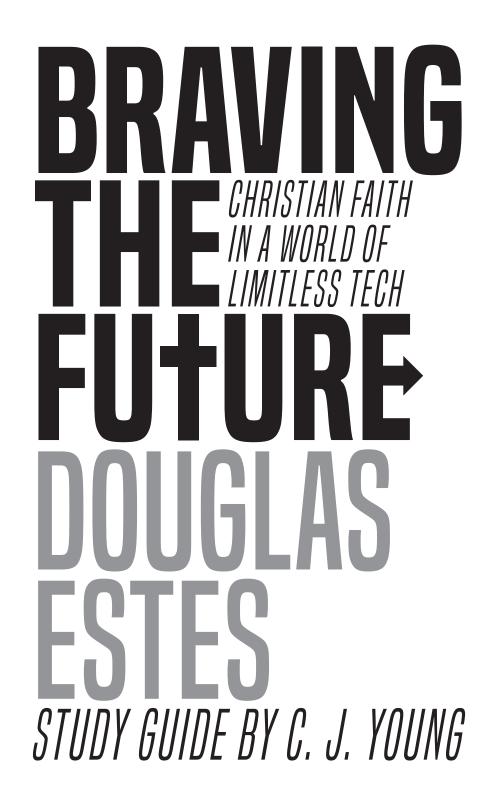


TO ASSEMBLE:

- 1. Print the pages of this guide front to back.
- 2. Fold the pages in half.
- 3. Assemble the pages and then staple them together in the middle.





INTRODUCTION

- 1. What is your favorite piece of technology? What do you think is the coolest piece of tech in the past ten years?
- 2. As you begin reading *Braving the Future*, talk about fears you have about future technology and its impact on the world and the church.
- 3. From your perspective, what drives innovations in technology? (Examples include perceived need; financial potential for companies and individuals.) How can we be intentional as we seek to prioritize what we revolutionize?
- 4. How do you see the interaction between faith and science in our modern world?
- 5. In our contemporary era, we are utterly dependent on technology. We take for granted more technological advancements than we are aware. Have we taken time to consider the theology and philosophy behind our use of these technologies? Do they truly make our lives better?

Take a moment to list a few pieces of technology that you use regularly. Then think about the benefits they offer as well as the costs.

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CONCLUSION

- 1. Throughout *Braving the Future*, we have been introduced to various technologies that are either in play in our world today or that likely will be in the future. As we looked at these technologies, we also looked at theological questions and potential ethical issues that may arise with their adoption. After reading this book, how do you feel about the future of technology and its impact on the world? Excited? Hopeful? Nervous? Why?
- 2. If we're excited, what cautions should we place in our lives? If we are nervous, where should we find comfort?
- 3. How can we be prepared for what the future might bring? How can we be certain we are ready to deal with the theological, philosophical, and ethical questions we might encounter in the future?
- 4. Pray for wisdom, discernment, courage, and strength for the future, whatever it holds. Ask God to equip you and your congregation and the larger church to live faithfully into the future.

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NOTEO

- 1. Heading into a future of intensified interaction between tech and humanity, we see that tech changes constantly but humans remain, in essence, the same. Since both our creativity and our sinfulness will always remain, what potential issues do you see with these future technologies? What are the implications for future generations?
- 2. Estes suggests that technology is an "indirect result of God's curse on humanity" (p. 190). Tech was unavoidable, as humankind was now faced with difficulty in work and sought to alleviate that toil as best as possible. Do you agree or disagree? How does your view of technology's relationship to the fall affect your sense of how God views technological innovation?
- 3. As humans seek to extend life through technological advances, a question we must ask is *why*. How might our faith in Christ affect our view of this question? Read 2 Corinthians 5:6-8 and reflect on how it might shape your understanding.
- 4. God is eternal: that is, God always has been and God always will be. What are the implications of this truth for you here and now? What are the implications for the church in general?
- 5. Consider the idea that, of all the personal attributes of God, eternality is the one God is willing to share with people. How might this truth affect how you live your life today? How might it affect how you view technology?
- 6. "On Earth, we need technology to survive," writes Estes, "but in the resurrection we won't" (p. 198). On this planet, as we have noted, what was once a luxury quickly becomes necessity. How does the resurrection change this perspective? In light of the kingdom of God that is both here and not yet, how might we view tech?

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- 6. What relational costs and benefits may there be to our technological advances? How do you notice technology affecting your relationships, for good or for ill?
- 7. In the introduction to *Braving the Future*, Douglas Estes introduces us to two basic views of how technology influences people (p. 27):
 - a. Technology is simply a tool that people use.
 - b. Technology shapes us and the world in particular ways.

Where do you find yourself landing on this subject right now? Why do you think this way?

8. Estes suggests that, as people, "it will be increasingly important . . . to acknowledge that we *do* have a say in how we use technology, and even how others use technology in ways that affect us." He states, "It is too easy to blame technology for our problems rather than admitting that the problem lies within us" (p. 27). Do you agree with the author's assessment?

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MOTEC.

- 1. What has been your experience with virtual reality? How close do you think we are to a world as depicted in *Ready Player One* becoming a reality? (Consider watching a clip or trailer of the movie as a group, but be aware of violence and profanity.)
- 2. Wired editor Peter Rubin suggests that virtual reality, the telegraph, the telephone, email, and social media provide "intimacy" and are thus indispensible parts of our culture (p. 35). Do you agree? Why or why not? Have these technologies become a necessary part of modern living?
- 3. The time frame between the creation of a new piece of technology and mass adoption is decreasing, and the rate at which it is occurring is accelerating (p. 36). This proves to be a challenge for the church and for individual Christians. How can we formulate thoughtful and wise responses to technology? Often, by the time we thoroughly understand a piece of tech and consider a theological response to it, the tech has already become an integral part of culture at large. If this continues, how can the church and individual followers of Jesus engage with new technologies?
- 4. Reflect on instrumentalism and determinism as Estes outlines these two views (pp. 39–42). Estes prefers the instrumental view, in part because it puts "the responsibility of use squarely in the laps of people." Determinism, he says, can lead to "rejection and disassociation of tech and culture rather than engagement" (p. 42). What do

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CHAPTER 7

NUTEC.

- 1. How far do we trust technology? What things would you be willing to cede control over to tech? Surgery? Financial investing?
- 2. As nanotechnology empowers us to make alterations to our world, our species, and our own bodies through gene editing and the like, some will accuse this new tech of "playing God" (p. 167). Estes suggests that this argument tries to "create a wedge between science and faith" and that we shouldn't buy it. What motivates this kind of argument, and why does it appeal to many of us? What are the problems with it? How do we determine which uses of technology are "trying to play God" and which ones are more like eyeglasses, which help us to see better (see pp. 167–68)?
- 3. Motivations matter. With profitability, pride, and vanity all potentially playing a role in technological development and use, how do we ensure that our motives for creating and using tech are pure? Where do we draw the line with things such as plastic surgery or performance-enhancing drugs?
- 4. Even if humans are able to someday "create" life, would that mean we would even be close to actually fulfilling the role of the Almighty?
- 5. What does it mean that God is impeccable? (Look at pp. 175–78 for some help.) What are the implications of this attribute of God's character for our lives?
- 6. Reflect on Estes's intriguing claim that the greater threat to humanity than good tech being put to evil use is good tech being put to good use (see p. 177). Discuss the dangers of this, including the idea that "the more wonderful our external lives look, the more miserable our internal lives may prove to be" (p. 177).
- 7. Estes lists several examples of technology mentioned in Scripture. What additional examples can you think of? Consider what Jesus' use of technology may have looked like, and reflect on Estes's discussion of the tunic and the cross (pp. 179–80).

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- 1. Describe what an intelligent robot is and how it differs from an autonomous machine and artificial intelligence (see p. 139).
- 2. As intelligent robots start to become a regular part of human society, Estes says, many human beings will begin to attribute human-like qualities to these nonhuman creatures. Why is it that we tend to personify nonhuman things?
- 3. Other people will treat intelligent robots as their property. Estes suggests that these polarizing views will create conflicts around how we should treat robots and that our treatment of "human-like" robots will have impact on how we treat one another. What Bible passages might have relevance here as we reflect on how we should treat these future robots and what implications arise from our treatment of them?
- 4. "Humanism today sees humanity, not God, as seated on the throne of our world," writes Estes (p. 145). How did we move from the "soft" version of humanism during the Renaissance (love of humanity) to the "hard" version present today (worship of humanity)?
- 5. Read Estes's definition of transhumanism (p. 144). How do you see future interactions between transhumanists and Christians going? How can we be prepared for these interactions?
- 6. Describe God's omnipotence. How does God's power differ from the power of technology?
- 7. According to the author, what role could technology be used for in the working out of God's plan for the world?

- you think? Is new technology merely a tool for our use? Or does it bear power, control, and a will of its own in our culture?
- 5. Estes writes: "You and I are called to live in such a way that our technology helps us be devoted to God and love others as we love ourselves" (p. 43). What questions can we ask ourselves about our tech use in light of this call? How can we pray and act to ensure that we love God and love our neighbors as ourselves?
- 6. As we become more technologically developed, we can begin to see ourselves as self-reliant and, in turn, believe that our need for God is outdated and unnecessary. In his *Letters and Papers from Prison*, Dietrich Bonhoeffer wrote,

How wrong it is to use God as a stop-gap for incompleteness of our knowledge. If in fact the frontiers of knowledge are being pushed further and further back (and that is bound to be the case), then God is being pushed back with them, and is therefore continually in retreat. We are to find God in what we know, not what we don't know.

What is your response to this quotation? With this in mind, how can we seek to know God as we become more technologically focused?

7. "These kinds of technologies are exciting, but they convey a false sense of our place in the world," writes Estes. "We are not self-sufficient" (p. 50). How can we embrace technological advances and still "stay in our lane" as humans? In what ways can we remind ourselves that we are created in the likeness of God but are not gods outright?

NOTES:

- 1. What are some tasks that you would be reluctant to allow a machine to perform? Why do you feel this way about these things?
- 2. In coming years, automation will replace much of what we do today, writes Estes. What role will humans play in the world at that time? What are some potentially positive aspects of this change? Some potential problems?
- 3. Self-driving cars and other daily automated technologies are being developed, but they are often met with initial reluctance. What keeps technologies like this from being fully adopted?
- 4. "Luxuries tend to become necessities," historian Yuval Harari has observed (p. 59). What technologies do you find were once luxuries that have now become "necessities" for you? What luxuries do you predict will be seen as necessities in our culture in the future?
- 5. In our culture, it seems as if we think contentment is only found in having "more." In Philippians 4:10-12, Paul describes his

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CHAPTER 5

NOTES:

- 1. What makes a person a person? What does it mean to be human?
- 2. People viewing the world from a "flattened earth" perspective (see pp. 99–100) may take actions that appear similar to those taken by people who follow Jesus. But motivations are likely different. Consider common issues of the day. In what ways might actions and motivations of Christians look different from the actions and motivations of others?
- 3. "There is no room for a soul in a flattened world," writes Estes. "There are only organics and inorganics" (p. 129). Why is it imperative that Christians seek to recover the importance of the soul?
- 4. What does it mean to be a "biblical centaur" (see pp. 130–32)? How can we prepare to engage upcoming tech issues—from basic ideas about who we are as human beings to specific questions around tech adoption and use—that the Bible does not address directly?
- 5. As we increasingly live in a world composed of photos, videos, status updates, and shared memories, we begin to create a digital presence that will be around long after we are gone. In some strange way, this will appear to give us some form of digital immortality and, according to Estes, will quickly give humanity the impression of our own omnipresence. In what ways can it begin to seem as if humans are omnipresent? What can thinking this way do to us in the long run?
- 6. "God is not simply present in all places and times. God's sover-eignty will work in all places and times" (p. 134). Reflect on God's omnipresence for a moment. What does this attribute tell us about the character of our God? What implications are there for us in light of its truth?

NUTEG.

- 1. What are basic artificial intelligence technologies you regularly encounter in day-to-day life?
- 2. In ancient cultures, God's role in the world was seen as unique and above all else. Now, as the ideas of God begin to shrink, God's position and even existence have been called into question. Our world-view gets flattened and our interactions with the matter around us are seen as merely interacting with the living or nonliving. What are the implications of how we live in this flattened view of the world?
- 3. The concept of "the singularity" can be difficult to understand (see pp. 100–104). How would you describe the singularity to someone? What do you think the likelihood of such an event is? What might its impact be on our world? The church? Our view of God?
- 4. Estes reminds us of the "two great laws of our universe: love God and love the people around you as if they were your own" (p. 105). Read Matthew 22:37-39 and reflect on these. What influence has technology had on us living into these laws?
- 5. In this chapter, Estes lists several historical "masters of the universe" (see p. 107). What does it mean to be a "master of the universe"? How do you think tech will rule when or if it becomes the next "master"?
- 6. How does our knowledge differ from God's knowledge?
- 7. Estes refers to Ezekiel and the practice of divination, what he says was an ancient "science of learning the unknown": "The diviner was someone who tried to know more about the universe than they could themselves detect or observe" (pp. 112–13). We often do this in our lives: try to determine God's plan, God's will, or our future. How is this attempt to learn the future outside our job description in God's kingdom? To what does Christ call us instead?

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- contentment in all things. What might contentment look like in contemporary times? How are contentment and happiness related in our lives?
- 6. Genesis 11:1-9 tells the story of an amazing technology that will build human flourishing—at least from the humans' perspective! But it all comes to a halt when humankind gets out of line with God's plan. What might we consider to be modern-day "towers of Babel"?
- 7. "We can build a society in which we have put ourselves at a distance from the rest of the world" (p. 69). If you have traveled to locations in the majority world or impoverished areas of the West, what have you noticed about the distance between the society in which you live and cultures in which people need to focus on satisfying basic needs? How can we reflect the character and nature of God to the world if our uses of technology have distanced us from so many people?

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NOTES:

- 1. A character in *Jurassic Park* famously says, "Your scientists were so preoccupied with whether or not they could, they didn't stop to think if they should." It's easy to begin to feel almost required to do what we have the technology available to do. How can we put safeguards in place to ensure that we look beyond the rationale of "I *could* use that technology" to "I *should* use it"? What does our Christian faith have to say about this question?
- 2. In some cases, technological advances are giving us information before we have technologies in place to deal with it. Estes discusses Iceland as an example: "With the coming of genetic testing on infants in the past two decades, more and more Icelandic parents have chosen to abort fetuses at risk of Down syndrome. Even worse, since the test is only 85 percent accurate, an unknown number of non—Down syndrome babies have also been aborted out of caution—or fear" (p. 79). Even if a test can give likelihood of a disease relatively accurately, without gene manipulation abilities beyond our current capacity, there is little we can do with this information. These issues become increasingly complex as we start to weigh freedom of the individual against the "good" of society at large. How should we, as disciples of Jesus Christ, use information we receive from tests as we seek to love God and love our neighbors?

- 3. Estes writes, "If I want to have real life, I need to step out of trying to control my life, and allow God to rule in my life" (p. 86). What does it mean to have "real life"? What would it look like to allow God to rule in our lives?
- 4. What grants God sovereignty over all the created world and everything in it? Is it by nature of being the Creator? Is it because of God's power to control all of creation? What implications does our definition of sovereignty have on the tech we create and rule over?
- 5. Read Psalm 23 and reflect on each line. Meditate on each word and each phrase. Then seek to understand how our understanding and knowledge of our God leads us to peace, contentment, and blessing under God's sovereignty.
- 6. As technology increases its scope in our lives, we may begin to feel that technology allows us to overcome obstacles—and maybe even the world. In reality, Scripture reminds us, it is not us, or our technologies, who overcome the world; Christ has already accomplished this (John 16:32-33). What do you think Jesus meant when he said he had overcome the world? How can it be true that no matter how technologically advanced we become, our tech will never overcome the world?
- 7. Anointing with oil—the application of oil and prayer by elders for the sick and hurting—is often seen as more ritual than medicine. Does the information at the end of this chapter (pp. 88–89)—about the medicinal use of oil—diminish, in your mind, the healing power or work of God? Why or why not?

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