“A Curious Machine”

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Wesleyan Reflections on the Posthuman Future

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AND
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To the Rev Dr Rob Fringer and Major Dr Dean Smith,
previous Directors of the Australasian Centre for Wesleyan
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Contents

Acknowledgments | ix
List of Contributors | xi

Introduction | 1
—Arseny Ermakov and Glen O'Brien

1 "Creatures Capable of God": John Wesley's Theological Anthropology and the Posthuman Future | 13
—Glen O'Brien

2 Tracing the Contours of a Biblical Techno-Theology: Genesis 1-11 and the Story of God | 33
—Arseny Ermakov

3 Looking Ahead: What Does it Mean to be Human? Examining the Importance of Embodiment for Personal Identity through a Transhumanist and Christian Worldview | 57
—Sandra Goode

4 Why Are Christians Reluctant to Embrace Transhumanism? | 71
—Jonathan P. Case

5 "I think, Sebastian, therefore I am" (Pris, *Blade Runner*): Bodies of Reel Critique for Social Hope | 96
—John C. McDowell

6 Vast, Cool and Unsympathetic: Wells's Martians and Life under the Algorithms | 117
—Caleb Smith

7 Angels and Robots: The Religious Dimensions of Transhumanist Popular Culture | 137
—Stephen Garner

8 Sex Robots and People | 151
—Grenville J.R. Kent

9 Wesleyans in Conversation with a Posthumanist Philosopher | 174
—Arseny Ermakov, Francesca Ferrando, and Glen O'Brien

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Introduction

Arseny Ermakov and Glen O'Brien

The onset of the digital era has been as significant to human societies as the technological breakthroughs that have preceded it, including the invention of stone tools by early humans, the domestication of wildlife, the control of crop cycles, the invention of the printing press, and the industrial revolution. Each of these technological advancements had massive implications for the development of human society. Each raised new opportunities and new problems, while leading to the creation of entire civilizations and empires. The technological revolution brought on by the invention of personal computers and the Internet is proving to be just as determinative as these earlier epochal shifts in the course of the human experience.

The rapid rate of technological change and the impact of increasingly sophisticated forms of Artificial Intelligence (AI) on human society have forced philosophers, theologians, and ethicists to explore their implications for human experience. Human enhancement, genetic modification, remotely controlled weapons, the replacement of human labor and skill by robots, the commodification of data, and the possibility of independent reasoning powers in artificial intelligence all carry both promise and risk.

The Technological Singularity

Many futurists anticipate a moment known as "the Singularity"—the point at which artificial intelligence becomes self-determining and self-perpetuating, able to program and develop itself without human interaction or control.[1] AI will not necessarily need to develop consciousness for this to occur; sufficient levels of "superintelligence" will be enough. According to Kevin Kelly, the Singularity is the point at which "all the change in the last million years will be superseded by the change in the next five minutes."[2] Some AI experts ambitiously anticipate that as early as the year 2047, the technology will have reached a stage of development capable of producing human-level intelligence in machines.[3] Transhumanists claim that we will eventually be able to leave our bodies and live forever inside a computer simulation program (silicon-based enhancement) or have such advanced technology applied to our bodies that we will experience god-like capacities and virtual immortality (carbon-based enhancement). Such hopes have a weirdly religious vibe though they often rely on outmoded theological ideas. Milad Doueihi claims that "digital culture is the only rival to religion as a universal practice [and is] a world religion with its prophets and priesthood, its institutions and sects and believers, its dissenters and schismatics."[4] Of course, technology experts are already theorizing about "quantum computing"—a new technology that may leave digital modes of computing behind just as digital earlier replaced analog technology. Like many eschatological theories before it, the Singularitarian utopia may end up proving to be an illusion.

Max Tegmark in his book *Life 3.0* outlines three broad responses to the onset of "the Singularity" or something very like it. Techno-skeptics hold to the view that it will not happen for hundreds or thousands of years, if ever, so there is no need to worry about it now. Digital utopians believe it will happen soon, probably in this century, and that it should be welcomed as the next stage in cosmic evolution. The Beneficial AI movement agrees it will happen in this century but argues for careful protections through AI safety research to ensure only beneficial outcomes.[5] Christians

1. Mohan, *Posthumanism,* 246.
2. Mercer and Trothen, *Religion and the Technological Future*, 186.
3. Tegmark, *Life 3.0*, 157.
4. Doueihi, *Digital Cultures*, 3.
5. Tegmark, *Life 3.0*, 48.

who take seriously the possibility of dangerous levels of AI superintelligence being reached will likely be in sympathy with the Beneficial AI movement and support AI research aimed at beneficial use, not only for human beings but for all of creation.

The Social Impact of Robotic Technology

People seem to have a love-hate relationship with the idea of artificial humans. We are drawn to them with deep fascination but at the same time fear their potential to harm us. Of course, most robotic devices currently employed in industry, manufacturing and medical technology are not human-like at all, and we seem quite comfortable with those. Experiments have shown, however, that the more life-like a humanoid robot appears the less comfortable we are in its presence. This phenomenon, known as "the uncanny valley," first identified in the 1970s, refers to the hypothesis that humanoid objects which imperfectly resemble human beings provoke strangely familiar feelings of eeriness and revulsion in observers. Two instinctive responses to robots that have found expression in the arts are the idea that the creation of a human-like being is an act of blasphemy and that the creation of robots will lead to the inevitable destruction of the human race. These two fears may even be seen as causally connected with the blasphemous usurping of the divine prerogative of creation being punished by our extinction.

Erik Brynjolffson at the Massachusetts Institute of Technology has a vision of the future that he refers to as "Digital Athens."[6] In Brynjolffson's utopia, human drudgery and stress would be eliminated by a robot workforce that freed us all up to be dreamers, musicians, artists, and philosophers. Of course, such a reality would require a very different kind of economic system. For one thing, a guaranteed income, one not based on a return for labor, would be required, raising important questions about equitability and access. In the time it took to develop such a robot utopia, only those in wealthier parts of the world would have access to the technology that frees them from drudgery, leaving the world's poor open to exploitation as an underclass grinding away at soul-destroying physical labor for the benefit of the world's wealthy and privileged technocrats. It doesn't take too much thought to realize that we are, to a great extent, already in that situation. Would progress toward a digital utopia simply reinforce the present system

6. Tegmark, *Life 3.0*, 118–21.

of the exploitation of the labor of the world's poor to serve the acquisitive needs of a wealthy technocracy? We are already seeing the social impact of AI and robotics in the workplace. Automatic checkouts at the supermarket, automatic teller machines in banks, and automated assembly lines in manufacturing plants, all mean fewer jobs for people. At least, that is, fewer jobs of particular kinds. As employment patterns shift, new kinds of jobs become necessary, putting pressure on people to retrain in order to remain employable. We are seeing the emergence of a "precariat" in which people's sense of vocation is being negatively impacted in a dehumanizing process brought on by a more technological workforce.

More positively, robots can be used in very helpful ways to assist us, for example in manufacturing, in medical care, and in elder care. AI researchers are currently attempting to teach machines to infer goals from behavior. If an elderly person needed to explain to a home care robot that they needed to move out of a sedentary position once an hour to reach their health goals, it would be helpful if they didn't have to create a computer program to enable it. What if the robot could independently learn our needs and preferences and then prompt, remind, and assist the person as and when needed? This is not as easy and straightforward as it might sound, however. The ability to understand the purpose or goals of behavior is known as "inverse reinforcement learning," a very sophisticated learning function. Designing a robot with that capacity is a problem that will need to be solved before robots can offer consistent, reliable, and safe assistance to people. It will also be very important as robotic intelligence advances to higher levels to ensure that robot goals are always aligned with human goals. One of the most beneficial uses of robots is in manufacturing, where robots are used to build planes, cars, and other machines with much greater precision and efficiency than previously possible. Cottage-level manufacturers now use 3D printers to design and create anything their imaginations can devise. While there have been some deaths from industrial accidents involving robots, these are small compared to similar deaths in the pre-robotic era of manufacturing. It is likely that AI-controlled cars will reduce road fatalities by eliminating accidents caused by human error.

Robots are no real threat to human beings at present (though AI researchers are aware of the need to anticipate that possibility). Robot vacuum cleaners cannot even cope with upturned rugs, so it is doubtful they will be overthrowing us any time soon. The rationality of machines is at present very limited without anywhere near the sophistication and flexibility of

the human brain. The rules a machine has to learn in order to figure out what to do in any given circumstance are too simplistic to allow them what we might consider "agency." As techno-skeptic Andrew Ng puts it, "Fearing a rise of killer robots is like worrying about overpopulation on Mars."[7] Remote-controlled weapons systems, however, do raise important ethical challenges, especially the possibility of their becoming autonomous. Autonomous Weapons Systems, sometimes referred to as Lethal Autonomous Weapons Systems (LAWS) are military weapons that can independently search for and engage targets through programming rather than human triggering (though, at present, most still involve a human element). Such "slaughterbots" naturally raise fears and ethical concerns. An Open Letter on Autonomous Weapons has so far attracted over 4,500 signatures from AI and Robotics researchers as well as over 2,600 others.

> Just as most chemists and biologists have no interest in building chemical or biological weapons, most AI researchers have no interest in building AI weapons—and do not want others to tarnish their field by doing so, potentially creating a major public backlash against AI that curtails its future societal benefits . . . Starting a military AI arms race is a bad idea, and should be prevented by a ban on offensive autonomous weapons beyond meaningful human control.[8]

In 2020, the Catholic Church signed *The Rome Call for AI Ethics*, along with European Union and United Nations officials as well as IBM and Microsoft representatives. It outlines the principles that should guide the development and implementation of AI technologies with the end purpose being to "benefit humanity and protect human rights and dignity."[9]

The Information Revolution

The impact of the Internet is being felt in all aspects of modern life. It has not only changed the way we create, share, and consume information, but is also reshaping the way we live as individuals and society: entertainment, politics, business, learning, trade, social life, relationships, church life, the list continues. Relational connections are now often forged in a disembodied

7. Cited in Tegmark, *Life 3.0*, 33.
8. "Autonomous Weapons."
9. RenAIssance Foundation, "Rome Call for AI Ethics."

digital space well ahead of any physical or material connection. This raises many interesting theological questions for Christians, who affirm a materially based and incarnational view of reality. By "materially-based" we mean that in Christianity, matter matters. Because mainstream Christian thought rejected the spiritualized, disembodied approach of Gnosticism in favor of stressing the goodness of the material creation and the central mystery of the Word-become-flesh, it has always been nervous about the disembodied nature of the digital world and the identities and communities that are created there. Think, for example, of the flurry of theological comments that arose in light of the global pandemic and the consequent shifting of worship into a digital space. How do we "go to church" online? How are we present to each other in a Zoom meeting? Most seem to agree that the physically distanced conditions created by the global pandemic have forced churches not only to introduce "emergency measures" to stay connected online but also that church life post-COVID will significantly change as a result of lessons learned from new digital practices and experiences.

The question of digital identities is also of great importance for Christians. Social media, in particular, is a place where personal identities are formed and curated. To what extent are our online identities congruent with our "real" identities? And what of social media etiquette? It seems that social media brings out the best and the worst in human nature as cooperative and supportive activities sit right alongside the worst kind of bullying, hate speech, misogyny, homophobia, misinformation, and dissemination of flaky conspiracy theories, with Christians often seeming to be the worst culprits (or at least just as bad as everybody else). Part of the problem is that social media platforms encourage us to think that our viewpoints and opinions are of such importance and value to the world that they simply must be shared. (This is particularly intoxicating to preachers who are always looking for an audience.) In expressing ourselves so frequently we sometimes forget that social media platforms are not just sites of private opinion but also of public pillorying; in that intersection of the public and the private, we can find ourselves entangled in toxicity and malice. Little wonder that many Christians find that a periodic "fast" from social media is a necessary spiritual discipline, or that opting out altogether is the best choice for them.

Another set of concerns arises out of the increasingly sophisticated technology behind "Big Data," defined as "extremely large data sets that may be analyzed computationally to reveal patterns, trends, and

associations, especially relating to human behavior and interactions."[10] It is these data sets that enable companies to identify consumer buying patterns and target them with their products. You may have purchased an item online and then noticed that, almost immediately, advertisements for related products begin to pop up on your Facebook feed. That is Big Data at work in a closely-knit alliance with consumer capitalism. This is often experienced as if, "someone is watching me," but this is only true in a metaphorical sense, since this information is generated by an automated set of algorithmic zeroes and ones. There is no "evil genius" sitting at a computer terminal watching what you buy, or what movies you watch, or whether you "like" more memes that support conservative or progressive values. However, there certainly are real people in the businesses and corporations on the receiving end of such data who want to use it in ways that directly affect our lives.

Digital natives who have grown up with this technology have accepted what older people might consider the invasion of privacy as a small price to pay for the obvious benefit and convenience that Big Data brings. If you grew up carrying a street directory in your car, you had to learn to read road maps in order to arrive at your destination. Now the built-in GPS system in your car will guide you exactly to where you want to go (and in a pleasant voice) without having to balance a map turned upside down on the steering wheel. The fact that the GPS "knows" exactly where you are at all times seems to be a small price to pay for the convenience gained.

Theologians, philosophers, and ethicists need to think carefully about the era of Big Data especially around questions of hermeneutics (the theory of interpretation). What worlds of meaning are being constructed in the digital worlds with which we engage on a daily basis? How do we balance our privacy needs with our desire for the convenience and creative opportunities that digital technology enables and enhances? What strategies should governments, media outlets, educational institutions, churches, and other agencies put in place to preserve the values and behaviors that contribute to healthy, cohesive, and compassionate societies? Or should such agencies remain out of that process, leaving such choices entirely up to the individual?

One of the ways that digital technology is used maliciously is in the creation and distribution of "deep fakes"—digitally created images and videos that are becoming increasingly more sophisticated and difficult to

10. McAfee and Brynjolfsson, "Big Data."

distinguish from the real thing. In an era in which trusted mainstream media is dismissed by political leaders as "fake news" and where media start-ups do not always have well-developed moral scruples, but have access to the distribution of content on a massive scale, it is little wonder that people are becoming confused about what can be trusted in the media space. Paul Ricoeur's concept of a "hermeneutic of suspicion" is helpful when applied to the new digital landscape.[11] A "hermeneutic of suspicion" questions the meaning of any discourse and asks questions about "what's really going on" behind it. What are the hidden purposes, agendas, and power plays that underlie any and every piece of information we encounter on the Internet? What remains hidden from view lest it disrupt the intended narrative of the text and how might we unmask that? In an age in which digital media is so easily manipulable, a hermeneutic of suspicion is made perhaps more necessary than ever.

Christians should consider technology among the good gifts of God, a gift that draws on divinely given knowledge, wisdom, and skill for the benefit of creation. Like all divine gifts, however, a danger lies in their misuse and misapplication arising out of the fallenness of the human condition and the debilitating impact of sin on all human endeavor. Technology is power, and power is a seductive capacity that is open to prideful and idolatrous misuse. Jesus taught us to be "harmless as doves" but also "wise as serpents" (Matt 10:16). The appearance of increasingly sophisticated forms of AI will require us to seek this wisdom with ever greater urgency. We need not be fearful, however, because we also see divine purpose in the development of that same technology, especially in its therapeutic applications and in its capacity to address real human problems. To the extent that advanced technology contributes to human flourishing which will find its ultimate fulfillment in the new creation, we may embrace it with gratitude as a good gift of God.

Negotiating the Posthuman Future

Michel Foucault famously said that "man is an invention of recent date."[12] What he meant by this was that the category of "humanity" only came into focus during the modern period when "man" came to be thought of as both a subject and an object. When Descartes said, "I think, therefore I

11. Ricoeur, *Freud and Philosophy*, 32.
12. Foucault, *Les mots et les choses*, 387.

am" he was speaking (in a manner foreign to the classical world) of a human being as one who is simultaneously a transcendental subject and an empirical object. It is this "epistemological human" that Foucault believed to be of recent invention. Where Humanists had believed passionately that human beings generated knowledge more or less innately out of "human nature," posthumanists have generally followed Foucault in holding that the very idea of something called "human nature" is derived from structures that are policed and controlled by social power. No "essential human nature" can be found outside of this system of power and control. This move has had the effect of dislodging the concept of "humanity" from its hegemonic power at the center of rational discourse. N. Katherine Hayles, a postmodern literary critic at Duke University, argues, similarly to Foucault, that there is no fixed notion of "the human"; it is simply a concept produced by modernity. The "posthuman" comes into being with the coproduction of human and machine intelligence. She conceives of the human body as a kind of prosthesis of the mind, so that bodily existence is equivalent to a computer simulation.[13]

Responding to posthumanism can be challenging, partly because the term is used in a number of different ways. For some, it sits under the broader category of transhumanism. For others, it is an entirely different, almost opposing philosophy to transhumanism. philosophical posthumanism, critical posthumanism, and cultural posthumanism are not exactly the same thing, though they are all thrown up by posthuman ideas.[14] Complicating things further, some of the thinkers who are identified with posthumanism, including Friedrich Nietzsche, Jacques Derrida, or Michel Foucault, did not identify themselves as "posthumanists," even though their ideas are often drawn on in posthumanist discourse. Was Nietzsche's concept of the *Übermensch* (Overman) (an ideal form of the human with this- world, more than next-world concerns) a transhuman, posthuman, or antihuman construct? Perhaps it was a little of all three, but Nietzsche was not himself a "posthumanist," even if his ideas anticipated posthumanism in many respects. This is especially so if we consider philosophical posthumanism as a natural development of postmodernism.

It is important to remember that posthumanist thought is not "antihuman." Dislodging human beings from the center of discourse is not only good for the planet; it is good for human beings as well. People flourish

13. Hayles, *How We Became Posthuman*.

14. For a helpful guide to the various terms see Sorgner, *On Transhumanism*, 31–56.