

# EDITORIAL

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Brain-Computer Interface devices (BCIs) are among the many emerging issues of our modern age, an era Michael Slesman has termed “Bioethics 2.0.” Whereas Bioethics 1.0 centered on questions of life and death, Bioethics 2.0 addresses the vast and global impact of rising technologies and the possibility of “redefining” what it means to be human.<sup>1</sup>

As Elon Musk’s company Neuralink plans high-volume brain implantation of BCIs in 2026,<sup>2</sup> it is pertinent for Christian bioethicists to consider the ethical implications of such technology. This themed issue of *Dignitas* seeks to raise key questions and initiate dialogue toward a robust Christian exploration of the topic, probing such matters as BCIs’ ability to promote or inhibit virtue, the relationship between the brain and the mind in its consideration, and the impacts of a Christian understanding of *Imago Dei* on its implementation. Each author has sought to avoid the extremes of technophilia and technophobia, instead probing key questions related to theological anthropology and how such truths should

inform our use of BCIs to heal and not harm.

Also included in this issue, guest writer Richard Townsend provides a review of Michael Egnor and Denyse O’Leary’s *The Immortal Mind: A Neurosurgeon’s Case for the Existence of the Soul*. Heather Zeiger, CBHD’s Research Analyst, keeps us informed on key bioethical news items and global health headlines. The wisdom of keynote speakers from CBHD’s 2025 annual conference, *Living in the Biotech Century: The First 25 Years*, has been collated by Operations & Events Manager Bryan Just.

As the first in our articles exploring the ethics of Brain-Computer Interface (BCI) technology, Laura A. Cheshire investigates the implementation of BCIs (also called “Brain-Machine Interfaces” or “BMIs”) in light of a virtue-ethic approach. In “Neuroengineering Hope and Harm: Ethical Dilemmas of Brain-Machine Interfaces,” Cheshire asserts, “rapidly evolving technology requires an enduring, biblically grounded ethical framework that can guide us in ascertaining how the technologies in

question may impede or promote virtue, and consequently, human flourishing.” She traces the technology’s history back to the 1970s and its development for research purposes. Due to brain neuroplasticity and advances in technology, BMIs can now bridge cognitive activity and physical interaction with the world. Thus, Cheshire probes such topics as physical safety, brain-to-brain interfacing, and cognitive enhancement to discern potentials for both hope and harm based on a Christian understanding of human flourishing. The virtues of love and stewardship, anchored in an understanding of humans as the *Imago Dei*, in contrast to a transhumanist vision of the human person, undergird her analysis. Cheshire commends the possibility of restorative intervention with proper ethical boundaries and cautions against cognitive enhancement anchored in a transhumanist definition of being human.

William P. Cheshire provides a foundational analysis of the question, “What is the brain in relation to the mind?” Only with due consideration to such a question can one begin to grapple with the ethics of BCIs. He “defends the thesis that satisfactory answers to the difficult ethical questions

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Anna Vollema and Matthew Eppinette, “Editorial,” *Dignitas* 32, no. 3-4 (2025): 1-2. © 2025 The Center for Bioethics & Human Dignity

raised by BCIs are to be found in a nonreductive understanding of human nature that recognizes that we are more than just physical matter.” Exploring how the brain and BCIs interact, Cheshire notes ways this technology is incapable of fully expressing human thought and behavior. He then reviews the theological concept of the *Imago Dei*, emphasizing that it should not be reduced to merely physical properties but represents a relational dynamic with one’s creator and savior. Describing the philosophy of substance dualism—the idea that there exists separate material and immaterial aspects to being human—in contrast to the view that human beings are merely or only physical, material beings, Cheshire promotes dualism as a Christian understanding of the human person. If science is allowed to reduce being human to merely physical properties, the immaterial mind is lost, and metaphysical questions are neglected. These technical, philosophical, and theological aspects of Cheshire’s argument converge to honor the body, mind, and soul in his technological-responsibilist position, an approach that views technology as a non-neutral tool and examines ways in

which it might promote or inhibit human flourishing based on how it is shaped and how it shapes human beings.

Fazale (Fuz) D. Rana focuses on ways BCI technology might be used as a restorative intervention. Considering those diseases or injuries that prohibit a person from fully interacting with the world (for instance, people with locked-in syndrome), the use of a BCI may provide hope when used ethically and responsibly. Wanting to correct the caricature of such technology painted by an oversimplistic critical approach, Rana provides an introduction to the distinction between invasive and non-invasive forms and their medical and nonmedical uses. He then uses these categories to explore brain-to-brain interfacing (BBI) and cognitive enhancement. After summarizing the key ethical concerns with the implementation of BCI technology, Rana turns to exploring personhood and the protection of human dignity. Refuting a functional view of personhood that affords dignity only if certain capacities are present, he asserts that a Christian perspective deems all human beings as possessing inherent worth. When considering the image of

God, Rana suggests that the resemblance, representative/functional, and relational views all describe different aspects of the *Imago Dei*, and they should be integrated. However, he elevates the resemblance view for this article. Emphasizing a holistic dualistic account of the material-immaterial interaction, with the understanding that the mind and the brain interplay with one another, the use of a BCI for a person living with disability enables them to express those aspects of the resemblance view that they were previously unable to. However, he also cautions against wholesale acceptance of this technology, instead encouraging a case-by-case evaluation.

CBHD announced LeTourneau University as its new host school earlier this year. As “The Christian Polytechnic University,” the institution shares our mission to provide theologically rich education in answer to pressing issues in science and technology. In partnership with the school, we will continue to foster dialogue, provide clarity, and produce resources that seek wisdom as we maneuver our ever-advancing Med-Tech world.

## References

1. Michael Sleasman, “Bioethics Past, Present, and Future: Important Signposts in Human Dignity,” *CBHD Resources*, September 30, 2016, [https://www.cbhd.org/cbhd-resources/bioethics-past-present-and-future-important-signposts-in-human-dignity?utm\\_source=chatgpt.com](https://www.cbhd.org/cbhd-resources/bioethics-past-present-and-future-important-signposts-in-human-dignity?utm_source=chatgpt.com). This was a republication from Joni Eareckson Tada, Steve Bundy, and Pat Verbal, *Beyond Suffering: A Christian View on Disability Ministry Study Guide* (Joni and Friends, 2011).
2. Ben Adams, “Neuralink to Kick-Start ‘High-Volume Production’ of Brain-Computer Interface Devices, Elon Musk Says,” *Fierce Biotech*, January 2, 2026, <https://www.fiercebiotech.com/medtech/elon-musks-neuralink-kickstart-high-volume-production-brain-computer-interface-devices>.