TODAY'S TECHNOLOGY AND THE
FUTURE OF CHRISTIAN DISCIPLESHIP

TRANSHUMANISM AND THE IMAGE OF GOD

JACOB SHATZER

"A calm and comprehensive account."
ALBERT BORGMANN

1

TECHNOLOGY AND MORAL FORMATION

What is technology? We use this word in multiple ways. On one hand, *technology* refers to tools that humans create so they can achieve some sort of goal. A hammer, for instance, is technology. Eyeglasses, technology.[1] On the other hand, when we use the word *technology* today, we most often refer to digital technology. If your friend says that she's really into technology, she means digital gadgets, not garden tools. And as microchips become smaller and smaller and cheaper and cheaper, more "old" tools are becoming, to some degree, digital. You can get an app to control your lights, your sprinklers, and your robot vacuum. This "internet of things" is made up of networked thermostats and other devices that can now be controlled by smartphones—or your voice. We use the word *technology* in both ways, but we also must realize this shift in terminology that prioritizes digital technologies as simply "technology." As I mentioned in the introduction, all of these tools are technology, but digital technologies invite an immersion that affects our formation in a more persistent way than hammers, for instance. But how do these technologies form us? Are they tempting us with a particular vision of human flourishing?

---

[1]For an accessible history of technology, see Daniel Headrick, *Technology: A World History* (New York: Oxford, 2009). For a more thorough treatment, especially related to technology's connection to science, see James McClellan and Harold Dorn, *Science and Technology in World History: An Introduction* (Baltimore: Johns Hopkins University Press, 2015). There is also significant overlap between transhumanism and the discussions and debates related to human enhancement. For a broad-ranging treatment of these issues, see Julia Savulescu and Nick Bostrom, eds., *Human Enhancement* (New York: Oxford, 2009).

I'll repeat my description of transhumanism from the introduction. Transhumanism and posthumanism are two related philosophical movements tied closely to the promises of technology. Posthumanism argues that there is a next stage in human evolution. In this stage, humans will become posthuman because of our interaction with and connection to technology. Transhumanism, on the other hand, promotes values that contribute to this change. Transhumanism aims at posthumanism, and both are based to a large degree on the potential offered by technology. In a way, transhumanism provides the thinking and method for moving toward posthumanism. Transhumanism is the process, posthumanism the goal. They share a common value system, and in this book I will primarily refer to transhumanism but also to posthumanism.

Technology promises seemingly limitless possibilities, and transhumanism and posthumanism trumpet this potential. Some of the possibilities sound far-fetched, and many people hesitate to adopt them. Few today would volunteer for the opportunity to upload their consciousness into a computer, for instance. Whether they recognize something less than human about this type of "consciousness" or simply react emotionally against it, their hesitancy remains.

But can this stance last? While some people will change their minds based on careful research and thought—including theologians of various religious perspectives—others will gradually change in less dramatic senses because the way we use tools today changes us for tomorrow.[2] Our use of the tools that humans make in turn shapes us as humans; these tools can make us into something else through our interaction with them. This change is because tools come with a governing logic, and that logic projects a certain type of future.[3] Some technologists even speak as though technology itself "wants" something that it is pursuing.[4] Created things come with projects instilled in them by their creator, so tools we make carry these projects with them.[5] And

---

[2]Some theologians connect transhumanism and posthumanism very explicitly to notions of salvation and eschatology. For example, see Calvin Mercer and Tracy J. Trothen, eds., *Religion and Transhumanism: The Unknown Future of Human Enhancement* (Santa Barbara, CA: Praeger, 2015).

[3]Michael Hanby, "A More Perfect Absolutism," *First Things*, October 2016, www.firstthings.com/article/2016/10/a-more-perfect-absolutism.

[4]Kevin Kelly, *What Technology Wants* (New York: Viking, 2010).

[5]Hanby, "More Perfect Absolutism."

these projects, this governing logic, shape us. This idea disturbs us, as Harari puts well: "We like the idea of shaping stone knives, but we don't like the idea of being stone knives ourselves."[6] Our tools draw us toward one thing and away from another; "Just as every technology is an invitation to enhance some part of our lives, it's also, necessarily, an invitation to be drawn away from something else."[7] We make them; they make us.

Considering this issue more deeply, we can turn to some helpful definitions and distinctions. First, we are circling the discipline of media ecology, "which studies how technology operates within cultures and how it changes them over time."[8] We will be concerned with the impact of technology on Christian culture, especially how Christians consider what it means to be human and how to live a flourishing human life. Second, we must recognize that this happens on many levels. Theologian Craig Gay draws on Jacques Ellul to speak about waves, currents, and depths: just as the ocean has surface waves, currents beneath those, and depths below all of that, our treatment of technology and moral formation must take into account these various levels and their connections.[9] Another theologian identifies four "layers" of technology: technology as hardware, as manufacturing, as methodology, and as social usage.[10] While some might still insist that our technology questions are only about balance, not good or bad, we must reckon not only with good and evil in the present but with good and evil in regards to who we are becoming.[11]

Another writer refers to the difference between technology and technological people. As he puts it,

> There is nothing wrong with technology per se. But there is something wrong with technological people. The difference between the two is that "technology" is merely a tool used to pursue substantial human ends, whereas

---

[6]Yuval Noah Harari, *21 Lessons for the 21st Century* (New York: Spiegel & Grau, 2018), 254.

[7]Michael Harris, *The End of Absence: Reclaiming What We've Lost in a World of Constant Connection* (New York: Penguin, 2014), 21.

[8]John Dyer, *From the Garden to the City: The Redeeming and Corrupting Power of Technology* (Grand Rapids: Kregel, 2011), 16.

[9]Craig Gay, *Modern Technology and the Human Future: A Christian Appraisal* (Downers Grove, IL: InterVarsity Press, 2018).

[10]Dyer, *From the Garden to the City*, 60-65.

[11]Mary Aiken, *The Cyber Effect: One of the World's Experts in Cyberpsychology Explains How Technology Is Shaping the Development of Our Children, Our Behavior, Our Values, and Our Perception of the World—and What We Can Do About It* (New York: Spiegel & Grau, 2016), 13.

technological people abandon human ends in favor of exclusively techno-logical ones. The former view is classical, the latter that of Silicon Valley dataists and transhumanists for whom human beings are themselves merely "obsolete algorithms" soon to be replaced by synthetic ones far superior to them in every way.[12]

The difficulty of employing technology without being shaped into "techno-logical people" is clear.

Bioethicist Erik Parens refers to this phenomenon—the way we shape our tools and they shape us—with the term *binocularity*. Focusing on human enhancement, Parens notes that we can view ourselves as self-shaping subjects (the creativity stance) or as objects, thankful recipients of someone else's shaping (the gratitude stance). We shouldn't choose be-tween these two but rather oscillate between them, developing a binocu-larity that gives us a fuller vision of—in Parens's case—issues of bioethical enhancement.[13] Now, we have to acknowledge that it is difficult to look through both of these lenses at once. But this binocularity can help us re-member that we cannot view technology only as something that we use as active subjects; it also works on us and shapes us. Our current engagement with technology is not a neutral practice but one that continues to shape us to think about—and to love—technology in certain ways.

We're not talking about the way technologies themselves can become idols, but how our use of technology can change us in deep ways, making us think and feel in ways that we may not expect.[14] Any adequate response to technology must ask more than, "Should we use this technology right now?" Even as we acknowledge that our (and our parents' and grand-parents', friends' and neighbors') engagement with previous technology shapes our current use of technology, we must look carefully at our current

---

[12]Ron Srigley, "Whose University Is It, Anyway?," *Los Angeles Review of Books*, February 22, 2018, https://lareviewofbooks.org/article/whose-university-is-it-anyway.

[13]Erik Parens, *Shaping Our Selves: On Technology, Flourishing, and a Habit of Thinking* (New York: Oxford, 2015), 37.

[14]For an idol-related approach, see the excellent work in Craig Detweiler, *iGods: How Technology Shapes Our Spiritual and Social Lives* (Grand Rapids: Brazos, 2013). For various arguments re-lated to particular technologies and practices from a more secular perspective, see Mark Bau-erlein, ed., *The Digital Divide: Arguments for and Against Facebook, Google, Texting, and the Age of Social Networking* (New York: Penguin, 2011).

practices and how they might shape our, our children's, and our grand-children's engagement with technology in the future. For example, how do our personal technologies change our ability to pay attention? Alan Jacobs refers to our "interruption technologies" to highlight the problem this poses.[15] And, as we'll consider below, attention is more than simple focus. These considerations matter. Our current use of technology forms us morally. What sorts of practices today can help us retain the best of what it means to be human in the future? We should not think about technology use today without considering who we will turn into tomorrow as a result.

But isn't this simply the approach we have always had to take toward our tools? Why the alarm and the connections to transhumanism? In order to see how our choices about digital technology relate to other sorts of tools, we need to take a brief detour into the fields of neurology and cyberpsychology.

CHANGING OUR MINDS

A burgeoning field of scholars document and describe the impact of digital technology on humans. In particular, our use of technology seems to be changing our brains and thereby our behavior.[16] The most visible—and memorable—early treatment of this issue was Nicholas Carr's aptly titled "Is Google Making Us Stupid?," published by the *Atlantic* in 2008.[17] Carr followed this with a book-length treatment in *The Shallows*.[18] Others have drawn similar conclusions. At the most basic level, studies are beginning to show that our technology use is changing us on a neurological level: our brains are changing.[19]

---

[15]Alan Jacobs, "Habits of Mind in an Age of Distraction," *Comment Magazine*, June 1, 2016, www .cardus.ca/comment/article/4868/habits-of-mind-in-an-age-of-distraction/.

[16]Jaron Lanier, *Ten Arguments for Deleting Your Social Media Accounts Right Now* (New York: Henry Holy, 2018), 10-12.

[17]Nicholas Carr, "Is Google Making Us Stupid? What the Internet Is Doing to Our Brains," *The Atlantic*, July/August 2008, www.theatlantic.com/magazine/archive/2008/07/is-google -making-us-stupid-306868/.

[18]Nicholas Carr, *The Shallows: What the Internet Is Doing to Our Brains* (New York: Norton, 2010).

[19]Susan Greenfield, *Mind Change: How Digital Technologies Are Leaving Their Marks on Our Brains* (New York: Random House, 2015), 54; Rod Dreher, *The Benedict Option: A Strategy for Christians in a Post-Christian Nation* (New York: Sentinel, 2017), 225.

Cyberpsychologist Mary Aiken has analyzed these changes not only on the level of the ability to think but also on specific behaviors. This varies from person to person, depending on their tendencies and temptations. As Aiken explains, "Whenever technology comes in contact with an underlying predisposition, or tendency for a certain behavior, it can result in behavioral amplification or escalation."[20] Later she elaborates, "The cyberpsychological reality: One can easily stumble upon a behavior online and immerse oneself in new worlds and new communities, and become cyber-socialized to accept activities that would have been unacceptable just a decade ago. The previously unimaginable is now at your fingertips—just waiting to be searched."[21] In other words, our use of digital technology not only changes our ability to concentrate and focus—one of Carr's main points. It also introduces us to and socializes us toward behaviors that we may not have encountered otherwise.

Taking the issue even broader, neuroscientist Susan Greenfield has written her appropriately titled book *Mind Change: How Digital Technologies Are Leaving Their Mark on Our Brains.* She named the book *Mind Change* because she sees parallels between what she's observing and climate change: "Both are global, controversial, unprecedented, and multifaceted."[22] Our brains are changing, because the brain "will adapt to whatever environment in which it is placed. The cyberworld of the twenty-first century is offering a new type of environment. Therefore, the brain could be changing in parallel, in correspondingly new ways." Furthermore, "To the extent that we can begin to understand and anticipate these changes, positive or negative, we will be better able to navigate this new world."[23] She identifies three main realms: social networking (identity and relationships), gaming (attention, addiction, and aggression), and search engines (learning and memory).[24] Each of these areas leads not only to changes in behavior, as Aiken points out, but also to real neurological changes in the brain.

Though studies are beginning to make these issues clear, some might still wonder whether this is all an overreaction to a new technology. Before we

---

[20]Aiken, *Cyber Effect*, 22.
[21]Aiken, *Cyber Effect*, 45.
[22]Greenfield, *Mind Change*, xvii.
[23]Greenfield, *Mind Change*, 14.
[24]Greenfield, *Mind Change*, 35.

discuss why I think the game has changed, we have to realize that part of the issue is that the sorts of changes scholars are beginning to notice will take years and years to understand better. As Aiken puts it, especially in reference to technology's impact on children, "If you find yourself questioning the dangers of early digital activity and insist on hard evidence backed by science, then you'll have to wait for another ten or twenty years, when comprehensive studies—the kind that track an individual's development over time—are completed."[25] But if these technologies have the formative power that they seem to, we do not have the luxury to simply wait and wonder. Forming is happening now. But isn't this always the case: that our tools are forming us?

WHY THE GAME HAS CHANGED

The short answer is yes. But I still think that we're dealing with a very different game when we're talking about digital technology. I have three primary reasons. First, the type of access that we have to digital technology is different from previous tools. Second, studies on addiction demonstrate that digital technology is a game changer. And third, I'm convinced that technology does an excellent job of recruiting disciples into its way of viewing the world. Or, as we discussed above, technology makes "technological people" very effectively. Let's deal with each of these in turn and flesh them out.

First, digital technology is different from previous technology because of the speed of access and the immersion many experience in the technology. As one scholar explains, "The instant, uninterrupted, and unlimited accessibility of both activity and content that i-tech provides is significantly changing the big picture, not only isolated frames."[26] The sheer amount of time that we spend with screens makes this different from other issues of technology.[27] Not only is the amount of time different, but the volume of content that people take in is a new issue as well.[28]

---

[25]Aiken, *Cyber Effect*, 123.

[26]Mari K. Swingle, *i-Minds: How Cell Phones, Computers, Gaming, and Social Media Are Changing Our Brains, Our Behavior, and the Evolution of Our Species* (Gabriola Island, BC: New Society, 2015), 36.

[27]Greenfield, *Mind Change*, 17.

[28]Andrew Sullivan, "I Used to Be a Human Being," *New York Magazine*, September 18, 2016, http://nymag.com/selectall/2016/09/andrew-sullivan-my-distraction-sickness-and-yours.html.

The ease of access to digital technology enflames existing problems. For instance, bullying is a constant issue with children as they grow up and learn to negotiate social spaces. But trends in recent years have been alarming, as more and more cases lead to suicide. One reason for this is the 24/7 nature of technology, which means that kids can't really get away from their bullies. They might make it home, but the constant access to technology can mean a constant connection to the bullying.[29] The ease of access, the speed of access, and the immersion in technology changes the game.

The business world has certainly recognized that accessibility makes digital technology lucrative. In his book *Hooked: How to Build Habit-Forming Products*, Nir Eyal argues, "The fact that we have greater access to the web through our various connected devices—smartphones and tablets, televisions, game consoles, and wearable technology—gives companies far great ability to affect our behavior."[30] He later refers to the "trinity" of access, data, and speed, which present "unprecedented" opportunities for developing habits.[31] A more recent treatment of the same topic relates how the issue of access and time has changed in fewer than ten years: "In 2008, adults spent an average of eighteen minutes on their phones per day; in 2015, they were spending two hours and forty-eight minutes per day. This shift to mobile devices is dangerous, because a device that travels with you is always a better vehicle for addiction."[32] And so we not only note that is digital tech a bit different because of the access we have to it, but also we see that this ease of access leads to another issue.

Second, studies on digital technology show that its habit-forming powers—its addictive characteristics—are on a different scale from other technologies (and even many other addictive substances). As technologist

---

[29]Mark Abadi, "7 Adults Went Undercover as High-School Students and Found Cell Phones Pose a Much Bigger Problem than Adults Can Imagine," *Business Insider*, January 11, 2018, www .businessinsider.com/undercover-high-teenagers-lives-2018-2.

[30]Nir Eyal, *Hooked: How to Build Habit-Forming Products* (New York: Penguin, 2014), 10-11.

[31]Eyal, *Hooked*, 12.

[32]Adam Alter, *Irresistible: The Rise of Addictive Technology and the Business of Keeping Us Hooked* (New York: Penguin, 2017), 28.

Jaron Lanier notes in his *Ten Arguments for Deleting Your Social Media Accounts Right Now*, "Something entirely new is happening in the world. Just in the last five or ten years, nearly everyone started to carry a little device called a smartphone on their person all the time that's suitable for algorithmic behavior modification."[33]

But what are people addicted to when it comes to digital technology? The easy answer might be to our smartphones. Just observe how quickly and often people turn to these devices. Maybe it is the devices themselves—manufactured to be beautiful and pleasing to use—that are addictive.

According to some, we are addicted to information.[34] We want to be "in the know," and we enjoy the stimulation of more and more information. While this is also true of the 24/7 cable news cycle, digital technology such as our smartphones gives us access to information on an unprecedented level. People are addicted, and this fact is being recognized and confronted by everyone from cyberpsychologists to education theorists.[35]

Others insist that it isn't the devices or the information that we're addicted to. As Alan Jacobs insists, "We are *not* addicted to any of our machines. Those are just contraptions made up of silicon chips, plastic, metal, glass. None of these, even when combined into complex and sometimes beautiful devices, are things that human beings can become addicted to."[36] Rather, it is something that we think we're getting through the devices and from the information: people.

These addictions aren't even relegated to the personal, private choices of individuals. As one parent observes about the role of technology in education of her children: "Their school is by no means evangelical about technology, but I nonetheless feel like it is playing the role of pusher, and I'm watching my children get hooked."[37] And this addiction is serious business,

[33]Lanier, *Ten Arguments*, 5.

[34]Sullivan, "I Used to Be a Human Being."

[35]Aiken, *Cyber Effect*, 59; Ivelin Sardamov, *Mental Penguins: The Neverending Education Crisis and the False Promise of the Information Age* (Washington, DC: Iff Books, 2017), 54.

[36]Jacobs, "Habits of Mind in an Age of Distraction."

[37]Eliane Glaser, "Children Are Tech Addicts—and Schools Are the Pushers," *The Guardian*, January 26, 2018, www.theguardian.com/commentisfree/2018/jan/26/children-tech-addicts-schools.

with rehab centers serving the specific needs of those who have become addicted to the internet.[38]

But, again, is this any different from earlier tools or addictive substances? What about drugs and alcohol? Now, this is where studies are showing surprising results due to how common access is to these digital devices. As one writer puts it, "Addictive tech is part of the mainstream in a way that addictive substances never will be. Abstinence isn't an option, but there are other alternatives. You can confine addictive experiences to one corner of your life, while courting good habits that promote healthy behaviors."[39] Those who recognize that they are prone to addiction to certain drugs or alcohol can pursue the path of abstinence. Digital technology, however, has so proliferated modern life that it can be difficult to function in the world without it. Many jobs require email, for instance. Abstinence might technically still be an option, but the mainstream use of technology makes it that much harder to make that choice.

Third, technology does an excellent job of making "technological people." This trend is what we've traced above: the easy access to digital technology has led to addiction and changes in behavior. We even see how deep the technological ideology goes, because we think the best solution to technical problems is to purchase technological solutions.[40] When this happens it becomes clear that technology's way of framing reality has crowded out other ways. As one scholar puts it, "Digital technology has the potential to become the end rather than the means, a lifestyle all on its own. Even though many will use the Internet to read, play music, and learn as part of their lives in three dimensions, the digital world offers the possibility, even the temptation of becoming a world unto itself."[41] Or, as another says, smartphones are our soma.[42]

---

[38]Joanna Walters, "Inside the Rehab Saving Young Men from Their Internet Addiction," *The Guardian*, June 16, 2017, www.theguardian.com/technology/2017/jun/16/internet-addiction-gaming -restart-therapy-washington.

[39]Alter, *Irresistible*, 9.

[40]Jacobs, "Habits of Mind in an Age of Distraction."

[41]Greenfield, *Mind Change*, 18.

[42]Rod Dreher, "Smartphones Are Our Soma," *The American Conservative*, August 3, 2017, www .theamericanconservative.com/dreher/smartphones-are-our-soma/?print=1. "Soma" here is a reference to a drug in Aldous Huxley's *Brave New World*. Soma created happiness.

At this point, we see that we are in the realm of discipleship, and theology comes into play. Christian theology seeks to speak humbly about God as he has revealed himself through the Scriptures and through his church. It especially revolves around Jesus' greatest commandment: love God and love your neighbor. This is such a simple command; yet it is so difficult to apply and to carry out, especially with technology in view. What does it mean to love God and love our neighbors as we use technology?

But why do we have to worry about how our devices might form us? What is it about humans that makes us "formable"? Two theologians provide a helpful framework for us as we begin this journey. James K. A. Smith develops a view of humans as lovers, with the proper object of love being God. Smith's work helps us consider the loves that technology encourages, the way it forms us morally. A. J. Conyers works with themes related to community and what it means to love God and neighbor in light of the challenges of modern society. These two theologians provide a framework that will prove useful as we consider technology and transhumanism. Combining their work enables us to see how technologies promote a "liturgy of control" that shapes us and our communities in important ways.

SECULAR LITURGIES

In his *Cultural Liturgies* trilogy, philosopher James K. A. Smith argues that human beings are primarily lovers, not merely thinkers.[43] This position goes at least as far back as Augustine in the late fourth and early fifth centuries. Smith sees four important elements to this view of what it means to be human: (1) humans are intentional creatures whose fundamental way of intending is love or desire; (2) this love (which is often unconscious and noncognitive) is always aimed at some particular version of the good life; (3) sets of habits and dispositions prime us to act in certain ways; and

---

[43]James K. A. Smith, *Desiring the Kingdom: Worship, Worldview, and Cultural Formation* (Grand Rapids: Baker, 2009); Smith, *Imagining the Kingdom: How Worship Works* (Grand Rapids: Baker, 2013); and Smith, *Awaiting the King: Reforming Public Theology* (Grand Rapids, Baker, 2017). Parts of this section are drawn from an earlier article I wrote. See Jacob Shatzer, "Posthuman Liturgy? Virtual Worlds, Robotics, and Human Flourishing," *The New Bioethics* 19, no. 1 (2013): 46-53.

(4) affective, bodily means such as bodily practices, routines, and rituals grab hold of our hearts through the imagination and form us to love, desire, and worship certain things.[44] *Imagination* here doesn't mean "made-up" but the way that "we construe the world on a precognitive level, on a register that is fundamentally *aesthetic* precisely because it is so closely tied to the *body*."[45] And what we love is what we worship.

Smith argues that being human isn't only about what we think but about what we love. And we arrive at what we love (and worship) not only—or even primarily—through what we stop and think about but through our habits. So, who we are depends on what we love, not simply what we think. Smith's model shifts identity formation from primarily an issue of cognition (what do I think or believe?) to also one of affection (what or whom do I love?). Loving rightly requires practice, and practice often happens in mundane ways, ways we don't expect to have major consequences. There are two types of habits: "thin" habits (activities such as flossing that seemingly do not touch love or desire) and "thick" habits (meaning-full activities that significantly shape our identity and loves).[46] Yet, no practice—thick or thin—is neutral, because they are all affecting the development of our loves. Thin practices can serve thick ends. Every *polis* (that is, body of citizens), for instance, is shaped and formed by habits and practices.[47] For example, exercising can serve the end of wanting to spend many years with one's family or the end of becoming more attractive in order to leave one's spouse and start a new life with someone else. Thick, formative practices are "meaning-laden, identity-forming practices that subtly shape us precisely because they grab hold of our love—they are automating our desire and action without our conscious recognition."[48]

For Smith, liturgy serves as a lens for analyzing and evaluating practices. He defines liturgies as "ritual practices that function as pedagogies of ultimate desire."[49] While this obviously applies to religious practices, it extends

---

[44]Smith, *Desiring the Kingdom*, 62-63.
[45]Smith, *Imagining the Kingdom*, 17.
[46]Smith, *Desiring the Kingdom*, 82.
[47]Smith, *Awaiting the King*, 9.
[48]Smith, *Desiring the Kingdom*, 83.
[49]Smith, *Desiring the Kingdom*, 87.

to other activities as well, and it is this extension that makes the term *liturgy* so useful and important. We tend to think of certain practices as really important and others as pretty close to meaningless. But these so-called meaningless activities, when done regularly, can mold and shape us toward the goals and ends that the practices fit within most easily. These secular liturgies help us to understand how humans are being shaped in fundamental ways by cultural institutions and practices that are often left unanalyzed. By calling them liturgies, we remind ourselves that they are just as formative—and just as worthy of careful reflection—as more "serious" practices.

Smith highlights three examples, showing that his theory helps us make sense of vital aspects of our day-to-day existence. His lens of liturgies helps us see formative powers that we might otherwise miss. First, the mall reflects what matters and shapes what matters. It serves as a temple of consumerism, orienting people's practices and desires to feel that consumption is the solution to our problems. The key aspect here is not only that the mall provides a place for consumption to happen but that it guides us into ways of seeing the world and occupying our lives that adopt consumerist values. Even if we *think* one thing about consumerism, the liturgy of the mall shapes our hearts in significant ways that might end up shifting or challenging our thinking. The ads in the mall, for instance, not only draw us to specific products but point to a hope for the future, rooted in happiness from consumption.

Second, the military-entertainment complex seeks to orient allegiance solely to the state. For instance, displays of nationalism at sporting events draw us more closely into the narrative that the state—and the state alone—deserves our allegiance. We have recently seen how powerful such events are in the controversy surrounding certain football players choosing to kneel during the national anthem. Whatever you think about the line between patriotism and nationalism, we can agree that these simple practices—standing, reciting, singing—work to make us take our allegiance for granted. Leaving aside whether that is a good thing or a bad thing for Christians, we can agree that it works.

Third, for Smith the university is not primarily about information but about shaping imagination and desire so that students will pursue a

particular vision of the good life. In most cases, this vision of the good life is one influenced by secularism and consumerism. This can be true even in Christian universities, which can be criticized for helping students pursue the American dream of consumerism with a Jesus bumper sticker on their SUV.

All of these practices project a version of what is broken in the human condition, what true flourishing looks like (what should be loved or desired), and how to act in order to achieve success. Simple practices are not innocent, for they form the heart to buy into these visions. Being Christian isn't simply about shaping our thinking in a certain way; if we're going to love the right things, we have to take what we do seriously, because it shapes our loves over time.

Theologians aren't the only ones highlighting the power that habits have in forming people. Businesses certainly recognize the power of technology to form habits. And these habits can be lucrative. As Nir Eyal explains, "Companies increasingly find that their economic value is a function of the strength of the habits they create."[50] Books such as Eyal's analyze the habit-forming power of technology in order to help people design addictive games and other apps. If businesses are using the power of technology to hook people into consumption, we must admit that this is at play in the way technologies operate because those creating them are making them that way. Our habits, which shape what we love, are up for grabs.

If we view humans as "lovers" and understand that secular liturgies shape these loves, then modern technology use becomes about more than just the present moment. Certainly, straightforward but more outlandish questions can be asked: What kind of person do I become when I regularly enjoy killing digital avatars online? Do robotic caregivers harm patients physically or emotionally? However, the concept of secular liturgies opens up another horizon that we must take just as seriously: How do modern technologies form us morally by shaping what we love? To what extent could they serve as transhuman liturgies? If we keep Smith's notion of

---

[50]Eyal, *Hooked*, 12.

liturgy to remind ourselves how formative and powerful seemingly basic practices in fact are, we will be ready to look for the right clues as we try to evaluate technology. And while Smith's liturgy lens helps us see the formative power of practices, theologian A. J. Conyers's treatment of the modern world will give us some clues to the type of formation that might be going on.

HEARING GOD'S CALL RATHER THAN GRASPING CONTROL

In *The Listening Heart*, A. J. Conyers sees societies that have lost their connection to any sense of the transcendent and any sense of calling. Instead, they focus on the modern celebration of unlimited human will.[51] While his book does not address technology at all, the themes that Conyers develops around vocation, attention, and community provide a helpful perspective that can help us assess technology and virtual communities.

Conyers laments that modern society has lost a sense of vocation, a sense that was vital for the formation of strong societies in premodern times. "The term 'vocation' stands for all of those experiences and insights that our lives are guided by Another, that we are responding not to inert nature that bends to our will, but to another Will, with whom we might live in covenant relationship, and to Whom we will be ultimately accountable." This sentiment of divine call gives a society a character that is very nonmodern.[52]

Four points explain this idea of divine call. First, a call implies a caller, one doing the calling. People are given freedom to respond to a summons; freedom is not an inner-directed impulse but the use of the will to respond. There is a difference between a society that incorporates some sense of vocation and one that explains behavior in other ways. Second, oftentimes the call is to something the person hearing the call doesn't want.[53] This stance contrasts with post-Enlightenment thought, which often emphasizes reason

---

[51]A. J. Conyers, *The Listening Heart: Vocation and the Crisis of Modern Culture* (Dallas, TX: Spence, 2006). Conyers has also done significant work regarding the Christian view of history, specifically in relation to the work of Jürgen Moltmann. See my *A Spreading and Abiding Hope: A Vision for Evangelical Theopolitics* (Eugene, OR: Cascade, 2015).
[52]Conyers, *Listening Heart*, 112, 13.
[53]Conyers, *Listening Heart*, 13.

as a replacement for the idea of being called by another.[54] We think about and choose our own way; we don't respond to Someone Else. If we want to be spiritual, then we might dress up our own desires with language of "calling." This is very different from the true meaning of vocation. Third, callings almost always lead to hardships that the person has to work through in order to obey. Jeremiah, Ezekiel, Jesus, and Paul all confronted the threat of death by their communities. Calling is not easy. Fourth, the greatest danger is being distracted from the goal.[55] Often we act like making the wrong choice is the biggest problem. If we are responding to God's call, the biggest danger is that we become distracted from that call by focusing on something else.

Our society is very different from one shaped by this notion of calling, because we prioritize power and control. We don't want to respond to a Caller. We seek knowledge so that we can control rather than participate in a larger community. In fact, "Power has become the centerpiece of a new kind of harmony, one based no longer on the 'right relation of things' in a world that both begins and ends in mystery, but it is a harmony that comes from control." Control diminishes relationship; the will of one alone is expressed, and conversation and communion are lost.[56] A loss of vocation that emphasizes the individual will and promotes the desire to control prevents the propagation of genuine community.

Others have noticed that control is at the heart of what many are after in our modern lives, even in mundane ways. In analyzing smartphone use, Tony Reinke writes, "Aimlessly flicking through feeds and images for hours, we feel that we are in control of our devices, when we are really puppets being controlled by a lucrative industry."[57] We love this feeling of control, even if it is an illusion as our feeling and thinking are being manipulated by corporations and individuals who develop our technology. And what is at stake is more than being taken advantage of economically. Our desire for control might not mean we don't believe in a God who controls all things—

---

[54]So one makes reasoned choices rather than depending on guidance from another. Conyers, *Listening Heart*, 14.

[55]Conyers, *Listening Heart*, 15.

[56]Conyers, *Listening Heart*, 57-60, 79, 92.

[57]Tony Reinke, *12 Ways Your Phone Is Changing You* (Wheaton, IL: Crossway, 2017), 193.

it doesn't make us atheists—but it often does mean we push God further and further into the margins of our lives.

This desire for control manifests itself in more than mundane ways. In questions about what it means to be human, "being in control" is often held up as a defining factor of being fully human. As ethicist Michael Hauskeller explains,

> So it seems that a better human being is one that has more control about things: what they feel, what they remember, when they die (it is argued that if immortality begins to get burdensome we can always kill ourselves). So enhancement basically means more *control*. Control is a good thing: the best, short of the happiness it will ensure. But again, is that really so? Is control always good? It seems not, because at least sometimes the attempt to gain control over a thing is self-defeating. It cannot work because of the nature of what we seek to control.[58]

This feeling is such a dominant feature of being human in a technological world that it comes to define what counts as truth. As Dreher explains, "To Technological Man, 'truth' is what works to extend his dominion over nature and make that stuff into things he finds useful or pleasurable, thereby fulfilling his sense of what it means to exist. To regard the world technologically, then, is to see it as material over which to extend one's dominion, limited only by one's imagination."[59] The illusion of control that technology provides us nurtures a circle: we think to be human is to be in control, so if technology gives control, it makes us more human. This gives us a great desire for control. The logic of technology encourages us into this vision of control.

So how should we respond, if grasping after power and control is not the answer? Attention is the appropriate response to vocation. Now, here I don't simply mean attention as "whatever we're paying attention to." If we think "technology" and "attention," we might think, "Well, we sure pay a lot of attention to our devices. I guess we're good at paying attention!" First of all, more and more people are noticing that we aren't so good at paying

---

[58]Michael Hauskeller, *Better Humans? Understanding the Enhancement Project* (Durham, UK: Acumen, 2013), 11.
[59]Dreher, *Benedict Option*, 220-21.

attention. And second, that isn't quite the idea of attention that Conyers is after anyway. Let's deal with these in turn.

First, more studies and other observations demonstrate that we are getting worse at paying attention. Microsoft researcher Linda Stone has coined the term "continuous partial attention" to refer to the fact that we don't sustain focus very frequently.[60] Much of this change is due to the fact that we have so much vying for our attention. As one writer notes, "Online technology, in its various forms, is a phenomenon that by its very nature fragments and scatters our attention like nothing else, radically compromising our ability to make sense of the world, physiologically rewiring our brains and rendering us increasingly helpless against our impulses."[61] The impact lines up with what we've already discussed about changes in our brains: "The result of this is a gradual inability to pay attention, to focus, and to think deeply. Study after study has confirmed the common experience many have reported in the internet age: that using the Web makes it infinitely easier to find information but much harder to devote the kind of sustained focus it takes to know things."[62] And finding ways to capture people's attention is a big business.[63] Even if we seem to be paying attention to digital devices, those devices are actually scattering our attention and diminishing our ability to think deeply.

Second, that notion of attention isn't quite what Conyers is after anyway. His idea of attention is much fuller than the simple concept of "focus." It is rooted in *attending to* that which is most significant and central to true human flourishing. Attention "means the overthrowing of 'vain imaginations,' the disposal of a self-centered view of existence." It is important to Christian thought and practice, because prayer consists in attention. As Conyers explains, "The purpose and end of attention is a transformation in which reality awakens within us, pushing aside the unreal and selfish dreams which had kept us subdued in unwakefulness." This stance is contrary to today's world. Vocation—and attention—are the opposite of "a

---

[60]Jacobs, "Habits of Mind in an Age of Distraction." See also Sardamov, *Mental Penguins*, 55.
[61]Dreher, *Benedict Option*, 219.
[62]Dreher, "Smartphones Are Our Soma."
[63]Tim Wu, *The Attention Merchants: The Epic Scramble to Get Inside Our Heads* (New York: Knopf, 2016).

life simply chosen, from among differing alternatives, or among numberless innocuous choices, whether we call these 'lifestyles,' or 'alternate realities,' then it involves facing and accepting both the limits and the painfulness of that for which we are chosen."[64] Living a life in response to the call of God is not the same as grasping control at all costs.

The opposite of attention is distraction. Like with attention, I don't mean simply the ability to concentrate or not. Rather, distraction means the inability to order our attention and life around what God has called us to care for. Instead we are drawn to something related but not central.[65] To follow Conyers's example, consider making furniture. To pay attention to furniture making is to pursue excellence and beauty for the sake of calling. To be distracted is to focus instead primarily on making a profit, to focus on money as a means of power. Now, making money is properly connected to good furniture making, but it isn't where the attention should be. In our culture we are so often distracted because we're focusing on subordinate aspects of our existence rather than attending to what is truly central.

We justify this life of distraction, which tries to pull apart what belongs together in the eyes of faith. The modern human is distracted from knowing in order to participate and instead seeks to know in order to master, which brings separation. We don't want to know things in order to take our rightful place within God's creation but to master concepts for the sake of our own control and use. We replace the central aspects of our being and doing with things that are meant to be secondary, and we scurry after those secondary things. We so often want to master—to take control—in order to guide everything in the way we see fit. The problem is one of our affections; we have failed to love properly.[66] Conyers's analysis dovetails nicely with Smith here, since both help us see that our affections are central.

The modern era provides frequent opportunities for distraction.[67] As one scholar puts it, the "promise of mastery is flawed. It threatens to banish our appreciation of life as a gift, and to leave us with nothing to affirm or

---

[64]Conyers, *Listening Heart*, 119, 121, 127.

[65]Conyers, *Listening Heart*, 55.

[66]Conyers, *Listening Heart*, 55.

[67]For another angle on this issue of distraction, see Alan Jacobs, *The Pleasures of Reading in an Age of Distraction* (New York: Oxford, 2011).

behold outside our own will."[68] We think we want control, and certain liturgies form us to desire this control as well. But really these desires are a new and more accessible form of common human temptations. As Reinke reminds us,

> [Pascal's] warnings about the distractions of untimely amusements only mimic the urgency of the biblical warnings on distractions, which further broaden the categories until "distraction" covers all of the immediately pressing details of our daily lives, relationships, and apparent duties, and even our pursuits of money and possessions—anything that preoccupies our attention on this world and life. A distraction can come in many forms: a new amusement, a persistent worry, or a vain aspiration. It is something that diverts our minds and hearts from what is most significant; anything "which monopolizes the heart's concerns."[69]

Distraction isn't a mere inconvenience; it is a spiritual issue. It has always been a spiritual issue, but digital technology's speed and accessibility, combined with its power to change deep parts of us, makes this issue particularly problematic.

All of these issues come together in the concept of community, which is in danger in the modern setting, according to Conyers. Communities are meant "to provide space and give nourishment to the human spirit," and they are "nourished and informed by virtue of their rootedness, oriented toward their destiny, and open in love toward one another." True community is promoted when the members refuse to seek power and control and instead attempt to hear and follow God, living a life that is faithful to God and open to one another. They attend to what is true and resist the distractions provided by secondary issues such as money and power, easy abstractions that draw us away from true flourishing. Cultures that promote individualism and control contribute to the dissolution of community; they "imitate the form of community but deny its substance."[70] This is certainly the case with online practices, which scatter us. As

---

[68]Michael J. Sandel, "The Case Against Perfection: What's Wrong with Designer Children, Bionic Athletes, and Genetic Engineering," in Savulescu and Bostrom, *Human Enhancement*, 89.

[69]Reinke, *12 Ways*, 47.

[70]Conyers, *Listening Heart*, 94, 113.

journalist Tony Reinke reflects, "Online attention proves to be an incapable substitute for true intimacy, and the addiction to a crafted online image renders true intimacy impossible."[71] We'll get into more details around crafting an online image later in the book, but for now we must simply raise the issue that there are imitators of community that aren't truly community. Community is only truly defined by the ultimate goal that it serves to point people toward.

If we want technology to serve the community, then, it must be useful to move people toward an ultimate good not defined by technology itself. This stance is the one Amish and Mennonite communities take toward technology. While often viewed as antitechnology, these communities are serious about refusing the overall logic of technology and instead putting technology in its rightful place. For instance, John Rhodes was part of a communitarian business that used technology carefully. When the business first introduced email, employees found that it led to greater misunderstandings because people did not spend as much time communicating face-to-face. The technology didn't serve the overall needs of the community, even if it did help with "efficiency." As Rhodes puts it, "Technology has found its rightful place, then, when it enables people to work well with all faculties of their being, and to work well with one another."[72] True flourishing is not found in a technological worldview but in subordinating our tools to truly human ends.

Scientific studies are beginning to show us some additional evidence of the ways technology—smartphones in particular—affects human relationships. A UK study with 142 participants showed strong downsides to people having a conversation with a smartphone even in the room. Half of the participants had a conversation with a smartphone in the room, and the other had conversations without the phone there. The study showed that the presence of the phone correlated with a loss of empathy and trust.[73] Notice, no one was using the phone; rather, the mere presence of the

---

[71]Reinke, *12 Ways*, 69.
[72]John Rhodes, "Anabaptist Technology: Lessons from a Communitarian Business," *Plough Quarterly* (Winter 2018): 53.
[73]Nicholas Carr, "How Smartphones Hijack Our Minds," *Wall Street Journal*, October 7, 2017, C1.

phone seemed to make a difference. Imagine how much worse it is when "conversations" occur with one person fiddling with sending a message on their smartphone!

Smith and Conyers help form a theological perspective from which to attempt to understand technology and its ethical implications, especially for communities. I find them helpful not because they're perfect but because they provide two insightful—and I think true—pieces for analyzing technology. Smith's liturgies guide us to take seriously the ways that everyday practices and things shape our desires and our being. Conyers's work on attention, distraction, and control prepares us to see something particularly alluring in the modern world: control as an unmitigated good. Smith and Conyers save us from glossing over aspects of our modern lives that are in fact shaping us in profound ways to adopt the world's way of being and doing rather than our Savior's way. This shaping is true for more than just technology, but it helps us prepare to take our engagement with everyday technology more seriously.

For both of these theologians, humans are essentially lovers, and we learn love by what we do, what we practice. The themes of vocation and attention drive true community flourishing in ways that reject the quest for power and control that the modern world has in many cases promoted. And they help us control distraction, too. These pieces prepare us to analyze technological liturgies in order to understand how they shape human affections. As Dreher puts it, "To use technology is to participate in a cultural liturgy that, if we aren't mindful, trains us to accept the core truth claim of modernity: that the only meaning there is in the world is what we choose to assign it in our endless quest to master nature."[74] Combining insights from Smith and Conyers prepares us to look out for liturgies of control—ways that technology use shapes us to view the world in certain ways and to pursue certain goals. But we're beginning to get ahead of ourselves.

---

[74]Dreher, *Benedict Option*, 219.

TOWARD A THEOLOGICAL FRAMEWORK
FOR HUMAN FLOURISHING

Before we move further, I want to set up a small framework for considering human flourishing, which will give a sense of what to watch for as we begin to consider technology and transhumanism. Two passages equip us to look for the right things.

First, Genesis 1–2 gives us a sense of what humans are placed on earth to do. Often referred to as the cultural mandate, we see in these chapters that humans are meant to fill, subdue, and rule the earth. Some scholars argue that this task carries with it the sense of coregency, of ruling with God or as God's representative.[75] The task of humans was to fill, subdue, and rule the earth in a way that points to its ultimate and true ruler, God alone. Even before the fall into sin, human activity was primarily oriented not around selfish gain but around God's glory.

Second, this God-oriented view of human flourishing comes into view in Jesus' great commandment as well. In Matthew 22:36-40, Jesus is asked what the greatest commandment is. He explains that it is to love God, and the second is to love the neighbor as oneself. According to him, all of the law and the prophets hang on these two commands. Human flourishing, then, is not oriented around the self but around God and the neighbor.

This brief section is obviously not a full-fledged theological anthropology. But it does give us two aspects of a biblical framework of human flourishing. Humans were created to represent God's rule and to point to his glory, and human living should be oriented around others and, ultimately, God himself. Humans cannot flourish heading in any other direction, no matter what other powers are amplified by our tools.

■ ■ ■ ■ ■ ■ ■ ■ ■ ■

Humans make tools, but tools also make humans. As one Anabaptist thinker explains, "The technologies we use always have an effect on us, and that effect is both burden and blessing. Importantly, the outcome of a given

---

[75]See for instance G. K. Beale, *The Temple and the Church's Mission: A Biblical Theology of the Dwelling Place of God*, New Studies in Biblical Theology (Downers Grove, IL: InterVarsity Press, 2004).

form of technology depends less on our intent than on the structure of that technology. Once introduced, it plays its hand. Our task is to keep our eyes open and understand what is happening."[76] Or, as Michael Harris puts it and as we noted in the introduction, "Every technology will alienate you from some part of your life. That is its job. *Your* job is to notice. First notice the difference. And then, every time, choose."[77] And while every technology does this, digital technology is particularly challenging because of how deeply immersed we become.

Digital technology pulls us into itself to such a degree that the forming power of technology becomes magnified. It can teach us to love power and control in inappropriate ways. This formation is important, because Christians are called to follow Christ, to love God, to love neighbor. But what might we lose if we buy into technology's logic? In the realm of education, one scholar argues that our brains have changed so much that we've become mental penguins: we've lost the ability to "fly" and might never be able to get it back.[78] Some things remain the same, but small differences should give us pause as we consider the impact of this technology on who we are becoming. As cyberpsychologist Mary Aiken sees it, "Teens still obsess about appearance. Children are still playing together. But they are all alone—looking at their devices rather than one another. How will this shape the people they will become? And how, in turn, will they come to shape society?"[79]

What sort of people are we becoming? As those seeking to become like Christ, this is a particularly challenging question for Christians. With our next chapter we're taking a jump into the advanced logic of a technological world. What if technology is actually shaping us to pursue transhumanism? Or at least be more interested in doing so?

---

[76]Rhodes, "Anabaptist Technology," 51.
[77]Harris, *End of Absence*, 206.
[78]Sardamov, *Mental Penguins*, 169, 176.
[79]Aiken, *Cyber Effect*, 303.