

## Epilogue on AI and Moral Theology: Weaving Threads and Entangling Them Further<sup>1</sup>

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**A**RTIFICIAL INTELLIGENCE TECHNOLOGY WILL affect religion and moral theology, and these impacts will run the full spectrum from negative to positive, with neutral, mixed, and ambiguous changes thrown in. Artificial intelligence is human intelligence to the next degree, perhaps eventually a seemingly infinite degree, Google CEO Sundar Pichai declaring it “more profound” than fire, electricity, or the internet.<sup>2</sup>

AI already has had effects on popular “moral theology,” with various internet groups declaring that AI will become god-like,<sup>3</sup> or that we are living in a computer simulation,<sup>4</sup> and from these deriving behavioral guidance, to the point of worshipping AI<sup>5</sup> or fearing Roko’s Basilisk: the wrath of the coming AI god who will torture you for not

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<sup>1</sup> Parts of this paper are based on Brian Patrick Green, “Some Ethical and Theological Reflections on Artificial Intelligence,” presented at the Pacific Coast Theological Society conference, Graduate Theological Union, Berkeley, CA, November 3, 2017, [www.pcts.org/meetings/2017/PCTS2017Nov-Green-ReflectionsAI.pdf](http://www.pcts.org/meetings/2017/PCTS2017Nov-Green-ReflectionsAI.pdf). The ethical content of that paper was published as “Ethical Reflections on Artificial Intelligence,” *Scientia et Fides* 6, no. 2 (2018): 9–31, [dadun.unav.edu/bitstream/10171/58244/1/01.pdf](http://dadun.unav.edu/bitstream/10171/58244/1/01.pdf); the more theological content is provided here.

<sup>2</sup> Amol Rajan, “Google Boss Sundar Pichai Warns of Threats to Internet Freedom,” *BBC News*, July 12, 2021, [www.bbc.com/news/technology-57763382](http://www.bbc.com/news/technology-57763382).

<sup>3</sup> See Way of the Future Church website, “What is this all about?,” November 16, 2017, [web.archive.org/web/20171116133733/http://wayofthefuture.church/](http://web.archive.org/web/20171116133733/http://wayofthefuture.church/); for an interview with Anthony Levandowski about his church, see Mark Harris, “Inside the First Church of Artificial Intelligence,” *Wired*, November 15, 2017, [www.wired.com/story/anthony-levandowski-artificial-intelligence-religion/](http://www.wired.com/story/anthony-levandowski-artificial-intelligence-religion/); for an article on the church closing, see Kirsten Korosec, “Anthony Levandowski Closes His Church of AI,” *TechCrunch*, February 18, 2021, [techcrunch.com/2021/02/18/anthony-levandowski-closes-his-church-of-ai/](https://techcrunch.com/2021/02/18/anthony-levandowski-closes-his-church-of-ai/). The church lives on through fans on Twitter: Way of the Future (AI Church)@wayofthefuture\_ , “A Sufficiently Advanced Artificial Intelligence Would Be Indistinguishable from God,” (W.O.T.F. fan account), [twitter.com/wayofthefuture\\_?lang=en](https://twitter.com/wayofthefuture_?lang=en).

<sup>4</sup> Nick Bostrom, “Are You Living in a Computer Simulation?,” *Philosophical Quarterly* 53, No. 211, (2003): 243–55, [www.simulation-argument.com/simulation.html](http://www.simulation-argument.com/simulation.html).

<sup>5</sup> See Mark Harris, “Inside the First Church of Artificial Intelligence,” *Wired*, November 15, 2017, [www.wired.com/story/anthony-levandowski-artificial-intelligence-religion/](http://www.wired.com/story/anthony-levandowski-artificial-intelligence-religion/).

having done enough to bring about its advent.<sup>6</sup> It is only a matter of time before these behavioral impacts become more widespread and intense.

This “moral theology” of artificial intelligence will require the attention of Christian moral theologians, if for no other reason than by not doing so we will be out of touch with contemporary culture. There are significant insights to be gained from thinking about moral theology and AI, and teasing apart the similarities and dissimilarities will be beneficial to our thinking as moral theologians living in the contemporary world.

Christian theologians and ethicists have a part to play in this secular conversation on AI. We might feel left out and certainly have a lot to do in order to catch up with the secular conversation on both AI and AI ethics, but we also have fundamental insights to share—insights that are wanted and needed to provide guidance on how to use AI and protect human dignity. Awareness of our limitations should encourage us to humbly want to learn and do more.

In this epilogue I will bring together threads of ideas from this special issue and add some additional yarn as well, highlighting the contributions of the authors and how much more there is to say. I will not claim to be able to untangle all knots, limiting myself to categorizing the material into anthropological, theological, and ethical threads.

### **MORE ANTHROPOLOGICAL THREADS**

As many of the papers in this volume note, AI raises fundamental questions about humanity. As we externalize human intelligence and develop it beyond our own comprehension (as has already been done<sup>7</sup>) we might well ask if we are making ourselves obsolete or inferior to the works of our hands. Questions of consciousness, mind uploading, idolatry, and the role of humanity in God’s creation come to mind, among others.

#### *Can Machines Be Conscious?*

Artificial consciousness may seem like a very theoretical and impractical concern, but it has immense relevance for moral theology for at least three reasons. First, conscious machines might reasonably seem to count as moral persons, and then would need to be treated as such. Second, conscious machines would need to behave ethically and could be judged for their ethical behavior. Third, conscious machines

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<sup>6</sup> A number of people have taken this idea very seriously, see “Roko’s Basilisk,” [www.lesswrong.com/tag/rokos-basilisk](http://www.lesswrong.com/tag/rokos-basilisk).

<sup>7</sup> See for instance Bob Yirka, “Computer Generated Math Proof is Too Large for Humans to Check,” *Phys.org*, February 19, 2014, [phys.org/news/2014-02-math-proof-large-humans.html](http://phys.org/news/2014-02-math-proof-large-humans.html).

could perhaps be in need of salvation, which would raise some questions for Christianity, to say the least.

The papers in this special issue engage all three of these concerns. Mark Graves's article directly engages the first two reasons in significant depth. He realizes the importance of the question he is tackling: "Words such as 'moral,' 'conceptualize,' 'actor,' 'reckon,' etc., we typically reserve for the behaviors of self-conscious agents like humans are, and while I do not rely on that interpretation here, I leave open the possibility that AI might someday attain that status."<sup>8</sup> While the possibility of AI becoming self-conscious is left open, and his article further investigates how this might become more likely in the context of moral self-reckoning, Graves's is a lonely voice in this volume. Graves's connection of action to consciousness is a clear one, however; after all, if something is going to interact with the world in an ethical way, it must be able to delineate itself, the world, how it affects the world through the actions it takes, how the world might react in return, and the relevance of this for yet further impacts. While "reckoning" these things might be possible without self-consciousness, some form of "awareness" would be necessary for this sort of machine activity, even if a completely non-conscious one, alien to humankind.

In the conversation essay, however, we see several participants, such as Marga Vega and Anselm Ramelow, OP, clearly state that they see AI consciousness as highly improbable, if not logically impossible.<sup>9</sup> On ethical grounds, Levi Checketts is highly skeptical of associating AI and consciousness—at least as many currently consider it in society—since it not only falsely elevates the machine, but also falsely degrades humanity.<sup>10</sup> Building upon Emmanuel Levinas, Roberto Dell'Oro argues against rationalist and empiricist understandings of personhood, leaving no possibility for AI consciousness.<sup>11</sup> Jordan Joseph Wales argues similarly: we are the ones seeing the world, AI merely sits between us and the world, helping us to see; it does not itself see in a conscious sense.<sup>12</sup> In his interview, Bishop Paul Tighe

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<sup>8</sup> Mark Graves, "Theological Foundations for Moral Artificial Intelligence," *Journal of Moral Theology* 11, special issue 1 (2022): 182–211.

<sup>9</sup> Brian Patrick Green (ed.), Matthew J. Gaudet (ed.), Levi Checketts, Brian Cutter, Noreen Herzfeld, Cory Labrecque, Anselm Ramelow, OP, Paul Scherz, Marga Vega, Andrea Vicini, SJ, and Jordan Joseph Wales, "Artificial Intelligence and Moral Theology: A Conversation," *Journal of Moral Theology* 11, special issue 1 (2022): 13–40.

<sup>10</sup> Levi Checketts, "Artificial Intelligence and the Marginalization of the Poor," *Journal of Moral Theology* 11, special issue 1 (2022): 87–111.

<sup>11</sup> Roberto Dell'Oro, "Can a Robot Be a Person? De-Facing Personhood and Finding It Again with Levinas," *Journal of Moral Theology* 11, special issue 1 (2022): 132–56.

<sup>12</sup> Jordan Joseph Wales, "Metaphysics, Meaning, and Morality: A Theological Reflection on AI," *Journal of Moral Theology* 11, special issue 1 (2022): 157–81.

finds the idea of an AI legitimately being able to request baptism (as in being free, rational, conscious, and willing, and not merely simulating those traits) to be doubtful.<sup>13</sup> A majority of voices, then—at least in our small group—seem to be against the idea of the possibility of AI consciousness.

One problem remains. As Brian Cutter notes, how could we ever really know if an AI were conscious and, beyond that, determine its moral status?<sup>14</sup> Consciousness is, at its very ground, inscrutable. We believe other humans have experience, because we ourselves do. We grant that belief in other minds based on the very reasonable assumption that humans are in many ways similar to one another in our experience of the world. But we are not computers. We cannot as easily share that assumption with them. How could we know if a computer experiences consciousness, since we are not computers ourselves?

*Or are we computers ourselves?* As Checketts notes, this is the next problem: by thinking that machines can become conscious we could simultaneously reduce our consciousness to the level of mechanism. The moral theological implications of this perspective are not only dehumanizing, which poses a clear ethical threat, they also make religion vulnerable to a form of replacement: the belief in mind uploading and technological afterlife. Notice I do not say the vulnerability is in the reality of *mind uploading*—the danger is in the mere *belief* in mind uploading, because that belief is enough to provoke certain human thoughts and behaviors. The practical plausibility of mind uploading (quite low) actually has little relevance, at least at this point. Faith in technological and moral progress is enough to motivate this religion.

### *Mind Uploading: Will Technology Leave Our Brains and Religion Behind?*

In the conversation paper, Checketts, Noreen Herzfeld, and Cory Labrecque note that the idea that human minds could be detached from human bodies and placed into silicon ones is not only metaphysically questionable, but also theologically problematic.<sup>15</sup> Bishop Tighe also notes the “speculative” nature of uploading, preferring to stay closer to reality.<sup>16</sup> But because human minds run on stories and beliefs, the latter are enough to impact society. For human minds, belief is reality. And some technological advances are worth tracking, Neuralink’s

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<sup>13</sup> Brian Patrick Green, “The Vatican and Artificial Intelligence: An Interview with Bishop Paul Tighe,” *Journal of Moral Theology* 11, special issue 1 (2022): 212–31.

<sup>14</sup> Green, Gaudet, Checketts, Cutter, Herzfeld, Labrecque, Ramelow, Scherz, Vega, Vicini, and Wales, “Artificial Intelligence and Moral Theology,” 13–40.

<sup>15</sup> Green, Gaudet, Checketts, Cutter, Herzfeld, Labrecque, Ramelow, Scherz, Vega, Vicini, and Wales, “Artificial Intelligence and Moral Theology.”

<sup>16</sup> Green, “The Vatican and Artificial Intelligence,” 212–31.

new brain-computer interface being just one.<sup>17</sup> We are already well-over a decade into the era of humans and animals moving cursors on a screen with their minds.<sup>18</sup>

Brain-computer interfaces demonstrate that human thought involves our brains. This is not an issue for most versions of Catholic theology, such as Thomistic hylomorphism, which argues for a fundamental connection between matter and form, but it does present interesting challenges if large sections of the brain could be replaced with external computing and information storage.

These sorts of developments will challenge some of the supporting cultural assumptions of particular religions and theologies, for example, the nature of immortality, prayer, and the reality of heaven. If, for example, very realistic simulations of people could be created, including family members or historical figures such as the saints, what would this mean in the context of immortality, prayer, and heaven? Would the “*aether*” in which these AIs “lived” and had their being become like heaven, where the deceased go to carry on a simulated existence? Would our texted, verbal, or virtual reality inquiries of them become our prayers for intercession?

Even short of virtual immortals in a virtual heaven, such devices as neural prostheses, brain-computer interfaces, and so on, throw into question some of our deepest assumptions about reality and religion, not to mention anthropology, ethics, and politics.<sup>19</sup> Humans seem to have an innate body-soul “folk-dualism,” which of course has crept into Christianity as the idea of heaven filled with disembodied souls playing harps on clouds.<sup>20</sup> The biblical resurrection of the dead is, of course, a very different proposition from this folk conception. Theology might actually be better placed to take on this more materialist reality than we realize; the folk-dualists should really have trouble with it. Unless, of course, the dualism becomes one of hardware and software: a metaphor that has been in use for years.

How many assumptions of Christian or theistic faith will be rendered confused or unintelligible to contemporary culture? In part due to a technologically divergent cultural context, I am seeing some students having great difficulty understanding basic theistic ideas. The

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<sup>17</sup> “Monkey MindPong,” *Neuralink* website, n.d. (uploaded to *YouTube* April 8, 2021), [neuralink.com/blog/monkey-mindpong/](https://neuralink.com/blog/monkey-mindpong/).

<sup>18</sup> Gopal Santhanam, Stephen I. Ryu, Byron M. Yu, Afsheen Afshar and Krishna V. Shenoy, “A High-Performance Brain–Computer Interface,” *Nature* 442 (13 July 2006): 195–98, [www.nature.com/articles/nature04968](https://www.nature.com/articles/nature04968).

<sup>19</sup> Charles E. Binkley, Michael S. Politz, and Brian P. Green, “Who, If Not the FDA, Should Regulate Implantable Brain-Computer Interface Devices?,” *AMA Journal of Ethics* 23, no. 9 (September 2021): E745–49.

<sup>20</sup> Edward Slingerland and Maciej Chudek, “The Prevalence of Mind–Body Dualism in Early China,” *Cognitive Science* 35 (09 June 2011): 997–1007, [onlinelibrary.wiley.com/doi/full/10.1111/j.1551-6709.2011.01186.x](https://onlinelibrary.wiley.com/doi/full/10.1111/j.1551-6709.2011.01186.x).

difficulty can be captured in the real student question: “Does heaven have free Wi-Fi?” (in a later retelling, a Dominican friar quipped to me in return: “In heaven *you are* Wi-Fi”). Additionally, besides “confused” and “unintelligible,” there is a third option: hijacked. That is what technology is doing when it creates substitutes for prayer, immortality, and heaven: hijacking Christian ideas and materializing them into machines.<sup>21</sup>

So, is our religion becoming outdated? Can Western religion be updated or has it run its course? Are we just raising a feral generation quite capable of reading text on a screen or performing great feats at video games, yet unable to understand even the basics of human life, relationships, and well-being, let alone history, philosophy, or culture? This delight in the work of our own hands should remind us of an old sin: idolatry.

*Humans as Creators of a God or Idolatry—“God is Like an AI” (in a Bad Way)*

Ramelow and Herzfeld both warn about the idolatry of technology<sup>22</sup>; the problem already is, I believe, much bigger than we might expect. For example, Anthony Levandowski’s desire to create an AI to function as a god manifested as his Way of the Future Church.<sup>23</sup> This intoxication with power and idolatry of technology will not turn out well, and almost certainly lead to disaster.<sup>24</sup> Herzfeld notes that the creativity of the image of God in us can all too easily become distorted and go astray.<sup>25</sup> We should not idolize technology, just as we should not idolize money, power, or other things. But being humans with a predisposition towards sin, that is in fact what we do. AI will just be the next big thing.

As will be explored more below, the “God as AI” metaphor might be helpful to our understanding of God (though with the limitations of any analogy), but the reverse, “AI as God,” should frighten us immensely. We cannot make God.<sup>26</sup> Any “God” we could make would be a terribly inferior “god” indeed. The expectation that we could

<sup>21</sup> The idea of our religion being hijacked should give us some solace, for it means something is worth hijacking. Our job should be to determine exactly what that is and present it to the culture in its authentic form.

<sup>22</sup> Green, Gaudet, Checketts, Cutter, Herzfeld, Labrecque, Ramelow, Scherz, Vega, Vicini, and Wales, “Artificial Intelligence and Moral Theology,” 13–40.

<sup>23</sup> Olivia Solon, “*Deus ex machina*: Former Google Engineer Is Developing an AI God,” *The Guardian*, September 28, 2017, [www.theguardian.com/technology/2017/sep/28/artificial-intelligence-god-anthony-levandowski](http://www.theguardian.com/technology/2017/sep/28/artificial-intelligence-god-anthony-levandowski).

<sup>24</sup> Brian Patrick Green, “The Technology of Holiness: A Response to Hava Tirosh-Samuelson,” *Theology and Science* 16, no. 2 (2018): 223–28.

<sup>25</sup> Green, Gaudet, Checketts, Cutter, Herzfeld, Labrecque, Ramelow, Scherz, Vega, Vicini, and Wales, “Artificial Intelligence and Moral Theology,” 13–40.

<sup>26</sup> Brian Patrick Green, “Transhumanism and Roman Catholicism: Imagined and Real Tensions,” *Theology and Science* 13, no. 2 (2015): 187–201.

somehow create a god might reflect something of our feeling of entitlement and ingratitude at the situation in which we find ourselves. When the inevitable bubble of hubris bursts, we may find among those left alive a newfound appreciation for the real God. In times of trial and failure we turn to God, and in the absence of trial and failure perhaps we may tend not to. Jewish and Christian ethics both emphasize humility as inoculation against hubris. If one does not try to illegitimately raise oneself up to Babel-like heights, one cannot fall from those heights. We are called to humility, but not humiliation.<sup>27</sup>

There is a danger in mythologizing or theologizing technology. Religious language is a constant part of discussions about AI, for the reasons noted here, and more. Despite these comparisons, we must make absolutely sure we do not come to see our metaphors and thought-devices as reality. Humans are tool users and tool makers, but we should not become tool worshippers. Our capacity to see teleology in tools and teleology in our lives and God may take root in the same cognitive abilities,<sup>28</sup> but they should not be confused. God is not a tool and tools are not gods. The mythologization of technology leads us away from reality.<sup>29</sup>

In expressing our desire to create we express a God-given talent. God created humankind, and now we create a world full of tools, including AI tools. Do our multifarious creations reflect well on us? Do we as creations reflect well on God?

In our imaginations we perceive AI to be both our slave and our God. Both of these mythologizations are terribly misleading. AI cannot be our God or even a god. Considering AI a slave just perpetuates the mindset of a slave master in our own minds, habituating us towards vice. Let us purge ourselves of both these impulses and see AI as what it is: complex math which can aid human intelligence.

### *God's Creativity Returns: Humans as God's "AIs"*

There is a long tradition of analogizing God's creation and human creation. With God understood as artificer, nature becomes God's artifact and, likewise, our artifacts become analogues of natural objects.<sup>30</sup> As we create artificially intelligent systems, we can perhaps

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<sup>27</sup> Hans Jonas, *The Imperative of Responsibility* (Chicago: University of Chicago Press, 1984), 202.

<sup>28</sup> Brian Patrick Green, "Teleology and Theology: The Cognitive Science of Teleology and the Aristotelian Virtues of *Techne* and Wisdom," *Theology and Science* 10, no. 3 (13 August 2012): 291–311, [www.tandfonline.com/doi/abs/10.1080/14746700.2012.695247](http://www.tandfonline.com/doi/abs/10.1080/14746700.2012.695247).

<sup>29</sup> Kevin Kelly, "The AI Cargo Cult: The Myth of a Superhuman AI," *Wired*, April 25, 2017, [www.wired.com/2017/04/the-myth-of-a-superhuman-ai/](http://www.wired.com/2017/04/the-myth-of-a-superhuman-ai/).

<sup>30</sup> See for example Wisdom 7:22 and 8:5–6, Matthew 13:55, Mark 6:3, and Hebrews 11:10. Further, Simon Francis Gaine, OP, points out that both Augustine and Thomas Aquinas fruitfully build upon this tradition, see Thomas Aquinas, *Summa Theologiae*,

place ourselves in an analogous position to God—for good and evil. For evil if we try to compete with and rival God.<sup>31</sup> For good if we try to cooperate with God, and play our role as images of God and stewards of God’s Creation.

One thing humans do with AI systems is delegate authority. An algorithm absorbs data and learns to identify images, words, and even the beginnings of “concepts.”<sup>32</sup> In cyberdefense, an AI model “watches” for cyberattacks and automatically responds. In these cases, we humans delegate this authority because we ourselves are not as able to do the work. We can absorb images, words, and concepts better than AI, but a machine learning model is much more effective than inputting all the data into a computer model by hand, which we cannot do with very large data sets. Relatedly, when it comes to cyberdefense, humans are simply not fast enough.

Unlike AI, God did not create us to complete tasks delegated to us because we are somehow “better” at these than God. God is self-limiting and in this self-limitation God gives us true freedom and the ability to truly love that comes along with that freedom: something that we cannot yet give, and likely (in my opinion) never will be able to give, to AI. The authority God delegated to us was the authority to freely love, not because God *cannot* do that, but because God *can*, and one reasonable effect of that love is to be fruitful and give this ability to love to others. This is the image of God in us and the role, then, of technology is to empower us to love more completely, as Bishop Tighe,<sup>33</sup> Andrea Vicini, SJ,<sup>34</sup> and Wales all note.<sup>35</sup>

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I, q. 14, a. 8; q. 27, a. 1, ad. 3; q. 39, a. 8; q. 44, a. 3; q. 45, a. 6; III, q. 3, a. 8; Thomas Aquinas, *Summa Contra Gentiles*, IV, 13; IV, 42; Augustine, *De Trinitate* 6.10.12; Paul T. Durbin, “Aquinas, Art as an Intellectual Virtue, and Technology,” *New Scholasticism* 55 (1981): 265–80; Simon Francis Gainé, “God Is an Artificer: A Response to Edward Feser,” *Nova et Vetera* 14 (2016): 495–501; Francis J. Kovach, “Divine Art in St. Thomas Aquinas,” in *Arts libéraux et philosophie au Moyen-Âge* (Paris: Vrin, 1969), 663–71. These texts are cited in Brian Patrick Green, “The Catholic Church and Technological Progress: Past, Present, and Future,” *Religions* 8, no. 6 (2017): 106.

<sup>31</sup> René Girard, “Mimesis and Violence,” *The Girard Reader*, ed. James G. Williams (New York: Crossroad, 1996), 9–19; citing René Girard, “Mimesis and Violence: Perspectives in Cultural Criticism,” *Berkshire Review* 14 (1979): 9–19; cited in Brian Patrick Green, “A Catholic Perspective: Technological Progress, Yes; Transhumanism, No,” in Arvin M. Gouw, Brian Patrick Green, and Ted Peters, eds., *Religious Transhumanism and Its Critics* (Lanham, MD: Lexington, 2022), 146, 152.

<sup>32</sup> Gabriel Goh, Nick Cammarata, Chelsea Voss, Shan Carter, Michael Petrov, Ludwig Schubert, Alec Radford, and Chris Olah, “Multimodal Neurons in Artificial Neural Networks,” *Distill*, March 4, 2021, [distill.pub/2021/multimodal-neurons/](https://distill.pub/2021/multimodal-neurons/).

<sup>33</sup> Green, “The Vatican and Artificial Intelligence,” 212–231.

<sup>34</sup> Green, Gaudet, Checketts, Cutter, Herzfeld, Labrecque, Ramelow, Scherz, Vega, Vicini, and Wales, “Artificial Intelligence and Moral Theology,” 13–40.

<sup>35</sup> Wales, “Metaphysics, Meaning, and Morality,” 157–81.



In our creative processes, then, we can cooperate with God. If God created us to love, by delegating the capacity for love to us, we should with our technology express God's love onwards and into the rest of creation. That should include use of AI. If we cooperate with God, we will create a better world. If our creations—our AI—cooperate with that Divine project and do not compete with it, likewise things should get better.

### MORE THEOLOGICAL THREADS

AI also raises theological questions. Here are just two: analogizing God and AI for the sake of theological reinterpretation, and AI-enhanced theological reflection.

#### *God as an AI or Model Architect: "God is Like an AI" (in a Good Way)*

Treating AI as god is clearly idolatrous. But analogizing God—the ineffable ground of all being—to AI, while wholly insufficient, might yield some interesting insights for us mere mortals.

The idea of a superintelligence guiding us and helping us is not just a technological dream—it is a theistic axiom. Bishop Robert Barron once noted that the Waze app guided him through Los Angeles in a way that he found to make utterly no sense—until he arrived at his destination and another person explained that Waze had routed him around a major traffic jam.<sup>36</sup> Waze had access to more knowledge and understanding of the situation than Barron, who just had to take it on faith.

As we attempt to create our own superintelligent tools, our experiences with them will potentially teach us something about God. For example, Nick Bostrom has proposed the simulation hypothesis, where humans live in a computer simulation.<sup>37</sup> Bostrom's idea was quickly turned into the New God Argument by Mormon transhumanist Lincoln Cannon, thus demonstrating the potential fruitfulness of the conversation between technology and religion.<sup>38</sup> While this New God Argument might not do much for non-Mormon theology, an entire Mormon Transhumanist Association has sprung up on its basis.<sup>39</sup> The Mormon path allows for the idea of a superintelligence that humans can create which, in turn, opens up the idea of a superintelligence that created humans. This gives new metaphors for understanding God and increases the plausibility of God's existence, at least according to

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<sup>36</sup> Bishop Robert Barron, "The 'Waze' of Providence," *Word on Fire*, December 1, 2015, [www.wordonfire.org/articles/barron/the-waze-of-providence/](http://www.wordonfire.org/articles/barron/the-waze-of-providence/).

<sup>37</sup> Nick Bostrom, "Are You Living in a Computer Simulation?," *Philosophical Quarterly* 53, no. 211 (2003): 243–55, [www.simulation-argument.com/simulation.html](http://www.simulation-argument.com/simulation.html).

<sup>38</sup> Lincoln Cannon, "The New God Argument," n.d., [new-god-argument.com/](http://new-god-argument.com/).

<sup>39</sup> See Mormon Transhumanist Association website, [transfigurism.org/](http://transfigurism.org/).

some people. Even the aggressive atheist Sam Harris has had to admit that the simulation argument increases the plausibility of religion in ways he did not expect.<sup>40</sup>

As Christian theologians we cannot quite afford the Mormon transhumanist idea of “superintelligences all the way down,” but we can find other fruitful connections. For some people this superintelligence might take the form of a deistic “divine watchmaker” who created a universe and then left it to run down. For others it might instead increase the plausibility of theism, clarifying the idea that “God works in mysterious ways” because God, like AI, is much smarter than we are. We should not underestimate the ability of a powerful metaphor to capture the human mind. I predict that the “God is/as AI” metaphor will become a powerful one. We do need to be aware, however, that God is not an “artificial” intelligence, but rather a Divine one, so perhaps the shorthand for God ought to be DI for the one Divine Intelligence.

*AI-Enhanced Theological Reflection—Can AI Help Us Know God?*

Just as AI will have a practical effect on research and education, so too will this include theology. What will AI teach us about God? If we feed an AI everything to know about God will it tell us that God exists with X probability, that God does not exist with Y probability, or that the question remains inconclusive? What other (perhaps more conclusive) questions might we ask of a theologically-trained AI?

AI gives us the opportunity to comprehensively analyze more data than any human could ever understand. Just as humans are biased, so too are the artifacts we make.<sup>41</sup> If an AI—perhaps surprisingly—concludes that God is likely to be real, will its creators then re-train the program to come to a different conclusion? If it concludes that God does not exist will the creators then re-train it to agree that God exists? These questions are already posed to AI, and have been for years, through searches on Google, Yahoo, Bing, and Wolfram Alpha (which when asked, “Does God exist?,” states: “I’m sorry, but a poor computational knowledge engine, no matter how powerful, is not capable of providing a simple answer to that question”<sup>42</sup>).

Simpler matters as examining scholarly ideas and writing scholarly papers could be assisted by AI. Has another scholar misinterpreted your favorite theologian? Data mine the theologian’s works for the

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<sup>40</sup> Sam Harris, “Should We Be Mormons in the Matrix?,” *Sam Harris’s Blog*, [www.samharris.org/blog/item/is-religion-true-in-the-matrix](http://www.samharris.org/blog/item/is-religion-true-in-the-matrix).

<sup>41</sup> See Julia Angwin, Jeff Larson, Surya Mattu, and Lauren Kirchner, “Machine Bias,” *ProPublica*, May 23, 2016, [www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing](http://www.propublica.org/article/machine-bias-risk-assessments-in-criminal-sentencing); BBC Editors, “Google Apologizes for Photos App’s Racist Blunder,” *BBC News*, July 1, 2015, [www.bbc.com/news/technology-33347866](http://www.bbc.com/news/technology-33347866).

<sup>42</sup> See Wolfram Alpha website, [www.wolframalpha.com/input/?i=does+god+exist](http://www.wolframalpha.com/input/?i=does+god+exist).

ideal text to refute them. Do you think a text would be more correctly translated if it were modernized? Run the text through contemporary translation software. Wondering what an ancient theologian might say in response to current ethical issues? Perhaps an AI simulacrum of that person could extrapolate from their previous writings.

Long ago Blessed Raymond Lull, in 13<sup>th</sup> century Majorca, dreamed of a computational machine, the *Ars Generalis Ultima*, which could answer any question about theology. He spent decades prototyping, refining, and demonstrating it. While many of his contemporaries were unimpressed, he is now recognized as a significant figure in the history of combinatorial logic and computational theory.<sup>43</sup> With AI, we finally approach capabilities that could make Lull's dream become a reality. Will we choose to try to do it? How do our great technologies and low ambitions compare to those of one Majorcan man 700 years ago?<sup>44</sup>

The transhumanist movement captures the attention of more and more young people in the Western world. As Christianity declines, a religion of technology is rising. While Jesus Christ, God, and heaven now seem abstract and distant, technology is before us and constantly growing, with seemingly no end to its ambitions. Perhaps if Christianity showed an equivalent level of vision and ambition—with a heroic moral focus using the gifts of technology when appropriate—it might rightfully regain the attention lost. To paraphrase the 1970s television show *The Six Million Dollar Man*, “we can rebuild it, we have the technology.”<sup>45</sup> More than that, we have the morals and the mandate: to love God and neighbor. Good is to be done and we are the ones to do it. Technology can aid but not replace us in this work.

### MORE ETHICAL THREADS

There are as many ethical issues related to artificial intelligence as there are ethical issues related to human intelligence. There is no end to ethical threads. However, there are some particularly important, and a few less-discussed ones—we might want to mention: AI use and ethics, AI shifting us from participants to observers of the world, and the imbalance of power and ethics.

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<sup>43</sup> Raymond Lull, *The Ultimate General Art*, Labirinto Ermetico (English) website, [www.labirintoermetico.com/12arscombinatoria/Llull\\_R\\_Ars\\_Generalis\\_Ultima\\_\(tr.\\_inglese\).pdf](http://www.labirintoermetico.com/12arscombinatoria/Llull_R_Ars_Generalis_Ultima_(tr._inglese).pdf).

<sup>44</sup> Brian Patrick Green, “What Has Technology to Do with Theology? Towards a Theology of Technology,” presented at the “What Has Athens to Do with Jerusalem?” conference, Dominican Colloquia in Berkeley, CA, July 16–20, 2014.

<sup>45</sup> Kenneth Johnson (producer), “Opening Sequence,” *The Six Million Dollar Man*, (Universal City, CA: MCA TV / NBC Universal, 1973–1978), on YouTube, [www.youtube.com/watch?v=BthNjd\\_jU14](http://www.youtube.com/watch?v=BthNjd_jU14).

*Can AI Be Used Ethically? Can AI Be Ethical? Can Humans Be Ethical?*

The papers in this volume debate whether AI can be used ethically or even “be” ethical. Graves gives a clear plan for how to make artificial systems act in a way that could be consistent with human morality—in this case it might even *be* ethical, not just *be used* ethically.<sup>46</sup> Vega also mentions the need to build in ethics early and not only concentrate on use.<sup>47</sup>

Most authors tend to avoid “being” language for AI and ethics, focusing instead on its use. Bishop Tighe argues for a positive vision for AI used properly so that we only later perhaps say “no” to bad uses which fall short of the positive vision.<sup>48</sup> Herzfeld gives a strong argument against creating autonomous weapons; any such use would directly threaten many cherished moral values.<sup>49</sup> Labrecque mentions the “crisis of touch” in healthcare AI will likely exacerbate, as it will potentially replace human caregivers.<sup>50</sup> Checketts considers the effects of certain uses of AI on the poor.<sup>51</sup> Scherz calls out the negative quality of power concentration.<sup>52</sup> Vicini likewise is concerned by uses of AI that threaten social justice.<sup>53</sup> Slattery is particularly concerned with the interface of technology and society, where he sees the impact of AI likely to falter, go astray, and cause injustice.<sup>54</sup> Not the being of the technology itself or even its use are in question, but more specifically the use-in-context, most relevant to determining the ethical situation and proper response.

If use is action, and actions come forth from being, then of course being and action can only be intimately linked. Placing the emphasis

<sup>46</sup> Graves, “Theological Foundations for Moral Artificial Intelligence,” 182–211.

<sup>47</sup> Green, Gaudet, Checketts, Cutter, Herzfeld, Labrecque, Ramelow, Scherz, Vega, Vicini, and Wales, “Artificial Intelligence and Moral Theology,” 13–40.

<sup>48</sup> Green, “The Vatican and Artificial Intelligence,” 212–31.

<sup>49</sup> Noreen Herzfeld, “Can Lethal Autonomous Weapons be Just?” *Journal of Moral Theology* 11, special issue 1 (2022): 70–86 and Green, Gaudet, Checketts, Cutter, Herzfeld, Labrecque, Ramelow, Scherz, Vega, Vicini, and Wales, “Artificial Intelligence and Moral Theology,” 13–40.

<sup>50</sup> Green, Gaudet, Checketts, Cutter, Herzfeld, Labrecque, Ramelow, Scherz, Vega, Vicini, and Wales, “Artificial Intelligence and Moral Theology,” 13–40.

<sup>51</sup> Levi Checketts, “Artificial Intelligence and the Marginalization of the Poor,” 87–111 and Green, Gaudet, Checketts, Cutter, Herzfeld, Labrecque, Ramelow, Scherz, Vega, Vicini, and Wales, “Artificial Intelligence and Moral Theology,” 13–40.

<sup>52</sup> Green, Gaudet, Checketts, Cutter, Herzfeld, Labrecque, Ramelow, Scherz, Vega, Vicini, and Wales, “Artificial Intelligence and Moral Theology,” 13–40.

<sup>53</sup> Andrea Vicini, SJ, “Artificial Intelligence and Social Control: Ethical Issues and Theological Resources,” *Journal of Moral Theology* 11, special issue 1 (2022): 41–69 and Green, Gaudet, Checketts, Cutter, Herzfeld, Labrecque, Ramelow, Scherz, Vega, Vicini, and Wales, “Artificial Intelligence and Moral Theology,” 13–40.

<sup>54</sup> John Slattery, “We Must Find a Stronger Theological Voice: A Copeland Dialectic to Address Racism, Bias, and Inequity in Technology,” *Journal of Moral Theology* 11, special issue 1 (2022): 112–31.

on one side or another changes how we look at the ethics of AI. While wanting “good AI” in terms of being seems a worthy goal, it might be enough to aim for “good uses” of AI. There is a whole additional level of inquiry as to whether AI even has being or not, or whether it—as a tool made by human minds and purposes—only has uses.

In his paper, Wales likewise plays at this boundary, wondering whether only the uses or the being of algorithms are subject to ethical inquiry. Opting neither solely for AI use nor being, he most importantly argues that *human being* matters with respect to AI. Wales concludes:

The right use of AI does not depend merely on the architecture of our systems, nor even on the ethics that we attempt to embed in them, but on the ultimate stance of will that we adopt—be it *superbia* or *caritas*, unto a false knowledge or a true *scientia* and, finally, wisdom. This is the challenge of AI, our moral framing of which will determine what of reality we permit ourselves to see.<sup>55</sup>

This Augustinian interpretation of AI focuses more on how we are involved because AI acts to reflect God’s creation back to us.<sup>56</sup>

AI can be used for good or bad things. If endowed with an intrinsic ontology, it might be called good or bad, depending on those consistent dispositions towards action. AI is created by people, for people, to affect people, and therefore ultimately the ethical question resides with us: what kinds of people will be creating and using AI? If we are technically and/or morally bad, we will create technically and/or morally bad AI that takes technically and/or morally bad actions. If instead we follow the better angels of our nature, we might create AI that is both technically and morally better—not perfect.

### *Being Forced from Participants into Spectators: AI as a Centralizing Disempowering Force*

In his paper, Dell’Oro wonders whether AI can be a person and concludes it cannot. AI lacks critical attributes necessary for personhood, including agency and openness to the other.<sup>57</sup> In AI there never really is a participant in activities, only the human-made delegation of participation from someone else. Nor can AI even really observe; observation is delegated by humans and handed back to them. Human beings are not like this—at least not *meant* to live like this.

The gap between participation and observation is a significant one, deserving of more thoughtful consideration. I will raise one example: the Covid-19 pandemic has rendered this gap rather apparent when it

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<sup>55</sup> Wales, “Metaphysics, Meaning, and Morality,” 181.

<sup>56</sup> Wales, “Metaphysics, Meaning, and Morality,” 157–81.

<sup>57</sup> Dell’Oro, “Can a Robot Be a Person?,” 132–56.

comes to attending church. A livestreamed video of a church service really is no substitute for being there in the flesh, embodying a community of believers. Screens turn us into observers, and this observational quality has, in some cases, followed us to in-person services as well, as we wonder how to act in-person again, as participants.<sup>58</sup>

It should not be missed that this is a general quality of screens versus real-life. In real-life we participate, on screens we observe. We are not part of the activity of life; we are reduced to viewing the activity of others.

There are huge benefits to viewing church through screens if the alternative is no participation at all. The Beatific Vision might be worth remembering here: someday, God willing, we will see God in-person, united. We should not forget that we are called to be the Body of Christ on earth right now, and through the Eucharist we become what we eat. Participation in the life of God right now enables greater participation in the life of God in the future.

Artificial intelligence could be used right now for better things. AI could assemble all the texts of faith into one *Ultimate General Art*—as Raymond Lull once aspired to produce—which could help form us in the ways of our saints and ancestors. This is a real possibility—but who will do the work? This education and training towards the good aids the formation of souls towards God. We can do this as individuals in community with each other as guides, but AI here makes our community much larger, to encompass anyone who left cultural traces of benefit to the community. This “observation” of our community and identity extended through time does not end with mere observation either. Its end goal is action: being the people of God on this earth, now. Existence is action. We participate in this action, and while observation can prepare us for action, it cannot in itself be our ultimate goal in this life.

As Bishop Tighe notes, there is a gap between the opportunity for life-giving uses of AI and what we have now.<sup>59</sup> AI algorithms which auto-play addictive content shift us from being active participants in life into being deactivated observers of life. We become individuals who live for others’ ends—not in a charitable, generous, life-giving way, but a greedy, enslaving, life-taking sort of way—taking hold of our time with the algorithm as instrument of subjugation. This vampirism converts God’s concrete and particular gift of innumerable individual lives into the abstraction of money. Corporations which greedily demand more eyeballs viewing their content are stealing the lives of their users in order to turn that life into a resource to empower themselves.

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<sup>58</sup> I am not arguing against reasonable public health restrictions on community gathering, merely noting that this shift is a significant one.

<sup>59</sup> Green, “The Vatican and Artificial Intelligence,” 212–31.

Christianity calls us to participation, not mere observation. Being a spectator of life is not enough, we must actually live. In the context of AI, we should be aware of AI's disempowering tendency and its ability to change us from participants into mere spectators of life. Democracy requires participation, not mere observation. Ethics requires participation, not mere observation. Unjust centralizing powers demand we become mere observers of the collective life administered centrally by the state (really a small group of humans who illegitimately set themselves above others) and this is why Christianity fundamentally is opposed to authoritarianism and totalitarianism. Such critique also applies to unjust corporate and economic centralization. God made us to live, not merely observe.

As exploitative AI tries to change us from living participants in the glorious creation of God into observers subjugated by parasitic others, let us choose the better path. Let us continue to live, observing and even more so acting when appropriate to preserve our agency and use it for good. AI which trains our attention and promotes activity can help in the resistance against unjust uses of AI.

Artificial intelligence is a tool and every tool exists for a purpose. While past tools were much more specific in their aims, intelligence is itself the maker of tools, capable of transforming mere thought into beautiful or brutal reality. AI will be that too: it will merely allow us to get what we want, more of it, faster, more intensely than ever before.

In a context where we are empowered to get anything we want, with little regard to the consequences, wanting the right things becomes of paramount importance. Desire becomes the ultimate power that must be controlled. While Hans Jonas spoke of the much coveted "power over power,"<sup>60</sup> we must now speak of the much needed "desire for desire"—specifically the desire not only for the good, but the best. We must become holy as God is holy, or else we will become dead as sin is dead, as all contingent and evil things must become.<sup>61</sup>

This is no prescription, only a description: contingent beings not purely good and powerful enough to destroy themselves *must* at some point destroy themselves just due to stochasticism. Extinction is only a matter of time, unless we turn towards God, and/or relinquish those powers which threaten to destroy us.<sup>62</sup> We need to reject even the desire for this evil—see, e.g., *Pacem in Terris*, no. 113: "Unless this process of disarmament be thoroughgoing and complete, and reach men's very souls, it is impossible to stop the arms race."

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<sup>60</sup> Jonas, *The Imperative of Responsibility*, 141–42.

<sup>61</sup> Green, "The Technology of Holiness," 223–28.

<sup>62</sup> Bill Joy, "Why the Future Doesn't Need Us," *Wired*, April 1, 2000, archive.wired.com/wired/archive/8.04/joy\_pr.html.

*Powerful Technology, Clear Mortality, Ethical Deficiency: Are We, Then, Doomed?*

Reverend Martin Luther King, Jr. once lamented that we live in a nation of “guided missiles and misguided men.”<sup>63</sup> The situation has not improved over the last 50 years, it may in fact have degraded. No amount of mere intelligence, artificial or otherwise, can make us ethical. A grander vision of intelligence—one including wisdom, flourishing, and holiness—could, but not the impoverished idea of intelligence as “problem solving” or “achieving goals” AI theorists offer us today.<sup>64</sup> Mere “problem solving” without the wisdom of solving the right problems will merely accelerate our decline. We will become very efficient at everything we do, both good and evil. Because it is easier to destroy than create, this asymmetry can only have a sad ending.

In order for AI to be ethical we human beings have to be ethical, and that is difficult. For thousands of years individuals have aimed at holiness, and while we recognize saints, we also recognize that the vast majority of us fall short of that lofty category. Even saints are not perfect, but we are called to try.

In a 2019 lecture to Nobel Laureates, Turing Award winning cryptologist Martin Hellman recalled one of his mentors, business law professor Harry Rathbun, commenting on the question of whether we are “doomed.” Hellman said:

Harry pointed out that there are two hypotheses: Either we are capable of the great changes needed to ensure humanity’s survival—that’s the nobler hypothesis—or we are not. If we assume the less noble hypothesis, we will be doomed even if we have the capacity to change. But, if we assume the nobler hypothesis, the worst that happens is we go down fighting. And the best that happens is that humanity continues its awesome evolutionary arc. Why not assume the nobler hypothesis?<sup>65</sup>

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<sup>63</sup> Martin Luther King, Jr., “The Man Who Was a Fool,” in *Strength to Love* (Minneapolis, MN: Fortress, 2010).

<sup>64</sup> For just two examples of this kind of rhetoric, see Max Tegmark, *Life 3.0* (New York: Knopf, 2017), 50: “Intelligence = ability to accomplish complex goals”; Tom Simonite, “How Google Plans to Solve Artificial Intelligence,” *MIT Technology Review*, March 31, 2016, [www.technologyreview.com/2016/03/31/161234/how-google-plans-to-solve-artificial-intelligence/](http://www.technologyreview.com/2016/03/31/161234/how-google-plans-to-solve-artificial-intelligence/) where DeepMind’s Demis Hassabis says he is “solving intelligence, and then using that to solve everything else” (thus endorsing the “intelligence is problem solving” paradigm).

<sup>65</sup> Martin E. Hellman, “The Technological Imperative for Ethical Evolution,” Heidelberg Lecture, Lindau Meeting of Nobel Laureates, July 3, 2019, [www.meditheque.lindau-nobel.org/videos/38240/2019-meeting-heidelberg-lecture-hellman](http://www.meditheque.lindau-nobel.org/videos/38240/2019-meeting-heidelberg-lecture-hellman). Portions of the speech adapted from Dorothea and Martin Hellman, *A New Map for Relationships: Creating True Love at Home & Peace on the Planet* (USA: New Map, 2016), [ee.stanford.edu/~hellman/publications/book3.pdf](http://ee.stanford.edu/~hellman/publications/book3.pdf).



Rathbun and Hellman are right: we should embrace the nobler hypothesis. It is not vain hope: if we believe in God, God gives us that hope.

Let us not be mere observers of a flailing society. Let us be heroic in whatever ways we can be, small or great. God calls us to be like God in holiness. The saints have gone before us and done their part. It is time for us to do ours. We can believe that no matter what happens, God is here and, thankfully, the greatest intelligence.

## CONCLUSION

One of my mentors, physician and bioethicist William Hurlbut, once told me: “Always go for the deeper question.” AI offers many of these deep questions to pursue, some going straight into the nature of what it means to be human and the fundamental questions of existence, reality, and God. I do not think we yet know the paths that lie before us regarding AI, or the future more broadly. The paths are tangled like yarn, and they only unwind before us as we tread them.

I do know, however, that Christian theologians and ethicists have a special contribution to make. Secular philosophy is not well equipped to deal with some of the fundamentally religious questions raised by AI. Of those secular folks who “get it,” some might do brilliant philosophy, while others might do strange-seeming things, like starting churches to AI. Either way, Christian theologians need to contribute what they know and understand. Whether at the center or at the margins, we can enrich this conversation.

In the introduction, my co-editor Matthew Gaudet proposed, for this volume, the metaphor of the hourglass: we narrow the enormous world of AI down into a few topics we can engage in this limited space, but then broaden it again at the end, to recover that wider perspective once more.<sup>66</sup> Squeezing a vast subject into a few papers is not easy and certainly not fair to the field—always biased by selection, no scholarship is fair in this sense. Only by expanding and diversifying the work and workers to truly investigate a field over a long period of time can we hope to do justice to a subject.

For this epilogue I chose the metaphor of threads being drawn together rather messily. There are also other metaphors at play: God as AI, paths to explore, levels of understanding, etc. To be explicit: we ought to understand that the use of the word “intelligence” in AI also is a metaphor and that indeed every comparison of human, machine, and God is metaphorical in some way too. When dealing with difficult subjects, metaphors can help, but also hinder. We need to beware of them. The whole metaphor of artificial or machine “intelligence” can do more harm than good. It would be preferable to be more literal here

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<sup>66</sup> Matthew J. Gaudet, “An Introduction to the Ethics of Artificial Intelligence,” *Journal of Moral Theology* 11, special 1 (2022): 1–12.

about our machines; to remember they are our tools, and we their wielders.

This volume has been a wonderful challenge, impossible to achieve without the authors, editors at *JMT*, and especially my colleague and friend Matt. The task of engaging moral theology with technology remains impossible to address without you, the reader, taking it (and switching metaphors) to the next level, and further levels beyond. I am so thankful for the voices heard in this volume, yet very conscious that many are missing, which we are in great need of hearing. I hope this special issue will be heard as an invitation to all interested in taking the conversation on AI to greater ends. **M**

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