perhaps I was ready to accept help from whatever source was available. But it makes me very thankful, when I try to imagine being helped by a robot, to have had the opportunity to interact with caring human beings whose compassion and understanding I can be confident was genuine.

Overall, I found *The Robot Will See You Now* to be a very thoughtful and well-written book, and I would recommend it to readers interested in reflecting on the interplay between artificial intelligence — both the technology and the philosophical or cultural ideas associated with that technology — and our ideas and assumptions about what it means to be human. The concern mentioned above, about how engineers or software developers might respond to the book, should not be interpreted as criticism. My hope is that Christian computing professionals would in fact be receptive to a book like this and would think carefully about the long-term impact of their work on how people understand themselves and their relationship to technology.

Reviewed by David Owen, Associate Professor of Computer Science at Messiah University, Grantham, PA 17055.

RELIGION AND THE TECHNOLOGICAL FUTURE: An Introduction to Biohacking, Artificial Intelligence, and Transhumanism by Calvin Mercer and Tracy J. Trothen. Cham, Switzerland: Palgrave Macmillan, 2021. 266 pages. Paperback; $43.93. ISBN: 9783030623586.

Christians understand the world in terms of history. They look back to the creation and the Fall, are encouraged by the unfolding story of God's plan to redeem his people, and they look forward to the Second Coming, the resurrection of the dead, and the eschaton. But Calvin Mercer and Tracy J. Trothen claim: "The religions of the world will come to an end, or thrive, depending on how they respond" to the challenges of emerging human enhancement technologies (p. 3). Really? An existential threat to Christianity? Is such a threat possible? And if the Holy Spirit is working through today's church, how could "human enhancement technologies" affect its thriving?

To begin, it is necessary to note the first word of the book's title: religion. Mercer and Trothen are professors of religious studies at secular schools, East Carolina University and Queen's University, respectively. In such programs, religions are often reduced to social and cultural phenomena. They are important in human history, culture, international affairs, and other fields, but their internal details, such as their central god(s), are of secondary importance.

Serious Bible-believing Christians *are* interested in how the church and the gospel are received in the world, but the authors' *exclusive* focus on externals may be unsettling. So, what are Mercer and Trothen up to?

Like others, Mercer and Trothen call attention to how futuristic technologies challenge conventional beliefs, including central elements of Christian theology, such as the doctrine of human beings made in the image and likeness of God, the *imago Dei*. Indeed, through Part I, chapters 1–4, they project how future technology will interact with — and threaten — two broad categories of religious faith: monotheistic and karmic. Chapter 3 explores basic concepts of these faith categories and the technological enhancements they will encounter.

In Part II, chapters 5–7, the authors survey the potential for techno-religious conflicts and synergies. And in Part III, chapters 8–10, they introduce "radical" enhancements: cryonics, mind uploading, and artificial superintelligence. Finally, in Part IV, chapter 11, Mercer and Trothen reiterate their main points, with special emphasis on their claim that "the future of religion and the welfare of society in general depends in part on how religions address radical human enhancement in the coming years" (p. 226).

Religion and the Technological Future was written as a textbook. All eleven chapters end with "Questions for Discussion," most requiring students to judge whether some development would be good or bad. No doubt, such exercises would test students' ethical reasoning, so the book may serve the pedagogical work of Mercer and Trothen. However, its shortcomings make it unsuitable for other audiences.

Readers with serious religious commitments will doubt the need to adjust their beliefs to accommodate technological change. Mercer and Trothen are aware of this fact; they frequently note that religious conservatives are less open to change. But history shows that change does occur, sometimes driven by conservatives willing to sacrifice stability in order to preserve what they value more. Indeed, with sufficient reasons, today's religious conservative could be tomorrow's revolutionary. Such a shift could occur within one religious worldview, its internals shaping how believers view external affairs and act to produce change.

Mercer and Trothen understand that religious reasoning is important, but they offer no direct doctrinal evidence why technology is a substantial threat to

beliefs, let alone an existential one. Chapter 3 (titled "Transhumanism, the Posthuman, and the Religions: Exploring Basic Concepts") is only 24 pages long; five pages offer definitions of transhumanism and posthumanism, and the last page lists discussion questions. So, the authors attempt to characterize the world's major monotheistic and karmic religions *in only 18 pages*. In-depth doctrinal arguments are needed, but they offer only thin and disappointing caricatures of belief systems that are held dear by most of the human race. Religion scholars may find this interesting, even compelling, but it will leave true believers cold.

Leaving undone the hard work of defining criteria by which the faithful in one tradition or another would judge technological enhancements, Mercer and Trothen speculate about the future using an ill-conceived conservative-to-liberal continuum. Where depth is needed, tautologies take center stage. In effect, they make the simplistic argument that some people will resist enhancement technologies because unspecified religious or political convictions make them resistant.

Religion and the Technological Future offers an intriguing view of the future, but it assumes that technoscientific progress will come with an oppressive loss of control. Yes, heartfelt faith traditions will, in one way or another, be changed by emerging technologies, but is it inevitable that believers will face an existential crisis? And if emergent technologies actually threaten what people truly value, will they not be rejected?

Consider nuclear weapons. After Hiroshima and Nagasaki, the accelerating arms race cast a dark shadow over civilization. Books and movies such as *Fail-Safe* and *On the Beach* left little room for hope. Then, in 1964, *Dr. Strangelove* flipped the narrative, presenting "The Bomb" as a ridiculous farce. People and societies adapted to the existence of nuclear weapons and moved on with life. Will they not also adapt to whatever the technological future brings?

In this century, advanced robots, computer systems, and who-knows-what will certainly emerge, but God is everlasting, and he promises that believers will have everlasting life. So, let his will be done, *on Earth as it is in heaven*, notwithstanding whatever dark shadows of change may come.

Reviewed by David C. Winyard Sr., Department of Engineering, Grace College and Seminary, Winona Lake, IN 46590. ◀

Agriculture: An Industrial Paradigm or an Ecological Paradigm

I read with interest Terry Gray's "Pronuclear Environmentalists: An Introduction to Ecomodernism" (*PSCF* 73, no. 4 [2021]: 195–201) and found the article very informative. Gray advocates for increased intensification of agriculture, arguing that this will free up other land for wild nature. However, the impacts of such intensification will not and cannot remain localized.

I grew up in Iowa, where the native tall grass prairie ecosystem was replaced by one of the most intensively industrial agricultural regions on the planet. Grassland flora and fauna are now among the most at risk on the continent. The deep prairie loam soils have been greatly reduced in depth and become compacted by heavy machinery. Fertility is largely maintained by inputs of fossil-fuel based synthetic fertilizers. Flooding impacts have intensified due to the loss of most of Iowa's grasslands and wetlands. Water quality due to agricultural use is a major issue in Iowa and throughout the Mississippi River watershed.

Hope lies in the application of techniques (such as in-field prairie strips and wetland restoration) to soften these impacts. But more fundamentally, agriculture needs to move from an industrial paradigm that treats land as just an economic asset to an ecological paradigm which recognizes the land as a gift from the Creator and treated accordingly.

Lynn Braband
ASA member

Called to a God-Centered Garden or City?

Thank you to Lynn Braband for his response to my article (Terry Gray, "Pronuclear Environmentalists: An Introduction to Ecomodernism," PSCF 73, no. 4 [2021]: 195–201). Admittedly, he was responding only to a near peripheral comment, but one that in some ways engages the heart of the article. I sense a "back to the Garden" spirit in his comments and especially in the last sentence. I will not deny the several problems with industrial agriculture that he points to, but the solutions to these are not to return to a de-industrialized agriculture. The productivity of modern agriculture is a necessary development and is fully consistent with a Christian stewardship view of creation which is not a mere preservation of God-created and wild nature. It includes development