

## Dedication

To God, the Author of all things good, and to my wife, Sheila, whose love and support have been my constant strength. May this work reflect the beauty of love and faith that both of you have instilled in me.

## Table of Contents



<b>Preface .....</b>	<b>6</b>
<b>1. Introduction.....</b>	<b>122</b>
<b>2. Lost in Scroll: Why Focus Feels Impossible....</b>	<b>211</b>
<b>3. The Cure for a Distracted Mind .....</b>	<b>46</b>
<b>4. How Technology Shapes Our Walk with God ..</b>	<b>722</b>
<b>5. The Transformative Gift of Solitude.....</b>	<b>855</b>
<b>6. Focused Hearts: Attention and Prayer .....</b>	<b>101</b>
<b>7. The Lost Art of Deep Reading .....</b>	<b>1189</b>
<b>8. Purging Distraction: Detox and Flow .....</b>	<b>1334</b>
<b>9. Conclusion .....</b>	<b>157</b>



## Preface



Imagine this scenario: You have just landed after a long flight to a foreign city, far from home. Exhausted from the journey, you drop your bags into the trunk of your rental car and realize your phone is dead due to a broken charging cable *and* there is no GPS in the car. With no map or directions, you make the unwise decision to attempt to start the hour-long journey to your hotel. You find yourself driving aimlessly through unfamiliar streets, taking wrong turns, backtracking, and growing increasingly frustrated as you try to find your way. The more you wander, the more lost you feel, and the more elusive the safety of your hotel becomes.

This scenario might sound like a travel nightmare, but it's an apt metaphor for how many of us live our lives today. Without a clear sense of direction, without focus, we wander through life aimlessly, responding to the immediate demands or distractions of our digital devices. Just as a journey requires a destination and a map, we also need a clear purpose and focus on our journey if we are to reach our goals and live life abundantly.

The apostle Paul understood this well, as he expressed in Philippians 3:13–14, “Forgetting what is behind and straining toward what is ahead, I press on toward the goal to win the prize for which God has called me heavenward in Christ Jesus” (NIV throughout). Paul’s singular focus is on his spiritual journey, pressing on toward the goal, despite the distractions of his day. Paul reminds us here that our path to a full and abundant life in Christ requires a deliberate focus and perseverance, ignoring past and present distractions. In the following verse Paul shifts his perspective from his own testimony to his exhortation for you and me: “All of us, then, who are mature should take such a view of things. And if on some point you think differently, that too God will make clear to you.”

Paul is calling us here to adopt his same mindset of pressing on toward the goal. He is graciously reminding us that maturity is not about arriving at spiritual perfection but about having the right attitude toward the journey—an attitude of perseverance and focus. Paul acknowledges that while we all have different perspectives and ways to make the journey, the promise is clear: God will reveal His truth to you in due time if you can keep your eyes focused on the prize.

Yet in today’s digital world, it can seem impossible to remain focused on God’s calling for our lives or keep focused on anything really. From the moment we wake, our attention easily drifts and bounces as if it is under siege from outside forces designed to draw us away from where we intend to focus our thoughts. Our devices buzz with notifications leading us to the infinite scroll of

social media and news feeds—all leading us away from deep and meaningful moments of our life. Yet Jesus said, “I have come that they may have life, and have it to the full” (John 10:10). This promise of an abundant life is not found in the superficial satisfaction that our devices offer but in the richness of our relationship with God, the depth of our connections with others, and the pursuit of our true purpose.

This book is *not* another book on how to develop healthy habits for using digital technologies. The dangers of social media and excessive screentime have been researched and discussed ad nauseam. This *is* a book about (1) the attention economy, a system that works tirelessly against you to capture and sustain your attention, and (2) how you can reclaim your focus. My research, including numerous personal interviews with experts and in-depth studies conducted as part of my academic work, reveals that this situation is not merely a matter of personal willpower. It’s actually a carefully crafted assault on your ability to concentrate. At first this may sound a bit like the latest conspiracy theory. But stay with me, and I will make the case, using empirically validated research, along with admissions from those running the companies in the attention economy, that your brain is literally being rewired to make it more difficult for you to concentrate. These physiological changes are manifested deeply in the increasing difficulty you have felt in praying for more than five minutes, spending time alone with your thoughts, and in deep reading of the Bible and other literature. I will also make the case that the attention economy is largely

responsible for conditioning us to seek instant gratification, which leaves us constantly restless and unfulfilled. You will learn how “solitude deprivation,” a new diagnosis for our era, is leaving us increasingly isolated, more informed yet less wise, more entertained yet less joyful.

The thesis of this book is that the abundant life is found in pursuing with all our being the disciplines found in the Bible such as solitude, prayer, and meditation. Through these disciplines we learn who we are in our Creator’s eyes and, therefore, the meaning of our existence. It is only then that we are empowered to reject the trinkets of the culture’s digital pleasures and confidently replace the time we previously used for the mindless pursuit of pleasure with tasks that create meaning in our life. This book is a journey. In any journey, we must have a clear understanding of both our destination and our starting point. To that end, I invite you to take a moment to honestly examine your starting point by taking the [Smartphone Addiction Scale](https://www.healthyscreens.com/scale) (<https://www.healthyscreens.com/scale>). The Smartphone Addiction Scale (SAS)<sup>1</sup> is a widely used tool designed to assess the risk of smartphone addiction. It has been validated through several studies, showing good reliability and construct validity. The scale typically measures various dimensions such as daily-life disturbance, positive anticipation, withdrawal, and tolerance, which are characteristic of behavioral addictions.

Now that you have a picture of your starting point on our journey, it is time to forget your past failures, press

on to your destination, and reclaim your focus from the attention economy that seeks to fragment it. I will provide you with the tools to face this battle on two fronts: *individually*, by providing you with proven research on how to use three types of your attention on developing your passions as an antidote to distraction, and *systemically*, by helping you understand the world in which you live and the powerful design strategies of the attention economy that profit from your distraction. But more than anything else in this book, my deepest prayer is that you come to live the life Jesus calls you to—a life of deep connection, intentional solitude, and unwavering attention to the things that truly matter.

While I can't promise your life will be full as a result of reading this book, I can tell you that my life has been transformed through what I have learned. When I started studying this topic many years ago, I could feel the changes in my attention span and the incessant feeling of needing to check my device. My love of deep reading, prayer, and solitude were becoming increasingly difficult. Today, much has changed in my life as a result of what I am about to share with you. I have relearned to enjoy the transformative power of solitude. I have rekindled my love for reading Scripture and all kinds of books. Most importantly, I have deepened my relationship with my Creator and those around me through a mind that is able to focus again.

Just as you wouldn't embark on a journey without knowing where you're headed, you shouldn't live your life without clear focus and purpose. This book is your guide to reclaiming your attention and setting your

course toward a life of deeper meaning, stronger faith, and true joy. Think of this book and your commitment to finish it as a manifesto for reclaiming your focus, your faith, and ultimately your life. In this age of distraction, commit now to put down your phone, look up, and join me on this journey. Together we will resist the pull of the digital world and embrace the peace, joy, and fulfillment that come from living in the presence of God.

# 1

## Introduction

*Do not conform to the pattern of this world,  
but be transformed by the renewing of your mind.*

—Romans 12:2

*Aim at Heaven and you will get earth 'thrown in':  
aim at earth and you will get neither.*

—C.S. Lewis



“Grandpa, put down your phone! Look at this!”

Those words, spoken for the fourth time by my four-year-old grandson Flynn pierced through the digital fog enveloping my mind. To give my son and daughter-in-law a rare chance to spend some time away together, we had offered to watch our grandkids for the weekend. By the end of the weekend, after a full schedule of activities, I was exhausted. In a moment of fatigue, I sought refuge in my device, retreating from the real world into an endless stream of information and distractions.

“Huh?” I grunted, blinking as I surfaced from the depths of a never-ending scroll of news headlines, my mind far away from the room where I sat. Oblivious to the world around me, including the precious little boy standing a few feet away, I had missed the moment that

truly mattered. After working on his Lego Star Wars Land Speeder for thirty minutes—an eternity for a four-year-old—Flynn was trying to unveil to me his finished product, a proud accomplishment in his young world. He was inviting me to share in his wonder and joy. But instead of celebrating with him, I looked up only to notice my grandson turning away with tears in his eyes, a dejected child who had given up after desperately trying to regain my focus. Flynn’s plea was a wake-up call for me, a reminder of what truly matters and a commitment to regain control of my focus.

I’m sure you can relate to this scenario. We’ve all experienced the frustration and hurt of being ignored by someone engrossed in their phone, and we’ve all been guilty of doing the same to others. These moments of disconnection reveal a deeper issue in our lives: our struggle to maintain focus on what truly matters. Despite our best intentions, we often find ourselves drawn into the shallow allure of our devices, sacrificing meaningful interactions and experiences.

As an Information Systems professor at a Christian university, my dedication to studying technology and its impact on our lives is not merely theoretical. My own research on how to make technology more engaging, decades of experience working in the tech world, and personal interviews with industry insiders has allowed me to gain firsthand insights into the methods used to develop these technologies.

I have taught my students how to navigate this digital world responsibly and to cultivate a biblical worldview that prioritizes real-life connections over virtual ones.

Yet despite all of this knowledge and experience, like the apostle Paul, I found myself in a battle between *knowledge* and *practice*. Paul’s words in Romans 7:15–18 resonated deeply with me: “I do not understand what I do. For what I want to do I do not do, but what I hate I do. . . . For I do not do the good I want to do, but the evil I do not want to do—this I keep on doing.” I knew the dangers of excessive screen time, but I struggled to apply that knowledge in my own life.

Join me on this journey: a journey to reclaim our focus from the attention economy that seeks to fragment it. It’s a journey to reconnect with the abundant life Jesus promised, a life found not in the fleeting satisfaction of our devices but in the deep, lasting joy of spiritual practices like prayer, solitude, and reading the Bible. Since any battle must be won by offense and defense, this book is divided into three parts:

1. **Offense:** Learn what the attention economy is and how to diminish your need for distraction.
2. **Defense:** How to deepen your prayer, solitude, and deep reading in the attention economy.
3. **Disconnecting from tech and reconnecting to the abundant life.**

### ***Part One—Offense: The Attention Economy and The Antidote to Distraction***

In part one of the of the book we will first examine the systemic aspects of our technologies by looking at the attention economy and how it is contributing to your inability to focus. Specifically, we will see how millions

of dollars and some of the brightest minds in the world are dedicated to capturing and maintaining your attention on your device. For example, we will see how specific design strategies used by big tech companies like the infinite scroll and algorithms can be used to capture and then maintain your attention. We will also learn to recognize the anatomy of our addictions and avoid the pull of getting our next “dopamine cookie” and avoid stress-inducing “cortisol loops.” Finally, we will see how the designs of these tools shape us toward values that are sometimes contrary to the fruit of the Spirit, which we want to see in our lives.

Second, in part one, we will reconnect with the abundant life as the untapped antidote to distraction: developing a life full of gifts, abilities, and activities that demand our full attention. In the Gospel of John, Jesus says, “I have come that they may have life, and have it to the full” (John 10:10). This promise of abundant life is not about the quantity of our experiences but the quality of our connection with Him. It’s about finding joy and contentment in His presence, even as the world clamors for our attention. Though much has been written on the power of a digital detox, we will learn from both the research and our own personal experiences that, by itself, this method generally falls short of our goals to engage deeply with our world and those around us. If you have ever experienced a digital detox, you know the pain, boredom, and mindlessness that is created when we choose to disconnect from our devices without something else to fill the vacuum of time we had previously allocated to our devices.

The critically unique point of this book is that before starting any digital detox, we must first define and identify the abundant life—a life filled in pursuit of our unique giftings that require our complete attention. To do this, we will learn how to counter the pull of our devices through a powerful theory in the research called “flow.” Although the theory might sound like an eastern meditation practice, we will see that flow is something you have already experienced many times. We will start by learning how this type of extreme focus becomes an antidote to distraction. We will see how gamers, artists, and rock climbers all engage in activities that fill their life with complete focus and, critically, how this state of mind virtually eliminates the distractions of the attention economy. Using a powerful seven-step method starting with prayer, we will, like the man in Jesus’ parable of the pearl of great price, happily give away our distractions for the things we truly value.

### ***Part Two—Defense: Elevating Solitude, Prayer, and Deep Reading in the Attention Economy***

In part two, we will focus on the defensive front by learning how to view our technology biblically and how technology, if left unexamined, will fracture our ability to focus on the disciplines of our faith—solitude, prayer/meditation, and deep reading. We will start by defining technology biblically and then examine the importance of understanding the myth that our technologies are neutral, neither good nor bad. We will learn that the fight for our focus must be won by understanding the battle on two fronts—the individual

and systemic. Individually, it is indeed my responsibility to put down my phone when I am around my grandson and those I love. However, we will also learn that there is a systemic element to overcoming our addiction. Every tool, including our digital ones, influences how we perceive reality. In other words, we will learn that while we influence our tools, they in turn influence us in sometimes unhealthy and unexpected ways. The key to freedom is in recognizing the values inherent in the technologies and how these values gently nudge us closer toward or away from our own values.

Next, in part two, we will look at three significant ways our tech, if left unexamined, is fracturing our Christian practices of solitude, prayer, and reading.

Solitude: We are the first generation in history that is never truly alone. For even when we are alone, our devices constantly demand our attention. Researchers have identified this phenomenon as “solitude deprivation.” To counter solitude deprivation, we will, first, learn from Jesus’, Elijah’s, and King David’s examples as well as how the great political and business leaders in our country, including Thomas Jefferson, Bill Gates, and Steve Wozniak, have all stated the critical importance of solitude. Second, we will learn the specific ways the attention economy is designed to work against our desire for solitude and practical steps we can take to “tame our tech.” Finally, we will learn practical methods to carve out time for solitude in our lives by using the life changing one-hour daily digital fast and the transformative quarterly solitude retreat.

Prayer: We will explore the transformative research linking our attention to our prayer life. This chapter is informed by my advanced studies and personal interviews with spiritual leaders who have devoted their lives to the practice of prayer. We will learn that despite the endless distractions, developing three types of attention in our lives is possible: focused attention, rote attention, and boredom. Yes, boredom. We will develop our focused attention through practical methods such as the prayer walk and learning to “take captive every thought.” Finally, we will learn how to hear the still, small voice of God as we develop our brains with the value of rote attention tasks like taking a shower, doing the dishes, and gardening.

Deep reading: I commend you for taking the time for reading this book. In this chapter, we will see how the superficial, fast-paced nature of the digital world is physiologically rewiring our brains and making it more difficult to read deeply. We will learn that, in addition to more shallow reading, we are reading less. Combined, we will see the fascinating research on how this lack of reading is impacting our ability to empathize with others. Finally, we will look at practical ways we can recapture our love for deep reading and to cultivate a life centered on the eternal truths of Scripture.

### ***Part Three—Disconnecting from Tech***

In part three, we will learn how to complete a digital detox while we aggressively pursue our uniquely gifted passions. We will learn the three critical lessons to perform after the detox by looking at the Amish’s

deliberate approach to selecting technologies that align with their values and rejecting those that negatively impact their faith or way of life. We will also see how adding “friction” is a powerful method shown to disrupt the automatic nature of device usage and encourage more mindful engagement with our technologies.

So let’s begin. Join me in putting down your phone. Let us look up and see our husbands, wives, kids, grandkids, and our brothers and sisters in Christ anew. Join me in reconnecting with the beauty of the life God has given us. It’s been too long. Together, we’ll learn how to resist the pull of the digital world and embrace the peace and fulfillment that come from living in the presence of God. Let’s reclaim our focus and live the abundant life Jesus calls us to. Let’s embrace the joy of missing out on the superficial and dive deep into the richness of His love. Welcome to the journey of reclaiming our focus and discovering the abundant life in Christ!

### ***Questions for Reflection***

1. Read Romans 12:2. How does this verse challenge you to resist the influence of the attention economy? What practical steps can you take to “renew your mind” in today’s digital age?
2. How has the attention economy affected your ability to engage in deep spiritual practices like prayer or Bible study?

3. Discuss the ways in which your digital habits either help or hinder your walk with God. What changes could you make to align more closely with your spiritual goals?

## 2

# Lost in Scroll: Why Focus Feels Impossible

*Be very careful, then, how you live—not as unwise but as wise, making the most of every opportunity, because the days are evil.*

—Ephesians 5:15–16

*For many of us, the great danger is not that we will renounce our faith, it is that we will become so distracted and rushed and preoccupied that we will settle for a mediocre version of it.*

—John Ortberg



As a child, I was captivated by magic. The wonder of seeing a magician saw a woman in half, make coins disappear, or levitate objects before my very eyes left me in awe. I have wonderful memories of hours in the Disneyland magic shop, finding the perfect trick, followed by countless hours practicing the trick, and the final unveiling of the trick to all my friends and family. The beauty of a magic trick is in entertaining the audience by performing the seemingly impossible without the audience knowing how they are being influenced to behave.

One of my favorite tricks involved manipulating the audience's choices without their knowledge, and it never failed to leave the audience completely astounded. Here's how it worked: A person in the audience selected a card and inserted it back into the deck without my knowing the selected card. Using some sleight of hand, I moved that card to the top of the deck and then shuffled the cards, while being careful to keep the selected card on top. I then laid out the cards, face down, into four piles without the audience knowing that I knew the exact location of the selected card and pile. My favorite part of the trick was what happened next—the point that the audience's choices were seriously manipulated without their knowing. I instructed the audience to “pick two piles.” If the audience picked one of the piles that had their selected card, I would remove the other two piles. Conversely, if the audience picked the piles that did not have the selected card, I would remove those two piles. So no matter what piles the audience selected, I either removed or kept them to make sure the audience's card would always remain. The key to this trick is that I was intentionally vague in saying, “Pick two piles,” instead of something like, “Pick two piles to remove.” I then continued this process until there was only one card remaining, which left the audience completely dumbfounded how they magically selected their own card from all the cards in the deck!

In my years spent researching the attention economy, I've found myself reflecting on this childhood love of magic when considering the complexities of our modern digital world. Today, tech companies have become the

new magicians employing their own brand of “magic” to captivate our attention. But unlike the innocent wonder of childhood magic, the tricks used by these digital illusionists are designed to manipulate and exploit our cognitive processes. Their goal is not to amaze or entertain but to capture and hold our focus for profit—often without our even realizing the extent of their influence.

In the same way that I manipulated the audience to select their own card, I have learned that tech companies use sophisticated algorithms and psychological insights to manipulate us in order to keep us engaged with their platforms. Notifications, infinite scrolling, and personalized content streams are the digital equivalents of a magician’s flourish, drawing us deeper into their world and away from the real one. This modern magic preys on our natural tendencies and desires, turning our attention into a commodity that can be bought, sold, and manipulated for profit.

While my childhood experiences with magic were harmless and filled with joy, the magic of tech companies operates in a more insidious manner. It subtly alters our behaviors, reshapes our interactions, and diminishes our capacity for deep and meaningful engagement with others and our faith.

## ***Reasons for Studying the Attention Economy***

I believe there are at least three reasons for you to join me in my journey to understand why it is important to

understand the attention economy. First, we need to understand that a significant reason for our lack of focus is not our fault. The path to renewed focus certainly involves making personal changes to our lives, but there are systemic issues that we must understand in order to better identify and successfully make these changes. Second, understanding this problem helps us understand the impact the attention economy is making on our world. Retaining and focusing our attention is arguably the most valuable endeavor for the brilliant minds in our world to continue to be able to live out lives in the image of our God in creating new products and services. Finally, as we clearly understand the attention economy, we can work together to find solutions, both within the church and for society as a whole.

### ***Introduction: Defining the Attention Economy***

The term “attention economy” was first coined by Michael H. Goldhaber in his 1997 article, “The Attention Economy and the Net,” published in the journal *First Monday*.<sup>1</sup> Goldhaber explored how the internet and digital technologies were shifting the economic landscape from one focused on material goods to one centered around capturing and monetizing human attention. His article laid the groundwork for understanding how attention became a scarce and valuable commodity in the digital age.

More recently, the term “attention capitalism” builds on the concept of the attention economy referring to the

economic system in which human attention is treated as a scarce commodity and monetized by businesses, primarily through advertising. This model is prevalent in the digital age, where platforms like Google, Facebook, and X generate revenue by capturing and retaining user attention. *The goal is to maximize the amount of time users spend on their platforms, which in turn increases the value of the advertising space.* According to Tim Wu, the scholar who coined the term attention capitalism, these companies leverage advanced technology and psychological insights to keep users engaged, often at the cost of their mental health and well-being.<sup>2</sup> This model has profound implications for individuals and society, including Christians, who are called to live mindful and intentional lives.

### ***Big Tech and the Motivation to Capture Attention***

As of this writing, the combined revenue for Google in the last five years is 1.192 *trillion* dollars.<sup>3</sup> Have you ever considered why companies like Google, and others in the attention economy like Facebook, and X, are so successful without ever asking for a penny from you? The way these companies have been so successful is by applying some sleight of hand to capture your attention without your knowing it and then selling it to the businesses who pay to deliver targeted advertising to you based on what Google knows about you. Tristan Harris, a former developer for Google and now founder of the Ethical Center for Humanity, has summarized this well,

saying, “If you’re not paying for the product, you are the product.”<sup>4</sup>

To illustrate how this works, consider an example we are all familiar with: researching and purchasing a product online. In this case, consider the experience of my wife and I when we needed to replace our couch and loveseat. We began our search using Google with search terms like “furniture stores near me.” We shopped online, looking at the inventory of couches in nearby stores. We also used Facebook Marketplace to look into gently used options. Within one day, my wife noticed that the abundance of ads in her social media accounts were dedicated to sofas and loveseats. Another common example is how we may comment, “I swear my phone hears my conversations,” as the ads delivered to us are seemingly magically targeted to our interests—even in cases where we believe we haven’t supplied the information online.

So, what sort of sleight of hand are the digital magicians employing to do this trick? This seamless targeting happens because companies like Google and Facebook track our online activities, gathering data on our interests, preferences, and behaviors. Every search query, website visit, and social media interaction is logged and analyzed to build a comprehensive profile of each user. This data is then used to deliver personalized advertisements, ensuring that the ads we see are relevant to our current needs and interests. For businesses, like those selling couches in my example, this targeted advertising is incredibly valuable as it allows them to reach potential customers who are most likely to be

interested in their products. The success of this model is reflected in Google's massive revenue, demonstrating the power and profitability of the attention economy.

### ***Effects of Attention Economy***

At first glance, we might conclude there really isn't a problem with this business model. After all, what is the problem with Google understanding my digital profile and helping me in my search for a couch or other products it knows about me? The problem is that the attention economy relies solely on your engagement. In order to build your digital profile, these companies employ some of the brightest minds in the world to capture and keep your attention, and this results in endless distractions from the people and things you value most in life. The more time you spend on these platforms, the more data they generate, which in turn can be monetized through targeted advertising. The research is clear that the end result of the attention economy is addiction and the inability to focus, along with stress, anger, and intolerance.

### ***Internet Addiction***

The most vulnerable to the effects of the addictive nature of the attention economy are our young people. Recent research has shown several troubling conclusions. One comprehensive study tracked the smartphone use of 203 teenagers, revealing a median smartphone use of more than four hours per day, with some teens using their phones for more than sixteen hours a day.<sup>5</sup> These devices were picked up and checked a median of fifty-one times

per day, with the highest number of pickups reaching 498 in a single day. This frequent engagement with smartphones is driven by numerous notifications—half of the participants received 237 or more notifications daily, leading to constant distractions and interruptions.

The content consumption patterns highlight the captivating power of certain apps. For instance, TikTok was used by 50 percent of the participants for a median of nearly two hours per day, with some users spending upwards of seven hours daily on the platform. The app’s design, which involves automatic video playback and highly personalized content recommendations, ensures minimal user effort and maximum engagement. This irresistible draw is further amplified by the algorithm’s ability to quickly adapt to user preferences, making the app even more addictive.

In a broader context, digital consumption has dramatically increased over the years. A significant percentage of teens are heavily reliant on their devices, with 85 percent of teens aged thirteen to seventeen using YouTube, 72 percent using Instagram, and 69 percent using Snapchat.<sup>6</sup> Gloria Mark, one of the leading researchers in attention, reminds us these types of statistics are especially troubling for youth because their self-control and executive functions are not yet mature. These functions develop throughout childhood, reaching similar competencies to adults at around age ten.<sup>7</sup> In a study that examined twenty-two students participating in a twenty-four hour fast from their phones, students used terms like “unbearable,” “miserable,” “jittery,” “very

anxious,” and “in withdrawal” to describe the experience.<sup>8</sup>

Lest we think the problem is limited to our youth, the reality is we have all become addicted to our smartphones. One study showed that the compulsion to engage in social media can be more difficult to resist than the desire for tobacco, coffee, alcohol, and eating.<sup>9</sup> Another study showed the average person checks their cellphone 144 times per day!<sup>10</sup> This equates to once every ten minutes! This relentless drive for engagement has resulted in a staggering 40 percent of the population exhibiting some form of internet-based addiction, with many individuals unable to imagine life without their smartphones. Most of these are not conscious choices. Rather, the companies creating the platforms on our devices are getting better at keeping us addicted through a chemical called “dopamine.”

### ***Anatomy of Addiction: Dopamine and Cortisol***

While there are many facets to being addicted to our devices, two chemicals play a huge role through physiological impacting our body: dopamine and cortisol. Dopamine has been termed the “molecule of more” because the more we trigger the release of dopamine, the more we will want our next “shot.” Meurisse reminds us that, contrary to popular belief, dopamine is not itself a pleasure chemical.<sup>11</sup> Dopamine is a neurotransmitter that makes us *anticipate* pleasure. It is the same chemical that is generated when we anticipate eating or addictive drugs. The reality, however, is that the generation of the chemical does not

mean you actually receive the expected pleasure. Generally, the experience is the opposite with technologies such as social media notifications. When you see a notification, you anticipate a reward you will receive, such as seeing likes or comments to your posts, which triggers dopamine in your brain. When you check your stats on your financial portfolio or your performance at work, you expect a reward from seeing positive numbers. When you visit YouTube, you expect to see interesting or engaging videos. All of these expectations trigger the release of dopamine. The reality is that we are generally left feeling empty and unfulfilled.

We can see a good example of how this cycle works when looking at how dopamine functions for drug and alcohol addicts. Addiction generates a continuous triggering of the release of dopamine, which ultimately strengthens tolerance to this stimulation. As a result, the drug addict needs progressively stronger doses to experience the same sense of pleasure. Even after the addict realizes the drug has ruined his life, the brain continues to stimulate dopamine because it remembers it soothed a need in the past. In the same way, as we begin to realize the shallow and negative aspects of technologies in our life, we continue to want more—just as we did when they still made us happy.

The other chemical, cortisol, is a hormone released by the adrenal glands in response to stress. It is part of the body's fight-or-flight response mechanism and plays a crucial role in regulating various bodily functions, including metabolism, immune response, and stress response. In the context of our technology, researchers<sup>12</sup>

have studied cortisol loops. The cortisol loop refers to the cycle of stress and behavior that can be perpetuated by the frequent checking of our smartphones. Here is how it works:

**Triggering Event:** When you receive a notification or hear a phone alert, the body responds by releasing cortisol.

**Stress Response:** The release of cortisol triggers a stress response, leading to heightened alertness and a sense of urgency.

**Behavioral Reaction:** To alleviate this stress, you check your phone, seeking relief by addressing the notification.

**Temporary Relief:** While checking the phone might provide temporary relief, it often introduces new information or stimuli that can trigger further stress.

**Cycle Continuation:** This leads to a repetitive cycle where you continually check your phone, leading to a perpetual loop of cortisol release and stress. Neuroendocrinologists have highlighted how even just the sight or sound of a phone can trigger cortisol release, even if the notification is not immediately checked. This creates a loop where the stress of potential notifications drives the need to check the phone, which in turn leads to more stress.

### ***Fragmented Attention***

The attention economy is having broad effects on our ability to focus. Studies show that the average duration of attention on a screen before switching to another screen is declining. Gloria Mark's research reveals that

our attention spans while using digital devices have become extremely short, averaging about forty-seven seconds on any given screen.<sup>13</sup> This decline in attention span is not just limited to work environments but extends to personal and social contexts as well. The frequent switching of tasks and interruptions caused by notifications can lead to cognitive overload and stress. Mark's research has shown that multitasking and continuous partial attention result in decreased performance, increased errors, and higher stress levels.<sup>14</sup>

In researching this book, I interviewed Samuel James, author of *Digital Liturgies* and a number of other excellent books. James pointed out that the fragmentation of attention is not just a personal issue but also a cultural one. There is something about working on a screen that makes it more difficult to focus. And especially with the advance of artificial intelligence taking on increasing roles, there needs to be a cultural shift in defining “fulfilling” work, a shift towards a reevaluation of what the abundant life looks like in our vocations. James explained it to me like this:

If you're a construction worker or contractor or something like that, then your default might be different than an information worker. So, an information worker might actually have to think more holistically about how to reenter their attention. . . . There is something about physical work and the tactile experience that actually enables and empowers being in the moment more than information work.

In general, I think we all sense this feeling of losing control of our attention. How many times have we regretted tuning out with our phone while our child pleads for our attention? Or how often do we regret simply enjoying a moment without the urge to take the picture so we can share it with others? Tristan Harris, in a *60 Minutes* interview, explained that our lack of control is not entirely due to a lack of self-discipline.<sup>15</sup> It is, instead, because billions of dollars have been invested to make this outcome inevitable. In the interview Harris said, “There’s always this narrative that technology’s neutral. And it’s up to us to choose how we use it. This is just not true. . . . It’s not neutral. They want you to use it in particular ways and for long periods of time. Because that’s how they make their money.” Harris is now a leader in providing growing awareness that the attention economy drives companies like Google into a “race to the bottom of the brain stem.”<sup>16</sup> The key to improving our lives and our focus, therefore, is to better understand the tactics used by these companies.

### ***Anger and Intolerance***

Aside from internet addiction and lack of focus, the research is increasingly clear that culturally we are becoming more angry and less tolerant of other viewpoints. For example, Jonathon Hari discusses research in his book on how the way to get the most views on YouTube is to include words like “hates,” “obliterates,” “slams,” or “destroys” in your title.<sup>17</sup> Words that will increase your retweet rate are “attack,” “bad,” and “blame.” There is a popular saying on the

internet that sums up the research well: “If it’s more enraging, it’s more engaging.”

Besides fostering anger in ourselves, and ultimately in society, social media platforms contribute to the creation of knowledge silos or “echo chambers” that can foster intolerance.<sup>18</sup> These sites are driven by algorithms which are designed to maximize user engagement by curating content that aligns our individual preferences and beliefs. Consequently, we are exposed primarily to information that reinforces our existing viewpoints, creating these echo chambers where dissenting perspectives are rarely encountered.

### ***Designed for Addiction***

The addictive nature of the attention economy is intricately tied to the design strategies employed by technology companies to capture and sustain our focus. In 2009, Stanford researcher B. J. Fogg introduced “behavior design,” a discipline rooted in the principles of behaviorism.<sup>19</sup> This approach posits that behavior change occurs when three elements converge: motivation (wanting to do it), ability (being able to do it), and prompts (being triggered to do it). Fogg’s behavior design draws from classic behaviorist principles, much like B. F. Skinner’s work with operant conditioning and reinforcement, which demonstrated how behaviors could be shaped through rewards and punishments.

Fogg’s behavior design framework has been used to create highly engaging digital experiences by leveraging intermittent rewards and other persuasive techniques to capture and retain users’ attention. This methodology has

raised ethical questions about the responsibility of tech designers in creating products that can lead to addictive behaviors and diminish users' control over their attention and time.

Harris and many other tech leaders today studied under Fogg at Stanford and learned how to apply these principles to the design of digital products. Harris, who was previously a Google project manager, has since become vocal about the ethical concerns surrounding these techniques, particularly in how they exploit users' psychological vulnerabilities to increase engagement. He likens the repetitive checking of apps and notifications to Skinner's rats, which were conditioned to press levers in the hope of receiving unpredictable rewards.<sup>20</sup>

There are at least four key design strategies used by the big tech companies to keep us engaged: the like button, the infinite scroll, notifications, and algorithms.

*Like button:* The very essence of the like button, established by Facebook in 2009, has redefined online social interaction by creating a simple-yet-powerful tool that allows people to show their appreciation or support for literally any piece of content. The problem with the like button is that studies have found that chasing likes stimulates the reward centers of the brain, most notably through the release of dopamine, with mechanisms very much akin to those seen in gambling. This can cause compulsive behaviors where we continuously attempt to seek and feel validated by likes and get into a feedback loop that strengthens social comparisons and in some instances leads to anxiety and depression, especially

among the teen and young adult populations.<sup>21</sup> The reward centers in the brains of adolescents are especially sensitive; this means that the amount of dopamine activated in response to likes associates with greater sensitivity to social rewards and reinforcement with use.<sup>22</sup> The continual quest for approval leads to checking social media profiles again and again, thus reducing attention span and at the same time heightening feelings of inadequacy.<sup>23</sup> The good news is that research has also shown that decreasing the use of social media—and, therefore, exposure to these cycles of validation—can help decrease feelings of loneliness and depression.<sup>24</sup>

*Infinite scroll:* Aza Raskin, now co-founder of “Center for Humane Technology,” was a designer and technologist and inventor the concept of infinite scroll, a feature now ubiquitous across social media platforms and various websites. Infinite scroll allows users to continue consuming content without the need to click to the next page, creating a seamless and uninterrupted flow of information. While the design was initially intended to enhance user experience by making content more accessible, Raskin has since expressed concerns about its impact on our lives. In Hari’s book *Stolen Focus*, Raskin discusses how he has calculated that infinite scroll increases time spent on sites like X by approximately 50 percent, which on a global scale, amounts to the equivalent of 200,000 human lifetimes being consumed by scrolling rather than engaging in other activities.<sup>25</sup>

*Notifications:* Notifications are designed to create a sense of urgency and continuous engagement. Big tech companies rely on these design elements as comparable

to the intermittent reinforcement used in gambling, as highlighted by B. F. Skinner's behavioral psychology principles, where unpredictable rewards encourage repeated behavior.<sup>26</sup> These notifications serve as constant prompts to return to our devices, creating a cycle of frequent engagement and distraction. This pattern is exacerbated by the fact that apps like Snapchat and Discord send numerous notifications, encouraging users to continually check their phones throughout the day.

*Algorithms:* Algorithms play a critical role in sustaining attention by learning and adapting to user preferences. For example, TikTok's algorithm quickly adapts to a user's interests, ensuring that the content served is highly engaging and relevant.<sup>27</sup> This low-friction interaction, where videos start playing automatically without requiring any user action, makes it easy for users to spend hours on the platform without even realizing it. The types of algorithms vary, but they all have one thing in common: They will show you things to ensure that you keep your eyes on the screen.

### ***Confessions of Big Tech***

One possible reaction to this research is that the tech companies are not knowingly trying to generate addiction to our devices. Indeed, the people behind these companies are some of the brightest people in the world. And they certainly seem ethical. That said, when we look closely at these companies, the overriding business model of capturing our attention at all costs has been the *stated focus since the beginning*.

As evidence, consider the following powerful quote from Sean Parker, founder of Napster and first president of Facebook, regarding the thought process in building these applications:

How do we consume as much of your time and conscious attention as possible? . . . We need to sort of give you a little dopamine hit every once in a while, because someone liked or commented on a photo or a post or whatever. And that's going to get you to contribute more content, and that's going to get you . . . more likes and comments. . . . It's a social-validation feedback loop . . . exactly the kind of thing that a hacker like myself would come up with, because you're exploiting a vulnerability in human psychology. . . . The inventors, creators—it's me, it's Mark [Zuckerberg], it's Kevin Systrom on Instagram, it's all of these people—understood this consciously. . . . And we did it anyway.<sup>28</sup>

Similarly, Chamath Palihapitiya, the former Vice President for User Growth at Facebook, has been a vocal critic of the very platform he helped to grow. In various public statements, Palihapitiya has expressed “tremendous guilt” for the role he played in creating tools that he believes are “ripping apart the social fabric of how society works.”<sup>29</sup> He has highlighted the manipulative power built into social media systems, particularly emphasizing the “short-term, dopamine-driven feedback loops” that social media platforms use to keep users engaged. These loops, driven by features such as likes and comments, are designed to exploit psychological vulnerabilities, resulting in increased engagement but also fostering misinformation, lack of

civil discourse, and societal division. Palihapitiya has also pointed out the broader implications of these practices, including their global impact. He mentioned specific incidents, such as the spread of hoaxes via WhatsApp leading to violent outcomes, to illustrate how these platforms can be manipulated by bad actors to achieve harmful ends. His candid admissions have contributed to a growing awareness of the ethical and societal implications of social media and the need for more responsible design and regulation of these technologies.<sup>30</sup> Other Facebook developers, Justin Rosenstein and Leah Pearlman, who were part of the team that developed the like button, later expressed regret over its far-reaching negative impacts. They noted that the button encourages users to seek validation and popularity, which can lead to addiction and emotional distress.

Steve Jobs, the co-founder of Apple, limited his children's use of technology, including the iPad, despite it's being one of his company's flagship products.<sup>31</sup> He believed in the importance of limiting screen time to foster healthier habits and real-world interactions. Similarly, Bill Gates, the founder of Microsoft, did not allow his children to have cell phones until they were fourteen years old and imposed strict limits on their screen time. Gates emphasized the need for balance, and ensured that devices were not used during family meals in order to encourage more personal interactions. Finally, Chris Anderson, the former editor of *Wired* magazine and CEO of 3D Robotics, also set stringent tech usage rules for his children, acknowledging the addictive nature of

these technologies. He mentioned that having witnessed the dangers of technology firsthand, he wanted to prevent his kids from falling into the same traps.<sup>32</sup>

### ***Attention Economy for Christians***

For Christians, the attention economy poses significant challenges to living out our faith. Jay Kim's book *Analog Christian* is helpful in contrasting how the attention economy is often at odds with fruit of the spirit. In Galatians 5:22–25 Paul writes, “But the fruit of the Spirit is love, joy, peace, forbearance, kindness, goodness, faithfulness, gentleness, and self-control. Against such things there is no law. Those who belong to Christ Jesus have crucified the flesh with its passions and desires. Since we live by the Spirit, let us keep in step with the Spirit.”

The last verse is critical. In order to live by the Spirit, we must keep in step with the Spirit. Kim points out that keeping in step with the Spirit requires us to daily choose the fruits of the Spirit rather than what the attention economy has to offer. Specifically, we can choose to cultivate fruit in multiple areas that the attention economy is designed to work against.

### ***Self-Control over Reckless Indulgence***

As we have seen, the attention economy has been designed to make us creatures of reckless indulgence, ever seeking the next hit of dopamine. Tim Keller said, “Self-control is the ability to do the important thing rather than the urgent thing.”<sup>33</sup> As Christians, we must ask the Spirit of God to help us develop the gift of self-

control and undo the urgent and endless pull of our digital world. The Proverbs are full of reminders to develop self-control and develop hearts that are focused on doing the important things in life rather than the urgent things.

### ***Patience over Impatience***

We will learn more in future chapters how the internet and the technologies of our day have impacted our ability for patience in areas such as reading. Many of us struggle to sit in quiet meditation without feeling the need to fill the silence in our minds with digital dopamine cookies. Biblically, we must learn to fight against this urge and wait on Him. “The Lord is good to those whose hope is in him, to the one who seeks him; it is good to wait quietly for the salvation of the Lord” (Lamentations 3:25–26). Kim reminds us what we all intuitively know within our heart:

The stuff of life that truly matters is never that accessible. And yet, paradoxically, it’s much more accessible than we can imagine. But it’s found not in the easy and convenient comforts of online life. The things that truly matter—life-giving relationships, the sacrifices that infuse life with meaning, destiny-defining struggles and triumphs—these things and more require patience. They require a willingness to enter into pain and find on the other side a life truly worth living.<sup>34</sup>

### ***Joy over Comparison***

We have all heard or experienced the term FOMO: Fear of Missing Out. It refers to the anxiety or fear that we

feel, especially with social media, when we are missing out on social events, experiences, or interactions that others are enjoying. The attention economy perpetuates the problem as research has shown that social media significantly increases depression and loneliness; especially for young girls and women.<sup>35</sup> Our perception of our own appearance decreases as we see the curated images of others who seem to have a much better body, life, job, or you fill in the blank. Kim writes, “Genuine joy is not in someplace or in becoming someone. Rather, joy is found and made complete as we remain in Jesus, the vine, and the giver of true joy.”<sup>36</sup>

In response to FOMO, I propose that we work to develop JOMO, a term growing in popularity that stands for Joy of Missing Out. JOMO embraces the satisfaction and contentment that comes from choosing to step away from the hectic pace of the attention economy and the constant connectivity that technology often imposes. In contrast to constant comparison, we can instead choose to disconnect from addictive behaviors, embrace solitude, read, pray, and fully pursue the abundant life that God has promised us instead.

The attention economy has fragmented our ability to focus, and it feels as if we are constantly scrolling without end. But there is hope: the antidote to this distracted mind lies in something far deeper: flow states that allow us to fully engage with the present moment. In the next chapter, we will explore how finding flow can reconnect us to the abundant life God has promised.

## ***Application Guide***

For a detailed checklist to evaluate and reduce your digital habits, download the Application Guide by visiting <https://www.thefocusedfaith.com/free>. You'll find practical steps to begin reclaiming your focus today.

## ***Key Points***

- The attention economy employs its own magic tricks to captivate and manipulate our focus.
- Take the first step toward regaining control over your attention by understanding these digital manipulations.
- Evaluate your digital habits and begin the process of reducing the influence of these manipulations on your daily life.

## ***Questions for Reflection***

1. Read Ephesians 5:15–16. How does this passage relate to your use of digital devices? What changes can you make to “make the most of every opportunity” in your daily life?

2. Have you noticed a decline in your ability to focus? What practices or habits have contributed to this, and how might you reverse the trend?
3. Consider the concept of “fragmented focus.” How can understanding this concept help you reclaim your attention?