Analyzing the Anthropological Implications of Artificial Intelligence through the Theology of Joseph Ratzinger/Benedict XVI

Octavian M. Machidon

Abstract: Artificial intelligence (AI) entered all aspects of human life and became a ubiquitous presence we interact with daily, influencing or even determining, among other things, our decisions, social interactions, and the digital content we follow. Add to this the recent breathtaking advances such as generative AI models and the hype heralding the imminence of Artificial General Intelligence, and we are facing one of the most significant challenges in history for our society and understanding of what it means to be human. In this context, this work explores the anthropological implications of AI by drawing on the theology of Joseph Ratzinger—Pope Benedict XVI—a prominent figure who, through his writings and actions, contributed significantly to a dialogue between theology, philosophy, and the natural sciences. This article extends this dialogue and examines how AI challenges the creative potential of human beings and how this potential risks losing meaning and direction in the absence of God. After analyzing the relationship between the human and artificial, the paper looks at the performative-informative paradigm shift driven by AI in today’s digital society and the challenges of living in a machine-readable world that aims to reduce people to numbers. Finally, the article concludes by discussing how the way we relate to AI affects our relationship with God and each other.

In his message for the 57th World Day of Peace (January 1, 2024), entitled “Artificial Intelligence and Peace,” Pope Francis provided a thought-provoking reflection on the development of artificial intelligence (AI), asking for responsibility and fairness in its future proliferation so that it will serve the cause of human fraternity and peace. He warned against misusing algorithms that control mental and relational habits for commercial or political purposes, limiting conscious freedom of choice. Francis highlighted AI’s multifaceted challenges, spanning beyond technology to encompass anthropological, educational, social, and political dimensions. He stressed that challenges related to AI transcend mere technological concerns to
touch the core of our humanity, and called for safeguarding the richness of our shared human experience amidst the digital revolution.\footnote{Pope Francis, “Message for the 57\textsuperscript{th} World Day of Peace ‘Artificial Intelligence and Peace,’” January 1, 2024, www.vatican.va/content/francesco/en/messages/peace/documents/20231208-messaggio-57giornatamondiale-pace2024.html.}

Francis further emphasized this in his 2024 World Day of Social Communications message, where he asks: “How can we uphold our humanity and steer this cultural transformation toward noble ends?”\footnote{Pope Francis, “Message for the 58\textsuperscript{th} World Day of Social Communications ‘Artificial Intelligence and the Wisdom of the Heart: Towards a Fully Human Communication,’” January 24, 2024, www.vatican.va/content/francesco/en/messages/communications/documents/20240124-messaggio-comunicazioni-sociali.html.}

Debates and discussions about AI's ethical and societal implications have drawn various actors from all sectors of society, including theological institutions. The Vatican, for example, has recently participated in multiple initiatives to discuss ethical issues related to AI and debate public policies and regulations in this area. One example is the Rome Call for AI Ethics, a 2020 pledge signed by the Pontifical Academy for Life, FAO, IBM, Microsoft, and the Italian Ministry of Innovation to discuss ethical approaches to AI design, development, and deployment.\footnote{Rome Call for AI Ethics, 2020, www.romecall.org/the-call/.}

In 2021, the Vatican organized a symposium titled “The Challenge of Artificial Intelligence for Human Society and the Idea of the Human Person.” Among its key findings was the acknowledgment that the pace of advancement in AI exceeds earlier projections, constituting both a source of optimism and concern for society.\footnote{James Keenan, SJ, “7 Lessons Learned from the Vatican’s Artificial Intelligence Symposium,” \textit{National Catholic Reporter}, November 2, 2021, www.ncronline.org/news/opinion/7-lessons-learned-vaticans-artificial-intelligence-symposium.}

Indeed, anxiety and fear stemming from AI are already widely observed within society.\footnote{Jian Li and Jin-Song Huang, “Dimensions of Artificial Intelligence Anxiety Based on the Integrated Fear Acquisition Theory,” \textit{Technology in Society} 63 (2020), doi.org/10.1016/j.techsoc.2020.101410.}

Forty-two percent of the CEOs surveyed at the Yale CEO Summit in 2023 said AI can potentially destroy humanity in five to ten years.\footnote{Matt Egan, “Exclusive: 42\% of CEOs Say AI Could Destroy Humanity in Five to Ten Years,” \textit{CNN Business}, June 14, 2023, edition.cnn.com/2023/06/14/business/artificial-intelligence-ceos-warning/index.html.} Moreover, a survey conducted by Oxford’s University Center for the Governance of AI showed that most Americans are fearful of a future where AI grows increasingly powerful: 34 percent expect that high-level machine intelligence will negatively impact humanity, while 12 percent expect this impact to be
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catastrophic and possibly lead to human extinction.\(^7\) The same AI-related fears are present in religious communities, where clergy and laity fear that the introduction of AI for performing religious tasks currently performed by humans could negatively impact religious activities,\(^8\) their personal lives, and society as a whole.\(^9\) These concerns are substantiated by a 2023 study, which uncovered a correlation between learning about AI and increasingly getting exposed to automation and declines in religiosity.\(^10\) Given the pervasive nature of today’s interactions with AI tools like ChatGPT and other AI services, we can only ask what influence this escalating interaction will have on individuals’ religiosity worldwide.

Given the anthropological implications of AI, theology can contribute to the debate on the ethical implications of AI for society, the limits of AI evolution, and the relationship between AI, human creativity, and Imago Dei.\(^11\) Analyzing technology from a theological perspective is not new. From third-century Origen, seventh-century Maximus the Confessor, and Thomas Aquinas in the Middle Ages to Romano Guardini, Joseph Ratzinger, and Pope Francis in today’s modern technological age, Christian theologians have grappled with the question of technology’s place and role in society and its impact on spiritual life, and the meaning of being human.

In December 2023, the AI Research Group for the Vatican Centre for Digital Culture released a study titled “Encountering AI: Ethical and Anthropological Investigations,” exploring AI and its implications for human life and society.\(^12\) Drawing on the expertise of scholars from diverse philosophical backgrounds, the book offers a comprehensive Christian perspective on pressing debates surrounding

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AI. Structured into two parts, the book begins by addressing questions of personhood and intelligence from a Catholic anthropology perspective; it then provides a practical outline of AI’s ethical challenges and the role it currently plays or could play in the world.¹³

Aiming to contribute to the dialog between technology and theology on the topic of Artificial Intelligence and its societal implications, this paper will examine some of the anthropological impacts and ethical issues of AI through the theological lens of Joseph Ratzinger who, in his writings, contributed significantly to the dialogue between theology, philosophy, and the natural sciences. This study aims to contribute to the ongoing theological discourse surrounding the anthropological implications of AI, particularly considering recent publications such as the one by the AI Research Group for the Vatican Centre for Digital Culture mentioned above. Notably, the theology of Ratzinger is only marginally explored in that specific work, and particular anthropological challenges posed by AI algorithms, such as recommender systems, are addressed in greater depth within this paper.

I commence this paper by asserting that the dialog between science and theology, which Ratzinger strongly advocates, holds significant potential for positively impacting contemporary efforts to address the anthropological and ethical challenges related to AI. Furthermore, I will demonstrate how Ratzinger’s insights into the significance of blessing a machine highlight the necessity of imbuing human creativity with purpose and direction, recognizing its divine origin in God. This understanding is pivotal in preventing AI from becoming an autonomous, deterministic force and fostering its development as an authentic expression of collective human wisdom and interdependence geared towards advancing the common good.

Subsequently, I will explore how Ratzinger’s reflections on the risks associated with the transition from performative to informative experiences, as well as on the reduction of human identity to numerical data, directly contribute to addressing anthropological challenges posed by generative AI and recommender systems. I will underscore Ratzinger’s solution: the importance of digital experiences and AI interactions evolving into real-life transformative experiences that foster genuine personal encounters. This transformation is vital to avoid succumbing to what Ratzinger terms a “technocratic worldview,” which may hinder our ability to experience genuine meaning and truth.

The discourse surrounding the achievement of super-intelligence, exemplified by Artificial General Intelligence (AGI), often focuses

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mainly on existential risks. However, I will highlight that in his theological discourse, Ratzinger identifies a more immediate concern linked to the potential scenario where humanity puts its faith in technological advancement credited with providing complete power and control over the world. He warned that such a scenario could sideline God and disrupt individuals’ relationships with the world and their own lives. Finally, I conclude this paper by emphasizing Ratzinger’s appeal for the cultivation of moral responsibility in developing and using technology. His reflections underscore the crucial role of human responsibility in preserving our freedom and ensuring the meaningful and appropriate use of AI.

THE SCIENCE AND THEOLOGY DIALOGUE

Although science/technology and theology are seen by many as opposites, others believe they coexist in harmony and mutual dependence. For example, in a 1966 excerpt from the Theological Highlights of Vatican II, Joseph Ratzinger states that

The scientific view of the world, which presupposes both the world’s non-divinity and its logical and comprehensible structure, is profoundly in accord with the view of the world as created (and thus non-divine): the world as produced by the Logos, God’s Spirit-filled Word. Thus, like the Logos, the world is rationally and spiritually structured. One might even say that only such a basic attitude makes natural science possible in its full scope.14

Ratzinger’s perspective on the world is a valuable foundation for constructive theological contributions to the ongoing discourse on AI. Central to this discussion is the recognition that AI fundamentally relies on the rational and orderly structure of the universe (seen by Ratzinger as originating in the Logos) to discern patterns and make sense of data. For example, entropy, a measure of disorder or randomness within a system, plays a crucial role in shaping AI algorithms;15 these are designed to minimize entropy, seeking patterns amidst the apparent chaos of data.

Perhaps the most succinct and precise description of Ratzinger’s vision of the applicability of the dialogue between science and theology to today’s social issues is found in his 2006 speech as Pope

Benedict XVI at the University of Regensburg, entitled “Faith, Reason, and the University: Memories and Reflections.” In it, he acknowledges the impressive potential of science and reason as a force for good: “The positive aspects of modernity are to be acknowledged unreservedly: we are all grateful for the marvelous possibilities that it has opened up for mankind and for the progress in humanity that has been granted to us.” At the same time, he warns of the risks involved: “While we rejoice in the new possibilities open to humanity, we also see the dangers arising from these possibilities and we must ask ourselves how we can overcome them.” He proposes a solution for overcoming these risks based on a synergy between science and theology: “We will succeed in doing so only if reason and faith come together in a new way.”

The same key idea is found in Pope Francis’s apostolic letter *Ad Theologiam Promovendam*, which calls for theology to be closely intertwined with other disciplines, advocating for a broader and more collaborative approach to knowledge. According to Francis, this approach allows theology to tackle the diverse and intricate challenges of the contemporary world head-on, employing language and reasoning enhanced by diverse perspectives.

Indeed, integrating reason and faith fosters a more comprehensive understanding of the potential risks posed by technological advancements. Specifically, within the discourse surrounding AI, this synergy facilitates addressing ethical concerns such as the loss of human agency, the erosion of moral values, and the potential for existential threats. To ensure AI systems are beneficial and pose no undue risks, they must align their values, including moral ones, with those of humans. This “value alignment” is crucial for building AI systems capable of safe and reliable interaction with people. However, this necessitates clear, defensible human values for AI systems to align with. Currently, value alignment targets lack specificity and robust philosophical foundation. Interdisciplinary efforts combining moral theology, philosophy, and computer science are essential to define a set of fundamental moral values guiding AI algorithm development toward societal benefit, aligning with Ratzinger’s vision of faith and reason converging for ethical progress.

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Authentic dialogue between faith and reason can also provide genuine meaning and direction to scientific endeavors while preventing the misuse of theological concepts to overstate the importance of scientific achievements. Today, we are witnessing among AI researchers and advocates a tendency to imbue AI with a “magical” aura, implying it represents the ultimate step from the perspective of religious evolution and plays a crucial role in the redemption of humanity.\textsuperscript{19} Examples can be seen in describing AI capabilities using terms like “god-like AI”\textsuperscript{20} or “blessed by the algorithm”\textsuperscript{21} to frame AI development as a form of transcendence or salvation for humanity. Such rhetoric often obscures the complexities and limitations of AI technology, leading to unrealistic expectations and potentially overlooking critical ethical considerations. Instead, authentic dialogue between faith and reason fosters a more fruitful perspective that acknowledges the limitations and complexities of AI while recognizing its potential benefits when ethically and responsibly deployed.

Throughout history, each invention of a disruptive technology (such as printing, electricity, telephony, etc.) has sparked debates about its impact on human development and all aspects of society. Every technology has multiple facets, advantages, and disadvantages regarding its use and consequences, and AI is no exception. Attempts to place a “moral label” on technology have long existed, and with the advent of AI, moral theologians and philosophers face an increasingly complex task in this regard. Modern thinkers have proposed several models for understanding technology and its relationship to humanity. For the analysis of AI presented in this paper, references will be made to the ten-model approach proposed by theologian Mark Latkovic, as it promotes critical thinking about technology from a Catholic moral perspective and not only from a mere technical one.\textsuperscript{22}

In exploring technology from a Catholic moral perspective, Latkovic introduces a framework comprising ten distinct models for understanding the relationship between technology and humanity. These models include Technology as a Neutral Tool, Technology as Savior, Technology as Intrinsically Evil, Technology as Ambiguous

\textsuperscript{20} Ian Hogarth, “We Must Slow Down the Race to God-Like AI,” \textit{Financial Times}, April 12, 2023, www.ft.com/content/03895dc4-a3b7-481e-95cc-336a524f2ac2.
Instrument, Technology Subordinated to Ethics, Technology as Liberating Force, Technology as Gift of the Holy Spirit, Technology as Substitute for Virtue, Technology as Slave Master and Emancipator, and Technology as Evolutionary Artifact. Each model offers perspectives that transcend mere technical analysis, delving into the ethical and anthropological implications of technological advancement.

**HUMAN AND DIVINE CREATIVITY**

The first model in Latkovic’s framework illustrates a basic understanding of technology as a mere “neutral tool” devoid of any intrinsic morality, capable of either good or evil according to the user’s intent. American linguist Noam Chomsky describes this perspective: “As far as technology itself and education is concerned, technology is basically neutral. It’s like a hammer. The hammer doesn’t care whether you use it to build a house or . . . to crush somebody’s skull, the hammer can do either.”

Although this view may to some extent apply to some more rudimentary technologies, it is almost impossible to claim that AI and other modern disruptive technologies can be viewed as merely neutral instruments since they possess an inherent “logic” impacting the user. Yet many AI proponents attempt to downplay debates about the profound ethical implications of AI for society by claiming it is merely “a tool that humans can control and direct.”

Tools have accompanied us throughout history: according to Maximus the Confessor (widely regarded as the greatest Byzantine theologian), the postlapsarian world is implicitly technical, and humans are bound to create and use technology and make tools that not only have a practical use but also “mediate and transform their experience and knowledge of the rest of creation.” The church’s liturgical practice includes blessing various objects of daily use, and there is a long tradition of blessing tools, equipment, and machines, from the blessing of the naval fleet of ships (which began centuries ago in the fishing communities of the Mediterranean) to the blessing of tractors and cars. Starting from viewing AI as a mere tool, we can delve into the moral implications of such technologies by asking: what would it mean to bless an AI tool, algorithm, or service? In his 1986

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23 Latkovic, “Thinking about Technology,” 689.
homily “When a Machine is Blessed,” Ratzinger asks the same question regarding tractors—and he continues to say that blessing obviously will not make the machine function or improve its operation, which is subject to the laws of mechanical construction.\(^\text{28}\) However, he points out that the blessing endowed upon a machine ultimately translates into blessing human work by placing it in God’s hands. Blessing a machine thus symbolizes putting the daily human efforts to provide the daily bread under God’s love and goodness by acknowledging the great responsibility of acting as co-creators with God on this Earth. Blessing a tool or human work highlights the interdependence between human and divine creativity.

Similarly, a blessing will not help the AI system function or yield better, more accurate predictions, or to generate more realistic or precise content if we are referring to generative AI models, such as ChatGPT. Regarding tractors, Ratzinger states that a “machine is not a self-enclosed world” since a “machine has its origin in an idea and a human will, and it serves a definite purpose.”\(^\text{29}\) This is even more obvious for AI, which is far from being “self-enclosed”; the result of human engineering efforts, it also encompasses a vast amount of data—ultimately, knowledge—utilized for its training.

Consequently, like any machine, AI “depends on man and on his ingenuity,” while “man depends on God,” as Ratzinger points out.\(^\text{30}\) However, unlike other technological machines, AI is unique because humans engineer it in their image. AI is inspired by how the human brain and its intelligence processes work and is designed to replicate human behavior and perform human-like tasks.\(^\text{31}\) Just as God created humans in His image and likeness, we engineered AI to have human intelligence as paradigm.

In his homily and throughout his theological writings, Ratzinger asserts that the impact of machines and technical inventions can range from blessings to curses, illustrating the growing ambiguity inherent in modern technology (he is an advocate for technology as an ambiguous instrument, the fourth model in Latkovic’s taxonomy).\(^\text{32}\) This ambiguity is becoming increasingly concerning, especially with the tremendous evolution of AI and its ubiquitous widespread usage across all areas of society. AI can be viewed as the pinnacle of human creativity; nevertheless, its outstanding evolution and expansion are


\(^{29}\) Ratzinger, *On Love: Selected Writings*, 86.

\(^{30}\) Ratzinger, *On Love: Selected Writings*, 86.


\(^{32}\) Latkovic, “Thinking about Technology,” 692.
raising an increasing number of ethical issues, while both its harshest critics and most ardent supporters expect it to drastically transform human society as we know it.

Although AI has brought unquestionable progress and fostered significant advancements in healthcare, education, and science, contributing to human progress and well-being, many applications may create more problems than they solve. Indeed, some critics argue that AI is a self-augmenting force engineering the world on its own terms.\textsuperscript{33} Ratzinger hints at this scenario, which he sees as an outcome of people “forgetting God” and thus losing their “own measure,” losing the true meaning and direction of their creative potential with whom the Creator endowed them, and thus becoming for themselves “a riddle without an answer.” In this condition, human creativity may create things “without a reason why, devoid of all deeper significance,” and humanity’s technological abilities might “become a direct threat to the survival of the human race.”\textsuperscript{34}

**THE RISK OF LOSING MEANING AND DIRECTION**

The cautionary message Joseph Ratzinger conveys about how human creativity may wander off course and devise technologies lacking genuine purpose that would eventually constitute a threat to human existence aligns with the ideas of technological determinism advocated by scholars such as Jacques Ellul and Marshall McLuhan. In his work *The Technological Society*, Jacques Ellul introduced the concept of autonomous technology, i.e., technology as a closed system, “a reality in itself . . . with its special laws and its own determinations” that ultimately conquers every aspect of human society.\textsuperscript{35} For Ellul, technology and its effects on society cannot be seen as good or evil; technology is a disruptive, self-augmenting force that engineers the world according to its inner logic which, in the case of AI, would translate into it shaping our world one way or another, by simply existing.

According to Ellul’s theory, can we say AI is augmenting itself? To a certain extent, something along these lines is currently happening in today’s IT landscape: AI and machine learning are prominent subjects of interest, and companies are in a quest for more machine-learning solutions and AI products, even if they do not fully

\textsuperscript{34} Ratzinger, *On Love: Selected Writings*, 87.
understand them or even need them. The demand for AI and machine learning specialists is steadily rising, with projections indicating a 40 percent increase from 2023 to 2027. This surge is attributed to heightened requirements for companies to expand their workforce dedicated to developing and overseeing neural networks, scripting for chatbots, and maintaining various other AI-driven services. In short, AI represents today a marketable “brand” that attracts consumer interest and drives sales.

The latest breakthroughs in generative AI services (AI models that create new content, including audio, code, images, text, and video), such as ChatGPT or DALL-E, drastically challenge the perspective on content creation and human creativity. The fact that such models generate human-like artwork and content (including mimicking the human voice, writing style of an author, etc.) while opening a wide range of opportunities for good also creates a gamut of ethical and technical challenges best summarized in the words of the researcher who used GPT-3, the precursor of today’s ChatGPT, to write an academic thesis on itself which eventually got published (with the bot’s “consent”): “We just hope we did not open Pandora’s box.” These and similar fears proved more than justified, as just a few years later, we are now witnessing a wave of concerns regarding human vs. AI-based authorship. The current hype around generative AI models represents AI self-augmentation at its finest as, for example, we will require new and more advanced AI solutions to determine whether digital content is human or AI-created.

Today’s intense debate regarding the significant challenges generative AI models bring revolves ultimately around the limits and meaning of human creativity and how to orient it towards a direction beneficial for humanity while minimizing unwanted consequences and avoiding the development of technology in its name. In this context, Ratzinger’s perspective on the blessing of machines resonates more strongly than ever before: this blessing is, according to the

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theologian, ultimately a prayer that gives them meaning and directs their use in human work towards contributing to building up the earth in the effort to “prepare for the future city, the future garden of the Kingdom of God.” Hence, the blessing is a statement of the desire to use that machine or technology, seen as a result of human work and creativity, for the good of humankind, both earthly and eschatological, in harmony with God and union with His will.

**SEEING THE HUMAN IN THE ARTIFICIAL**

When blessing a machine, we acknowledge using it to provide “our daily bread, the fruit of the earth, always a gift of God’s goodness and the product of our labor,” as Ratzinger underlines. Ultimately, the blessing is supposed to remind us that behind that machine stands a synergy between God’s love and goodness and human work. But is this always the case? Do we see AI as a result of this synergy?

Historically, we have developed machines and technology to assist us in our work of preparing “our daily bread.” While stating this, Ratzinger identifies a higher dimension of human work, in addition to that of ensuring bodily life: collaboration and interdependence. When we use or rely on machines and other technological solutions, we benefit from the work and reasoning of others, building up a community of people who live and work together in a joint effort toward creating “the garden and the city.” Hence, Ratzinger says that “to work is to humanize.” How can this relate to Artificial Intelligence, where, at least in the eyes of the people using this technology, it might seem as if the human factor is excluded and the artificial predominates?

The experience of using AI may take various forms, many obfuscated, primarily when referring to ubiquitous technologies and devices that surround us and indirectly interact with us, usually without us noticing. But even when this interaction is direct and upfront, like engaging in a virtual discussion with an AI-powered chatbot like ChatGPT or receiving recommendations from an AI-powered recommendation system, we are immersed in an interaction with a virtual, artificial entity. This entity shows that it can by all means replace human interaction by answering questions and providing content faster and often more accurately and reliably than a human.

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In this context, we might be tempted to exclude any thought about “humanizing” and “interdependence” toward other human beings when interacting with AI; however, paradoxically, it is the other way around. When using AI, we are experiencing this human interdependence and relying on work and actions done by others since not only are AI algorithms the result of extensive work made by computer engineers and scientists, but the reliability and performance of these algorithms depend on the availability of large amounts of data which, in turn, is usually collected from a considerable number of human users.\footnote{Afsa Ashraf, “Why Artificial Intelligence Requires Human Intervention?,” Royal Cyber, October 7, 2022, www.royalcyber.com/blogs/ai-systems-need-human-intervention/} AI is consequently an expression of collective human knowledge and wisdom, an assertion perhaps most evident for generative AI models, such as ChatGPT, trained on a vast knowledge base composed of humankind’s textual and visual creations throughout history. In direct reference to AI, Joseph Ratzinger, then Pope Emeritus Benedict XVI, highlighted this same idea: “Artificial intelligence, in fact, is obviously an intelligence transmitted by conscious subjects, an intelligence placed in equipment. It has a clear origin, in fact, in the intelligence of the human creators of such equipment.”\footnote{Pope Benedict XVI, “Full Text of Letter to Mathematician Atheist,” Benedetto XVI Papst Press, 2015, papst.pro/en/2044/} Here, it is essential to discern between different interpretations of the term “intelligence.” While AI is a form of intelligence in the sense that it can solve complex and cognitively demanding problems, it is not intelligent in the way humans are.\footnote{Anthony Chemero, “LLMs Differ from Human Cognition Because They Are Not Embodied,” Nature Human Behavior 7, no. 11 (2023): 1828–1829.} At the same time, AI emerges as a creation of the human intellect, originating in the intelligence of its designers.

However, this “human” facet of AI comes with its challenges. One such issue is humans’ exact role in designing and operating AI algorithms—are a developer’s subconscious beliefs and biases encoded in the algorithms that make decisions about us? Often, algorithmic bias originates from the data used to train such algorithms. Our biased world can result in biased datasets and, in turn, biased artificial intelligence technologies.\footnote{Nitasha Tiku, Kevin Schaul, Szu Y. Chen, Alexis S. Fitts, Kate Rabinowitz, Karly D. Sadof, “AI Generated Images Are Biased, Showing the World Through Stereotypes,” The Washington Post, November 1, 2023, www.washingtonpost.com/technology/interactive/2023/ai-generated-images-bias-racism-sexism-stereotypes.} Moreover, the massive AI training data is often gathered through participatory sensing: our movements, photos, and thoughts (expressed, for example, in posts on social media) and virtually any digital online content we create all
become training data for AI algorithms which, on its basis, will make decisions, provide recommendations, and generate content.

A relevant example is Tay, the AI bot Microsoft released on Twitter in 2016. By observing the content and interactions on Twitter and mimicking it, the bot quickly learned to be misogynistic and racist. Microsoft had to pull the bot offline hastily.\footnote{Rajeev Srinivasan, “The Ethical Dilemmas of Artificial Intelligence,” in Human Decisions: Thoughts on AI (Paris: United Nations Educational, Scientific, and Cultural Organization, 2018), 107.} Thus, the content AI provides us is a mirror for our world, thoughts, and interactions.

**FROM PERFORMATIVE TO INFORMATIVE**

On the cognitive level, one of the potential dangers brought by the widespread use of generative AI models, such as ChatGPT and DALL-E, is that they are reducing the human work experience from a “performative” to a merely “informative” one. When performing a task such as writing an essay on a given topic, while the result is informative to the reader, the work behind elaborating it is a “performative,” transforming outcome for the author. In composing the essay, the author engages in reading, analysis, reasoning, and contemplation, all of which serve to transform and enhance the author’s abilities, fostering personal growth and enrichment. On the other hand, the seamless adoption of AI tools and their use to replace tasks customarily performed by humans has already led to a loss of human decision-making ability and increase in human laziness in critical areas such as education (in addition to increasing security and privacy concerns).\footnote{Sayed F. Ahmad, Heesup Han, Muhammad M. Alam, Muhammad K. Rehmat, Muhammad Irshad, Marcelo Arriagó-Muñoz, and Antonio Ariza-Montes, “Impact of Artificial Intelligence on Human Loss in Decision Making, Laziness, and Safety in Education,” Humanities and Social Sciences Communications 10, no. 311 (2023): 11.}

On a broader level, as we move towards a digitized society, we are also slowly shifting the focus from performative to informative. The abundance of information coupled with the AI-powered recommendation algorithms that constantly provide us with news pieces to read, videos to watch, and social media posts to follow emphasize the informative rather than the performative. In this digital world, ubiquitous AI systems and services are working to provide the most relevant information, most fitting, custom-tailored content that keeps users engaged within their personalized content bubbles.\footnote{Han Han, Can Wang, Yunwei Zhao, Min Shu, Wenlei Wang, and Yong Min, “SSLE: A Framework for Evaluating the ‘Filter Bubble’ Effect on the News Aggregator and Recommenders,” World Wide Web 25, (2022): 1192.}
This reality impacts today’s Christian life, for it also exposes us to the risk of choosing the more accessible, easy path of an “informative” Christianity, given the abundance of information on websites, social networks, podcasts, etc. But can this informative, digital Christian experience lead to an authentic transformation and restoration of the human? Ratzinger argues that “Christianity is not an intellectual system, a collection of dogmas, or moralism. Christianity is instead an encounter, a love story.”\(^{51}\) As he articulated in his encyclical *Spe Salvi*, the Christian message is not only “informative” but “performative,” not mere communication but an experience “that makes things happen and is life-changing” (no. 2). At the heart of Christian life lies personal encounter, both with God and others. These personal encounters are performative (i.e., transformative) by nature, transcending mere information exchange and fostering personal growth and mutual understanding; they can be life-changing and life-sustaining. The information-based Christian faith powered by today’s digital world is, by contrast, just a surrogate where any message it might transmit will not become performative but instead be set aside and replaced with more recent information. To transition from the informative to the performative, it is thus necessary not to stop at the mere message, the piece of information, but to take it out of the digital chambers and ponder it in our hearts, where the genuine encounter and transformation can occur.

Ratzinger illustrates the difference between the experience of learning something on a deeper level and acquiring information on the same subject in his meditation “The Creator God,” published in the volume *The God of Jesus Christ: Meditations on the Triune God*. In it, he refers to an episode in Martin Buber’s Hasidic stories in which Rabbi Levi Yitzhak undertakes a journey to Rabbi Schmelke of Nikolsburg against the wishes of his father-in-law, driven by a desire for “a deeper knowledge of ultimate reality.” Upon his return, his father-in-law questions Levi Yitzhak about what he learned from Rabbi Schmelke, and his answer is “that there is a Creator of the world.” Wanting to prove that Levi Yitzhak’s efforts were in vain and that this information could have easily been obtained without performing the trip, the father-in-law turned to his servant and asked him if he knew “that there is a Creator of the world?” to which the servant answered “Yes.” Levi Yitzhak replied, “Naturally, everyone says that. But do they also learn it?”\(^{52}\) Ratzinger uses this example to illustrate the difference between the informative—to say that “God is

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Creator”—and the performative—the process of learning and understanding at a deeper level. The same reasoning can be generalized and applied to illustrate the difference between merely receiving information (something AI can provide or assist in obtaining) and authentic learning through performative experiences.

If we pause for a moment and look at today’s AI-driven world, we will find that we are surrounded by and interacting with AI-driven services and applications daily—a reality that ultimately results in us being shaped by them. We lose focus on the performative facet of our lives, which becomes almost exclusively informational: our lives are measured in abstract metrics AI algorithms try to maximize: ratings, number of likes, number of views, etc. AI might provide us with top content, but at the same time, we risk numbing our hearts because we lack authentic, performative relationships with God and the people around us.

AI thus seems to be accelerating humanity’s path toward a global technical worldview in which efficiency and utility are the only criteria of truth, and the end of that path, as Ratzinger points out in his last encyclical Caritas in Veritate, is that human development is automatically denied (no. 70). He warns against the scenario of living in a technocratic cultural perspective in which we will not be “able to discover a meaning that is not of our own making,” where the truth will come “to be seen as coinciding with the possible” because technology will “become an ideological power that threatens to confine us within an a priori that holds us back from encountering being and truth” (no. 70).

This is precisely what AI recommendation systems do; for example, they tend to “steer the user towards the content, thus ghettoizing the user in a prescribed category of demographically classified content” while increasingly influencing our choices, preferences, actions, and ultimately, our lifestyles.

Furthermore, these AI algorithms predict our future needs or choices by analyzing data from our past actions and preferences. However, this process often leads to reproducing “established patterns of behavior,” offering familiar solutions to new questions. This reliance on past data inhibits our natural inclination to experiment and explore, hindering our ability to engage in diverse, performative

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55 Polonski, “Algorithmic Determinism.”
actions that have the potential to enrich us, and suppressing the diversity of our identity. In a nutshell, this is what Marshall McLuhan implied when he spoke of media (virtually any technology) being an extension of the human (capabilities, whether physical or psychological) and that an amputation follows this extension. When AI decides for us, there is a risk that our decision-making capacity will be “amputated” or at least “anesthetized,” hindering our personal development. Moreover, as decision-making inherently involves exercising ethical judgment, over-reliance on AI can exacerbate moral deskilling. Coined by scholar Shannon Vallor in 2015, this concept describes the atrophy of our ability to make moral judgments due to lack of practice and experience.

NAME OR NUMBERS?

To achieve their goal of providing custom-tailored content for each individual, AI systems build an algorithmic identity for their users, encompassing several dimensions, such as use patterns, tastes, preferences, personality traits, and the structure of their social graph. This digital identity is not directly based on users’ personhood or sense of self but on a collection of measurable data points and the machine’s interpretation thereof. In this process, the embodied, authentic user identity is replaced by an imperfect, simplified digital representation. In turn, based on the digital representation of a human user, AI interacts with the latter providing content, recommendations, and suggestions. Hence, to be part of today’s and tomorrow’s AI-enhanced world, people must be assigned “numbers” (i.e., a digital identity) or reduced to them. The term “reduce” is appropriate because, as shown above, this digital representation is a reduction of the complexity of the whole person to specific dimensions that can be read by AI and used to provide tailored, individualized service.

This dichotomy between name and number in light of today’s technological society was commented on by Joseph Ratzinger in his meditation “God has names.” The theologian refers to the name of God and the narrative in the Revelation of John, chapter 13, where the beast (represented as the power that opposes the Creator), unlike God, has no name but a number. Ratzinger argues that evil, which is a

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56 Polonski, “Algorithmic Determinism.”
59 Polonski, “Algorithmic Determinism.”
60 Ratzinger, The God of Jesus Christ, 25–35.
number and has no personal identity, seeks to make people into numbers that conform to its image. By way of illustration, he recalls the horrors of the concentration camps of World War II, where evil turned people into numbers, “erasing” their faces and histories, reducing each of them to “a mere function,” “an exchangeable cog in one big machine.” In one of his remarkably prophetic texts, Ratzinger anticipates the world that would be built by Artificial Intelligence almost five decades later, a world in which the machines humanity constructed “impose their own law” on them. In this world, humans “must be made readable for the computer,” and to achieve this, people must be “translated into numbers.” He foresees a world in which “functions are all that exist,” in which the “structure of the concentration camp” is imposed by the “universal law of the machine,” resulting in every human being becoming a number, “nothing more than a function,” and everything else becoming “irrelevant.” To this “beast” which “is a number” and turns humans into numbers, Ratzinger opposes God, who “has a name, and God calls us by our name. He is a Person, and he seeks the person. He has a face, and he seeks our face. He has a heart, and he seeks our heart,” and for whom “we are not some function in a world machinery.”

Regardless of how well an AI algorithm may perform a task, even if it can do it better than a human, it remains a mathematical algorithm, a sequence of numbers, while the human person has a name allowing him or her to be addressed; the name “denotes community.” Ratzinger argues that a technological worldview in which human beings are reduced to numbers keeps them from fulfilling their purpose of communion with one another and God, a communion based on the incarnation of the Word of God, Jesus Christ, who is “the fulfillment of the revelation of God’s name” and in whom “we can address God as ‘you,’ as person, as heart.”61 In a machine-readable world, we are getting reduced to numerical representations, and thus, we risk diminishing the richness and profoundness of our identity for the sake of utilitarianism and algorithmic efficiency. Our names are more than pointers to our identity; they enable us to live a loving relationship with one another and God, who is love and whose “mysterious name at the burning bush” is fulfilled in the name of Jesus. Through Jesus, God gave us the gift of addressing him by name: “‘I am who I am’—thanks to Jesus, this now means: ‘I am the one who saves you.’ His Being is salvation,” as Ratzinger points out.62 Decades later, as Benedict XVI, he completes this theology of name: in this outpouring of God’s love towards where “Each of us is willed, each of us is

62 Ratzinger, The God of Jesus Christ, 34.
loved,” God not only revealed his name to us, but He has also “called each one of us, each one is called by name. God is so great that He has time for each one of us, He knows me, He knows each one of us by name, personally.”

TAKING GOD’S PLACE

One of the most frequently asked questions regarding artificial intelligence is whether it will ultimately be a boon or a bane to society as it evolves at an astonishing pace. The final step in the evolution of AI is the achievement of AGI, a stage where AI gains the ability to understand, learn, and perform new tasks better than humans. Once AGI is a reality, it is expected to increase its intelligence and capabilities and become self-evolving. Some AI enthusiasts believe this scenario will soon be plausible and propel humanity into an unparalleled era of flourishing (this viewpoint corresponds to the second model in Latkovic’s taxonomy—Technology as Savior). However, the same scenario evokes most AI-related fears: fear of artificial consciousness and existential risk. These envision a hypothetical future in which AI will become sentient-like; an artificial brain with human-like consciousness existing independently of human control. Such a development will spark debates about recognizing AI as a new species, a form of sentient but artificial life.

However, this scenario in which humans take the place of God as creator and can create human-like entities, thereby challenging humanity’s ethical and social foundations, did not originate in our

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contemporary technological society. We can trace similar narratives expressing fear of human creative potential back to the history of various cultures and traditions. In *The God of Jesus Christ: Meditations on the Triune God*, Ratzinger offers a prophetic analysis of the impact of technology on humanity. He begins his meditation by referencing a medieval Jewish fable recounting how the prophet Jeremiah and his son created a living human being by engineering a “correct combination of words and letters.” However, the two “creators” were horrified when their creature came to life because it rephrased the Hebrew inscription on his forehead, which initially read “God is the truth,” into “God is dead.” They immediately asked him why he had done this, to which he replied, “Now that you are able to create a man, God is dead! My life is the death of God. Where man has all the power, God has no longer any power.” Ratzinger identifies this story as a perfect articulation of contemporary anxieties about what the technological age will bring. It will give humankind total power and control over the world, which will be seen as a functioning system humans use and force to serve them. In such a reality, there is “no longer any place for an intervention by God” because “it is only man who has power over the world” and thus, “there is no longer any God where man alone possesses power.”

To draw a parallel between this story and today’s hype around AI is not difficult, for AI is already considered the most powerful tool humanity has ever developed. Permeating all levels of society and expanding into all aspects of our social lives, the accelerated development of AI is slowly shaping our humanity and relationship with each other and God. Most of our experiences are either augmented or mediated by AI: our social interactions via social networks and personal virtual assistants, the content we receive via recommendation systems, and virtually all AI services we interact with provide content deterministically selected for us by the AI algorithm. Our world is thus slowly and imperceptibly being transformed by AI into a “functioning system” that minimizes randomness, unpredictability, and spontaneity. AI, in turn, becomes a “mediator” between us and the real world, influencing our perception of reality; we slowly start to think according to AI metrics and performance values: we organize our lives and preferences based on recommendations we receive from AI algorithms, we begin to evaluate decisions, places, events, or even people we want to meet or talk to based on AI-compatible performance values such as likes or ratings.

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Therefore, as AI increasingly mediates our interaction with the natural world, it challenges our spirituality and the authenticity of our connection with God, others, and reality as a whole, as highlighted by Ratzinger in his meditation. He emphasizes that the knowledge of God is intricately linked to the relationships we form with the world, ourselves, and others. As AI permeated these social relationships at various levels, Ratzinger’s reflection underscores the imperative of slowing down our AI-augmented lives and reflecting on how technology is impacting our relationships and sense of self. In doing so, we can navigate our engagement with the technological world with discernment and wisdom.

CONCLUDING REMARKS

Throughout his theological career, Joseph Ratzinger always recognized the positive aspects and significant benefits of modern scientific progress. Yet, simultaneously, he repeatedly draws attention to the risks to which we expose ourselves through the misuse of technology. He proposes an approach to attenuating these risks through a synergy between reason and faith, arguing that the scientific worldview, which makes all natural sciences possible and is based on the logical and comprehensive structure of the world, is in complete harmony with the Christian view of the world as rationally created and spiritually structured by the Logos.

Amid the debates around AI and the limits of human creativity, Ratzinger’s reflections emphasize that we must always recognize human creative potential as coming from God so that it does not lose its true meaning and direction. Only in this way can technology be seen as a synergy between God’s love and goodness and human work, and its use contribute to the earthly and eschatological good of humanity, in harmony with God and His will. Of course, this also applies to AI, which Ratzinger sees as an intelligence that emanates from its human creators.

As AI accelerates the spread of information in today’s global society, Ratzinger draws attention to the fact that authentic human life is not based on the mere acquisition of information or ideas but on holistic learning at a deeper level. His viewpoint underscores the need for any digital experience and AI interaction not to remain purely informational but to transition into real life transformative experiences that foster personal development and interpersonal encounters.

For Ratzinger, the greatest danger of technological misuse is to create a technocratic worldview that reduces humans to numbers or

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functions. He argues that such a worldview would prevent us from experiencing authentic meaning and truth, as we would be constricted into an artificial reality by the technology that would act as ideological power. This limitation would also prevent us from fulfilling our destiny: loving communion with each other and God, our Creator.

Ratzinger emphasizes that a correct understanding of and relationship to technology is crucial for our relationships with God and one another. This applies today more than ever, given the increasing power of AI. He warns that in a scenario where technology develops to such an extent that it gives humanity total power and control over the world, not only will God be pushed aside, but this will also have detrimental effects on the relationship individuals establish between themselves and the world, as well as between themselves and their lives.

Ratzinger sees in the attraction of technology its capability of taking humanity beyond its physical limits and expanding its horizons of knowledge and expression. However, he emphasizes that we should not measure authentic human development exclusively regarding technological performance. Instead, he proposes a path towards a correct understanding and utilization of technology in which the human mind is “capable of thinking in technological terms and grasping the fully human meaning of human activities, within the context of the holistic meaning of the individual’s being” (*Caritas in Veritate*, no. 70).

He saw all technology, including AI, as the result of human action and intelligence, which should be, in turn, an expression of human responsibility and freedom. To preserve this freedom, Ratzinger argues that we must not give in to the fascination of technology but control its use and development through decisions arising from moral responsibility. He provides us with a criterion for achieving a meaningful and appropriate use of AI and practically any technology. In Ratzinger’s vision, we should not use technology merely to maximize efficiency and utility and achieve “a rush of total autonomy”; instead, it should enable us to “reappropriate the true meaning of freedom,” which is essentially “a response to the call of being, starting with our own personal being” (*Caritas in Veritate*, no. 70).

Octavian M. Machidon is Assistant Professor at the Faculty of Computer and Information Science, University of Ljubljana, Slovenia. He is also an active member of the interdisciplinary Center for Human-Centered Artificial Intelligence and the Ethics of New Technologies, operating within the Faculty of Theology at the same university. With an academic background that includes theological studies alongside his training in computer science, Machidon is deeply involved in exploring the ethical and anthropological consequences of artificial intelligence and other innovative technologies.