed by grade

Grade	Frequency	Percent (%)	Cumulative percent (%)
Freshman (9th)	118	28	28
Sophomore (10th)	121	29	57
Junior (11th)	72	17	74
Senior (12th)	110	26	100
Totals	421	100	

Note: Confidence interval = +/- 5%

Table 4. Breakdown of FMS score by grade/class

Grade	FMS Mean
Freshman (9th)	4.61
Sophomore (10th)	4.50
Junior (11th)	4.76
Senior (12th)	4.61
Total Mean	4.62

Note: Confidence interval = +/- 5%

Overall, the demographics taken within this study demonstrate no significant variance within the data that would warrant concern for interpretation between gender or grade level.

**Frequency: Correlation of FMS to Frequency of Digital Media Use**

In revisiting the original research question, one major area of interest was the amount of time adolescents accessed digital media and, based upon the literature review, it was the assumption that the increased use of digital media would correlate with one's faith maturity. However, based upon the research, one's time accessing digital media had no apparent correlation with their faith maturity while yielding a correlation coefficient of -0.058 (see figure 1 for a visual representation of correlation data). Students were asked to select their average, daily access to digital media within the following ranges: 0-2

hours, 2-4 hours, 4-6 hours, 6-8 hours and 8+ hours. Within this range, FMS scores had little variance with both high and low appearing in each range (see Table 5 for score variances).

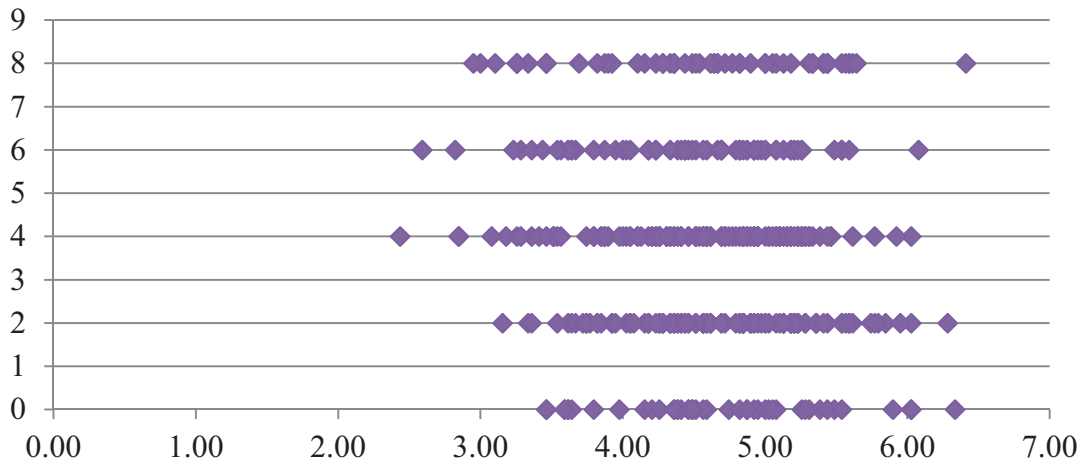


Figure 1. Correlation of FMS to frequency of digital media use

Table 5. Score variances among frequency of digital media use

Frequency (Time)	Frequency (# of Students)	FMS Score (Mean)
0-2 Hours	46	4.67
2-4 Hours	122	4.71
4-6 Hours	126	4.54
6-8 Hours	68	4.51
8+ Hours	59	4.59
Total	421	

Note: Confidence interval = +/- 5%

### Form: Correlation of FMS to Form of Digital Media Use

In addition to frequency, the research sought a correlation between faith maturity and the form of digital media use. Students were asked to rank the form of digital media they most utilized from least to greatest; options included entertainment, social media,

reading/homework and other. Based upon the original research question it was the assumption of this study that there might be a correlation between the faith maturity of an adolescent and the form of digital media they are primarily accessing.

Table 6. Mean FMS scores of primary forms of digital media used

Form (Primary)	Frequency (# of Students)	FMS Score (Mean)
Entertainment	153	4.56
Social Media	134	4.58
Reading/Homework	95	4.69
Other	39	4.64
Total	421	

Note: Confidence interval = +/- 5%

### **Correlation of FMS to Entertainment Use (Primary)**

Based upon the understanding of entertainment and its overwhelming importance in American culture as seen in the literature review, it was the assumption of this research that those who used digital media primarily for the purpose of entertainment would yield a lower faith maturity. However, based up the data, there was no apparent correlation between the FMS and those who accessed digital media primarily for the purpose of entertainment as this yielded a correlation coefficient of -0.082 (demonstrated in figure 2). Students who chose entertainment as their primary form of digital media boasted both high and low scores on the FMS with a mean score of 4.56 (see table 6 for score variances).

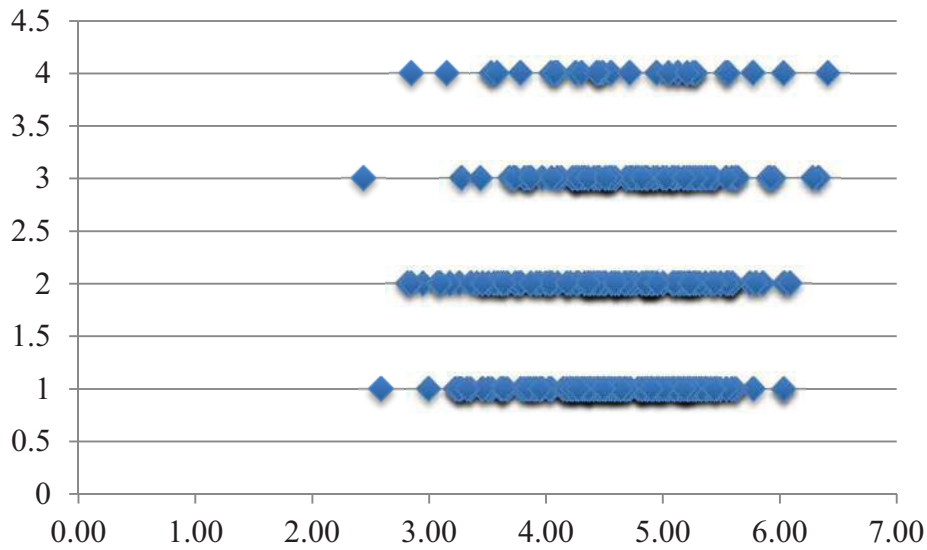


Figure 2. Correlation of FMS to entertainment use (primary)

### Correlation of FMS to Social Media Use (Primary)

Based upon the understanding of social media and the dangers it possesses for community in American culture as seen in the literature review, it was the assumption of this research that those who used digital media primarily for the purpose of social media would yield a lower faith maturity. However, based upon the data, there was no apparent correlation between the FMS and those who accessed digital media primarily for the purpose of entertainment as this yielded a correlation coefficient of -0.023 (demonstrated in Figure 3). Students who chose social media as their as their primary form of digital media boasted both high and low scores on the FMS with a mean score of 4.58 (see table 6 for score variances).

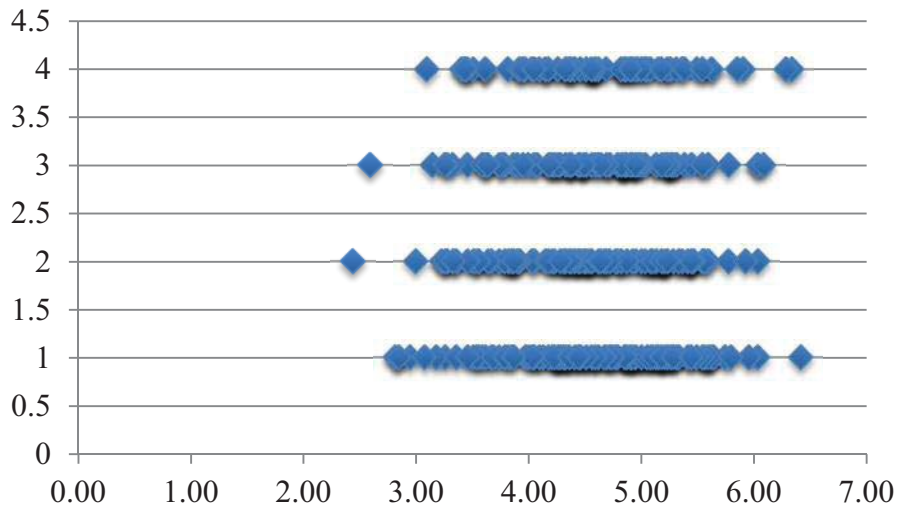


Figure 3. Correlation of FMS to social media use (primary)

**Correlation of FMS to Reading/  
Homework Use (Primary)**

Although it would seem as if the use of digital media for the purpose of reading and/or homework might prove beneficial for one in reference to their FMS score, based upon the data, it seems that there is no apparent correlation as this yielded a correlation coefficient of 0.128. Students who chose reading and/or homework as their primary use for digital media boasted a mean score of 4.69 (see Table 6 for score variances).

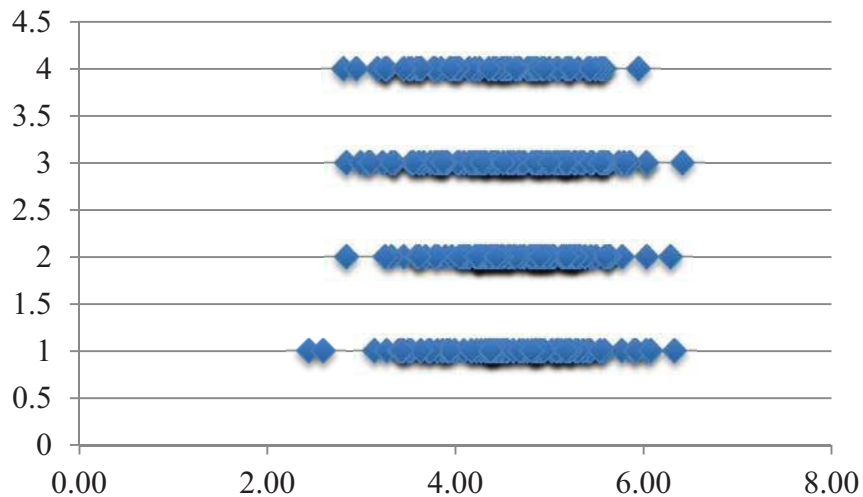


Figure 4. Correlation of FMS to reading/homework use (primary)

### Correlation of FMS to use of “Other” (Primary)

In addition to the three main forms of digital media use, students were given the option to choose “other” if they believe they use digital media primarily for something other than entertainment, social media or reading/homework. No direction was given regarding what might fall into the “other” category allowing open interpretation of its meaning. However, even those who chose “other” boasted little-to-no variance from mean FMS score for all students (see table 6 for score variances). Students who chose “other” as their primary use for digital media boasted a mean FMS score of 4.64. Based upon the data, there was no significant correlation between one’s faith maturity and choosing “other” regarding their digital media use as this yielded a correlation coefficient of -0.024.

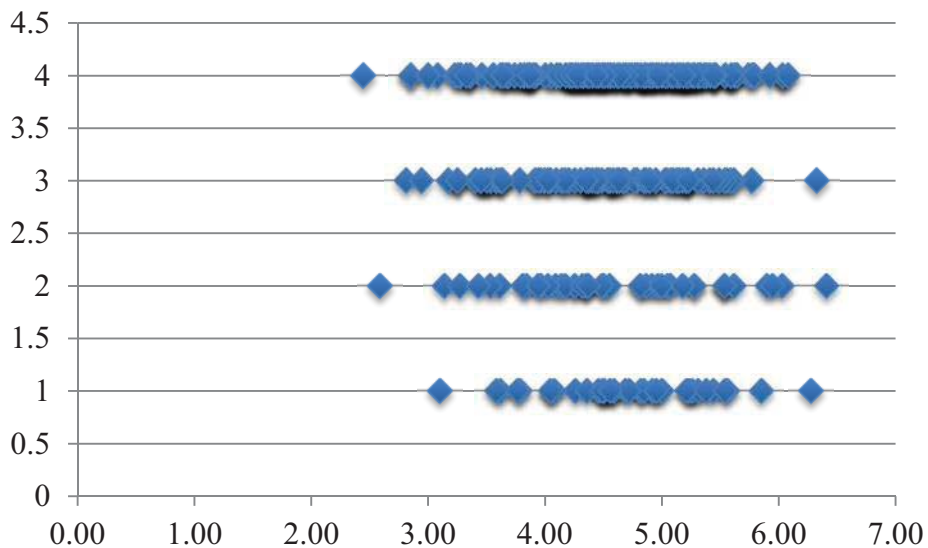


Figure 5. Correlation of FMS to use of “other” (primary)

### Noteworthy Contributions to Understanding the Research Question

Although much of the research demonstrated inconclusive evidence demonstrating no apparent correlation between both the frequency and form of digital

media use to adolescent Christian formation there were a few facets worth noting. The data below is particularly worth noting both for possible research to be done in the future and to help understand the data as it currently stands.

### **Specific Questions within the FMS**

Although these items are not directly related to the use of digital media, a few key questions posted from the FMS correlated to the change in FMS scores. What is most significant about these questions is that they could all be drawn back to *how* digital media is used. First, the correlation between the FMS score and question 3, indicating that faith impacts how one lives, yielded a correlation coefficient of 0.648 indicating a strong, positive correlation. Second, question 6, indicating that one's faith helps them know right from wrong, proved beneficial as its correlation coefficient was 0.602 indicating another strong, positive correlation. Additionally, questions 8, 12, and 13 asked questions about reading the Bible, seeking opportunities for spiritual growth, and setting aside time for prayer each day, yielded a correlation coefficient of 0.582, 0.766 and 0.652 respectively indicating another positive relationship.

As previously mentioned, while none of these demonstrate any direct correlations to a student's faith maturity and their use of digital media, future research would benefit from seeking how digital media impacts these specific areas of one's faith maturity. It is my assumption that there would be a correlation in both the frequency and form of digital media use to these specific aspects of one's faith maturity, but research specifically geared towards these areas would be necessary.

### **Evaluation of Research Design**

The final section of the chapter is an evaluation of the research design. Strengths and weaknesses of the methodology are addressed in order to allow a better understanding for future researchers to improve upon the present work and seek to have an even better understanding of the relationship between one's faith maturity and the use of digital media.



The purpose of this correlation study was to better understand the relationship of the digital media use of adolescents (specifically, in their frequency and form) and the Christian formation of Christian high school students in classical, closed enrollment non-denominational, and open enrollment non-denominational Christian schools. This thesis surveyed and synthesized the most recent literature related to understanding the relationship between one's faith maturity and the use of digital media seeking to understand the potential benefits and dangers of digital media use.

While this study sought specific correlations, the questions asked have merely touched the surface of a much broader area that could be studied further. Using the FMS proved beneficial as a starting point to measuring one's faith maturity. However, questions regarding the use of digital media, while accurate, were too vague to getting to the heart of the issue, which was demonstrated in inconclusive results. In particular, specific questions related to both form and content of digital media use would help more robust research in seeking a correlation within the data. While a quantitative, correlation study provided an initial understanding of the research question, a mixed-methods study using qualitative questioning might provide further insight regarding the form and content of digital media use.

Even though there is not a direct correlation of the data mentioned in the last section of the analysis in regard to specific questions from the FMS, they were particularly noteworthy as each of those questions could likely have a direct effect on *how* one might be using and utilizing digital media. After completing and analyzing the survey, in hindsight it would have been beneficial to draw a more direct correlation with digital media use and specific questions from the FMS; particularly, those mentioned above. I was able to draw general implications of the correlation between one's faith maturity and their use of digital media, but future research could benefit from seeking to understand exactly *how* some students use digital media for Christian formation. Conversely, it would be beneficial to find specific areas that might be detrimental to

one's faith maturity and ask specific questions that would give further insight into this area as well.

## CHAPTER 5

### CONCLUSIONS

This chapter provides an examination of the research question and draws conclusions based on the findings. Implications are discussed that pertain to the correlation between the frequency and form of digital media use and the Christian formation of adolescents. This chapter demonstrates a proper understanding of the findings in light of the precedent literature and discusses areas where further research could be done related to understanding the use of digital media and its correlation to the Christian formation of adolescents.

This thesis sought to identify what correlation, if any, there might be between the frequency and form of digital media use and the Christian formation of adolescents. Three Christian high schools were chosen based on varied educational philosophies to ensure diversity within the context of Christian education. The desire was to identify potential dangers of digital media use among adolescents for Christian institutions, families, and church leadership alike as they all seek to better understand how to promote Christian formation in the life of an adolescent. This research serves as a starting point for interested parties in better understanding the role of digital media in the life and mind of Christian adolescents.

#### **Research Purpose and Question**

The purpose of this two-part quantitative study was to determine the following question: what affect, if any, does the frequency and form of digital media have on the Christian formation of adolescents? By utilizing a trusted instrument to measure Christian maturity, this research correlated these findings to an individual's use of digital media; both in frequency and form. It was the assumption of this study that the increased use of

digital media in the life of an adolescent subsequently would have a negative effect on their Christian formation. As seen in the introduction and literature review, the use of digital media among adolescents continues to be on the rise and it is important, from a perspective of discipleship, to understand the potential, negative affect.

### **Analysis of Results**

As displayed in chapters 1 and 2, previous studies indicated a wide acceptance of digital media use among adolescents boasting statistics such as 95 percent of adolescents having access online, 80 percent having access to social media sites, and 78 percent who have their own cell phone.<sup>1</sup> These statistics were taken from studies completed in 2011 and 2012. However, with the climate of digital media ever-changing, it was important to compare these staggering statistics with those collected in this study. As seen in table 7, these statistics not only proved to be true, but actually demonstrated a potential growth from this particular population over the last few years for digital media use among adolescents. While not explicitly noted in the survey, online access seemed to be a given with the majority of students indicating that they own some sort of digital media device including a cell phone (98 percent), a desktop or laptop computer (85 percent) or a tablet computer (80 percent). Additionally, of the students who indicated having their own cell phone, 359 (85 percent) indicated that they had a smartphone. Social media access also demonstrated a potential growth from this particular population over the last few years with statistics rising from 80 percent to 96 percent. While this data was not specifically addressed in the full analysis of chapter 4, it still proved noteworthy considering previous studies mentioned in both the introduction and literature review while further proving the point that digital media use among adolescents is continually on the rise.

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<sup>1</sup>Joanna Brenner, "Pew Internet: Teens," May 21, 2012, accessed December 20, 2013, <http://pewinternet.org/Commentary/2012/April/Pew-Internet-Teens.aspx>.

Table 7. Statistics compared to previous studies

Digital Media Statistics	Pew 2012 (%)	Current Study (%)	Change (+/-)
Online Access	95	N/A	N/A
Social Media Access	80	96	+16
Own a cell phone	78	98	+20

Even though statistics such as these demonstrated helpful information in the analyzation of the digital media use among adolescents there were elements within the analyzation process that demonstrated areas that would have benefited from alterations for more pertinent results.

#### **Assessment: Faith Maturity Scale**

The Faith Maturity Scale was initially used as it boasted a trusted survey with a plethora of previous studies of which provided a baseline to compare results, in addition to the various reasons presented in chapter 2. However, further analysis and assessment was completed after the survey process that showed other studies that used the FMS with similar shortcomings, which came to light through the analyzation process of the collected data. Specifically, it lacked grounding in the evangelicalism that caused confusion for both the students taking the survey and for myself in the proper analysis of results.

First, the FMS proved to use language that was either uncommon or unfamiliar to the adolescent population—even though this was originally one of the reasons it was utilized (common vernacular). Terms such as meditation (Q 15), communal prayer (36), and issues related to health or social justice (Q 12, 13) proved confusing for students taking the survey. While questions were written in an understandable manner, it seemed that students had a difficult time answering the questions in regard to the context of their faith and the potential correlation thereof.

Second, the emphasis given to social concern did not seem prevalent considering the study at hand. While any true follower of Christ *should* demonstrate

some level of concern for social justice, it seemed both difficult and confusing to properly correlate these questions to faith maturity. Other studies have noted similar concerns in regard to the FMS in its over-emphasis of social concerns as an ingredient of faith.<sup>2</sup> Question 37 demonstrates this confusion: “I think Christians must be about the business of creating international understanding and harmony.” While seemingly positive, this question provides further understanding to the initial concern of uncommon language or vernacular as well as the current point that questions the validity of this type of statement properly assessing faith maturity.

Lastly, the FMS lacked a proper biblical basis for assessment. While it is obvious that much research went into properly understanding the scientific nature of the process of Christian formation or sanctification, little biblical evidence was provided demonstrating the correlation between indicators in Scripture of true, mature faith and statements laid forth as assessment of faith maturity in the FMS. It would seem in a study of Christian formation that the use of Scripture would be placed at the forefront for understanding the process of sanctification.

### **Assessment: Digital Media Use Survey**

The given research question sought to find a correlation between the frequency and form of digital media use and the Christian formation of adolescents. While specific areas of critique for the FMS were already given, it is important to note possible implications that could have possibly provided better results from the standpoint of understanding digital media use among adolescents as well. Overall, two main areas came to light that would seem to have provided better results.

First, questions needed further insight to better understand frequency. While

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<sup>2</sup>Roger L. Dudley, “Faith Maturity and Social Concern in College-age Youth: Does Christian Education Make a Difference?” *Journal of Research on Christian Education* 3, no. 1 (1994): 35-49.

questions were based on other surveys in the area of digital media, specific attention needed to be given to understanding the amount of time students use digital media within a given day. While quantitative questions provided insight, I believe that either qualitative questioning or some form of longitudinal tracking (either by the researcher or the students themselves) could have provided a deeper understanding regarding the frequency of digital media use among adolescents. Qualitative questioning could have provided further rationale or explanation behind specific use and some form of tracking could have provided more accurate results as it was the assumption that most students were not honest in regard to digital media use—whether that was on the survey itself or, more likely, possibly with themselves regarding their own usage.

Second, questions needed greater clarity and focus regarding form. While a deeper knowledge regarding the type of digital media use present among adolescents was obtained, specific uses still seemed elusive. For example, while a number of students indicated the use of Twitter, it was unknown exactly *how* this specific platform was being utilized. Some could have been using it for inspirational quotes or links to recent articles that could actually prove beneficial for their Christian formation whereas, on the other hand, some could be utilizing the social media platform for bullying, sexting or viewing pornography. Both are using the same *form* of digital media, but for very different purposes. By including pointed questions that would give further insight into exactly *how* various mediums are being utilized beyond a surface level understanding, research would provide greater clarity in regard to the correlation between digital media use and the Christian formation of adolescents.

### **Towards New Instrumentation**

While this study does not specifically properly provide a newly proposed instrument for future research in the context of evangelical adolescents and the use of digital media, the critiques above, specific questions noted in the data analyzation in chapter 4, and suggestions for future research listed below, will hopefully provide insight

to help the continual progression of understanding the impact that the ever-growing digital world is having on the hearts and lives of adolescents.

Regardless of the changes that could have been made for the study at hand, the survey did demonstrate significant findings that were noteworthy. As demonstrated in the research findings of chapter 4, specific areas of data were chosen for their pertinence to the original research question that are further addressed from a biblical understanding below. These questions sought to understand the correlation, if any, to the frequency and form of digital media use to the Christian formation of adolescents. In addition, other significant data points were displayed that provided significant insight into not only the original research question, but also for additional recommendations for future research.

### **Frequency of Digital Media Use**

Time is a precious resource of which each person has limited amounts. Throughout Scripture it is apparent that one's time is limited and that Christians should be cautious in how they use their time. Moses stresses the importance of using time wisely in Psalm 90. This Psalm is both a meditation (vv. 1-11) and a prayer (vv. 12-17). In this Psalm, Moses prays for a life full of meaning and purpose knowing that time is a precious resource. He recognizes man's failures and shortcomings in light of God's eternal glory and power. Additionally, he realizes that he must fully rely on God to be profitable with his work and his time (v. 17). He wanted his life to matter and have eternal value, but an essential part of this was an awareness of the value and purpose of his time on earth.<sup>3</sup>

Psalm 39, a Psalm of David, also portrays the importance of time:

O Lord, help me understand my mortality and the brevity of life! Let me realize how quickly my life will pass! Look, you make my days short-lived, and my life span is nothing from your perspective. Surely all people, even those who seem secure, are nothing but vapor. (Ps 39 4-5)

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<sup>3</sup>Bible.org, "The Stewardship of Time," accessed August 15, 2014, [https://bible.org/seriespage/stewardship-time#P3870\\_970732](https://bible.org/seriespage/stewardship-time#P3870_970732).



Similarly, James 4:14 also compares life to that of a vapor: “What is your life? For you are a mist that appears for a little time and then vanishes.”

The setting for Psalm 39 consists of God’s disciplinary action in the life of David (vv. 8-11). In his writing, David recognizes his constant desire to seek his comforts, pleasures, pursuits, accomplishments, and wealth to find meaning, significance, satisfaction, and security in and with his life.<sup>4</sup> However, he knows that his life is temporary and prays that he would use his time for something greater, something more.

Specifically within the context of James 4:14, James reminds those who are overly concerned with planning their financial futures that they have no idea how long they have on this earth. And that, ultimately, they should recognize the brevity of their lives and the sovereignty of God in light of all they do. In the same way, today Christians must still remember the importance of how they spend their time realizing that it is quickly fleeting and that one’s time on earth is ultimately in the hands of God.

Today, no matter what the context, it is still important for those who call themselves followers of Christ to be wise and purposeful in how they spend their time. Within the context of the given study and looking at the available data, there was no apparent correlation between the frequency of one’s digital media use and their faith maturity according to scores posted on the FMS. Students from all ranges, from minimal time using digital media (0-2 hours) to seemingly constant use throughout a given day (8+ hours) posted varying scores on the FMS—both high and low in every category. While this data does not allow this study to conclude any form of generalization regarding the quantity of time one uses digital media the scriptural context still applies.

Even though it was the assumption of the researcher that increased use of digital media would equate to lower faith maturity it is evident that *form* must be a defining factor shaping understanding as well. One cannot and must not assume that all

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<sup>4</sup>Ibid.

forms of digital media use are detrimental to the Christian formation of adolescents. For example, as mentioned in the review of literature, Christian formation is something that must first be taught in the life of the believer and then must be modeled and strengthened within the context of a Christian community. On a base level, the use of digital media can provide these elements on at least a rudimentary level.

With the rise of Internet, vast amounts of information and knowledge are available with simply the click of a button. Many worthwhile truths are available in the form of books, journal articles, podcasts, music, and even some movies and television shows that can be accessed nearly instantaneously that have the ability promote one's own Christian formation thereby increasing their faith maturity. While there are many dangers to this type of instantaneous access, as discussed in the literature review, one cannot assume that all digital media use among Christian adolescents is negatively used.

In conclusion, the amount of time adolescents use digital media cannot demonstrate a direct correlation with their Christian maturity. Although it is evident through the literature review that there are many warnings associated with the use and overuse of digital media, no assumption can be made that *all* use is negative use. However, given this understanding within the context of Scripture, Christians must learn how they can redeem the time (Eph 5:16)—especially within the context of using digital media.

### **Form of Digital Media Use**

While time must be an important component in the life of a believer, *how* that time is spent should be considered even more. Paul addresses this in his letter to the church in Ephesus reminding them, “Look carefully then how you walk, not as unwise but as wise, making the best use of the time, because the days are evil. Therefore do not be foolish, but understand what the will of the Lord is” (Eph 5:15-17). Paul specifically mentions the manner in which time is used urging the church in Ephesus to make the best use of their time; specifically, because of the sinfulness of this world and the brevity of life. A part of this time should be spent seeking to understand the will of the Lord (v.17).

However, understanding his will takes time, devotion, and study to know exactly how a follower of Christ should live. It cannot be something that is done with fleeting vexation, but must be purposeful to make the best use of one's time.

Similarly, Christians must be reminded that simply because something is available does not mean it is necessarily worth pursuing. In his first letter to the Corinthian church, Paul writes, "'All things are lawful,' but not all things are helpful. 'All things are lawful,' but not all things build up" (1 Cor 10:23).<sup>5</sup> Those who follow Christ should use their time, both in the frequency and form, to pursue that which is true, good, and beautiful, and benefits a life in such a way that they may be able to give glory to God—not matter what the circumstance (1 Cor 10:31).

As previously mentioned, the frequency of digital media use only demonstrates part of the picture necessary to understand the correlation of digital media use and the Christian formation of adolescents. Form portrays the quality and usefulness of the pursuit; no matter how much time is devoted to it! Chapter 3 presented aspects concerning the form in which students were asked to give an account of *how* they primarily used digital media on a regular basis. While much was gathered, the specific areas of focus became what a student's primary form of digital media use was compared to their faith maturity (a correlation). The primary options given were entertainment, social media, reading/homework and other.

**Entertainment (primary).** While allowing the students the option of choosing entertainment as their primary form of digital media use, it was the assumption of the researcher that of all the choices this would not only be the most popular but that this would also prove to be the most detrimental in correlation to one's faith maturity. While the first assumption proved to be correct with over 36 percent (n=153) of students

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<sup>5</sup>See also 1 Cor 6:12-20.

choosing entertainment as their primary form of digital media use, surprisingly the second assumption was incorrect. Students who chose entertainment boasted an average FMS score of 4.56—compared to an overall average of 4.60 for all FMS scores. Additionally, while yielding a low correlation coefficient (-0.082) it became apparent that no apparent relationship could be assumed.

Within the context of entertainment, it was the assumption that students included accessing television/movies, video games, music/radio and other basic forms of entertainment available through digital media in their response. Part of the negative assumption with the content listed relates to the assumption that most of the entertainment available and accessed by adolescents today would not be considered helpful toward promoting one's faith maturity. However, possible external factors, such as specific kinds of entertainment accessed and the student's ability to process content, were not fully taken into account. Within the context of a Christian school, most students are taught some form of a Christian worldview in which they learn to think, apply, and filter cultural influences that come their way. For example, students at Trinity Classical Academy have the opportunity to study these concepts through the Great Books, Socratic dialogue, formal logic and rhetoric training, and even the ability to take a Christian worldview class in which texts such as *Christ & Culture Revisited* and *Meaning at the Movies* are utilized to help students learn how to properly process various cultural influences that come their way.<sup>6</sup>

**Social media (primary).** If entertainment did not provide a negative effect on one's faith maturity, then surely social media, with all its negative connotations, would. However, students who selected social media as their primary form of digital media accessed boasted an average FMS score of 4.58 demonstrating little variance from both the entertainment primary group (4.56) and the overall FMS average (4.60). It, again,

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<sup>6</sup>D. A. Carson, *Christ & Culture Revisited* (Grand Rapids: Wm. B. Eerdmans, 2008); Grant Horner, *Meaning at the Movies* (Wheaton, IL: Crossway. 2010).

was my assumption that students were primarily using social media in ways that were not promoting faith maturity. However, missing factors, such as what social media is primarily used for, was missing. Were students texting their mom, following John Piper on Twitter or sexting their boyfriend/girlfriend? Without this specific information it became difficult to make sweeping claims regarding the use of social media as it relates to adolescent digital media use.

Some forms of social media *could* be used in positives ways that could promote one's own faith maturity. While many are privy to the negative uses, especially among adolescents as laid out in the review of literature, some fail to remember potential uses that could promote Christian formation. Kelli Trujillo, in writing for *Relevant Magazine*, demonstrates how what some might view as negative (such as a high use of social media among adolescents) could actually be positive.<sup>7</sup> Even though some could view this type of activity as an over connectivity to technology, Trujillo demonstrates the adolescent desire to stay connected with friends and family—constantly! This constant need for connection demonstrates an adolescent's basic human desire for community; something clearly seen as essential to Christian formation throughout Scripture (Heb 10:24-25; Acts 2:42-47; Gal 6:2; Rom 12:3-13). While many other possible factors surround the lack of correlation between social media use and one's faith maturity, this simply demonstrates one possible explanation.

**Reading/homework (primary).** While most would probably assume that both entertainment and social media use among adolescents could have the potential to be detrimental to one's faith maturity, it could likewise be easy to assume that something such as reading/homework might actually have a positive effect. It would seem as if this

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<sup>7</sup>Kelli B. Trujillo, "Millennial Narcissists," *Relevant Magazine* 66 (2013), accessed December 31, 2013, <http://www.relevantmagazine.com/god/god-our-generation/are-we-really-narcissistic-generation>.

could be viewed as a positive activity. However, just as with entertainment and social media use, the lack of information regarding specific content makes this difficult to properly analyze and understand. Students who chose reading/homework as their primary form of digital media use showed an average FMS score of 4.69. Although this score is slightly higher than the average score for students who chose either entertainment or social media as their primary forms of digital media use (4.53 and 4.56 respectively), it is not significant enough to show a positive correlation. In fact this correlation only yielded a coefficient of 0.128.

As previously mentioned, without proper knowledge regarding the content that is being accessed, in addition to things such as a student's study habits, it is difficult to claim a potential relationship between a student's faith maturity and their use of digital media as it relates specifically to reading and homework. Some students could be fairly diligent in using digital media for the purpose of reading profitable articles, books, and other digital resources that help promote a healthy love for learning, while others could view homework as primarily texting with friends for "help" or Googling various topics only to be sidetracked with ads or sports updates. In each instance, a student might think some form of reading or homework is happening, but without proper data it is impossible to know for sure.

**Other (primary).** Finally, students were given the option of choosing "other" in addition to entertainment, social media, and reading/homework as their primary form of digital media use. While only 39 students (just over 9 percent) chose this option, they still demonstrated an average FMS score of 4.64. There was no assumption as to what this option would allow other than simply giving students another outlet instead of the three primary forms of digital media use. Again, more information regarding specific activities would have proved beneficial. However, no significant data regarding one's faith maturity left the researcher searching for further answers.

## **Research Applications**

Overall, while much of the data present in this research seemed inconclusive, demonstrating no apparent correlation between the frequency and form of digital media use and the Christian formation of adolescents, many positive truths can still be utilized for the church, the institution for Christian education, and the family alike.

First and foremost, no correlation within the use of digital media and adolescents demonstrates the inability of man to point at external factors for inward failures.

Ultimately, how one uses digital media is their choice. Just like many other things in this world, digital media is a tool; a tool that can be used for good or for evil. Even though various external factors may have stronger influences to draw one's heart toward evil (such as potential uses within the context of digital media), it is not the fault of digital media. Jeremiah 17:9 tells of the condition of the human heart saying that it is both deceitful and sick. Both the creator and consumer of digital media are to blame for any negative effects that occur within one's own spiritual formation and maturity. If the present research demonstrated a negative correlation of one's use of digital media (either in frequency or form) and their faith maturity then it would have to be recommended that those who follow Christ avoid any such contact with digital media. However, God commanded Adam and Eve to have dominion over the earth in Genesis 1:28. In this command He demonstrated this same truth in that it is man's responsibility to order and use that which God has given him for good purposes. Just as it was in the garden so it can still be applied today with the use of digital media.

Second, the warnings from the use of digital media present in the literature review are still applicable. While there was not a negative correlation in the use of digital media among adolescents, there also was not a positive one as well. As has been discussed, digital media has the potential to be used for both good and evil. With no correlation demonstrated one way or the other, it seems likely that some students utilize digital media for good ends while others evil. Some have exercised dominion (Gen 1:28) in one way or another allowing digital media to possibly help promote their Christian

formation whereas others have allowed it to be used for evil in negatively affecting their faith maturity. While digital media cannot be disbanded in the Christian community it should not be heralded either.

Finally, it must be understood that this research did not provide neutral answers. Rather, the results were simple inconclusive. The completed research was simply the tip of the iceberg in a much-needed assessment in the use of digital media, and specifically, among adolescents. The Christian community must be on the forefront of researching the potential affects that the ever-changing digital world has on the hearts and minds of adolescents as they are the future.

### **Further Research**

Additional research is suggested for exploration in the field of digital media use and the Christian formation of adolescents. This study has demonstrated multiple areas that would benefit from further research for more conclusive results as it relates to the frequency and form of digital media use among Christian adolescents.

1. Replicate the current study after modifying Part 2 to further assess *how* digital media is being accessed among adolescents. Rather than using vague categories such as entertainment or social media, seek to know specific details contained within these broad categories (i.e. are students using digital media for the purpose of sexting, for viewing pornography, or simply for connecting with friends on Facebook? Is there a correlation in *how* digital media is being used to one's faith maturity?)
2. In addition, a mixed-methods study that provides qualitative follow-up questions seeking specific uses within the form of digital media.
3. As mentioned in chapter 4, use specific, noteworthy questions found within the FMS for the creation and analysis of questions related to digital media use (i.e. does using social media help you understand right from wrong? Does the use of digital media help you grow in your Christian faith? etc.)
4. For a better understanding of the effects of digital media on faith maturity/development, run a concurrent study that compares Christian school students (professing believers) with public school students (non-Christians). Evaluate whether or not the FMS is an appropriate tool for studying the correlation of digital media use to adolescent Christian formation.



5. A longitudinal study that would chart the growth and development of one's faith maturity alongside their recorded use of digital media.
6. Expand this study to include children and adults.
7. As previously mentioned, use elements from this study to produce an instrument that would properly measure faith maturity in light of the ever-changing landscape of digital media among adolescents and replicate this current study to compare results. This instrument could be used for other, future studies as well.

## APPENDIX 1

### QUANTITATIVE QUESTIONNAIRE

#### **Agreement to Participate**

You are being requested to give permission for a minor or member of a vulnerable population under your legal supervision to participate in a study designed to understanding the impact that the use of digital media has on the Christian formation of adolescents. This research is being conducted by Matthew Dixon for purpose of the completion of empirical research and doctoral studies. In this research, a person will asked to complete a two-part survey in which they will answer questions related to their Christian faith and digital media use. Any information provided will be held *strictly confidential*, and at no time will a person's name be reported, or a person's name identified with his or her responses. *Participation in this study is totally voluntary, and the person you are giving approval to participate in this study is free to withdraw from the study at any time.*

By entering your E-mail address below, you are giving informed consent for the designated minor or member of a vulnerable population to participate in this research if he or she desires.

Participant Name \_\_\_\_\_  
Parent/Guardian Name \_\_\_\_\_  
Parent/Guardian E-mail \_\_\_\_\_  
Date \_\_\_\_\_

#### **Agreement to Participate**

The research in which you are about to participate is designed to understanding the impact that the use of digital media has on the Christian formation of adolescents. This research is being conducted by Matthew Dixon for purpose of completion of empirical research and doctoral studies. In this research, you will be asked to complete a two-part survey in which you will answer questions related to your Christian faith and digital media use. Any information you provide will be held *strictly confidential*, and at no time will your name be reported, or your name identified with your responses. *Participation in this study is totally voluntary and you are free to withdraw from the study at any time.*

By your completion of this online survey and entering your E-mail address below, you are giving informed consent for the use of your responses in this research.

Name \_\_\_\_\_  
E-mail \_\_\_\_\_  
Date \_\_\_\_\_

## Demographics

Gender: M/F

Year in School: 9<sup>th</sup> 10<sup>th</sup> 11<sup>th</sup> 12<sup>th</sup>

What local church do you attend? \_\_\_\_\_

### Part 1: Faith Maturity Scale (FMS)

Mark one for each answer. Be as honest as possible, describing how true it really is and not how true you would like it to be:

- |                          |                        |
|--------------------------|------------------------|
| 1 = never true           | 5 = often true         |
| 2 = rarely true          | 6 = almost always true |
| 3 = true once in a while | 7 = always true        |
| 4 = sometimes true       |                        |

1. I am concerned that our country is not doing enough to help the poor.
2. I know that Jesus is the Son of God who died on a cross and rose again.
3. My faith shapes how I think and act each and every day.
4. I help others with their religious questions and struggles.
5. I tend to be critical of other people (R).
6. In my free time, I help people who have problems or needs.
7. My faith helps me know right from wrong.
8. I do things to help protect the environment.
9. I devote time to reading and studying the Bible.
10. I have a hard time accepting myself (R).
11. Every day I see evidence that God is active in the world.
12. I take excellent care of my physical health.
13. I am active in efforts to promote social justice.
14. I seek out opportunities to help me grow spiritually.
15. I take time for periods of prayer or meditation.
16. I am active in efforts to promote world peace.
17. I accept people whose religious beliefs are different from mine.
18. I feel a deep sense of responsibility for reducing pain and suffering in the world.

19. As I grow older, my understanding of God changes.
20. I feel overwhelmed by all the responsibilities and obligations I have.
21. I give significant portions of my time and money to help other people.
22. I speak out for equality for women and minorities.
23. I feel God's presence in my relationships with other people.
24. My life is filled with meaning and purpose.
25. I do not understand how a loving God can allow so much pain and suffering in the world (R).
26. I believe that I must obey God's rules and commandments in order to be saved (R).
27. I am confident that I can overcome any problem or crisis no matter how serious.
28. I care a great deal about reducing poverty in the United States and throughout the world.
29. I try to apply my faith to political and social issues.
30. My life is committed to Jesus Christ.
31. I talk with other people about my faith.
32. My life is filled with stress and anxiety.
33. I go out of my way to show love to people I meet.
34. I have a real sense that God is guiding me.
35. I do not want the churches of this nation getting involved in political issues (R).
36. I like to worship and pray with others.
37. I think Christians must be about the business of creating international understanding and harmony.
38. I am spiritually moved by the beauty of God's creation enough to help the poor.

(R)—reverse scored

## Part 2: Digital Media Frequency & Form

1. Based on the definition below, on average how many hours per day would you say you access digital media in one form or another?

*Digital Media:* digitized content (text, graphics, audio and video) that can be transferred over the internet or other computer networks and can then be accessed using various digital mediums.

0-2 hours      2-4 hours      4-6 hours      6-8 hours      8+ hours

2. As you read the following list of items, please indicate if you happen to have each one, or not. Do you have...

YES      NO      DON'T KNOW      REFUSED

- A. A cellphone...or an Android, iPhone or other device that is also a cell phone?
  - B. A desktop or laptop computer?
  - C. A tablet computer like an iPad, Samsung Galaxy, Motorola Xoom, or Kindle Fire?
3. Some cell phones are called "smartphones" because of certain features they have. Is your cell phone a smartphone, such as an iPhone or Android, or are you not sure?
    - A. Yes, smartphone
    - B. No, not a smartphone
    - C. Not sure/Don't know
    - D. Refused

4. Please rank the use from most frequently used to least frequently used. Rank them from 1-4 with 1 being the most used and 4 being the least used.

\_\_\_\_\_ Entertainment

\_\_\_\_\_ Social Media

\_\_\_\_\_ Reading/Homework/Research

\_\_\_\_\_ Other

5. How many hours a day would you say that you access some form of entertainment when using digital media per day?

0-2 hours      2-4 hours      4-6 hours      6-8 hours      8+ hours

6. When using digital media for the purpose of entertainment, what do you primarily use it for?
- A. Television/Movies
  - B. Video Games/Gaming
  - C. Music/Radio
  - D. Other \_\_\_\_\_
7. How many hours a day would you say that you access some form of social media when using digital media per day?
- 0-2 hours      2-4 hours      4-6 hours      6-8 hours      8+ hours
8. I have a social media account on...(mark all that apply)
- A. Facebook
  - B. Twitter
  - C. Instagram
  - D. MySpace
  - E. YouTube
  - F. Tumblr
  - G. Google Plus
  - H. Pinterest
  - I. SnapChat
  - J. Formspring
  - K. Other (please specify) \_\_\_\_\_
  - L. Don't know / Don't have own profile

9. When using digital media for the purpose of Social Media, what primary source do you use?
- A. Facebook
  - B. Twitter
  - C. Instagram
  - D. MySpace
  - E. YouTube
  - F. Tumblr
  - G. Google Plus
  - H. Pinterest
  - I. SnapChat
  - J. Formspring
  - K. Other (please specify) \_\_\_\_\_
  - L. Don't know / Don't have own profile
10. How many hours per day do you use digital media for the purpose of reading/homework/research?
- 0-2 hours      2-4 hours      4-6 hours      6-8 hours      8+ hours

## APPENDIX 2

### SEARCH INSTITUTE INQUIRY LETTER

To: juxxxxx@search-institute.org

Justin,

Hello! We are currently doctoral students at The Southern Baptist Theological Seminary in Louisville. For the past two years, our cohort has been engaged in a study on the impact of digital media usage on the spiritual formation and maturity of adolescents. We have determined the best course of action is a sequential quantitative study, first measuring the spiritual maturity and awareness of each student, and then measuring digital media usage in regard to frequency, form, and purpose.

While examining numerous existing surveys designed to gain a more accurate understanding of our population's spiritual awareness and development, we believe the FMS would be an effective scale for our purposes. Ordering that particular survey is not an option on your website.

Is this instrument one for which the Search Institute still charges for per subject participating, or do we simply need permission from the scale's creator to administer the survey as a part of our research?

Thanks for your help as we are pursuing our options for best completing research in this vital area of study in Christian education.

Blessings,

Matthew J. Dixon  
Ed.D. Candidate  
mdixxxxx@students.sbts.edu

Bekah Mason, MDiv  
Ed.D. Candidate  
rmaxxxxx@students.sbts.edu



## APPENDIX 3

### SEARCH INSTITUTE RESPONSE

Hi,

Thanks for reaching out. This is simply a scale that we provide permission to use so there are no fees.

Can you please submit the attached form to me?

Thanks,  
Justin

--

Justin Roskopf, MPP  
Survey Services  
Phone: 612.692.5510  
Fax: 612.692.5553  
Toll Free: 1.800.888.7828 x510

Search Institute  
615 First Avenue NE, Suite 125  
Minneapolis, MN 55413  
[www.search-institute.org](http://www.search-institute.org)

**Search Institute's 40 Developmental Assets® are 25 years old this year!** Find out more about why the Developmental Assets are the most widely-used approach to positive youth development. Visit our website now >>

**Search Institute E-mail Updates** Receive our latest news, research, presentations, tools, stories, and more. Sign up now >>

APPENDIX 4

REQUEST TO USE SURVEY FORM



**Permission Request to Use Items  
From a Search Institute Survey**

Your Name:

Title:

Organization Name:

Address Line 1:

Address Line 2:

City:

State / Province:

Country:

Zip / Postal Code:

Phone:

Fax:

Email:

Organization's status

Nonprofit

For Profit

College/University

Your Organization's Purpose:

From which Search Institute survey are you requesting the use of items?

Please list the items you wish to use from that survey.

*Note: The number of items that may be requested will vary by survey. No more than **30 items** may be requested from Search Institute's Attitudes and Behaviors survey or the Institute's Survey of Student Resources and Assets. Search Institute does not release the scoring for its Developmental Assets<sup>®</sup> measures.*

How many times will the survey be administered, and over what period of time?

Number of times administered:

Over what period of time:      From:              To:

How many surveys will you print per survey administration?

Please describe the project for which you will be using the survey that includes Search Institute's survey items.

**PLEASE NOTE:** If permission is granted for your request, the following terms and conditions will be delineated in the final Permissions Letter:

- Duration of approval (start date/end date)
- Total number of surveys that may be printed/administered
- Cost (if applicable):to
- A copy of your survey which includes Search Institute's survey items will need to be provided to Search Institute
- Proper citation must be included on the translated instrument. Search Institute will provide the appropriate citation.
- Proper citation must be included on any resulting reports or publications. Search Institute will provide the appropriate citation.
- You may not transfer permission to use these items to any other person or organization.

## APPENDIX 5

### REQUEST TO USE SURVEY RESPONSE



#### Permission Request to Use Items From a Search Institute Survey

Your Name: Rebekah Mason and Matt Dixon

Title: EdD Candidates

Organization Name: The Southern Baptist Theological Seminary

Address Line 1: 117 S Moore Rd (Bekah's direct contact information)

Address Line 2:

City: Chattanooga

State / Province: TN

Country: USA

Zip / Postal Code: 37411

Phone: 423-779-7443

Fax:

Email: mason793@students.sbts.edu

Organization's status

Nonprofit

For Profit

College/University

Your Organization's Purpose:

We are studying the form and frequency of digital media usage among adolescents and the potential impact had on the spiritual development and maturity of those adolescents.

From which Search Institute survey are you requesting the use of items?

We are requesting use of the Faith Maturity Scale.

Please list the items you wish to use from that survey.

*Note: The number of items that may be requested will vary by survey. No more than 30 items may be requested from Search Institute's Attitudes and Behaviors survey or the Institute's Survey of Student Resources and Assets. Search Institute does not release the scoring for its Developmental Assets® measures.*

How many times will the survey be administered, and over what period of time?

Number of times administered: up to 600 times, depending upon parental consent.

Over what period of time: From: April 21, 2014 To: May 5, 2014

How many surveys will you print per survey administration?

We plan to transfer it to an online format through a survey software, so no hard copies will be required.

Please describe the project for which you will be using the survey that includes Search Institute's survey items.

High school students at three private Christian high schools will be administered the survey as part of a three part study concerning online community, the form and frequency of digital media usage, and the potential impact upon the spiritual development of the students.

The Faith Maturity Scale is proposed to be the second portion of the survey, which will give us a common scale for measuring students' faith maturity to determine if there could be a correlation between digital media usage and spiritual development and maturity.


Complete this form and fax (612-692-5553) or email Justin Roskopf ([justinr@search-institute.org](mailto:justinr@search-institute.org))

**PLEASE NOTE:** If permission is granted for your request, the following terms and conditions will be delineated in the final Permissions Letter:

- Duration of approval (start date/end date)
- Total number of surveys that may be printed/administered
- Cost (if applicable):to
- A copy of your survey which includes Search Institute's survey items will need to be provided to Search Institute
- Proper citation must be included on the translated instrument. Search Institute will provide the appropriate citation.
- Proper citation must be included on any resulting reports or publications. Search Institute will provide the appropriate citation.
- You may not transfer permission to use these items to any other person or organization.

Search Institute will require a copy of the requestor's findings as well as all raw data (stripped of information that would identify individuals).

APPENDIX 6  
FMS APPROVAL LETTER

  
INSTITUTE  
*Discovering what kids need to succeed*

615 First Avenue NE  
Minneapolis, MN 55413  
1.800.888.7628  
www.search-institute.org

4/16/2014

The Southern Baptist Theological Seminary  
Attn: Rebekah Mason and Matt Dixon, EdD Candidates  
117 S. Moore Rd.  
Chattanooga, TN 37411  
Mason793@students.sbts.edu

Dear Ms. Mason and Mr. Dixon,

Thank you for your interest in Search Institute, and your request to use the Faith Maturity Scale for your research study. Permission is granted for educational, noncommercial research purposes for your proposed use based on the following conditions:

1. The duration of the administration period will be from April, 2014 to May 5, 2014.
2. Approximately 600 youth will be surveyed in three private Christian high schools during the agreed upon period.
3. Proper citations must be included on any resulting reports or publications. Below is our copyright citation:  
  
Survey Item #s [list survey item numbers as they appear in your survey] created by Search Institute, Minneapolis, MN. Used by permission.
4. Permission is granted to the addressee, and is non-transferable.

Again, thank you for your interest in Search Institute and its resources. We wish you well with your research. Please feel free to contact me with any questions or concerns.

Sincerely,

Justin Roskopf  
Survey Services Coordinator

Please sign and date this letter and return a copy to us to indicate your acceptance of the above terms and conditions for your use of the instrument.

Date: *April 16, 2014*  
Signature: *Rebekah L. Mason*  
Print Name: *Rebekah L. Mason*  
*Matthew J. Dixon*  
Title: *EdD candidate*

## APPENDIX 7

### RHETORIC SCHOOL SURVEY—RESPONSE REQUIRED

From: Matt Dixon mdixon@xxxxxx.com  
Subject: Rhetoric School Survey - Response Required  
Date: April 15, 2014 at 5:30PM

Trinity Rhetoric School Families –

For the last few years I have been working towards completing doctoral work at The Southern Baptist Theological Seminary in Louisville, KY. Lord willing, by the end of this year I will finish my thesis as I am researching the impact that the use of digital media has on the Christian formation of adolescents. This has been something that my research team has been particularly passionate about as we realize the impact that digital media is having on our culture today.

In order to complete my research, my team and I are conducting online surveys at the schools we work at to get a decent sampling of students currently in Christian environments. As of now, the plan is to conduct this survey during brunch and/or lunch the weeks of April 21st and April 28th. The survey itself should take no more than 20-30 minutes of your student's time. However, in order for them to participate, I need your consent since we are conducting empirical research on minors. Please know that at no time will your son or daughter's name be reported or identified with his or her responses as these surveys will be completely anonymous.

In order to give consent, I am asking that you (the parent) click on the following link and fill out the online form. There are only a few responses necessary and it should take you no more than a minute. Please respond ASAP as I am hoping to start administering surveys sometime next week. I will not be able to allow your son or daughter to participate if this is not completed.

CLICK THE FOLLOWING LINK TO COMPLETE THE ONLINE FORM:  
[https://docs.google.com/forms/d/1IJLguTpB0hoPgocLcaSIdOjZRJSeG-pemz\\_-peakZ1A/viewform](https://docs.google.com/forms/d/1IJLguTpB0hoPgocLcaSIdOjZRJSeG-pemz_-peakZ1A/viewform)

As a thank you, any student who participates in this survey will automatically be entered to win a \$50 gift card of their choosing from iTunes, Amazon or Starbucks. Once the surveys are completed, one student will be chosen at random to win. Thank you so much for your assistance in helping me complete my studies. Should you have any questions please don't hesitate to contact me. Thank you!

Matthew J. Dixon  
Athletic Director  
Trinity Classical Academy



APPENDIX 8

RHETORIC SCHOOL SURVEY—RESPONSE REQUIRED FOLLOWUP

From: Matt Dixon mdixon@xxxxxxxx.com  
Subject: RE: Rhetoric School Survey - Response Required  
Date: April 21, 2014 at 9:53AM

Trinity Rhetoric School Families –

Welcome back! I hope everyone had a great Easter together!

This is a reminder to an email I sent last week regarding having your son/daughter participate in a survey that I will be conducting over the next 2 weeks. In order for them to be able to participate and in order for them to be entered to win a \$50 gift card I need parental approval from you. In order to give your consent, please click on the link below and fill out the form that will take no more than 1 minute of your time.

CLICK THE FOLLOWING LINK TO COMPLETE THE ONLINE FORM:  
[https://docs.google.com/forms/d/1IJLguTpB0hoPgocLCaSIIdOjZRJSeG-pemz\\_-peakZ1A/viewform](https://docs.google.com/forms/d/1IJLguTpB0hoPgocLCaSIIdOjZRJSeG-pemz_-peakZ1A/viewform)

For those of you that have already completed this, THANK YOU! I appreciate your willingness to help. For your reference please see my original email below. And again, please feel free to contact me with any questions or concerns. Thank you!

Matthew J. Dixon  
Athletic Director  
Trinity Classical Academy

APPENDIX 9

PARENTAL CONSENT FORM

**Agreement to Participate**

You are being requested to give permission for a minor or member of a vulnerable population under your legal supervision to participate in a study designed to understand the impact that the use of digital media has on both the Christian formation of adolescents as well as promoting Biblical community. This research is being conducted by Matthew Dixon, Bekah Mason, and Matthew Vander Wiele for purpose of the completion of empirical research and doctoral studies at The Southern Baptist Theological Seminary. In this research, a person will be asked to complete two surveys in which they will answer questions related to their Christian faith, digital media use and Biblical community. Any information provided will be held strictly confidential, and at no time will a person's name be reported or a person's name identified with his or her responses. Participation in this study is totally voluntary, and the person for whom you are giving approval to participate in this study is free to withdraw from the study at any time.

By entering your E-mail address below, you are giving informed consent for the designated minor or member of a vulnerable population to participate in this research if he or she desires.

Participant/Student Name: \_\_\_\_\_

Participant/Student Grade: \_\_\_\_\_

School Affiliation:    Heritage Christian    Silverdale Baptist    Trinity Classical

Parent/Guardian Name: \_\_\_\_\_

Parent/Guardian Email: \_\_\_\_\_

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## ABSTRACT

### DIGITAL MEDIA USE AND ADOLESCENT CHRISTIAN FORMATION: A CORRELATION STUDY

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Many schools, classrooms, and homes naively embrace the frequent use of technology assuming its newness and apparent helpfulness must be utilized to live in the modern age. However, many fail to ask what effect the frequency and form of technological use is having on the Christian formation of adolescents. If one of the primary goals of Christian education is to promote Christian formation, this must be considered by all Christian educators as well. This research serves to demonstrate the effects of both the frequency and form of digital media use among adolescents and provide practical implications for Christian educators and families alike.

Chapter 1 details the problem evident within American culture that has seen the use (and subsequent overuse) of digital media—specifically among adolescents. This chapter serves to demonstrate the need for research.

Chapter 2 looks at the current literature base in regard to the frequency and form of digital media use among adolescents. Additionally, attention is given to the concept of Christian formation both in definition and in process. Finally, the relationship of digital media use to adolescent Christian formation is addressed based upon the precedent literature.

The overall research design can be found in chapter 3 as it looks at the purpose, design overview, population, delimitations, and instrumentation. The use of the Faith Maturity Scale (FMS) was utilized alongside an additional quantitative look at the

frequency and form of digital media use among adolescents. Special attention was given to students in Christian schools in the United States.

Chapter 4 presents the research findings demonstrating nearly no correlation between the frequency and form of digital media use and the Christian formation of adolescents. Each area demonstrated no significant correlation coefficient worth noting. Specific areas worth noting specifically within the FMS are discussed as possibilities for future study.

Chapter 5 analyzes the present dating noting the need for Christians to use various tools within God's creation (such as digital media) for good purposes just as was mandated in the Garden of Eden (Gen 1:28). The tools given are not what prohibit Christian formation. Rather, the applications of these tools by the human heart have the ability to produce both good and evil (Jer 17:9).

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