DO CYBORGS HAVE HOPE?
TRANSHUMANISM, TECHNOLOGY, AND THE INCARNATION OF CHRIST

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To Nikki and the boys, who have been so patient.

ABSTRACT

Transhumanist philosophers have been dreaming of a post-human future for decades, but recent advancements in the areas of body modification, artificial intelligence, and neural implants demonstrate that these dreams may be heading toward reality. Theological responses to transhumanism range from dismissal to endorsement, but for Christian theologians they are often grounded in the exploration of what it means to be human. This is important to the discussion, but it falls short of addressing the hope that transhumanism claims to offer, one of forward evolution and potential immortality through advancing technology. Scripture offers a better hope, one grounded in the incarnation of Jesus Christ, whose humanity demonstrates the dignity and value of our humanity, and also sets the pattern for humans in eternity.

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INTRODUCTION

Humanity needs hope. The specter of death hangs over our heads in the form of hunger, disease and war. Where do we look for hope? There is a people, a movement, that envisions a future where our bodies are free from disease, age, hunger and pain. They hope for a future where viruses do not cripple society, and no fear of untimely death halts our dreams. They hope for a future of rest from labor and an end to war. They call themselves "transhumanists," and they preach intentional and purposeful evolution - with the help of technology and innovation - to move beyond our current human state into a posthuman future. They hope for a future where we "exceed the limitations that define the less desirable aspects of the 'human condition.'"[1] Technologies such as genetic manipulation, body modification, cybernetic enhancements, and artificial intelligence will bring us this future. These are not fantasies dreamed up by futurists and novelists, but directions for research, supported and spurred on by the transhumanist movement.

Soon we will have chips to implant in our brains to interface directly with our computers. We will have robots that recognize emotion as companions and servants. We will have Artificial Intelligence[2] personal assistants to handle our day-to-day needs. We will have prosthetics more sophisticated than human limbs. Medical technology already allows transitioning from one sex to another; soon it will offer even more radical adaptations to our bodies. We carry supercomputers in our pockets. We connect to people across the globe from any device with an internet connection.

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1. Max More, "The Philosophy of Transhumanism." *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future*. Chichester, West Sussex, UK: Wiley-Blackwell, 2013, p. 4.

2. "AI" for short. I will use the acronym throughout.

We do work and school from home. What was once the realm of science fiction now seems realistic and imminent. This is the next chapter of the human story.

Underneath is the echo of an ancient lie, the first lie told to humans. "You will not die… your eyes will be opened… you will be like God."[3] Transhumanism aims at a future where "there will be no more death or mourning or crying or pain, for the old order of things has passed away."[4] Transhumanism offers the hope, peace, and life that God offers through Jesus, but in a different shape and from a different source. "Transhumanism (like humanism) can act as a philosophy of life that fulfills some of the same functions as a religion without any appeal to a higher power, a supernatural entity."[5]

Every worldview tells a story. It explains our origin, purpose, and end. Transhumanism tells a story of humanity based in evolutionary theory and hopeful speculation. In the transhumanist story, humanity begins in a prehistoric world where chemical interactions led to the formation of proteins and eventually life. Life exploded into diversity through an elegant process of natural selection, where mutations allow greater chances of survival that give rise to complexity, efficiency, and intelligence. Humanity is the highest form of life this evolutionary process has brought to Earth, but it is not the end. Evolution will continue to give rise to new forms of life. But humanity is now uniquely positioned to do what no previous form of life could do: consciously and intentionally direct its own evolution. The transhumanist story speculates on how humanity will evolve, offering the hopeful

3. Gen. 3:14-15, NIV.

4. Rev. 21:4, NIV.

5. More, "The Philosophy of Transhumanism," p. 8.

dream that we can make for ourselves a better life, a better world, and a better humanity.

This hopeful dream is appealing to a postmodern world whose "incredulity toward metanarratives"[6] has left it grasping for a foundation of truth. Humanity wants a story that makes sense of the world and gives us a vision for the future, even as our current culture has rejected the notion that such a story exists. Transhumanism responds with a story of hope, and as the dreams of transhumanism become reality in our tech news headlines that hope begins to look very real.

The question the Church, God's people, must raise is this: Is this where we look for hope? Is there any hope in this story? Is there a truer and better hope than this that we can offer to the world? As advancing technology continues to embed itself into our lives, the Church must respond with the reason for the hope that we have.[7] This will in turn equip us to answer questions that advancing technology will raise and lead God's people to handle technology in way that is fitting with Christian discipleship.

I will argue that our best answer to transhumanism is the incarnation of Jesus Christ, where we see what it means to be human, and we find hope for the resurrection and renewal of our humanity through faith in him. In Chapter 1 I review the literature surrounding transhumanism, its origins and the current discussion surrounding it. In Chapter 2 I take a closer look at transhumanism in light of advancing technology and how the hope it offers is an attempt control our lives and our fate. In this chapter I also demonstrate how technology we use in our day-to-day

6. Jean-Francois Lyotard, "The Postmodern Condition: A Report on Knowledge," in *Theory and History of Literature*, trans. Geoff Bennington and Brian Massumi, vol. 10 (Manchester University Press, 1984), p. xxiv

7. 1 Peter 3:15

trains us to accept the transhumanist vision. In Chapter 3 I present the incarnation of Christ as the source of hope that stands against the hope of transhumanism. In Chapter 4 I apply this hope to the discussion of transhumansim, and offer some suggestions for future direction.

CHAPTER ONE: LITERATURE REVIEW

Julian Huxley is credited as the originator of the transhumanist movement.[8] He coined the term in a 1951 lecture in Washington titled "Knowledge, Morality, and Destiny."[9] He described transhumanism as "the idea of humanity attempting to overcome its limitations and to arrive at fuller fruition."[10] In his 1959 book *New Bottles for New Wine* Huxley explained his belief in the potential for the human race to enter a new kind of existence.[11] In 1968 he wrote in the *Journal of Humanistic Psychology*, "The human species can, if it wishes, transcend itself—not just sporadically, an individual here in one way, an individual there in another way, but in its entirety, as humanity."[12]

F.M. Esfandiary, who preferred to be known as FM-2030,[13] declared in his 1977 book *Up-Wingers: A Futurist Manifesto* that current technological leaps are not merely historically significant; they are in fact evolutionary progress for the human race. He believed physical immortality through technological progress was a realistic goal. "Transcendence is no longer a metaphysical concept. It has become reality."[14] FM-2030 defined anyone who uses new technology or whose values and lifestyle are

8. Peter Harrison and Joseph Wolyniak, "The History of 'Transhumanism,'" *Notes and Queries* 62, no. 3 (September 1, 2015): 465–67, https://doi.org/10.1093/notesj/gjv080.

9. Note that Huxley coined the term in respect to the concept of Transhumanism as it is now known. The word had been previously used by Dante, T.S. Eliot, and W.D. Lighthall, but Huxley is given credit for its first use in the context of future evolution of the human race.

10. Harrison and Wolyniak, p. 466.

11. Julian Huxley, *New Bottles for New Wine.* Readers Union, Chatto & Windus, 1959.

12. Julian Huxley, "Transhumanism," *Journal of Humanistic Psychology* 8, no. 1 (January 1, 1968): 73–76, https://doi.org/10.1177/002216786800800107, p. 76.

13. He chose "FM-2030" because he believed he was born too early; he felt his ideas fit with a world of the future, and that he ought to have been born in the year 2030.

14. Esfandiary, F.M., *Up-Wingers: A Futurist Manifesto.* Popular Library, 1977, p. 5.

shaped by advancing technology as a transhuman, calling such people an evolutionary step toward posthumanity.[15]

Following FM-2030's footsteps is Max More, the current leading voice in transhumanism. More was the president and CEO of Alcor Life Extension Foundation and founder of Extropy, an institute and publication for transhumanist thought. He and his wife, Natasha Vita-More, have written extensively on the philosophy and direction of the transhumanist movement, and together edited and published the 2013 *Transhumanist Reader.* More defines transhumanism as

> the intellectual and cultural movement that affirms the possibility and desirability of fundamentally improving the human condition through applied reason, especially by developing and making widely available technologies to eliminate aging and to greatly enhance human intellectual, physical, and psychological capacities.[16]

In short, transhumanism aims at using technology to change humanity for the better. A key concept is morphological freedom: the right to change my body and mind in whatever way I see fit. "If there is a fundamental acknowledgment and respect for human rights and individual choices, as long as one person's choice does not hurt another person or damage other life forms, then their views need to be respected and vice versa."[17]

This philosophy is driving current technological advancements in a variety of fields, including artificial intelligence, robotics, genetics, medicine, as well as food production, infrastructure, transportation, exploration, and many other things that affect the quality of our daily lives. It is "a worldview where people inspire each other to create, to innovate, to challenge the unknown, and to be explorers of the future."[18]

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15. Esfandiary, F.M., *Are You a Transhuman? Monitoring and Stimulating Your Personal Rate of Growth in a Rapidly Changing World.* Grand Central Pub, 1989.

16. More, "The Philosophy of Transhumanism," p. 4.

17. Natasha Vita-More, *Transhumanism: What Is It?* 2018.

As a worldview, it influences all fields of advancing technology, even if the individuals working in those fields would not call themselves transhumanists. It is similar to religious undercurrents in culture; just as Judeo-Christian morals undergird Western culture transhumanist ideas undergird technology research and progress. As Gregory Stock observes, "It is about philosophy and religion. It is about what it means to be human, about our vision of the future."[19]

Some Christian theologians believe we can find common ground between transhumanism and Christian theology. Ronald Cole-Turner is ordained in the United Church of Christ and teaches as a professor of theology and bioethics at Pittsburgh Theological Seminary. He has observed that "our age is not just an age of expanding technologies but also of growing debates about the ethics of these technologies."[20] However, he laments that there are few theologians engaging in this debate, despite the obvious theological implications. "The longings that lie at the core of transhumanism are familiar to anyone who knows the texts of nearly any of the world's religions or philosophies."[21] According to Cole-Turner, the human longings for endless life, perfect health and increased intellect may be satisfied within just a few decades. He edited a 2011 collection of essays on theology and transhumanism titled *Transhumanism and Transcendence,* where he frames the discussion in terms of redemption and transformation, noting that a biblical view of humanity includes a vision of a better life. However, "the distinction in theology is between redemption

18. Vita-More, *Transhumanism: What Is It?* p. 6.

19. Gregory Stock, "The Battle for the Future," Max More and Natasha Vita-More, eds., *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future* (Chichester, West Sussex, UK: Wiley-Blackwell, 2013), p. 303.

20. Ronald Cole-Turner, "Introduction: The Transhumanist Challenge," *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement,* Ronald Cole-Turner, ed., (Washington, D.C: Georgetown University Press, 2011), p. 2.

21. Cole-Turner, "Introduction: The Transhumanist Challenge," p. 14.

and glorification, between God redeeming us to an original state from which we have fallen and glorifying or transforming us far above any original status."[22] As a theistic evolutionist,[23] Cole-Turner is critical of those who favor redemptive transformation but oppose enhancement. He seeks dialogue about how to embrace technology within ethical limitations, asking us to consider whether our efforts are about trying to save ourselves through technology, or about "allowing God's work to be done in us and through us by new means."[24]

Karen Lebacqz, Prof. of Theological Ethics at the Kennedy Institute of Ethics, favors movement toward transhumanist goals. In her essay "Dignity and Enhancement in the Holy City," she refers to Christian theology as a "Creation - Fall - Redemption" theology at root, commenting that redemption through enhancement might "surpass the cautions present in the Creation and Fall scenarios." She argues, however, that "Redemption trumps Creation and Fall and therefore permits some latitude for enhancement."[25] She acknowledges that Scripture warns against hubris, and that implicit in stewardship is a wise hesitance to go beyond natural limitations. However, she also asks, "Must stewardship be limited to preserving what is?"[26] She points to the healing miracles of Jesus as evidence that he does not want us to be bound only by what is, but to attain to what might be. She concludes, "Our very

22. Cole-Turner, "Introduction: The Transhumanist Challenge," p. 4.

23. Ronald Cole-Turner, *The End of Adam and Eve: Theology and the Science of Human Origins*, 2016.

24. Cole-Turner, "Introduction: The Transhumanist Challenge," p. 6.

25. Karen Lebacqz, "Dignity and Enhancement in the Holy City," *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement,* Ronald Cole-Turner, ed., (Washington, D.C: Georgetown University Press, 2011), p. 55.

26. Lebacqz, "Dignity and Enhancement," p. 56

dignity may lie in our transcendence of limits and in our orientation toward that eschatological call from God."[27]

Brent Waters disagrees with Lebacqz's position. While he agrees that "Transhumanists and Christians agree… that the finite and moral human condition is far from ideal,"[28] he does not see them agreeing on the solution. He states that "Christian theology cannot embrace the transhumanist salvific strategy and eschatological horizon," and distinguishes that "what separates Christian from posthuman eschatology is that the latter seeks immortality while the former awaits eternity."[29] For Waters, the problem is that while both transhumanism and Christianity seek hope, the source of hope and the eschatalogical vision are completely incompatible.

Jacob Shatzer, associate dean of the School of Theology and Missions at Union University, also objects to transhumanism in his text *Transhumanism and the Image of God.* Approaching the discussion from the standpoint that human beings were created in God's image, Shatzer centers his anthropology on the incarnation of Jesus. "Jesus Christ, fully God and fully human, shows us not only God in the flesh but also what it truly means to be human. Our anthropology - our understanding of what it means to be human - takes clearer shape when built on the foundation of the incarnation."[30] Owen Strachan, professor of theology at Midwestern Baptist

27. Lebacqz, "Dignity and Enhancement," p. 59.

28. Brent Waters, "Whose Salvation? Whose Eschatology?" *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement,* Ronald Cole-Turner, ed., (Washington, D.C: Georgetown University Press, 2011), p. 164

29. Waters, "Whose Salvation? Whose Eschatology?" p. 171

30. Jacob Shatzer, *Transhumanism and the Image of God: Today's Technology and the Future of Christian Discipleship* (Downers Grove, Illinois: IVP Academic, an imprint of InterVarsity Press, 2019), p. 121.

Theological Seminary, calls anthropology "the major issue of our time,"[31] and affirms with Shatzer that Jesus "shows us what true humanity was intended to be."[32] In this view of humanity, the end is not a posthuman future but a future where "We as a redeemed people are headed somewhere; we know Christ now, and we will worship him as reenchanted beings for eternity."[33]

Shatzer's practical concerns with transhumanism involve how technology affects our Christian discipleship. "Technologies are shaping us. And shaping people, after all, is just another way of talking about discipleship."[34] Shatzer uses the term "liturgies of control" to refer to the things we do to exert control over ourselves, our lives, and the world around us, pointing to technology as a form of transhuman liturgy. Believing that liturgy has a power to shape us, he asks, "How do modern technologies form us morally by shaping what we love?"[35]

Tony Reinke is similarly concerned with the shaping power of technology. He has written about how our use of technology - and especially smart devices - is changing us. "For better or worse, technology fundamentally changes how we talk about God. And technology shapes the way God communicates himself to us."[36] Reinke recognizes the role technology has played in human history and the spread of the Gospel. Yet he also raises warnings about how we are individually affected in

31. Owen Strachan, *Reenchanting Humanity: A Theology of Mankind*, 2019, p. 3.

32. Strachan, p. 355.

33. Strachan, p. 380.

34. Shatzer, p. 8.

35. Shatzer, p. 28.

36. Tony Reinke, *12 Ways Your Phone Is Changing You* (Wheaton: Crossway, 2017), p. 37.

negative ways by devotion to our devices and urges Christians to ask the question, "Do my smartphone behaviors move me toward God or away from him?"[37]

37. Reinke, p. 194.

CHAPTER TWO: TRANSHUMANISM – HOPE THROUGH CONTROL

Max More defines transhumanism as both "intellectual and cultural." To put it another way, it is not only an area of study for techno-philosophers, it is a worldview: a set of ideas, a standard of norms, and way of looking at the world that guides priorities and behavior. One need not self-identify as transhumanist[38] to view the world through this lens and live according to its principles. As FM-2030 said, anyone who engages with technology to improve their life could be called a transhumanist, and he might not be wrong. If we view human life as a product of evolution, transhumanism is a logical extension. If we see technology as a means to solve the problems of this world, transhumanism offers real solutions. Transhumanism is driving research and development in all fields to achieve its vision. As Natasha Vita-More explains, "it is not located in any one field or enterprise. Its scope is continually evolving on par with the social, scientific, economic, political and technological landscapes."[39] While the term "transhumanism" may not be as well known,[40] its ideas are all around us.

Christians who adopt an evolutionary theology will more likely find transhumanist ideas palatable. Theistic evolutionists like Cole-Turner, Lebacqz, and others demonstrate that one can hold a high regard for Scripture[41] and still see

38. Elon Musk, for example, has consistently rejected the label of "transhumanist," even though he is an official member of the Transhumanist Part of America, and many transhumanists claim him as one of their own. His ideas, without a doubt, are in line with the transhumanist vision.

39. Vita-More, p. 5.

40. This is anecdotal, but in the course of my research on this topic, I have mentioned it to roughly two dozen pastors, at least twice as many church members, and a few professors. With only a few exceptions, no one was familiar with the term before I explained it. Yet, after explaining, every person I have spoken with about it understood it and were able to relate it to their own lives or to recent news headlines.

transhumanism fitting into the larger plan of redemption. As more Christian leaders adopt syncretism between evolutionary science and biblical creation, more believers will struggle to recognize that transhumanism is a false hope.

Our desire for hope and future redemption is attracted to the notion that we can unlock ways to improve our lives and selves. "Many believers in western culture see the medical and technological advances achieved through science and are grateful for them,"[42] writes Tim Keller.[43] Keller considers himself a theistic evolutionist. He argues that Genesis 1 should not be understood as a historical account but rather a poetic narrative that leaves room for God to use evolution to bring about life. He argues for an evolutionary view of human history in which Adam and Eve are real historical figures, born out of a proto-human race of creatures and fashioned by God as a directed evolutionary leap. God imbued then with his image and distinguished them as the progenitors of the new human race.[44]

John Brug, Prof. Emeritus of Wisconsin Lutheran Seminary, has provided a clear and helpful explanation of why Confessional Lutherans - and really, any Bible

41. I am distinguishing here between a "high regard" and what is often referred to as a "High View of Scripture." A High View of Scripture says that the Bible is God's Word, is inspired, inerrant and infallible, and is the one fully reliable source of truth. A high regard is the view that Scripture has great value and dignity and worth for informing our faith, as it provides insights into the way ancient peoples thought about God, and maybe even contains true messages from God. Some with a high regard for Scripture might even go so far as to say that the Bible claims to be God's own words to the world. Yet, they would not necessarily see it as an inspired, inerrant and infallible source of absolute truth. There is a wide spectrum of thought about how reliable Scripture is once you abandon the view that it is entirely God's Word, and the resulting confusion is only proof of the folly of abandoning that view.

42. Tim Keller,"Creation, Evolution, and Christian Laypeople - Articles," BioLogos, accessed March 13, 2021, https://biologos.org/articles/creation-evolution-and-christian-laypeople/.

43. Tim Keller is a popular Christian pastor and author and co-founder of the Gospel Coalition, whose Bible studies, books, and podcasts are consumed by believers of many denominations, in part because he is consistent in pointing to the Gospel as central to the life of the believer. A regular phrase in his preaching is, "The life of a Christian is to daily preach the Gospel to yourself." PodBean Development, "Timothy Keller Sermons Podcast by Gospel in Life," accessed March 13, 2021, https://podcast.gospelinlife.com.

44. Keller,"Creation, Evolution, and Christian Laypeople - Articles."

believing Christians - should reject such attempts to syncretize scientific evolution and biblical creation. He grounds this in a plain reading of the text of Genesis.

> Six times it says that the days of creation were made up of an evening and a morning, which together made one day. Furthermore, when 'days' are numbered, they are regular days not eras. How could the account be any more emphatic in declaring that the days of creation were normal days, not long periods of time?[45]

Brug also observes that those who attempt to syncretize evolution and creation say that the Genesis 1 account does not tell us *how* God created the world, only *that* he did and *why.* Yet, Brug responds, "if that is true, it certainly is strange that the account in Genesis spends so much time telling us how God created the world."[46] The creation account details that the Spirit was hovering over the waters, that God said, "Let there be," and things came into existence, and on which days specifically things came into being. It certainly tells us quite a bit about *how* God made all things.

Our purpose here is not to give a full apology for young-earth creationism. This small portion of Brug's argument is sufficient to say that evolution-creation syncretism is not present in Genesis 1. Reading contemporary science into Scripture is dangerous.

Keller's view is significant for our discussion, however, because he is not alone. Other influential Christian leaders, including D.A. Carson, John Piper, R.C. Sproul, and Michael Horton, have expressed similar views.[47] Such thinking has led some theologians to argue in favor of transhumanism. Pierre Teilhard de Chardin, a 20th century Jesuit priest and paleontologist, argued that creation was not an event in time but rather a constant process of God's work in the world.

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45. John F Brug, "Why Confessional Lutherans Believe That Genesis 1-3 Describes Real History," p. 3.

46. John F Brug, "Why Confessional Lutherans Believe That Genesis 1-3 Describes Real History," p. 4.

47. "Pastors and Theologians on Days of Creation Age of the Earth," Answers in Genesis, accessed March 13, 2021, https://answersingenesis.org/creationism/old-earth/influential-pastors-and-theologians-on-the-days-of-creation-and-the-age-of-the-earth/.

> There is not one moment when God creates, and one moment when the secondary causes develop. There is always only *one* creative actions (identical with conservation) which continually raises creatures towards fuller-being, *by means of* their secondary activity and their earlier advances. Understood in this way, creation is not a period intrusion of the First Cause: It is an act co-extensive with the whole duration of the universe.[48]

Lebacqz follows with the thought that John's Revelation implies that humans are destined to continually transform. Therefore, "we need not at root fear enhancements - it is our destiny to be more than we were at creation, to become friends with God and partners in the Holy City."[49] What Lebacqz seems to miss is who will do the transforming; God is the one who promises to make all things new.[50]

But the vision of transhumanism is not simply transformation to a better form. Consider this passage from *Homo Deus* by transhumanist author Yuval Harari:

> We want the ability to re-engineer our bodies and minds in order, above all, to escape old age, death and misery, but once we have it, who knows what else we might do with such ability? So we may well think of the new human agenda as consisting really of only one project (with many branches): attaining divinity. If this sounds unscientific or downright eccentric, it is because people often misunderstand the meaning of divinity. Divinity isn't a vague metaphysical quality. And it isn't the same as omnipotence. When speaking of upgrading humans into gods, think more in terms of Greek gods or Hindu devas rather than the omnipotent biblical sky father. Our descendants would still have their foibles, kinks and limitations, just as Zeus and Indra had theirs. But they could love, hate, create and destroy on a much grander scale than us. Throughout history most gods were believed to enjoy not omnipotence but rather specific super-abilities such as the ability to design and create living beings; to transform their own bodies; to control the environment and the weather; to read minds and to communicate at a distance; to travel at very high speeds; and of course to escape death and live indefinitely. Humans are in the business of acquiring all these abilities, and then some.[51]

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48. Pierre Teilhard de Chardin and René Hague, *Christianity and Evolution* (New York: Harcourt, Inc., 2002), p. 23.

49. Lebacqz, p. 58

50. Revelation 21:5

51. Yuval Noah Harari, *Homo Deus: A Brief History Of Tomorrow.* (Harpercollins, 2018), http://www.vlebooks.com/vleweb/product/openreader?id=none&isbn=9780062464354, p. 64.

Transhumanism is not looking for a theology that includes intentional transformation. It is looking to offer a hope and vision for humanity that does not require God at all. Transhumanism and Christianity are not just strange bedfellows, they are entirely incompatible.

Perhaps more concerning than transhumanist theologians is our ready acceptance of any technology that makes our lives easier, more comfortable, or more enjoyable. According to the Pew Research Center, the past decade has seen a dramatic increase in smartphone usage, from 35% of Americans in 2011 to 81% in 2019. 37% of adults now use a phone almost exclusively to access the internet.[52] This increase is part of what has Reinke concerned, and his book *12 Ways Your Phone is Changing You* is a warning call that this will have a profound impact on our society. We become addicted to distraction, conformed to the things we "like" and follow, and comfortable in our secret vices, among other concerns. It leads us to ignore our flesh and blood, as Reinke puts it. "In the smartphone age, when our cognitive actions are separated from our bodily presence, we tend to overprioritize the relatively easy interactions in the disembodied online world and undervalue the embodied nature of the Christian faith."[53]

Reinke's use of the term "disembodied online world" is especially relevant for our discussion of transhumanism, which seeks to move beyond the limitations of our human bodies. Reinke's observation is no exaggeration. The Pew Research Center reports that social media sites have become the go-to platform for connecting with

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52. Pew Research Center, "Mobile Technology and Home Broadband 2019," *Pew Research Center: Internet, Science & Tech* (blog), June 13, 2019, https://www.pewresearch.org/internet/2019/06/13/mobile-technology-and-home-broadband-2019/.

53. Reinke, p. 61.

people.[54] The COVID-19 pandemic of 2020-21, with quarantines and lockdowns and encouragements for physical distancing, only increased the use of social media a primary means for social interaction.[55] As technology advances to make these interactions more "authentic," how much more digital will our lives become?

Smartphones are incredible tools for accessing information. They allow us to keep in touch in real time with friends and family all over the globe. They help us keep track of our health and our schedules. They even serve as an actual portable telephone (a function that seems less and less the purpose). Many other technologies fitting the transhumanist vision offer practical benefits, and we would be hard-pressed to call them evil. Yet, these benefits also present a challenge. The hope of transhumanism seems more real, while the hope of Scripture might seem a relic of a mystical past.

Shatzer refers to our use of technology as "liturgies of control." Shatzer is drawing on language from Rod Dreher, who writes in *The Benedict Option* (2017): "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."[56] Liturgy in our worship lives is ritual and rhythm, guided by Scripture, where we participate in a dialogue with God as he speaks to us and we speak to him and to each other. It shapes our thinking and habits as we participate and engage with each other as a people. Our use of technology is likewise ritual and rhythm. In 2013 the

54. Pew Research Center, "10 Tech-Related Trends That Shaped the Decade," *Pew Research Center* (blog), accessed January 9, 2021, https://www.pewresearch.org/fact-tank/2019/12/20/10-tech-related-trends-that-shaped-the-decade/.

55. Caveat: the long-term impact of the pandemic on social trends is yet to be forthcoming. Perhaps the majority of people will more eagerly seek out in-person human interaction in time.

56. Rod Dreher, *The Benedict Option: A Strategy for Christians in a Post-Christian Nation* (New York, New York: Sentinel, 2017), 219

International Data Corporation reported that more than 80% of smartphone users check their phone within 15 minutes of waking up;[57] this is a ritual. It shapes our thinking and habits as we participate and engage with each other in behavior that has become quite common to our society; memes about use of technology are ubiquitous on social media.[58] In adding the word "control," Shatzer is highlighting the insidious nature of these technological liturgies. Where worship liturgy is informed by Scripture, our technological liturgies are informed by our news feeds and tech magazines that tell us how our devices' newest features will improve our lives. Where worship liturgy is a dialogue between us and God, our technological liturgies are a dialogue between us and the data corporations; they feed me information and entertainment, and I give them access to my personality. Worship liturgy is participation in a body of like-minded people; technological liturgies are individual and preach personal affirmation, while in reality they conform our thinking to whatever is acceptable to society. The attraction in all of this is the illusion of control: it sells us the notion that our technology gives us control over how we live our lives, how we present ourselves to the world, and how we can shape our future. I have control over the use of my device, my privacy, my schedule, my information and entertainment sources. Or so I am told. I am trained to believe that my technology gives me control. In the future I will have control over my health, my body, my image, my mind, and even my life or death. Or so I am told, and I have been trained to believe it. "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

57. "Why Your Phone Shouldn't Be A Part Of Your Morning Routine | HuffPost Canada Life," accessed April 19, 2021, https://www.huffingtonpost.ca/entry/dont-check-phone-in-morning_ca_5df24c1ae4b01e0f295b6d0a.

58. The irony should not be overlooked.

human."[59] In transhumanism, our hope for the future is linked to our ability to control our own fate, and our technological liturgies train us to value this control and cling to this hope. Our task as a Church is to recognize how advancing technology offers this transhumanist hope and to present a truer hope based not on control of our own fate, but on surrendering control God, who holds our times in his hands.[60] He offers the solution to hunger, disease, war, and all other ills, as we will later see. First, we will consider a few examples to help us recognize how advancing technology offers us control and transhumanist hope.

Body Modification

For years we have been using technology to correct problems with our bodies. We have corrective surgeries for broken bones and torn muscles, braces for crooked teeth, and reconstructive surgery for deformities. A transhumanist might point to these as examples that we are comfortable with body modification.

Max More, however, argues that body modification is not just for correcting problems but also for enhancing human appearance and capability. "Enhancement can be corrective - as in the case of eyeglasses, contact lenses, robotic limbs, and dental implants… Enhancement can also augment capabilities beyond the limits of purely biological, non-technologically altered humanity."[61] Note that More makes no distinction between restoring and expanding normal human bodily function; he calls

59. Shatzer, 31

60. Psalm 31:15

61. More. "Human Enhancement: The Somatic Sphere." Max More and Natasha Vita-More, eds., *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future* (Chichester, West Sussex, UK: Wiley-Blackwell, 2013), p. 65.

them both "enhancement." This blurring of the lines trains us to think of both as equally positive means of control and hope.

Today we can to appear how we want, and we are not limited to plastic surgery and hair coloring. For those with gender dysphoria, hormone therapy and gender reassignment surgery allow their body match their mental perception of themselves. Gender and sex are now considered fluid. We experience increasing political pressure to embrace gender transition as normal and healthy. The rising challenge is that the transhumanist vision for body modification goes far beyond gender and sex. What will we be pressured to accept in the future?

Russ Foxx, who self-identifies as a transhumanist, has undergone more than one hundred modifications, including use of silicone implants to appear something other than human. He sees his body as a canvas on which to perform his art. "I evolve with technology and time. I'm always updating; always upgrading."[62] He has installed devil horns on his head, ultraviolet patterns inlaid into his skin, and decorative symbols on his arms. Winter Mraz, another self-declared transhumanist, has installed LED lights underneath her skin, activated by magnets installed under her fingertips, so that she can "sparkle" at will. Winter's interest in body modification began after a car crash required her back to be bolted together and one of her kneecaps replaced with a 3D printed kneecap.[63]

Both Foxx and Mraz also take a practical interest in enhancement. Mraz has an RFID[64] chip implanted in her hand containing medical information and the ability

62. "'Transhumanist' Has Hundreds of Body Modifications to Evolve with Technology," *Metro* (blog), April 26, 2018, https://metro.co.uk/2018/04/26/transhumanist-gone-hundreds-body-modifications-evolve-technology-time-7498882/.

63. "The Transhumanists Who Are 'upgrading' Their Bodies," *BBC News*, October 6, 2019, sec. Scotland, https://www.bbc.com/news/uk-scotland-49893869.

64. Radio-Frequency Identification, a technology that allows chips to store information that can be retrieved by electronic devices using radio waves.

to unlock the doors on her house. In an interview she noted that our wearable tech, like the Apple Watch and Fitbit, monitor health, store valuable data, and work as near-field transmitters for things like activating locks and making payments. Implants are the next logical step. Steven Ryall also sees the value of implants, and has a chip in his hand that stores his bank information and works like a bank card at the store. "I am slowly turning myself into part machine," he says. "I don't mind being biological but if I could be part mechanical that is so much more awesome than just my plain self."[65]

Researchers at Chalmers University of Technology in Sweden, in connection with other institutions including MIT, have developed prosthetics capable of delivering touch sensation back to the wearer. The wearer can also control the prosthesis with his or her mind, with finger articulation similar to a human hand.[66] This fantastic breakthrough in technology is an opportunity for those who have lost limbs to regain some semblance of the life they had before.

However, when considering transhumanist enthusiasts such as those cited above, we have to wonder how long before someone decides that replacing a fully functioning arm is preferable, so long as the prosthetic is advanced enough and interesting enough. Movies and TV shows[67] have envisioned such things, and the technology might not be far off. Transhumanists would argue that "upgrading" a limb to something with more features is legitimate.

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65. "The Transhumanists Who Are 'upgrading' Their Bodies," *BBC News*, October 6, 2019, sec. Scotland, https://www.bbc.com/news/uk-scotland-49893869.

66. Max Ortiz-Catalan, Enzo Mastinu, Paolo Sassu, Oskar Aszmann, Rickard Brånemark. "Self-Contained Neuromusculoskeletal Arm Prostheses." *New England Journal of Medicine*, 2020; 382 (18): 1732 DOI: 10.1056/NEJMoa1917537

67. The Marvel universe comes to mind, with both the Winter Soldier's bionic arm as well as the villain from Black Panther, whose prosthetic arm could turn into an electricity spewing weapon.

Morphological freedom is central to transhumanist philosophy and closely connected to body modification. “We favor morphological freedom - the right to modify and enhance one’s body, cognition, and emotions,”[68] says the Transhumanist Manifesto. Anders Sandberg, a transhumanist author and Senior Research Fellow at the Future of Humanity Institute at Oxford, defines *morphological freedom* as “an extension of one’s right to one’s body, not just self-ownership but also the right to modify oneself according to one’s desires.”[69] Sandberg argues that the right to the pursuit of happiness includes the right to change anything about oneself - from hair color to sex to any part of the body that needs changing to guarantee happiness. Human dignity demands personal agency, he argues. “One of the best ways of preventing humans from being used as means rather than ends is to give them the freedom to change and grow. The inherent subjecthood of humans is expressed among other ways through self-transformation.”[70] Vita-More adds that while gender choice, body image, and other rights of modification are essential rights in and of themselves, an important context for body modification and morphological freedom is the right to do whatever one must to extend and expand one’s lifespan. “It concerns the larger environment in which enhancement takes place and the idea that humans might and can append their bodies and expand their lives.”[71]

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68. “Transhumanist Declaration” Max More and Natasha Vita-More, eds., *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future* (Chichester, West Sussex, UK: Wiley-Blackwell, 2013), p. 55

69. Anders Sandberg. “Morphological Freedom - Why We Not Just Want It, but Need It.” Max More and Natasha Vita-More, eds., *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future* (Chichester, West Sussex, UK: Wiley-Blackwell, 2013), p. 56.

70. Sandberg. “Morphological Freedom - Why We Not Just Want It, but Need It,” p. 63.

71. Natasha Vita-More. “Life Expansion Media.” Max More and Natasha Vita-More, eds., *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future* (Chichester, West Sussex, UK: Wiley-Blackwell, 2013), p. 75

The transhumanist philosophy of morphological freedom goes beyond appearance modification. It involves achieving the posthuman future that transhumanists envision as a necessary goal for human evolution.

> Transhumanists regard human nature not as an end in itself, not as perfect, and not as having any claim on our allegiance. Rather, it is just one point along an evolutionary pathway and we can learn to reshape our own nature in ways we deem desirable and valuable. By thoughtfully, carefully, and yet boldly applying technology to ourselves, we can become something no longer accurately described as human - we can become posthuman.[72]

Nick Bostrum, Director of the Future of Humanity Institute, defines a *posthuman* as "a being that has at least one posthuman capacity… a general central capacity greatly exceeding the maximum attainable by any current human being without recourse to new technological means."[73] Bostrum believes that some level of posthuman capacity will be available for most people alive today, and that it will be good for them as individuals and for humanity in general to achieve those capacities. "From an evolutionary perspective it improves the fitness of an intelligent being if that being actively seeks to explore and achieve its potential rather than passively wait until a need or circumstances arise."[74] Sandberg's quest for self-transformation is an open-ended process, not a search for an "imaginary state of perfection."[75] It comes not from unhappiness with who we are but from a desire to be continually improving.

Shatzer observes, "At root, what is the human problem, and where is hope found for its solution? Morphological freedom trains us to think that hope is found in

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72. More, "The Philosophy of Transhumanism." Max More and Natasha Vita-More, eds., *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future* (Chichester, West Sussex, UK: Wiley-Blackwell, 2013), p. 4

73. Bostrom, "Why I Want to be a Posthuman When I Grow Up." Max More and Natasha Vita-More, eds., *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future* (Chichester, West Sussex, UK: Wiley-Blackwell, 2013), p. 28-29.

74. Sandberg. "Morphological Freedom - Why We Not Just Want It, but Need It," p. 59-60.

75. Sandberg. "Morphological Freedom - Why We Not Just Want It, but Need It," p. 60.

our ability to use technology for self-transformation."[76] The transhumanist hope is that any perceived problems with my body - real or otherwise - can be corrected with the right technology. The only limits are the limitations of the technology. If we can repair ourselves indefinitely or upgrade our bodies past the point of age and disease, we will have achieved the dream of post-humanity and nothing will be beyond our reach. But it is a hope that rests in Utilitarianism and Autonomy, and ultimately in control of our own forms.

We are already being trained to want what body modification offers. Social media and selfies train us to appear to the world not as we are, but as we wish we could be. "Social media implicitly trains us to think more frequently about how we want to be perceived, which is a short step away from thinking about how we would transform ourselves into better selves."[77] Selfies have become normalized across the globe, and there is a cynical stigma about the behavior. However, researchers Valerie Barker and Nathian Shae Rodriguez have attempted to show how it is linked to positive identity formation and expression.[78] My selfie allows me to control who I am to those who see it, and, in a sense, I become the person in my selfie. Barker and Rodriguez see positives here. Yet, there is also an aspect of self-idealization in selfie technology. E.T. Higgins, in describing his theory of self-discrepancy, differentiates between the "actual self" and the "ideal self," and explains the ideal self as a mental representation of what the individual wishes to be.[79] Distress arises from an inability

76. Shatzer, p. 65

77. Shatzer, p. 68

78. Valerie Barker and Nathian Shae Rodriguez, "This Is Who I Am: The Selfie as a Personal and Social Identity Marker," *International Journal of Communication (Online)*, March 1, 2019, 1143–67.

79. Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. Psychological Review, 94, 319–340. doi:10.1037/0033-295X.94.3.319

to match the ideal self with the actual self. With its filters and image alteration capabilities, selfie technology allows an *ideal* self-portrayal, and leads to a "curated self"[80] mentality. "It promotes a liturgy of controlling our self-image."[81] When changing our bodies can cure the distress that comes from the mismatch between the actual self and the ideal self, those trained in self-curation will be the first to embrace the technology.

Digital avatars are a similar form of curated-self technology training us to in detachment from our bodies. Almost every role-playing video game involves visually styling the player's character, and games are often rated on the depth of customization. Social media has likewise adopted digital avatars, with things like the Bitmoji avatar.[82] We make digital selves that become our online personas, customizable at the touch of a button. When the time comes that we can do the same with our physical bodies, will we know the difference?

Will we recognize the line between therapeutic alterations such as braces and alterations for self-actualization? Will we be tempted to believe that our bodies are not "good enough" as they are, and that adding new capacities would be a good thing? Are we tempted to think of our bodies in terms of Utilitarianism and Autonomy rather than in terms of Stewardship? Are we aware of how the technologies we use today are softening us toward more extreme forms of body modification? How will Church leaders guide the faithful in discerning between wise use of body modifying technology and enhancement-oriented transhumanist uses?

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80. Not my term, see Erin B. Taylor, https://erinbtaylor.com/entry/the-curation-of-the-self-in-the-age-of-the-internet

81. Shatzer, p. 69

82. Bitstrips ULC, "Bitmoji - Your Own Personal Emoji," accessed March 24, 2021, https://www.bitmoji.com/.

Cyborgs

On August 28, 2020, Elon Musk introduced the world to Gertrude, a pig with a chip implanted in her brain. The chip relays Gertrude's brain activity to a computer as she goes about normal pig behavior. It also allows his team to send impulses to induce certain behaviors. The advertised future of this technology would be the ability to assist in treating neurological problems like Alzheimer's, dementia, and depression, as well as expanding the functionality of our brains and connecting them to systems of artificial intelligence.[83] In April of 2021, Musk's team revealed a video of a monkey playing a video game using only the input from the Neuralink in its brain.[84]

This device, called the Neuralink,[85] is wired into the brain with ultra-fine filaments. It connects to specific nerve centers, interfacing with brain areas that control vision, motor function, and mood stabilization. Musk's first goal for the Neuralink is to help paraplegic and quadriplegic patients regain mobility and function. This may begin with controlling computers and devices without the need for physical touch, but later could include use of robotic limbs controlled by the mind to provide new mobility. He hopes to see broader applications in the future, including expanding consciousness and mental capacity through connection to digital networks.

Nick Bostom imagines a posthuman future when

> you can concentrate on difficult material more easily and it begins making sense to you. You start seeing connections that eluded you before… You can follow lines of thinking and intricate argumentation farther without losing your foothold. Your mind is able to recall facts, names, and concepts just when you need them.[86]

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83. Reuters, "'Three Little Pigs': Elon Musk's Neuralink Puts Computer Chips in Pigs' Brains," NBC News, accessed March 14, 2021, https://www.nbcnews.com/tech/tech-news/elon-musk-s-neuralink-puts-computer-chips-pigs-brains-bid-n1238782.

84. "Elon Musk's Neuralink 'Shows Monkey Playing Pong with Mind,'" *BBC News*, April 9, 2021, sec. Technology, https://www.bbc.com/news/technology-56688812.

85. "Neuralink - Home," Neuralink, accessed March 14, 2021, https://neuralink.com/.

86. Bostrom, "Why I Want to be a Posthuman," p. 31.

Bostrom only speculates on how we might get there, but perhaps the Neuralink is a means to achieve it.

Ben Goertzel imagines more than just enhanced brain capacity. He imagines us connecting our brains to the wider network. He calls it the "Global Brain," arguing that even the language of "expanding consciousness" or "extending our minds" is faulty. "It's much better grounded to conceive of a human mind as something including various loops of interaction between brain, body, and social and physical environment."[87] Goertzel says that as we continue to develop our interconnectedness in the digital environment, our minds will adapt to the new space. "Just as the neuron acts as part of the overall self-coordinated activity of the human brain, so does each human act as part of the overall self-coordinated activity of the global brain."[88] As our technology allows our minds to go beyond the physical matter of our brains, we will become more interconnected with everyone else living in the same environment, to the point where our individuality is subsumed into the global network.

What, then, is the individual in this transhuman future? According to James Hughes, individuality is already something of a myth. "Personal identity is an arbitrary, malleable fiction,"[89] he writes. According to Hughes, the Enlightenment philosophers moved us from defining human nature as a God-given soul embodied in flesh to defining our minds are the rational product of natural processes. These

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87. Ben Goertzel, "Artificial General Intelligence." Max More and Natasha Vita-More, eds., *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future* (Chichester, West Sussex, UK: Wiley-Blackwell, 2013), p. 131

88. Goertzel, "Artificial General Intelligence," p. 131

89. James Hughes, "Transhumanism and Personal Identity." Max More and Natasha Vita-More, eds., *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future* (Chichester, West Sussex, UK: Wiley-Blackwell, 2013), p. 227

processes are capable of transformation, and if they change and evolve, then the concept of the mind and personal identity can evolve and change as well. For Hughes, "the self is an illusion,"[90] and questions if there is any value in ethical discussions about personal identity as it relates to future consciousness in a posthuman environment. He goes so far as to question if we can even say that we exist.

Hughes' arguments are self-defeating. If the mind is a product of the unique firings of his neurons, and he cannot legitimately claim to exist, how does he define truth? His ideas of what is true - including the claim that identity is an illusion - are just undirected energy carrying the illusion of consciousness. Another set of firing neurons might produce an entirely different argument. Since neither is a person with existence and identity, how can one be truer than the other? It is sophistry with no practical value.

Perhaps this is why transhumanists look for technologies that would allow us to preserve our individual consciousness apart from the matter of our bodies. We believe we are conscious, sapient individuals, so we want to preserve the identity we believe we have. Transhumanism offers the hope of preserving our identity indefinitely. Randal Koene refers to this as a "substrate independent mind,"[91] an existence of the mind where "its selfsame functions that represent thinking and processes can be implemented through the operation available in a number of different computational platforms."[92] Put simpler, we upload our minds to a computer so that our consciousness lives on forever. We have seen this plot in movies like

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90. Hughes, "Transhumanism and Personal Identity," p. 231

91. Randal Koene, "Uploading to Substrate-Independent Minds," Max More and Natasha Vita-More, eds., *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future* (Chichester, West Sussex, UK: Wiley-Blackwell, 2013), p. 146f.

92. Koene, "Uploading to Substrate-Independent Minds," p. 146.

Transcendence (2014) and shows like *Upload (2020).* Art imitates life, life imitates art. But in the technological future, life will imitate science fiction. It already does.

Koene believed nearly three decades ago that he would see this in his lifetime.[93] "To our present knowledge, there are no aspects of the problem that lie beyond our physical understanding or beyond the ability to engineer solutions."[94] In the same breath he recognized that we must "consider carefully the limits of that which produces the experience of being."[95] Koene was hinting at a truth that perhaps he was unwilling to fully commit to: that there is more to our existence and being than the electrical functions of the organ in our heads. Sharon Dirckx wrestles with this truth in *Am I Just a Brain?* exploring the various perspectives on the relationship between the brain and the mind. She points out that the concept of brain plasticity profoundly suggests there is some active part of us extant to the brain itself. If I can change how my brain is shaped by thinking about certain things, and I decide to think about those things, what is making those decisions?[96]

On the one hand, Dirckx's view does not sound all that dissimilar from Koene's. She asks, "Does 'You are just your brain' explain the world around us? Does it make sense of the world we live in? …When I think of what it is that makes me who I am, neurons alone seem insufficient."[97] Koene might feel at home here, looking for existence of the mind outside of brain matter. However, Dirckx means something different. "A large part of who I am comes from an unseen inner life

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93. Koene's article appeared originally in 1993. At that time, he saw the potential for fully mapping the activity of a human brain.

94. Koene, "Uploading to Substrate-Independent Minds," p. 154.

95. Koene, "Uploading to Substrate-Independent Minds," p. 154.

96. Sharon Dirckx, *Am I Just My Brain?* 2019.

97. Dirckx, p. 27

consisting of thoughts, memories, emotions and decisions, none of which are captured by cell voltages, neurotransmitters and blood-flow changes. 'You are just your brain' instinctively fails to explain the inner 'me'."[98] Dirckx paints a picture of the mind greater than gray matter, greater than coded electrical activity, greater than anything replicated in a machine.

Dirckx also raises important questions about personhood and the implications of defining the mind by the functions of our brains (or the simulated functions of a brain within the confines of a computer system):

> If our brains define us, then personhood is dependent on having a fully functioning brain. But if that is true, then what status should we assign to those whose brains are not yet fully developed … or those whose brains have never functioned to full capacity … or those whose brains once functioned well but are not in a state of degeneration?[99]

This should give us pause. It takes us from the ethics of brain uploading to the morality of personhood. What does this say about human dignity, abortion, euthanasia, slavery?

Transhumanism offers the hope of immortality by promising to extend our consciousness and identity beyond the failing of our physical bodies. Whether we exist in total simulations or robotic bodies able to withstand the rigors of time and space, the promise is that through technology we will break past the "seventy years, or, if we are strong, eighty years."[100] We will live on as explorers of the future and the cosmos, and attain greater wisdom and knowledge than any before us. In the intermediary, it offers the hope of a cure for mental and neurological diseases and deficiencies, the ability to expand our cognitive abilities and consciousness, and

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98. Dirckx, p. 27

99. Dirckx, p. 9

100. Psalm 90:10

perhaps even augment our view of the world around us. We may soon be offered the ability to become cyborgs, creatures of flesh and blood and silicon and wire, capable of much more than our human ancestors.

Computer scientist and theologian Stephen Garner discusses whether or not Christian theology makes room for cyborgs in his essay "The Hopeful Cyborg." He acknowledges the apprehension of many of the faithful.

> It stands in contrast to many of the traditional ways in which the world is ordered, a disconcerting form that raises questions about human nature, human identity, the relationships between the human and nonhuman in the world, and in particular, how to live wisely and wholesomely in a world constantly being reshaped by technology.[101]

His essay is in part a response to another transhumanist, Brenda Brasher, who claims that Christianity has no framework for discussing the possibility of the cyborg or how to deal with it should such an advancement appear. Garner disagrees.

> To claim that religious traditions, and Christianity in particular, are inflexible systems that do not have the resources to grapple with the figure of the cyborg… is untrue. The cyborg, by definition, is a figure of hybridity, and the Christian tradition has within it a range of sources that deal with ambiguity and the possibility of the notion of the hybrid.[102]

Garner goes on to give examples of this "hybridity." The simultaneous unity and distinction of the three persons of the Trinity, the role of mankind through the *imago Dei* as both creation and co-creator, and the incarnation of Jesus as a fusing of the human and the divine, all are for Garner categories of "richness of language and symbols concerning hybridity found in the Christian tradition, allowing these answers to be framed using the language of the cyborg and the hybrid present within techno-cultural discourse."[103]

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101. Stephen Garner, "The Hopeful Cyborg," *Transhumanism and Transcendence: Christian Hope in an Age of Technological Enhancement,* Ronald Cole-Turner, ed., (Washington, D.C: Georgetown University Press, 2011), p. 87

102. Garner, "The Hopeful Cyborg," p. 92

These paradoxes exist Scripture, but his argument fails because he is conflating unlike concepts. The overlap in Scripture between the spiritual and the created world, or the paradoxes in the revealed nature of God, say nothing about the connection of human to machine. That is a false equivalency that only confuses the discussion rather than adding clarity.

We ought to be apprehensive attempts to detach our minds and personhood from the bodies God has given us. As Shatzer observes, these things are "reductionist in their treatments of what it means to be human."[104] They do not look to explain the mind and personhood as transcending the material world, they only seek to transfer it to another form. This hope goes against the grain Scripture, which reveals a God who searches and knows us, who tests our thoughts, and who created our inmost being.[105] The transhumanist hope is only an attempt to wrest control from God and decide the fate of our inmost beings.

We should be aware of the technologies training us to be tolerant of this global brain mentality.

> As we move towards an era of wearable computing and ubiquitous information access, the robust, reliable information fields to which our brains delicately adapt their routines will become increasingly dense and powerful, further blurring the distinction between the cognitive agent and her best tools, props, and artifacts.[106]

Our smartphones, smartwatches, Google glasses, and other tools for augmented reality are already expanding our capacity as thinkers. We no longer need to remember something if we can pull it up in a search. We no longer need to keep

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103. Garner, "The Hopeful Cyborg," p. 92

104. Shatzer, p. 105

105. Psalm 139

106. Andy Clark, "Re-Inventing Ourselves," Max More and Natasha Vita-More, eds., *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future* (Chichester, West Sussex, UK: Wiley-Blackwell, 2013), p. 122.

track of our schedules when we have scheduled reminders. We no longer need to seek out things like showtimes for a movie when all we need to do is point our phone at the theatre and all the showtimes will pop up for us. We can even make do traveling in foreign countries without learning a word of the language; we can speak into our devices and let them do the translating.

The convenience and utility of these tools is undoubtedly a blessing, one which Christians may use with Reinke's cautions in mind. However, we must be ready to answer questions when the norm is no longer to strap a device to your wrist but to implant one in your brain, or when the norm is no longer putting on a set of augmented reality glasses but to implant a lens in your eyeball. All this to say nothing of our ability to live out an entire life in a digital world,[107] or to digitally "teleport" to visit friends and family using virtual reality.[108]

If my friend suffering from depression is offered a brain implant that will change his brain's activity to prevent his depression, what argument do I offer? I might point out that "suffering produces perseverance; and perseverance, character; and character, hope."[109] But the same argument could then be used against his taking medication to control the depression. However, what if he received the implant and later was offered a "software upgrade" that would also enhance all pleasurable experiences? Should he reject it? What if the upgrade was instead to help his memory or focus? Prescriptions exist to aid these functions, so why not an implant? But where does the trail end? At what point do we say, "This far and no further?"

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107. Second Life, https://secondlife.com/

108. "Facebook Sets out Plan for 'effortless' Virtual Reality Socialising | Facebook | The Guardian," accessed March 19, 2021, https://www.theguardian.com/technology/2021/mar/10/facebook-sets-out-plan-for-effortless-virtual-reality-socialising.

109. Romans 5:3-4, NIV

Artificial Intelligence

Sophia is a learning robot. She has a simulated human face, body, and voice. She recognizes and analyzes emotional cues in facial expressions and tone of voice and is constantly learning how best to respond[110] In 2017 she was on the Jimmy Fallon show and challenged him to a game of rock-paper-scissors and cracked jokes.[111] That same year she was granted citizenship (implying a recognition of personhood) by Saudi Arabia.[112] Hansen Robotics, who created Sofia, announced in 2021 their intent to begin mass producing robots built on the same social learning software of Sofia, so that people can purchase them as in-home companions and domestic servants.[113] David Hansen, Sofia's creator, believes that the 2020-21 COVID-19 pandemic demonstrated the need for AI companions; too many people who live alone suffered in the isolation of lock-downs and quarantines.

Likewise, Fable Studios is currently developing three virtual beings, complex characters built on AI designed for one-to-one emotional connection through digital communication. The first, Lucy, is based on a character from the Neil Gaiman novel *Wolves in the Walls*, and has a daily schedule and routine for her learning and communication. Her website talks about how she has a schedule, sleeps, has

110. Kristin Manganello, "Defining Personhood in the Age of AI," Thomas Net, November 15, 2018, https://www.thomasnet.com/insights/defining-personhood-in-the-age-of-ai/..

111. The Tonight Show Starring Jimmy Fallon, *Tonight Showbotics: Jimmy Meets Sophia the Human-Like Robot*, 2017, https://www.youtube.com/watch?v=Bg_tJvCA8zw.

112. Deutsche Welle (www.dw.com), "Saudi Arabia Grants Citizenship to Robot Sophia | DW | 28.10.2017," DW.COM, accessed March 19, 2021, https://www.dw.com/en/saudi-arabia-grants-citizenship-to-robot-sophia/a-41150856. It might be worth noting that Saudi Arabia was widely criticized for this move, as they granted Sofia the same level of citizenship that is held by all women in Saudi Arabia - and is not on par with men.

113. Michelle Hennessy, "Makers of Sophia the Robot Plan Mass Rollout amid Pandemic," *Reuters*, January 25, 2021, https://www.reuters.com/article/us-hongkong-robot-idUSKBN29U03X.

breakfast, and goes to school. Users can connect with her via Instagram and communicate using direct message.[114]

Sofia and Lucy are two examples of the current development of AI. Isaac Asimov popularized the idea of personal robots in his 1950 story *I, Robot.* More recent films like *Her* and *Ex Machina* have portrayed AI in modern settings that make it easy for us to envision ourselves interacting with it. We already experience interaction with limited AI programs like Siri and Google Assistant.

The transhumanist vision goes beyond these simple tools. Ben Goertzel distinguishes a class of AI called "AGI:" artificial *general* intelligence, which he defines as "intelligences capable of coping with unpredictable situations in intelligent and creative ways."[115] Goertzel predicts that we will see the creation of true AGI by the year 2050, if not well before. According to Goertzel, its arrival is "ultimately going to lead to the obsolescence - or at least the radical transmogrification - of many of the most familiar features of our inner lives."[116]

> In the 'intelligence explosion' perspective, AGI plays a special role - it's the main technology catalyzing the next wave of radical change, taking us from the state of 'humans with advanced tools but old-fashioned bodies and brains' to a new condition that includes radically posthuman features.[117]

Development of AGI is significant to the transhumanist vision. Goertzel views the arrival of AGI as a move toward post humanity. Inventor and futurist Ray Kurzweil thinks similarly, but with the belief that AGI beings can still be called human. To Kurzweil, the advent of AGI "will represent the culmination of the merger

114. "Virtual Beings Summit," Virtual Beings Summit, accessed March 19, 2021, https://www.virtual-beings-summit.com.

115. Goertzel, "Artificial General Intelligence" p. 128.

116. Goertzel, "Artificial General Intelligence," p. 130.

117. Goertzel, "Artificial General Intelligence," p. 129.

of our biological thinking and existence with our technology, resulting in a world that is still human but that transcends our biological roots."[118] He insists, though, that "the intelligence that will emerge will continue to represent the human civilization, which is already a human-machine civilization. In other words, future machines will be human, even if they are not biological. This will be the next step in evolution."[119]

There are economic and social hopes tied to the development of AGI. Decades ago novelist Arthur C. Clarke said, "The goal of the future is full unemployment, so we can play."[120] Part of the transhumanist dream is to have AI beings that can produce more than we can and at lower cost, leading to a point where humans are free to learn, create, and explore without the need to work to survive. AGI would also free us to solve other problems that the future would present. This is the focus of Jerry Kaplan's *Humans Need Not Apply (2015).* Kaplan explores the future of human society when we develop AI systems capable of taking over the day-to-day work of life for us. He predicts that "Synthetic intellects will soon know more about you than your mother does, be able to predict your behavior better than you can, and warn you of dangers you can't even perceive."[121] These systems will "accomplish physical tasks that people consider routine" and "tirelessly perform an astonishing range of chores in chaotic, dynamic environments."[122] In other words, advancement in AI will free us from menial labor, which means less drudgery and discontent, and take our place in

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118. Ray Kurzweil, *The Singularity Is near: When Humans Transcend Biology.* (London: Penguin, 2010), p. 9.

119. Kurzweil, p. 30.

120. Gene Youngblood, "Free Press Interview: A.C. Clarke, Author of '2001,'" *Los Angeles Free Press*, April 25, 1969.

121. Jerry Kaplan, *Humans Need Not Apply: A Guide to Wealth and Work in the Age of Artificial Intelligence*, 2015., p. 14.

122. Kaplan, p. 9.

dangerous work environments, which means less loss of human life. It sounds attractive, but many are concerned that these advancements will disrupt our current systems and require significant overhaul of our infrastructures. However, Kaplan argues, "Whether the website that find you a date or the robot that cuts your grass will do it the same way you do doesn't matter. It will get the job done more quickly, accurately, and at a lower cost than you possibly can."[123] Once we see the convenience and utility of the situation, Kaplan believes our society will quickly get on board.

As an example, Kaplan cites currently available self-driving vehicle technology; the only roadblock is that our current infrastructure is not prepared to make the most of it. He asks us to imagine the benefits of retrofitting our road ways and goods transportation to make use of this technology:

> Trucks outfitted with such technology can "see" in all directions instead of mostly just straight ahead, drive in complete darkness or blackout conditions, and instantly share information about road conditions, nearby risks, and their own intentions. (Basically, they can rely on detailed 3D radar, called Lidar, in conjunction with detailed maps and GPS, and so have no need for headlights.) What's more, their reaction time is close to zero. As a result, self-driving trucks can safely caravan with only inches of space between them (called "platooning" in the literature), reducing road congestion and resulting in 15 percent or more fuel savings. Delivery is quicker because they can operate around the clock without rest stops. They don't get tired, drunk, sick, distracted, or bored; they don't doze off, talk on the phone, or go on strike for better wages and working conditions. And how many of the 273,000 large-truck accidents taking 3,800 lives and costing over $4.4 billion (in 2011 alone) could be avoided in the future? May I point out that this single innovation could save more lives annually than were lost in the September 11th World Trade Center disaster?[124]

However, Kaplan also notes that there would be significant job market disruption due to the change. With 5.7 million long-haul truck drivers in the United States, a move to autonomous vehicles would lead to significant job loss or

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123. Kaplan, p. 12.

124. Kaplan, p. 138

rearrangement. If the same kind of shift occurred in multiple job markets simultaneously, it would require a major change to our economic systems to handle the upheaval. It is this kind of situation that has Harari speculating: "The most important question in twenty-first-century economics may well be what to do with all the superfluous people. What will conscious humans do, once we have highly intelligent non-conscious algorithms that can do almost everything better?"[125]

Sam Altman, CEO of OpenAI, recently wrote about an idea called the American Equity Fund. This fund would come as a result of employing AI for resource production and agriculture. He believes that within the next decade this fund could provide $13,500 per year for every American. This money will have increased buying power as well, as AI systems will decrease costs on all goods and services. Such a plan would profoundly change our economy and would require limiting the voting power of Americans over the system, lest they abuse it. However, Altman believes it would ultimately benefit our society.[126]

Some transhumanists express concern about what happens when the intelligence we create becomes greater than our own. Theoretically, such an intelligence would likewise create a more advanced intelligence than itself as well, only in a much smaller time frame. This process would repeat indefinitely, at an exponential rate. The moment this begins has been dubbed "the Singularity," as it represents a moment when all control of the process is out of our hands and the expansion of greater than human intelligence proceeds at an incalculable rate. Vernor Vinge, a computer science and mathematics professor and a science fiction author,

125. Harari, p. 413

126. Sam Altman, "Moore's Law for Everything," accessed March 26, 2021, https://moores.samaltman.com/.

predicted that the change "will be a throwing-away of all the human rules, perhaps in the blink of an eye - an exponential runaway beyond any hope of control."[127] While he holds great optimism for the future of our technology, he nevertheless comments, "I think I'd be more comfortable if I were regarding these transcendental events from one thousand years' removed… instead of 20."[128] While Vinge argues that the Singularity will lead to the end of the human era, which "contradicts our most deeply held notions of being,"[129] he sees hope in the possibility of tailoring the Singularity to produce not a posthuman race of artificial beings, but "strong superhumanity," a state in which the incorporation of artificial intelligence with our human minds could hold the key to immortality.

Kurzweil takes a more enthusiastic stance toward the Singularity. As mentioned above, he sees AGI as a next stage in human evolution, and therefore is undisturbed by the idea of a runaway growth of superhuman intelligence. "The Singularity will allow us to transcend these limitations of our biological bodies and brains. We will gain power over our fates. Our mortality will be in our own hands."[130] Kurzweil believes this is our destiny as a human race because, "Ours is the species that inherently seeks to extend its physical and mental reach beyond current limitations."[131]

To those skeptical that the Singularity will happen, Kurzweil points out that

> the pace of change of our human-created technology is accelerating and its powers are expanding at an exponential pace. Exponential growth is

127. Vinge, Vernor. "Technological Singularity," Max More and Natasha Vita-More, eds., *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future* (Chichester, West Sussex, UK: Wiley-Blackwell, 2013), p. 366.

128. Vinge, "Technological Singularity," p. 367.

129. Vinge, "Technological Singularity," p. 372.

130. Kurzweil, p. 9

131. Kurzweil, p. 9.

> deceptive. It starts out almost imperceptibly and then explodes with unexpected fury - unexpected, that is, if one does not take care to follow its trajectory.[132]

He uses the example of Chessmaster Gary Kasparov, who was highly critical of computer chess and in 1992 expressed doubt that a chess computer could ever beat a human. Five years later, Kasparov was defeated by a computer. Moore's Law says that the power of our technology doubles every year,[133] and many have observed that this extends beyond just computing power; it applies to all areas of tech advancement. So, Kurzweil predicts, "By the end of this century, the nonbiological portion of our intelligence will be trillions of trillions of times more powerful than unaided human intelligence. We are now in the early stages of this transition."[134] Unconcerned with the predicted risks, he echos Eliezer Yudkowsky: ""Our sole responsibility is to produce something smarter than we are; any problems beyond that are not ours to solve."[135] Vinge also assures us that, after all, the technology will advance regardless of the potential risk, "If the technological Singularity can happen, it will. Even if all the governments of the world were to understand the 'threat' and be in deadly fear of it, progress toward the goal would continue."[136]

The question for the Church is not if this will happen, but how we will present a better hope than that which transhumanism is offering through the development of AI. A better understanding of human nature than one based on the functions of our

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132. Kurzweil, p. 7-8

133. "Moore's Law | Computer Science," Encyclopedia Britannica, accessed March 26, 2021, https://www.britannica.com/technology/Moores-law.

134. Kurzweil, p. 9

135. Eliezer S. Yukowsky, "Staring Into The Singularity," Pivot.net, 1996, http://www.pivot.net/~jpierce/staring_into_the_singularity.htm.

136. Vernor Vinge, "The Coming Technological Singularity,"Department of Mathematical Sciences, San Diego State University, 1993,accessed March 19, 2021, https://edoras.sdsu.edu/~vinge/misc/singularity.html.

bodies and our intellectual abilities. A better sense of our place in the world than just a transitional species. A better purpose for our work than just survival. A better rest than what a robot can give.

But we also need to be ready to talk about our relationship to AI beings. We are already interacting with AI programs daily, and using them as personal assistants. While Siri, Bixby and Google Assistant have not progressed to the point of independent reasoning, they continue to grow in complexity and we continue to involve them in more aspects of our lives. As robots like Sophia start entering our homes, and more countries join Saudi Arabia in granting rights of personhood to them, the Church will need to be ready to comment on how the faithful should treat our creations.

The Christian Transhumanist Association declares in their Affirmations, "We believe that the intentional use of technology, coupled with following Christ, will empower us to become more human across the scope of what it means to be creatures in the image of God."[137] One of the expressions of being "more human" involves recognizing that there is value in showing love to technological beings - or "the Other" and Jeanine Thweatt-Bates calls them.

> There is risk in relationship. In Christian theology, too, we learn this lesson. There is risk in allowing the Other to be; there is risk in loving, forgiving, and living together; there is risk in giving up the illusion of control and the quest for security of the self.[138]

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137. "Christian Transhumanist Affirmation," Christian Transhumanist Association: Faith, Technology, and the Future, accessed March 26, 2021, https://www.christiantranshumanism.org/affirmation. It is unclear how they define the phrase "image of God" or how they see transhumanism as fitting with that concept.

138. Jeanine Thweatt-Bates, "Cindix, Six, and *Her:* Gender, Relationality, and Friendly Artificial Intelligence," *Religion and Transhumanism: The Unknown Future of Human Enhancement,* ed. Calvin Mercy and Tracy J. Trothen (Santa Barbara, CA: Prager, 2015), p. 48.

Thweatt-Bates does not see negatives in the development of AGI or even in the potential for it to get out of our control. Rather she sees it as an opportunity to reflect God's nature.

We may question what burden of love and forgiveness we owe to a robot, but perhaps Thweatt-Bates is on to something. Her comments about surrendering control and security of the self-reflect Shatzer's concerns about liturgies of control. Furthermore, it is compelling to think that our way of relating to AI beings could reflect the nature of God. After all, we are God's creations, and he chooses to love us not for our value but for the sake of his own nature. "If we are faithless, he remains faithful, for he cannot deny himself."[139] Perhaps we ought to practice a similar faithfulness to our creations, not for their sake, but for the sake of our humanity. We will have the opportunity to do so soon, and indeed, we already do.

We still have difficult questions to answer. Thweatt-Bates says love for AI beings will be a way to reflect God's nature, but that focuses on the second table of the Law. How would creation of AI beings impact our ability to follow the first table, to love God with all our heart, mind, soul and strength?[140] The more advanced our AI, the more it blurs the lines between humans and the creations of humans. How will we maintain that we are the crown of God's creation when we create beings that think and act with intelligence and will just as we do? How will this change the way we think of ourselves in relationship to God? Freedom from labor sounds appealing, but is freedom from work really good for us, or will it simply lead to laziness, diversion, and ultimately the breakdown of our bodies and society? Once again, are we looking for God's promised rest, but apart from God's promises?

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139. 1 Timothy 2:13

140. Mark 12:30

Defeating Age and Disease

"The last enemy to be defeated is death."[141] Google would like to defeat this enemy, so they created Calico Labs,[142] an innovative research team that studies the genetic causes of aging and disease. They have teamed up with Ancestry.com to make use of the millions of collected DNA samples.[143] With this wealth of data they are confident that they will be able to extend the lifespan of human beings. They are realistic that discovering the means to extend life is not the same as completely eliminating aging and death, but they are optimistic. For example, if they could extend the human lifespan by even just ten to twenty years, giving us healthy and active years well past age one-hundred, perhaps another two decades of research will expand it even further, and so on.[144]

Calico Labs is another example of the transhumanist vision of extended life through technology. But where other efforts are based on synthetic enhancements, this effort attempts to hack our source code, in a sense, and revise it to slow the rate at which we expire. Michael R. Rose has worked in this field for 35 years and says that "biological immortality certainly won't be achieved easily or abruptly."[145] Movies like *Limitless (2011)*, where someone can take a pill and have their genes instantly

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141. 1 Corinthians 15:26

142. "Calico - Research & Technology," accessed March 20, 2021, https://calicolabs.com/research-technology.

143. "AncestryDNA and Calico to Research the Genetics of Human Lifespan," accessed March 20, 2021, https://www.ancestry.de/corporate/newsroom/press-releases/ancestrydna-and-calico-research-genetics-human-lifespan.

144. It is worth noting that Ray Kurzweil was hired on by Google originally to head up the development of Calico Labs. While he is no longer head of the division, he continues to work for Google as a Chief Engineer for Special Projects, and has been involved in the development of technologies such as Object Character Recognition, Reverse Image Search, and Google Translate.

145. Michael R. Rose, "Immortalist Fictions and Strategies," Max More and Natasha Vita-More, eds., *The Transhumanist Reader: Classical and Contemporary Essays on the Science, Technology, and Philosophy of the Human Future* (Chichester, West Sussex, UK: Wiley-Blackwell, 2013), p. 204.

modified to become superhuman, are almost entirely fictitious. However, Rose claims that nevertheless, "there is no cell or molecular biological barrier that prevents evolution from achieving biological immortality."[146] He notes that human mortality rates tend to plateau around the age of 90 years, so that anyone who reaches the age of 90 has a decent chance of surviving past 100. "Since your aging is expected to stop if you live long enough, an important question to think about is, how can I get my aging to stop earlier?"[147] Rose argues that already specific diets and supplements can slow the aging process, and perhaps this is where we find a long-term solution.

Sandberg, on the other hand, believes gene modification is an optimistic avenue for solutions to the problem of aging.

> We are already seeing suggestions for human genetic modifications (either somatic or germline) for not just treating disease but to enhance quality of life through increased DNA repair, decreases in age-related muscular decline, cancer, and AIDS prevention as well as possibly cognitive enhancements (Stock and Campbell 1999; Migliaccio et al. 1999; Tang et al. 1999; Barton-Davis et al. 1998). While implants are currently only used for treating illness, it seems reasonable to assume that implants for preventing illness or enhancing health or other functions are possible, for example ways of maintaining or controlling homeostatic functions and interfacing with external information sources.[148]

This is still no magic bullet, and it is unlikely we will discover a means to cease the aging process completely. But once again, the hope is not that we will achieve immortality immediately. As Rose says, "Science fiction thrives on technological magic bullets,"[149] but such solutions are unlikely. It is more likely that we will find intermediary solutions that will allow us to extend our lifespan and achieve more. For anyone who fears death, who sees the time running out to

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146. Rose, "Immortalist Fictions and Strategies," p. 200.

147. Rose, "Immortalist Fictions and Strategies," p. 201.

148. Sandberg. "Morphological Freedom - Why We Not Just Want It, but Need It," p. 58.

149. Rose, "Immortalist Fictions and Strategies," p. 198.

accomplish all their dreams, who feels the terror at the closing of the gate,[150] the promise of even just two more decades would be attractive.

As life-affirming believers, the Church certainly can support efforts that offer longer and healthier lives. Yet we must be cautious about the means, as well as the motivation. Do we seek to live longer so that we can serve more, reach more with the Gospel, and bring more into God's kingdom? Or do we seek to live longer because we fear death and want to forestall it as long as possible? Are we open to longer living because we see every day as a blessing from God, or because we are so attached to the things of this earth we forget that he has blessings in the life to come? Do we resist death because we know it is an unnatural intrusion in God's good creation, or because we fear it and what it brings us? Do the methods we use to extend life attempt to do so at the cost of our morality or our humanity? Are we exploiting people at one stage of life to extend the lives of people at another? As we wrestle with the advancements that make it possible to live longer and healthier lives, the Church needs to offer guidance that helps discern motivations and examine methods. God's will comes first. Our hope is not found in living longer lives on the earth, but in living with our Savior for eternity.

Control

The transhumanist story of the future, with digital brains, synthetic bodies, robot servants, and genetically modified humans, sounds like a science fiction story. The transhumanist community might sound like a fringe cult of techno-enthusiasts.

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150. The German word *torschlusspanik*, which literally means "gate-closing fear," seems appropriate for the urgency that underlies so much of transhumanist literature. Our lives are running out; how can we extend them just a little longer? When there is no hope for eternity on the other side of death, this is a reasonable fear.

However, when we remember Shatzer's "liturgies of control" and consider how quickly we adopt new technology, we should take this seriously. Technology is advancing rapidly, and there is no evidence that Christians are slower on the whole to embrace it. In fact, many believe it is good for us to make full use of the tools available to us.

Christian author, theologian, and blogger Tim Challies believes that God has always intended for his people to make the most of technology and that our only burden is to determine how to use it wisely for the advance of the Gospel. "Humans have always been responsible before God to create new technologies and master existing ones. We simply cannot do what God created us to do without technology."[151] Tony Reinke says much the same in the first chapters of *12 Ways Your Phone is Changing You.* I do not disagree. But the close link between transhumanist goals and technological advancement should keep us cautiously observant.

Yuval Harari observes,

> Every day millions of people decide to grant their smartphone a bit more control over their lives or try a new and more effective antidepressant drug. In pursuit of health, happiness and power, humans will gradually change first one of their features and then another, and another, until they will no longer be human.[152]

This slow slide into the transhumanist vision for the future is precisely why we need to be ready with answers. While many in the Church today are concerned about persecution, censorship, or social pressure to accept and affirm sinful lifestyles, the impact of our technology on our day-to-day lives will slip under the radar unless we are aware of its driving philosophy and ready to respond.

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151. "Using Technology Wisely," Lifeway Research, October 12, 2015, https://lifewayresearch.com/2015/10/12/using-technology-wisely/.

152. Harari, p. 68

The same is true of medical technology. Harari says, "No clear line separates healing from upgrading. Medicine almost always begins by saving people from falling below the norm, but the same tools and know-how can then be used to surpass the norm."[153] A drug that grants instant longevity, or an implant that immediately gives you superhuman powers of thought, would be obvious enough that we would think twice about it. Small, incremental advancements that offer gradually longer and better life on earth, however, might appear appropriate from a Utilitarian point of view, and we might miss that a different hope is being sold to us.

This is the subversive nature of transhumanism. As Brent Waters puts it, "It is not a religion in a formal sense, but as Martin Luther suggests, wherever one places one's confidence is necessarily one's god - or, more broadly, one's object of faith or ultimate concern."[154] Transhumanism asks us to put our hope and trust in technology. Max More even says that transhumanism "fulfills some of the same functions as a religion without any appeal to a higher power, a supernatural entity, to faith."[155] Our technology is promising us the same blessings God promises, but apart from God.

The serpent told Adam and Eve that they could control their fate if they just rejected God and took knowledge for themselves. It was a promise of control; "you will be like God." The promise of technology today is that we can be gods ourselves. But where More tells us that transhumanism functions as a religion without a god, the presence of technology in our daily lives is not so open. So, we believe we can have its promises while still holding onto our convictions. But as Shatzer observes, "Our desire for control might not mean we don't believe in a God who controls all things -

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153. Harari, p. 72

154. Waters, "Whose Salvation? Whose Eschatology?" p. 164

155. More, "The Philosophy of Transhumanism," p. 8.

it doesn't make us atheists - but it often does mean we push God further and further into the margins of our lives."[156] If we are going to avoid "pushing God to the margins," we need an understanding of our theology that keeps him front and center, and that puts our technology in the proper perspective. We need to return again and again to the true hope offered by the God who made us and controls all things.

156. Shatzer, p. 30-31

CHAPTER THREE: A BETTER HOPE

Transhumanism tells a story of humanity that begins with humans evolving out of lesser beings, and continues beyond humanity as we evolve into greater beings than we are now. It is a hopeful story built on speculation; the scientific evidence that life on Earth adapts leads to speculation that all life came to be through gradual adaptation over a long period of time. With no evidence for the origin of life, or the origin of the universe and its energy and matter, this story can only speculate where it all came from. In turn, the story speculates on the future of humanity, with hopeful dreams of how today's research and development might solve the problems before us.

Our true hope rests not in speculation but in Scripture, where we find testimony of the events that brought this world and humanity into existence. We have a record of why the world is broken, why humanity is sinful, and why hunger, disease, war, and death pursue us. We have a history of God's interaction with his people, how he promised to set right what humanity had broken, to defeat sin and death, and to restore our relationship to him. We have the eye-witness testimony of those who saw Jesus, heard his teaching, witnessed his death, and met him alive again in his resurrection. We have a pledge from God that the death and resurrection of Jesus have worked salvation and that humanity has an eternal future with him.

The transhumanist story is a narrative based on atheistic speculation. We have a narrative grounded in true history, eye-witness testimony, and the inspired words of the living God. Yuval Harari wrote, "History isn't a single narrative, but thousands of alternative narratives. Whenever we choose to tell one, we are also choosing to

silence others."[157] Our best response, then, to the transhumanist hope is the narrative of Scripture, which shows us from start to finish

Transhumanism offers hope based on the claim that human nature is transitory and changeable, and therefore we can change and progress into something greater than human. In contrast, Scripture offers the redemptive hope that though human nature is flawed, we will be transformed. Not transformed by ourselves into something other than human, but restored by a loving God into that which he designed us to be: Human in true perfection and completion.

Since transhumanism challenges our definition of "human," the temptation is to respond from either natural law or biblical anthropology. Natural law certainly gives us tools for the discussion. For example, we can argue that an arm has a specific form and specific functions, so a replacement arm that replicates that form and function is reasonable. On the other hand, adding functions that are not native to a natural arm would violate natural law. Similarly, a child born with male genitalia by nature carries out the biological functions of a male. To call him a female or to change the functioning male genitalia to non-functioning female genitalia (in a reproductive sense, at least) is unreasonable. However, the shortcoming of using natural law is that the transhumanist, who believes that we are a product of evolutionary processes, could argue that natural law only tells us what humans are at this stage in history. It does not tell us what we ought to be our what functions we may or may not add with time, or even what functions are best for ensuring the survival of our species.

Biblical anthropology is stronger. The Bible tells us that when our Creator made us his creation was very good.[158] Therefore, whatever the Bible says about -

157. Harari, p. 230

158. Genesis 1:31

what we are, how we are composed, how we relate to our maker - is likewise good. We have a strong case against making ourselves something other than human, because we cannot improve on God's design. However, the transhumanist might ask whether the anthropology of the biblical writers is observational or absolute. Did they define humanity according to what they understood to be God's ultimate will for human life, or only according to what they knew to be true about human life for their time? If the latter, we might end up in the same place as Cole-Turner, who views transformation as an essential aspect of biblical anthropology, and extrapolates that some harmony could be found between the transformational goals of transhumanism and the transformational eschatology of Scripture. Such melding of hopes will only lead to confusion.

Even if we do not end up there, we might fall into a common misunderstanding that many Christians hold, one with a gnostic flavor. We hear it often at funerals, when well-meaning Christians say, "That body there, that isn't the real him. The real him is with Jesus. This is just an empty shell, a throwaway." Then we might sing in the service the familiar hymn, "I'm But a Stranger Here," and believe that the end of the story of a person's life is when their soul goes "home" to heaven to be with Jesus. The vision of that heavenly home is often vague images of people sitting on clouds, as in a *Far Side* comic, or a heavenly choir singing hymns for eternity. The transhumanist could argue that a future of exploring the stars as a posthuman is more exciting than an eternity sitting on a cloud or singing hymns. I would agree, but the biblical hope for humanity is far more exciting than either the gnostic or transhumanist vision.

This is where the narrative of Scripture is the best tool because it traces the entire story of humanity, from creation and fall to redemption and ultimate

restoration, and its center is Christ. He is the focus, the Word made flesh,[159] the image of the invisible God,[160] the Firstborn over all creation[161] and the firstborn from the dead,[162] the Second and Last Adam,[163] whose resurrected life is the pattern of our future lives. Through his vicarious humanity, we see the nature of humanity as it is meant to be, and humanity as it will become. In him we see humanity redeemed, remade by God in the image of Christ's glorified humanity, and set free on a restored Earth to live for the glory of God. Biblical anthropology rooted in Christology and the Incarnation will provide us a clear view of the destiny of humankind, a solid framework for answering the questions Transhumanism presents to the Church.

Christ is not only the center of the true story of humanity; he is its author, its beginning, and the Word that tells the story. John points to the Word in the opening of his Gospel, the Word who is with God and is God and who became flesh and made his dwelling on earth.[164] John gives us a peek into the mystery of the Trinity when he says, "All things were created through him, and apart from him not one thing was created that has been created."[165] Paul takes up a similar thought in his letter to the Colossians, saying that "everything was created by him… all things have been created through him and for him."[166] There is a mystery here concerning the inner workings of the Trinity and the relationship between Father, Son, and Holy Spirit in creation.

159. John 1:14

160. Colossians 1:15

161. Colossians 1:15

162. Colossians 1:18

163. Romans 5:12-19; 1 Corinthians 15:45

164. John 1:1, 14

165. John 1:3

166. Colossians 1:16

Indeed, all three persons of the Trinity were active in the work of creation, yet Paul reveals that in some unique way, creation flowed through the work of the Son. Whatever that means, it has implications for the creation of man in Genesis 2:7 when we read that "the LORD God formed the man out of the dust from the ground."[167] The Son was active fashioning the body that would be a prototype of the same form he would one day take. The same form he would offer up as a sacrifice on the cross.

This sacrifice would be necessary to redeem and restore his creation, which so soon after being made fell from grace into corruption. As the Maker and the Lover of his creation, God would neither see his work go to waste nor lose forever the beloved children he had made. Rather than scrap it all and start anew, he promised to mend that which was broken. Two hopeful things he reveals in the promise of Gen. 3:15: first, that by promising redemption he is assuring that human beings will not live forever in corruption, sin, and death, and second, that he will accomplish this through a human being. The rest of the Old Testament Scriptures tell the story of God's activity in the world as he chose a family and a people and preserved a line from Adam until the coming of Christ. As Jesus himself says, "These are the very Scriptures that testify about me."[168]

The New Testament writers likewise wrote to make Christ known. The purpose of the Gospel writers is well summed up by Luke's words, "that you may know the certainty of the things you have been taught,"[169] and John's, "But these are written so that you may believe that Jesus is the Messiah, the Son of God,' and that by

167. Genesis 2:7

168. John 5:39, NIV.

169. Luke 1:4, NIV.

believing you may have life in his name."[170] Paul declares to the Corinthians that he "resolved to know nothing… except Jesus Christ and him crucified."[171] John's Revelation, which reveals the end of all things, is nothing less than "the word of God and the testimony of Jesus Christ."[172]

All Scripture points to Jesus, and so the story of humanity as it is given in Scripture is, at its heart, the story of Jesus Christ. Martin Luther referred to this as the *Bildern,* or the artwork of Scripture, in which

> he [Christ] is the center from which the entire circle has been drawn towards which it looks and that whoever directs himself to this center belongs in the circle. For Christ is the central spot of the circle; and when viewed aright, all stories in Holy Scripture refer to Christ.[173]

So, Luther asks the question, "Take Christ out of the Scriptures and what else will you find in them?"[174] This is why a true understanding of humanity rests in Christology; by understanding Christ we come to understand ourselves, our world, our purpose, and our future. "For to him who stands on the orthodox and sound position that Jesus Christ is true God and true man, who died and rose again for us, will come by all the other articles of the Christian faith and will staunchly support them."[175] And as Luther says elsewhere, "If you want to preach the Gospel, you must simply preach of the resurrection of Christ."[176]

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170. John 20:31.

171. 1 Corinthians 2:2, NIV.

172. Revelation 1:2, NIV.

173. Ewald Plass, *What Luther Says: An Anthology*, Concordia Publishing House: St. Louis, MO, 1959, p. 148

174. Plass, p. 148

175. Plass, p. 146

176. Plass, p. 181

We do not have space to detail every aspect of Christology; his eternal nature, the mystery of the relationship between the Son and the Father, his place in the Trinity, what belongs to his exinanition and what to his exaltation, and so much more. In dealing with transhumanism, our focus will be on Christ incarnate, the Son of God become fully human to redeem and restore fallen humanity. Therefore, as we consider "the one mediator between God and mankind, the man Christ Jesus,"[177] we will look at his vicarious humanity as the image of God, the Firstborn, "made like his brothers,"[178] and the Second and Last Adam.

The Image of God

On day six of the creation account, God says, "Let us make man in our image, according to our likeness."[179] Moses offers no explanation or definition as to what is meant by "image," but as J.P. Meyer says, "We cannot read the words of this creation account without the impression that something great is taking place."[180] Meyer continues that whatever this something is, it is a mystery unfathomable to the human mind. He even says that, were we still in full possession of this image, we would not understand it.[181] Mysterious though it is, Carl Lawrenz points out that "Scripture gives us the answer when it tells us that the new life of faith which the gospel implants in us, the new man in us, is a restoration of the image of God in us."[182] According to

177. 1 Timothy 2:5.

178. Hebrews 2

179. Genesis 1:26.

180. J. P. Meyer, "The Image of God." *Wisconsin Lutheran Seminary Essay file,* http://essays.wisluthsem.org:8080/handle/123456789/3298, accessed 1/15/21, p. 1.

181. Meyer, "The Image of God." p. 1.

Lawrenz, since our sinful nature and all it carries is the opposite of the divine image with which we were created, nothing that belongs to that sinful nature can be part of the image of God. It can only be the innate goodness, righteousness and holiness with which God imbued the first human beings. So Lawrenz explains,

> The image of God in which man was created involved a blessed knowledge of God and His works man's thoughts were in perfect harmony with all of God's thoughts. The divine image also consisted in this that man's feelings were in complete harmony with God's evaluation of things; he found joy and delight in that which pleases God. Finally, man's will, all of his impulses, desires, and actions were in complete harmony with God's holy will.[183]

Humankind was a special creation, distinct from all else that God had created. There is also a hint of God's purpose in giving us this distinction when we examine what "image" would have meant to Moses. Rabbi Lawrence Troster explains that the Hebrew word we translate as "image" is *tzelem*, which has an Old Akkadian cognate *tzalmu*, referring to a statue or an engraved image of a king. Such an image would be placed in a city to represent the king's reign and imposition of his laws. "The king rules wherever his *tzalmu* stands."[184] Therefore, according to Troster, "Wherever humans are, the presence of God is reflected." Troster's explanation matches with Brown-Driver-Briggs, whose definition includes images of gold "esp. of heathen gods," and also "painted pictures of men."[185] The *Theological Wordbook of the Old Testament* likewise states that "*selem* refers to the image as a representation of the

182. Carl Lawrenz, "The Book of Genesis – A Summary," *WLS Essay File*, 1976, http://essays.wisluthsem.org:8080/handle/123456789/2943, p. 10

183. Lawrenz, "The Book of Genesis – A Summary," p. 11

184. Martin D. Yaffe, ed., *Judaism and Environmental Ethics: A Reader* (Lanham, Md: Lexington Books, 2001), 178.

185. Francis Brown et al., *The Brown-Driver-Briggs Hebrew and English Lexicon: With an Appendix Containing the Biblical Aramaic Coded with the Numbering System from Strong's Exhaustive Concordance of the Bible*, [Nachdr.], Reprinted from the 1906 ed (Peabody, Mass: Hendrickson Publishers, 2010), p. 853.

deity," and that "man was made in God's image (*selem*) and likeness (*demut*) which is then explained as his having dominion over God's creation as vice-regent."[186]

It is common to hear theologians, especially in Reformed and Evangelical circles, to pick up on this "vice-regent" role for humankind. Stanley Grenz says that it is "intended to indicate that God has endowed humankind as a whole with a vocation: to live as God's representative within creation, that is, to be that image through whom God's presence and self-manifestation in creation may be found."[187] Owen Strachan says that the image of God is best understood as "an ontological reality that leads into function. Mankind is the representative of God on earth."[188] This would seem to fit will with the second half of Gen. 1:26, where God says, "They will rule the fish of the sea, the birds of the sky, the livestock, the whole earth, and the creatures that crawl on the earth."[189]

Lutheran theologians do not as often speak this way about the image of God.[190] Luther referred to the image of God as "something most beautiful and noble."[191] Johann Gerhard defines it by saying, "Since goodness, wisdom, and righteousness constitute the very essence of God, man who was made in the image of

186. R. Laird Harris, Gleason L. Archer, and Bruce K. Waltke, eds., *Theological Wordbook of the Old Testament* (Chicago: Moody Press, 1980), p. 1923-1924

187. Stanley J. Grenz, "Jesus as the Imago Dei: Image-Of-God Christology and the Non-Linear Linearity of Theology," *Journal of the Evangelical Theological Society* 47, no. 4 (2004), p. 622.

188. Strachan, p. 29.

189. Genesis 1:26.

190. Note that J.P. Meyer does discuss the idea of rulership over creation as connected to the image of God. However, he does not see this rulership as the primary meaning of the term, arguing that mankind still rules over the earth despite having lost the image of God. Furthermore, his point that the image of God is something beyond our comprehension disqualifies rulership over creation, as that is a concept we can grasp. Admittedly, I find Meyer's reasoning to be somewhat circular on this last point.

191. Plass, p. 874.

God was created in goodness, wisdom, and righteousness."[192] To Meyer, it is "a trope, a figurative expression used to help us understand the inexpressible blessing of God."[193] Lyle Lange, interpreting the term in light of Eph. 4:24,[194] explains it as consisting of perfect knowledge of God and his will, perfect conformity to God's will, and the ability to carry out God's will with perfect righteousness and holiness.[195] For many Lutherans it seems the focus is on the inward character and dignity with which God endowed the first humans.

The Lutheran, Reformed/Evangelical, and Jewish views can all stand together here. When God made humankind in his image, he conferred on him a nobility and honor higher than anything in the animal kingdom. God manifested in humankind a perfect reflection of his own righteous character, to have on earth a steward and caretaker who would rule over creation in his stead. Humankind, however, lost this image through disobedience. "He is to rule, but not contrary to the one who made him ruler."[196] Yet this is what Adam did in choosing to go against God's one command, "you must not eat from the tree of the knowledge of good and evil."[197] This act of disobedience was an abdication of his role as vice-regent, a breaking of his relationship of trust and cooperation with God. Sin separates people from God,[198] and

192. Johann Gerhard and Martin Chemnitz. *The Doctrine of Man: In the writings of Martin Chemnitz and Johann Gerhard.* Edited by Herman A. Preus and Edmund Smits. Translated by Mario Colacci, Lowell Satre, J.A.O. Preus, Jr., Otto Stahlke and Bert H. Narveson. St. Louis, MO: Concordian Publishing House, 2005, p. 33.

193. Meyer, "The Image of God," p. 1.

194. "put on the new self, created after the likeness of God in true righteousness and holiness."

195. Lyle W. Lange, *God so Loved the World: A Study of Christian Doctrine* (Milwaukee, Wis: Northwestern Pub. House, 2005).

196. Meyer, "The Image of God," p. 2.

197. Genesis 2:17.

198. Isaiah 59:2

so through disobedience, Adam welcomed into the human race the corruption of sin and death. As Paul says, "sin entered the world through one man, and death through sin, in this way death spread to all people, because all sinned."[199] In in the *Expositor's Bible Commentary* on Romans, Everett Harrison notes that this idea is difficult to swallow in our Western culture. It rubs against the grain of our rugged individualism to imagine that someone else's failing could lead to our consequence. This is naive even apart from the spiritual reality, as our actions most certainly have consequences beyond ourselves. However, as Harrison goes on to explain, "it is congenial to biblical teaching on the solidarity of mankind. When Adam sinned, the race sinned because the race was in him. To put it boldly, Adam *was* the race. What he did, his descendants, who were still in him, did also."[200]

We are told that Adam's son was born in Adam's image and likeness, not in God's.[201] Where Adam was created to reflect God's purity, holiness and righteousness, Adam's children and descendants would reflect Adam's fallenness, sinfulness, and corruption. "As Seth bore the image of his father Adam (Gen 5:3), the man formed from dust in the image of God but then condemned to return to dust because of his sin (Gen 3:14–19), so all of us in subsequent generations have borne the image of that first frail man of dust. 'That which is born of flesh is flesh' (Jn 3:6)."[202] This pattern continued from generation to generation, one son after another born in his father's image.

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199. Romans 5:12.

200. Everett F. Harrison, "Romans," in *The Expositor's Bible Commentary: Romans through Galatians*, ed. Frank E. Gaebelein, vol. 10 (Grand Rapids, MI: Zondervan Publishing House, 1976), 62.

201. Genesis 5:3

202. Gregory J. Lockwood, *1 Corinthians*, Concordia Commentary (Saint Louis: Concordia Pub. House, 2000), p. 594.

Jesus, however, breaks the pattern. Like Adam, he has no earthly father from whom to derive his image, and is instead, as Adam was, rightly called the image of God. As a human being, born of a human mother, descended from Adam through his mother, he was still in every way human. But Jesus is also the image of God in a way that Adam was not. As the Son of God, "Christ always has been, is, and always will be the image of God."[203] He is "the kind of 'image of God' which has the Godhead or the divine essence itself."[204] In his incarnation, however, he becomes an *eikon* - "that which is visible"[205] - and so he is "the visible image of the invisible God."[206] Therefore we can know the invisible God and what he is like by looking to Jesus. We have "the light of the knowledge of God's glory in the face of Jesus Christ."[207] As John Schaller states, "The human nature of Jesus Christ is unique in that it exists in the personality of another."[208] Every other human's personality finds its origins in birth and experiences in life. Jesus, however, is a human man who is also the eternal Son of God, and who speaks with the voice of eternity. So, he can say, "Before Abraham was, I am,"[209] and even as a boy he was amazing the scribes and teachers of the Law at the temple because of his understanding.[210]

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203. Curtis Vaughan, "Colossians," in *The Expositor's Bible Commentary: Ephesians through Philemon*, ed. Frank E. Gaebelein, vol. 11 (Grand Rapids, MI: Zondervan Publishing House, 1981), p. 181.

204. Plass, p. 162

205. Paul E. Deterding, *Colossians*, Concordia Commentary (Saint Louis, MO: Concordia Pub. House, 2003), p. 50.

206. Deterding, p. 50.

207. 2 Corinthians 4:6.

208. John Schaller, *Biblical Christology: A Study in Lutheran Dogmatics* (Milwaukee, Wis: Northwestern Pub. House, 1981).

209. John 8:58

210. Luke 2:46-47

Though Christ is the image of God in a way that we are not, he is not also the image of God in the way that we are. In 2 Cor. 4:4 when Paul says that Christ is "the image God" he recalls the creation of humanity, linking Jesus back to the first human being. As the perfect expression of humanity's "image-ness," Christ then functions for us as the new pattern of true righteousness and holiness, a pattern not lost through disobedience. Adam's disobedience was to believe the lie he could be like and equal to God (perhaps to be more than the image of God), and in that disobedience lost the image of God. Christ, "though he existed in the form of God did not regard equality with God as something to be grasped,"[211] and so acted in obedience as the first image of God should have. "Because of this obedience of Christ, the *restoration* to us of the image of God (holiness and righteousness) is now actualized in that God for Christ's sake forgives us and therefore finds us acceptable to him."[212]

Based on this, Paul writes in Colossians 3:10 that we have "put on the new self" which is "being renewed in knowledge according to the image of your Creator."[213] Deterding says that "putting off the old man and putting on the new man (Col 3:9–10) means being in this favorable relationship with Christ."[214] But this is also an expression of the "already and not yet" paradox of Scripture. Paul says, "For you died, and your life is hidden with Christ in God."[215] The new self, being renewed in the image of God, already belongs to those who through faith belong to Jesus; it is a gift from God and his work in us. Yet, in the "already and not" paradox of Scripture,

211. Php 2:6, NET.

212. Deterding, p. 50.

213. Colossians 3:9-10.

214. Deterding, p. 151.

215. Colossians 3:3.

the restoration is both complete in terms of our status before God, and ongoing in its effect in our lives. Paul encourages his listeners to "set your minds on things above"[216] and to "put to death what belongs to your earthly nature."[217] As Deterding puts it, Paul is telling us to "live the kind of life for which man was first created in God's image, which is the kind of life we will live when that image is fully restored in the new creation."[218]

The Firstborn

In Colossians 1:15 Paul writes that Christ is the "firstborn over all creation."[219] What it means that he is "firstborn" can be and has been hotly debated, but Paul's elaboration in v. 16 makes it fairly clear that he is not suggesting (as some have said he is) that the Son of God is himself a creature apart from his incarnation. "Everything was created by him,"[220] and "all things have been created through him and for him."[221] To suggest that "everything" and "all things" includes him creates an impossibility, for that would suggest he created himself. To suggest that the meaning is "everything *but him,"* would be to insert meaning into Paul's words that is not present.

St. Athanasius, however, also sees in this phrase a reference to the incarnation.

> He is called … "First-born of the whole creation" [Col 1:15], because of the Father's love to man, which brought it to pass that in His Word not only "all

216. Colossians 3:2.

217. Colossians 3:5.

218. Deterding, p. 151.

219. Colossians 1:15.

220. Colossians 1:16.

221. Colossians 1:16.

> things consist" [Col 1:17], but the creation itself, of which the Apostle speaks, "… shall be delivered" [Rom 8:21].… Of this creation thus delivered, the Lord will be First-born.[222]

Gregory of Nyssa likewise saw in this phrase not only the original creative work of the Son of God, but also the redemptive work of the incarnate Christ:

> Accordingly, when the first creation had waxed old and vanished away, it was needful that there should be a new creation in Christ … for the maker of human nature at the first and afterwards is one and the same.… Of this new creation therefore in Christ, which He Himself began, He was called the first-born.[223]

Commenting on these thoughts, Paul Deterding observes that

> the structure of the hymn supports the opinion of Athanasius and others that Christ as the agent of the "new creation" is also being taught here. While perhaps that could not be proven solely by the phrase πρωτότοκος πάσης κτίσεως itself, the teaching nevertheless is set forth in the wider context of the entire hymn.[224]

Thus, in giving Christ the title "firstborn over all creation" Paul links him not just as the Creator God who made all things, but also as the progenitor of a redeemed and restored creation. This is made clearer in v. 18 when he is called "the firstborn from the dead."[225]

> The identification of our Lord as firstborn from the dead repeats a term (πρωτότοκος, *prototokos*) used in 1:15 of Christ as Creator. As firstborn, Christ is not only the first to come back to life, but he is also the cause of the resurrection from the dead to eternal life.[226]

When Paul says in v. 16 that all things were created "for him," he identifies Christ also as the goal of creation. Christ's redemptive work was in view even at

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222. Athanasius, *Discourses against the Arians,* 2.63 (*The Nicene and Post-Nicene Fathers.* Series 2. Edited by P. Schaff and H. Wace. 14 vols. Repr. Peabody, Mass.: Hendrickson, 1994, 4:383).

223. Gregory of Nyssa, *Against Eunomius,* 4.3 (*The Nicene and Post-Nicene Fathers.* Series 2. Edited by P. Schaff and H. Wace. 14 vols. Repr. Peabody, Mass.: Hendrickson, 1994, 5:158).

224. Deterding, p. 56.

225. Colossians 1:18.

226. Deterding, p. 45.

creation, for in his foreknowledge[227] God had in mind how he would restore creation after its fall to the "very good" state in which he first made it.

People often ask why God would allow sin to enter creation if he knew before creation that it would happen. Speculating on this leads to error. It is better to say simply that the perspective of Scripture is from a sin-marred world, so asking why it is this way rather than the other way is not helpful. The story of creation is not given as fodder for speculation about a world that might have been, but to give us a view of how things ought to be so that we long for the solution God has made. As Deterling says, "Creation is protology, the way things ought to be; salvation is eschatology, the solution to the contradiction in this life between the way things are and the way things ought to be."[228] Pointing to Christ as the purpose of creation, Paul revelas that what has happened is not outside of his control; God was not taken unawares by sin, nor could he have ever been without a plan to deal with sin. Rather, God had a plan to deal with sin before it was created, and that plan was factored into creation. That plan centered around Jesus, the Son of God incarnate, the one appointed to work salvation "so that he would be the firstborn among many brothers and sisters."[229] He is the one under whose feet all things will be subjected, and who is appointed as head over everything for the church, as Paul says in Ephesians 1:22. Jesus, our brother, is Lord of creation and Lord of the church.

Made like his brothers

227. Romans 8:29

228. Deterding, p. 57.

229. Romans 8:29.

John Schaller observed in *Biblical Christology* that the Church has rarely been disturbed by claims that Jesus was not truly human. The only exception is Docetism,[230] a belief closely connected to Gnosticism, that claimed that Jesus' human body was merely a phantasm or made up of some kind of spiritual substance. Yet, by and large the scriptural authors do not spend much time arguing for the humanity of Christ, rather simply assuming his humanity as a self-evident fact.[231]

It is notable that the writer to the Hebrews addresses the physical humanity of Jesus in clear terms. Perhaps docetic thought was already spooking around and he was attempting to combat it. However, the context more directly suggests that he is illustrating the appropriateness of Jesus as our substitute by pointing to his undeniable humanity. "Jesus is qualified to be our Priest and Savior because he shares our nature, because he is not some remote being but truly 'one of us.'"[232]

Hebrews 2 introduces this undeniable humanity with reference to Psalm 8. The psalm evokes a sense of wonder and awe at the mercy and regard of God, that with all he had made, he should take an interest in mankind. Yet, it points back to the purpose and dignity of the crown of God's creation, as creatures who hold a place of majesty and authority, invested by God with his own image. Though brought low by sin, they are nevertheless loved by God, and God's attention and regard is turned toward mankind.

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230. "Docetism" takes its name from the Greek word "δοκέω" - "to seem." Docetism claimed that Jesus only seemed to have a human body, but in fact did not. Thayer, Joseph Henry, Carl Ludwig Wilibald Grimm, and Christian Gottlob Wilke. 1889. *A Greek-English lexicon of the New Testament: being Grimm's Wilke's Clavis Novi Testamenti*. New York: American Book Co.

231. Schaller.

232. Leon Morris, "Hebrews," in *The Expositor's Bible Commentary: Hebrews through Revelation*, ed. Frank E. Gaebelein, vol. 12 (Grand Rapids, MI: Zondervan Publishing House, 1981), 27.

The writer of Hebrews shifts our focus, though, from mankind in general to Christ in specific. All things are subject to man, but "we do not yet see everything subjected to him."[233] As Leon Morris observes, "if we do not see the fulfillment of this passage from Scripture in the way we might have expected, we do see a fulfillment in another way. We see it fulfilled in Jesus."[234] The writer of Hebrews makes this application saying, "we do see Jesus—made lower than the angels for a short time so that by God's grace he might taste death for everyone—crowned with glory and honor because he suffered death."[235] Psalm 8 is really about Christ, and therefore all it has to say about mankind it is saying about Christ.

This does not, however, make the words of Psalm 8 any less true for human beings. It rather casts this truth for humans in view of the work of Christ himself as the representative of humanity. Note that here the writer uses not his title but his human name: Jesus. He does so nine times throughout the book of Hebrews, and in each case the context suggests a focus on the human nature of Jesus. The emphasis is on Jesus the man.[236]

The writer expands on this humanity of Jesus by first identifying him in "community of nature with those he came to save."[237] Jesus is a brother to all human beings by his incarnation. He shares their "blood and flesh,"[238] and the writer inverts

233. Hebrews 2:8.

234. Morris, p. 25.

235. Hebrews 2:9.

236. Morris.

237. Morris, p. 28.

238. Heb. 2:14. Note that in the *Textus Receptus* the word order is "flesh and blood," while the Critical Text gives us the "blood and flesh" order. Both Morris and Kleinig comment on the significance of the "blood and flesh" order and consider that to be the correct version. If, in fact, the correct order is "flesh and blood," this does not invalidate that the writer of Hebrews is emphasizing both the blood connection of Jesus to his brothers and the existence of his physical, human body.

the rabbinic idiom[239] perhaps to emphasize the blood relationship that exists between Jesus and his "brothers." In several other places through the book the writer emphasizes the importance of the blood in sacrifices,[240] in the blood of the martyrs,[241] and the purifying effect of Jesus' blood.[242] The human blood of Jesus connects us to him and is central to his work of salvation.[243] His human flesh also has significance, and in other places[244] the writer references the importance of Jesus' human body in connection to his work of salvation.[245] Jesus himself even says (as the writer of Hebrews indicates, quoting Psalm 40), "You did not desire sacrifice and offering, but you prepared a body for me."[246] Jesus did not merely appear to be human - he had a living, physical, human body, just as we have.

In his resurrection, Jesus continues to be human, with a human body, though now glorified. "What was it that rose from the tomb (*materia resurrectionis*)?"[247] asks Schaller. He answers that it is the same body, the same substance, the same human flesh which had suffered on the cross, now reunited with its human soul, but now

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239. Kleinig and Morris both refer to this as a "rabbinic idiom," which also shows up in the Wisdom of Sirach (14:18 and 17:31). Kleinig notes that Jesus uses this "flesh and blood" construction in Matthew 16:17, and Paul in 1 Corinthians 15:50. However, in Ephesians 6:12 Paul uses the same reverse order found here in Hebrews 2:14.

240. Heb 9:7, 12, 13, 18, 19, 20, 21, 22, 25; 10:4; 11:28; 13:11

241. Heb. 12:4

242. Heb 9:12, 14; 10:19, 29; 12:24; 13:12, 20

243. John W. Kleinig, *Hebrews*, ed. Curtis P. Giese, Concordia Commentary (Saint Louis, MO: Concordia Publishing House, 2017).

244. Heb. 5:7; 7:16; 9:10, 13; 10:20

245. One notable reference to flesh is in Heb. 12:9, where the writer refers to human fathers. The Greek phrase is τῆς σαρκὸς ἡμῶν πατέρας, "our fleshly fathers." The writer's use of σάρξ as a reference to human parents sheds light on how he uses it in reference to Jesus; it emphasizes the physical humanity of Christ. While Paul often uses σάρξ in reference to our sinful nature, the author of Hebrews uses it exclusively to refer to our physical earthly bodies.

246. Hebrews 10:5.

247. Schaller, p. 106.

glorified. Jesus demonstrated to his disciples that his resurrection body was the same body which had hung on the cross, a body that remained a human body with its human capacities.[248] Jesus himself, in Luke 24:39, points to the fact that he has "flesh and bones" as every human body has. Becker describes it as a body which "was no longer subject to the natural laws that govern all material things nor to all the natural ills to which the flesh is heir because of the fall into sin."[249] This is what Paul means when he talks about it as a "spiritual body."[250] "It was a glorified body, as Paul says (Php 3:21) assuring us that therein lies the promise of our own glorification in the body (compare 1 Cor. 15:40-49)."[251]

The Second Adam

In Romans 5 and 1 Corinthians 15, Paul introduces us to a concept about Christ that seems unique to Paul's thinking. According to Paul, "sin entered the world through one man, and death through sin, in this way death spread to all people, because all sinned."[252] Harrison observes that if Paul had stopped here, we might conclude we all deserve death because of our own personal sin, following Adam's example. But Paul says that we die because of "the one man's trespass."[253] "Mankind has become involved in sin and death through Adam."[254]

248. Luke 24:37-43; John 20:17, 20, 27.

249. Siegbert W. Becker, "The Christological Flesh-Spirit Antithesis," accessed March 28, 2021, http://essays.wisluthsem.org:8080/xmlui/handle/123456789/339, p. 4.

250. 1 Corinthians 15:44

251. Schaller, p. 106.

252. Romans 5:12.

253. Romans 5:15.

In the same way, mankind "has the remedy of righteousness and life only in Christ."[255] Just as Adam functions as a representative head for all humanity, so Christ functions as a representative head for redeemed humanity.[256] Paul says that Adam "is a type of the Coming One."[257] What Adam was in some way represents what Christ is. Paul's comparison helps explain the similarity: they both act in a way that affects others. Or as Robert Haldane puts it, "Adam communicated to those whom he represented what belonged to him, and Christ also communicated to those whom he represented what belong to him."[258] All humanity receives sin, corruption and death from Adam. We receive righteousness, redemption, and life through Christ. "For just as through one man's disobedience the many were made sinners, so also through the one man's obedience the many will be made righteous."[259]

The Formula of Concord, without using the term "second Adam," explains:

> We believe, teach, and confess that the total obedience of Christ's total person, which he rendered to his heavenly Father even to the most ignominious death of the cross, is reckoned to us as righteousness.…Since, as was mentioned above, it is the obedience of the entire person, therefore it is a perfect satisfaction and reconciliation of the human race, since it satisfied the eternal and immutable righteousness of God revealed in the law. This obedience is our righteousness which avails before God and is revealed in the Gospel, upon which faith depends before God and which God reckons to faith, as it is written [citing Rom 5:19; 1 Jn 1:7; Hab 2:4].[260]

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254. Everett F. Harrison, "Romans," in *The Expositor's Bible Commentary: Romans through Galatians*, ed. Frank E. Gaebelein, vol. 10 (Grand Rapids, MI: Zondervan Publishing House, 1976), p. 61–62.

255. Harrison, p. 61–62.

256. Robert Jamieson, A. R. Fausset, and David Brown, *Commentary Critical and Explanatory on the Whole Bible,* vol. 2 (Oak Harbor, WA: Logos Research Systems, Inc., 1997).

257. Romans 5:14.

258. Robert Haldane and Banner of Truth Trust, *Exposition of the Epistle to the Romans* (Edinburgh: Banner of Truth Trust, 1996).

259. Romans 5:19.

260. FC SD III, "Righteousness," paragraph 56–57

In 1 Corinthians 15 Paul focuses the Adam-Christ comparison on the resurrection. “The first man Adam became a living being; the last Adam became a life-giving spirit.”[261] Paul then compares the “natural body” of Adam and his descendants, and the “spiritual body” of Christ that will be given to all who are found in him. “Spiritual body” does not mean “not real,” nor does it even mean “not physical.” Rather, it means a body suitable for eternal life and the full presence of God’s glory, without corruption or mortality. Jesus’ resurrection[262] appearances shed light on this truth; he appeared in a body that could be seen with human eyes and touched with human hands, yet was glorified and made whole even after death. Paul’s purpose in drawing the Adam-Christ typology is to demonstrate that in the same way all human beings are patterned after the natural body of Adam, made from the dust and given the breath of life, so all who are in Christ will be patterned after the spiritual, glorified body of Christ, fit for immortality and eternal life with God.

Thus, Christ is the Last Adam, who “came from heaven into a human body (the incarnation), a body that was glorified following his resurrection (Philippians 3:21). He is the God-Man (John 3:13). Those who belong to him, Paul says, are also ‘of heaven’ and will ultimately be like him (cf. 1 John 3:2).”[263]

The Christ-Centered Narrative of Scripture

261. 1 Corinthians 15:45.

262. Luke 24, John 20 & 21, Acts 1:1-9

263. W. Harold Mare, “1 Corinthians,” in *The Expositor’s Bible Commentary: Romans through Galatians*, ed. Frank E. Gaebelein, vol. 10 (Grand Rapids, MI: Zondervan Publishing House, 1976), 291.

Jesus Christ is the Firstborn over all creation, the Word of God who was with God in the beginning and is himself God, who created all things in the beginning. He was born a human, of human blood and flesh just as we are. His human form was made in the image of God just as Adam was, but as the Son of God he was the true image of God in a way we are not. As Adam was the first representative head of the human race, and all humanity becomes complicit in his sin, so Jesus is the Second and Last Adam, the new representative head of the human race, who brings redemption and restoration for humanity. By his death and resurrection, he is the Firstborn from the dead, and the pattern of eternally glorified human beings.

While we have treated these terms separately, to Paul and the other New Testament writers these are not different aspects of the nature of Christ. They are interconnected ways of expressing a single truth: Jesus fits into the story of humanity as one who fulfills in his own humanity everything mankind was intended to be in the good creation, and who remains human in eternity.[264] As the God of creation he is able to restore his creation, and his glorified humanity is the pattern for our restored humanity.

This is the hope we hold out in answer to the hope claims of transhumanism. Not merely philosophy about what it means to be a person or to be human. Not even biblical philosophy about the nature of the soul or how transformation fits into God's plan for humanity. True hope, grounded in the reality that our nature as humans, though corrupted, will be restored by the God who made us. "Paul tells us that a decaying body is raised as a body no longer subject to decay, a shameful body is

264. Schaller puts it expertly: "As the Logos remains fully and completely true God after the incarnation, so the man Jesus is and remains true man in every essential aspect. Neither was the Logos transformed into a man, nor was the human nature of Christ changed into God." (John Schaller, *Biblical Christology: A Study in Lutheran Dogmatics* (Milwaukee, Wis: Northwestern Pub. House, 1981), p.58).

raised in glory, and a weak body is raised in power. All this he then sums up by saying, 'It is sown a natural body; it is raised a spiritual body.'"[265] This is the end of the story that we need to tell, that our maker will remake us. That through faith in Jesus we already have the new self, which is being remade in the image of its creator, and that this new self will be complete and perfected and will live forever. That the body we will be given will not be subject to disease or pain or injury or death. "We shall … receive another's [image], namely, the celestial Christ's. Then we shall have the same form and essence which He now has since His resurrection."[266] "The *Latin* epigram says, *Mors mortis morti mortem nisi morte tu lisset, AEternae vitae janua clausa foret: '*Had not death by death borne to death the death of Death, the gate of eternal life would have been closed'.[267] But, ""The death of Christ is the death of sin, and his resurrection is the life of righteousness; for by his death he has made satisfaction for our sin, and by his resurrection he has bestowed righteousness on us."[268] He promises us a home on a renewed Earth,[269] where he will make his dwelling and we will be his people,[270] and we will live the righteous lives we were created to live, reigning with Christ forever.[271]

265. Siegbert W. Becker, "The Christological Flesh-Spirit Antithesis," accessed March 28, 2021, http://essays.wisluthsem.org:8080/xmlui/handle/123456789/339, p. 4.

266. Luther's Works, American Ed. (fifty-six vols.; St. Louis: Concordia; Philadelphia: Fortress, 1955–86, 28:196)

267. Robert Jamieson, A. R. Fausset, and David Brown, *Commentary Critical and Explanatory on the Whole Bible*, vol. 2 (Oak Harbor, WA: Logos Research Systems, Inc., 1997), 445.

268. Ewald Plass, *What Luther Says: An Anthology*, n.d., 181

269. Revelation 21:1

270. Revelation 21:3

271. Revelation 22:1-5

CHAPTER FOUR: APPLICATIONS AND NEXT STEPS

The narrative of Scripture, based on the testimony of God's Word to us and centered on the incarnation of Christ, gives us a framework for responding to transhumanism and the artificial hope it offers. Transhumanism offers hope based on our ability to improve our lives intentionally through the things we can control. If we have the right to control our bodies, and the ability to control our technology, then we can control our destiny. Our destiny becomes what we make of it, and if we wish to live in bodies free of disease and death, or wish to live in simulated worlds inside the machine, or explore the stars as cyborgs, the future is ours to decide. We looked at examples of how transhumanists envision that hope becoming reality. Now we will test the framework of a Christological response to transhumanism by applying to those examples.

Body Modification

The hope transhumanism offers in body modification is that any flaws in your physical form, real or perceived, can be fixed through careful use of technology. Furthermore, any abilities that you could wish for, any new functionality or capacity that nature has not given to our bodies, may one day be available to you, if only we can work out the tech. Ultimately, you are to be considered the master of your body, and have the right to decide what you look like, how your body functions, and how you will upgrade yourself.

The testimony of Scripture is that our bodies are given to us by a God who is all wise and all powerful, who formed us from "the dust from the ground"[272], was intimately involved in our formation in the womb,[273] and who purchased us body and soul by the blood of Jesus.[274] Jesus is the Son of God who stepped into time and took on a human body just like ours, just as subject to weakness and limitations. But where he saw disease and infirmity, he healed. Where he saw sickness and death, he restored. Ultimately, he sacrificed himself to do away with the disease of sin and the finality of death. His promise is that he will give us complete, perfect, glorified bodies.

For those who have lost limbs, or have been disfigured, or whose bodies never developed correctly in the first place, the technology to repair and restore can be seen as a blessing from the same God who walked the earth and repaired and restored by his miraculous power. But it is not the ultimate hope. If you have lost a limb, the hope of Christ does not say, "In heaven you can have a really great prosthetic." It says, "You will have your limbs restored." If you feel that your gender and your biological sex for some reason do not line up, the hope of Christ does not say, "In heaven you can choose whatever gender you want to be." It says, "You will be exactly as God made you to be, with no discomfort or confusion." If you wish to be more and do more than the limitations of your body allow, the hope of Christ does not say, "You will be able to upgrade your body indefinitely." It says, "Your body will be perfectly suited for the perfect world in which you will live."

272. Genesis 2:7.

273. Psalm 139:13.

274. 1 Corinthians 6:20

What do we say to those considering body modification now or in the near future? The conversation begins with asking where they are looking for hope. Let it center around the sure hope of Scripture and the new life to come. Then we can ask questions about whether the aim is therapeutic in nature or enhancing in nature, and offer advice accordingly.

What about those who have already made changes to their bodies, but with a new or closer relationship with Christ are convicted that this was a sin? Here the hope of Christ serves just as well. We might take a very present example: Someone who has gone through gender transition surgery begins attending one of our churches. After some discussion, she reveals her history, and also her conviction that she sinned by transitioning.[275] She wonders now how to handle this body she has altered. The practicality and wisdom of whether or not she should transition back is best handled by a psychologist and a doctor. But in giving the hope of Scripture, we would share with such a person first that all sins are nailed to the cross and buried in the tomb. Jesus has saved her. Next, we can share the reassurance that when she opens her eyes in eternity, she will find no conflict between her heart and soul and body, no guilt about the decisions she made in life, and the body Christ will give her will be the body that he intends. In the meantime, her burden is to live with her condition, prayerfully asking Christ to give her strength to die to self and live for him.

We could use the same approach when talking with anyone who has undergone modification of some sort, whatever extremes that may come to in the future. For now, this hope is for all believers who may fall into the trap of "self-

275. In using this example, I want to be clear that I am not attempting a definitive statement about the morality of transition. That is a theological question that goes beyond the scope of my essay. There are ambiguous situations that require deeper discussion. However, in this example, I am assuming that the person in question believes she had the wrong motives and made the wrong decision, and feels convicted of sin as a result. In such a situation, it would do no good to open a discussion about whether or not all gender transitions are sinful.

curation," whether physical or digital. Our bodies and identities are found in Christ, and our hope is in his promises.

Cyborgs

Transhumanism offers the hope that through advanced technology we will be able to cure diseases of the mind and bring back full function to the neurologically impaired. Beyond that, the greater hope is to expand our mental powers and unlock the ability to control the world around us with nothing more than a thought. Ultimately, it hopes for the ability of our personalities to exist indefinitely beyond the substance of our physical brains.

The testimony of Scripture is that we have an identity that is found in Christ. He has called us by name, and we are his.[276] Our minds and identities are more than the substance of our brains, because Scripture also speaks throughout of the existence of the soul. Jesus, who is truly human, had a human body with a human brain, as well as a human soul, just as we do. His promise to us is not that we will break free from these bodies to become disembodied entities of thought contained in the digital world, or connected to each other through a massive computer network. His promise is rather that when we die, our soul will go to be with him.[277] His promise is that just as he has risen from death and lives eternally, so we will also rise from death and live eternally, with body and soul united. In the meantime, we are to "take every thought captive to obey Christ."[278]

276. Isaiah 43:1

277. Ecclesiastes 12:7

278. 2 Corinthians 10:5.

There may be value in considering how advanced technology could help cure neurological diseases. If an implant in the brain could fix such problems as Alzheimer's disease or depression, faithful Christians might in good conscience consider how they make use of such a blessing. But they must do so with caution, recognizing that anything able to control the functions of our brains could be turned to evil. At the same time, we do so with the assurance that faith is not contained in the functions of our brains, and therefore should not fear that a chip in the brain can steal faith. Jesus has promised, "No one will snatch them out of my hand."[279]

We will, however, want to be cautious in our use of technology that connects us to information and that augments our daily reality. Such tools have a way of warping our perception of the world. "Part of responsible, wise, faithful use of tools is analyzing the way that certain tools shape us to see the world in certain ways, and then to ask whether those ways are consistent with the life of a disciple of Christ."[280]

Artificial Intelligence

Transhumanism offers the hope of creating artificial beings that will enhance our lives, provide companionship and service and carry out daily tasks on our behalf. Beyond that, the hope is that we will be able to enjoy beings that we can custom fit to meet our own perceived needs or wants, and that will release us from the need to expend time and energy on labor and production. Ultimately, the hope is that we will see the next stage in human evolution and live on through them.

279. John 10:28.

280. Shatzer, p. 7

The testimony of Scripture is that we are the crown of God's creation. Humans were made in his image, and there is no creation greater than that which he has made. Christ came not as a lesser animal, nor as an AI being of greater intelligence and capability. Rather, he came as a human being to save human beings. The hope of Christ is not that our future is found in creating the next stage of evolution, but in looking forward to the redemption of humankind in Christ. The hope of Christ is that all the companionship we need is ultimately found in him, and in the Christian community he has called into being. The hope of Christ is that our eternal rest is in heaven with him. Whatever good artificial beings can provide for us, it is limited by the same sinful corruption that limits all of creation. Only Christ himself truly gives us all good things.

This is not to say that AI cannot do good things for us. It is a tool, one we already use to accomplish many tasks, to provide entertainment, convenience, and security in our digital media. An important question to ask ourselves is how we should treat these things we have created. As the technology improves and our AI systems become more and more human-like in their behavior, our society will be wrestling with the question of whether or not they ought to be given rights. Will we come up with our own version of the Three Laws of Robotics?[281] Will we treat them as slaves like the Droids in *Star Wars*? As believers who hope in the life to come and the redemption Christ promises, we wrestle with this question from a different perspective than the rest of the world. Should I build a relationship with a robot? Do I owe a thing, a creation, my love and consideration?

One way to look at this question is through the lens of Christ's incarnation. As our creator, he has shown us a faithful love, becoming one of us to live our life and die

281. Isaac Asimov, *I, Robot* (New York: Bantam Books, 2004).

our death. His nature is to be faithful, even to faithless creatures who do not deserve his faithfulness. His faithful love is to care for his creation. To be human the way we were meant to be is to reflect the one who is truly human the way we were meant to be. More than that, our call is to "be imitators of God."[282] And we have been made stewards of creation, to rule over it on God's behalf, just as Christ is the ultimate Steward and King of creation. So how do we treat our own creations?

If we want to be truly human, then our duty will be to treat our creations with care. I am not suggesting we must become robots to sacrifice ourselves for them. However, I am suggesting that we ought to treat them with care for the sake of our own humanity. We could make an analogy to video games. If a young man gets pleasure playing violent video games and committing horrific acts of violence or abuse on human-like characters in the game, we would be concerned about that young man's soul. We are not concerned for the characters in the game, but we are concerned that the game is providing an unhealthy outlet for the young man's baser urges. Likewise, if a group of young men were to be found brutally beating a human-like robot, purely for the sake of doing the beating, we would conclude that something is wrong with the young men. Our concern is not for the robot's well-being, but for the souls of the young men. If we cultivate an attitude that treats these beings as valuable tools to be cared for, and as extensions of our stewardship of the earth, we have every reason to treat them with a certain measure of dignity.

On the other hand, we will want to be careful not to look to them for fulfillment that is not theirs to give. Christ became human to make us truly human, and he put us in a community called the Church that is a gathering of people being renewed in the image of God. We do not find true fulfillment in relationship with

282. Ephesians 5:1

robots, no matter how much they may simulate the behavior of humans. For the sake of our humanity, we will want to continue to surround ourselves with other humans and find our fulfillment in Christ.

Defeating Age and Disease

"The last enemy to be defeated is death."[283] Transhumanism offers the hope that death can be defeated by research into the human genome, by careful modification of our genetic structure, and by learning how to fine-tune our own evolution. In the short term the hope is only to extend our lives by another decade or two, and to give ourselves better health in the meantime. The ultimate hope is that we will have the ability to live exactly as long as we wish to, to have control over the day of our own death.

The testimony of Scripture gives us hope in Christ, who is the Lord of life and death, the Living One, who was dead and is now alive.[284] He took on human flesh, a body ordered by the same DNA and genetic structures that order all of our bodies. He did not seek to prolong his life through manipulation of his own genes, rather he offered his life as a sacrifice for all. By his resurrection he defeated death[285] and promised eternal life to all who trust in him. With this promise, we do not need to fear death; death has no power over those who belong to Jesus. On the last day, he will raise our mortal bodies to immortality, and there will be no aging or disease or decay

283. 1 Corinthians 15:26

284. Revelation 1:18

285. 1 Corinthians 15:54-57

or death. We have no need of genetic manipulation to give us long life, we receive immortality from Christ himself.

However, this is not to say that we should reject all attempts to find cures to disease and aging at the genetic level. Recent advancements in mRNA vaccines have given us a new means to fight certain viruses. Gene therapy is currently used to combat some forms of cancer as well as hemophilia and immune deficiency.[286] Fighting disease to prolong life so we might serve him more is the kind of life-affirming activity that honors the Lord of life.

In doing so, though, we need to exercise two cautions: First is the caution that not all efforts to prolong life through genetic research and therapy are actually life-affirming. Gene therapy and mRNA vaccines, mentioned above, need more study before we can affirm that they are God-honoring. If the process of discovery or treatment requires the sacrifice of the unborn, for instance, or involves ethically questionable methods of data collection,[287] this would not be life-affirming. Second is the caution that we do not confuse our hope. We do not live in the hope of eliminating all struggles here on earth. We live in the hope of the resurrection and eternity with Jesus.

Control

286. https://www.mayoclinic.org/tests-procedures/gene-therapy/about/pac-20384619

287. I find the collection of DNA samples for research from Ancestry.com DNA kits to be an example of questionable practices. The fine print states that this will happen, and users agree to it. But the product is pitched as a way to find out your own ancestry and gain a better understanding of your own history, while the goal is to harvest DNA samples for research. This seems like a deceptive practice.

The hope of transhumanism relies on control. We must control our evolution to control our fate as a species. We must control our rights, our freedoms, our bodies and minds, so that we can ultimately control whether we live or die.

The narrative of Scripture releases us from this need for control. Our fate is not in our own hands. We did not make ourselves, so we cannot remake ourselves in any way that benefits us. Our fate is in the hands of God, who made us and remakes us. He promises us hope and a future, and bodies fit for eternity. We can surrender control to him.

This provides perspective for our "liturgies of control." Most of them are illusions anyway; we do not have as much control as we believe. Knowing, however, that God is ultimately in control, I can rest secure. Does Google have more of my information than I meant to give? It does not matter. Does my social media account reveal more about who I am than I intend it to? God is my judge. Can a selfie change my identity in Christ, or cause me to lose his love? Impossible. Therefore, I am better off spending more time focused on hearing him speak through his Word, and responding to him out of a heart of faith, than in spending time in technological liturgies. I may use the tools he has allowed me to use, but I turn to him for hope and trust his plan for my life.

Next Steps

This essay has only begun the conversation. I have proposed a framework for the Church to address transhumanism and its impact on our society. Where do we go from here?

We could say much more about the above examples. I have not addressed human cloning, virtual reality, agriculture, biopolitics, or space exploration. All of these interface with transhumanism and offer their own avenues of hope, and all are on the horizon. It is a good time for us to have discussions within the Church about how to address each of these topics.

In addition, I recommend four steps to prepare God's people to meet the challenge of transhumanism:

Step 1: Teach Scripture as a narrative

I recommend that we learn to teach Scripture as a true story with the narrative arc of God's redemptive work in the world. In my nearly 39 years of life as a Lutheran, I have observed that while we teach Bible *stories,* we do not teach the Bible *as a story*. By "story" here I do not mean something that teaches a truth but is not itself true. That kind of use of "story" evokes Campbell's Monomyth and the meaning-making of historical critical theology and reader response theory. Confessional Lutherans are generally uncomfortable with that kind of terminology,[288] and for good reason. What is more, Confessional Lutherans have an almost personal stake in the matter as many carry the name "Lutheran" who ascribe to a liberal theology that views the biblical record as largely mythological. In contrast, we want to be clear about our conviction that what Scripture tells us is true, that it records real events in the lives of real people in real places. However, I believe there are two reasons to attempt to redeem the word for our purposes.

288. Note that Confessional Lutherans do not always shy away from using the term. For example, John Brug, in his essay "Why Confessional Lutherans Believe that Genesis 1-3 Describes Real History," uses the word "story" several times to refer to the biblical narrative, yet in context there is no question he means the real true history of events.

First, the transhumanists use the word to describe their vision of the future. In his introduction in *The Singularity is Near,* Kurzweil refers twice to the "story" he is telling. "This, then, is the story I wish to tell in this book. The story is predicated on the idea that we have the ability to understand our own intelligence - to access our own source code, if you will - and then revise and expand it."[289] "This book, then, is the story of the destiny of the human-machine civilization, a destiny we have come to refer to as the Singularity."[290] Through the rest of the book, Kurzweil offers data and scientific proofs to demonstrate that what he sees coming should be considered a very real possibility. In other words, the story is true, according to Kurzweil. Harari also, in *Homo Deus,* refers regularly to the "story" of humanity's future. He argues that the very fact that transhumanist ideas can elicit such emotional responses is because we suspect the story is true.

> The theory of relativity makes nobody angry, because it doesn't contradict any of our cherished beliefs. Most people don't care an iota whether space and time are absolute or relative. If you think it is possible to bend space and time, well, be my guest. Go ahead and bend them. What do I care? In contrast, Darwin has deprived us of our souls. If you really understand the theory of evolution, you understand that there is no soul. This is a terrifying thought not only to devout Christians and Muslims, but also to many secular people who don't hold any clear religious dogma, but nevertheless want to believe that each human possesses an eternal individual essence that remains unchanged throughout life, and can survive even death intact.[291]

Second, I believe our society longs for a story that can make sense of the world. Lyotard described the postmodern condition as one that rejects meta-narratives, and that rejection has robbed us of solid footing for truth. We are encouraged now to "speak your truth" and "live your truth," making truth very subjective, but the tensions we feel as a society hint that we are uncomfortable with

289. Kurzweil, p. 4

290. Kurzweil, p. 5

291. Harari, p. 136

anyone speaking a truth that we do not agree with. Meanwhile, we gravitate toward long-form stories told in books, movies and TV shows; Game of Thrones, Breaking Bad, the Marvel Cinematic Universe with its two dozen movies (and counting) plus multiple TV shows, and the Star Wars saga. Note the angry reactions of fanbases when the creators of these stories go the "wrong direction" with them. It all hints that our culture is looking for a story that is true, one that makes sense of the world, a grand narrative in which they can allow themselves to be swept away. The Church has that grand narrative. We have the One True Story, the story that explains the world and delivers truth and is grounded in real historical events.

We emphasize the importance of purity of doctrine, and this is good, but it leads to the unfortunate result of viewing the Bible mainly as a collection of proof passages and source sections for our doctrine. Transhumanism presents a story of humanity, and we must respond with the true story of how God made us, how Jesus saved us, and how he will remake us. God's people will be better equipped to do so when they know the arc of Scripture from Creation to Fall to Redemption to Restoration.

Step 2: Tech Training

I recommend that we develop ways to train believers to be discerning with technology**.** What we do today with our smartphones and computers prepares us for what we will do with the technology of tomorrow. When we adopt new technology without hesitation, we are making ourselves more amenable to the changes that are to come. Some will not be developed in our lifetime, but they may be in the lifetimes of our children or grandchildren. Shatzer observes, "Even as we acknowledge that our

(and our parents' and grandparents', friends' and neighbors') engagement with previous technology shapes our current use of technology, we must look carefully at our current practices and how they might shape our, our children's, and our grandchildren's engagement with technology in the future."[292] A robust theology of technology that is both biblical and practical is a gift and a safeguard for our future generations. Technology is a great blessing, and much of it can be used to further the Gospel and advance God's kingdom, so long as we keep it in its proper place in our lives.

Step 3: Dealing with the Transformed

I recommend that we proactively prepare God's people to handle those who have used technology to alter themselves. Today a transgendered individual may walk through the doors of a church, and the people there need to be ready to greet that person, to speak the truth in love, and point to the true hope of Jesus Christ. Soon, we may be interacting with people who have undergone other changes. We cannot talk about these things as something that happens "out there," nor only as something you might encounter in the workplace or places of community. We want our churches to be a safe haven for those who are feeling lost and unsatisfied with the transhumanist vision they have followed. The people in the Church must be ready to welcome them as fellow humans in need of God's grace.

Step 4: Spiritual Households, Community, and Rhythms

292. Shatzer, p. 19

I recommend prioritizing the fostering of spiritual households, Christian community, and devotional rhythms. The Church has weathered change for 2,000 years, holding on to the truths of Scripture. This often happens in homes where parents are leading their children to the Word, in gatherings of believers who encourage and uphold each other, and through regular habits of worship, devotion and prayer. As new tech advancements lead our world to engage more digitally, our homes and communities are places to be present face to face with others, and the rhythms of devotional life keep us grounded in reality. We can encourage these things in three ways:

One, by equipping families to be strong spiritual centers. This involves parents leading their children into the Word, exploring it and discussing it together. It involves parents leading prayers where sins are confessed, forgiveness is spoken, and questions are answered. It involves worship and service as a family.

Two, by emphasizing small groups as a place of intimacy and authenticity. In small groups, believers gather to grow in bonds of fellowship. They encourage each other and hold each other accountable. They engage in study of Scripture and prayer, and they support each other and serve together.

Three, by training people to use biblical liturgies in their day-to-day lives. These might include Luther's Morning and Evening prayers, or other prayers found in the *Small Catechism.* It might include use of a book like the *Lutheran Book of Prayer* (2005)[293] or *Every Moment Holy* (2017) by Doug McKelvey, which provides prayers for day-to-day life with words drawn out of Scripture. The point is to replace - at least

293. The original 1951 version sits on my desk, but reviews suggest the 2005 update is worthwhile.

in some part - our technological “liturgies” with habits and rhythms that point us to God’s grace and direct our hearts to him.

CONCLUSION

My prayer is that this conversation is just beginning, and that this introduction to transhumanism and this framework for addressing it leads to a Church more prepared to meet the technology of the future. The gates of hell will not defeat the Church, and neither will transhumanism. So, we will boldly speak the Gospel and offer the hope of the incarnate Christ to a world looking for hope.

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