

EXPLORING THE POTENTIAL OF GENERATIVE ARTIFICIAL INTELLIGENCE IN THE PASTORAL MINISTRY:

THEOLOGICAL REFLECTIONS AND ETHICAL CHALLENGES THROUGH THE LENS OF OLD TESTAMENT PERSPECTIVE¹

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1997, 2017, and 2018 are the years when the top-ranked professional players in the fields of chess, Shogi (将棋) and Go (囲碁), first officially lost to Artificial Intelligence (AI) powered programs.² Quantifying the information of the surface of a board, learning from games between people, and acquiring enormous quantities of data through playing games between computers, AI can reach the best possible choice in the game and decide this choice faster and more accurately than players without being swayed by emotions. Players of chess, Shogi, or Go can no longer defeat computer programs in the face of the phenomenal development of AI technology.

On November 30, 2022, with the release of ChatGPT (GPT-3.5) from OpenAI, people around the world recognized the development of AI, which mimics human intelligence through computers.³ ChatGPT, which has experienced explosive growth since its official release, reached 7 billion active users per week in July 2025.⁴ The use of a chatbot user interface enabled many end users without computer science knowledge or skills to use AI, and the provision of an API (Application Programming Interface) led to the spread of ChatGPT worldwide.⁵ After the release

¹ This article is a revision of the paper presented at the Seminary Retreat at Japan Nazarene Seminary, Tokyo, on September 29, 2025.

² インターネットコム編集部 [Editorial Department of INTERNET COM], “AIの凱歌—最強のチェス選手カスパロフ敗北から20年、ついに囲碁の最強、柯潔も屈する [AI Triumph: 20 Years After the Defeat of the Strongest Chess Player, Kasparov, the Strongest Go Player, Ke Jie, Finally Falls],” *INTERNET COM*, 5 December 2018, <https://internetcom.jp/202734/it-victory>. Even chess, which has the fewest number of moves among these, has yet to be completely analyzed.

³ Ministry of Internal Affairs and Communication, Japan, ed., “Information and Communications in Japan: White Paper 2024,” July 2024, 33, https://www.soumu.go.jp/johotsusintokei/whitepaper/eng/WP2024/pdf/00_fullversion.pdf. There is currently no international consensus on the definition of AI. For this paper, AI is defined as computers simulating and performing intellectual activities such as learning, understanding, problem-solving, decision-making, creativity, and autonomy—activities typically performed by humankind. For other definitions, see the following: “What Is Artificial Intelligence?,” *NASA*, 13 May 2024, <https://www.nasa.gov/what-is-artificial-intelligence/>; Cole Stryker and Eda Kavlakoglu, “What Is Artificial Intelligence (AI)?,” *IBM*, 9 August 2024, <https://www.ibm.com/think/topics/artificial-intelligence>.

⁴ ChatGPT reached 1 million users within five days of its official release. Instagram took two and a half months to reach 1 million downloads, while Netflix took three and a half years. As of 2022, ChatGPT held the record for being the fastest online service to reach one million users. By 2025, Instagram’s Threads achieved one million users within an hour of its release, setting a new benchmark for rapid user adoption. Fabio Duarte, “Number of ChatGPT Users (July 2025),” *Exploding Topics*, 19 August 2025, <https://explodingtopics.com/blog/chatgpt-users>.

⁵ 小林雅一 [Masakazu Kobayashi], 生成AI: 「ChatGPT」を支える技術はどのようにビジネスを変え、人間の創造性を揺るがすのか? [*Generative AI: How Will the Technology Behind ChatGPT*]

of ChatGPT, tech companies introduced various generative AI services, such as Google Gemini, Microsoft Copilot, Bing, Claude, Perplexity, Gamma, Sora, Vrew, and NotebookLM. Each area, using generative AI, is simultaneously discussing how to operate it and the ethical issues associated with it.

Even for the church, resistance to the technological stream of the current era is infeasible. On June 9, 2023, a worship service prepared by Jonas Simmerlein, a theologian from the University of Vienna, using ChatGPT, was held at St. Paul's Church in Fuerth, Germany. More than 300 people gathered to participate in the service entitled "Alexa, starte den Gottesdienst" led by an AI-generated avatar.⁶ According to Simmerlein's report, although participants raised various comments with both pros and cons, some noted a spiritual experience during the service.⁷ The service revealed the current limitations of the AI-led worship service and the confusion it causes among participants.

Not only in worship preparation, but in all areas of pastoral ministry, no church can avoid the immense influence of generative AI. With increasingly advanced technology, if the church neglects to engage with AI, it risks becoming culturally isolated from modern society, losing its relevance, and making dialogue impossible.⁸ Therefore, theological evaluation of the use of generative AI and awareness of ethical challenges from a Christian perspective are needed in pastoral ministry.

The relationship between church practice and AI has so far been assessed through the concept of the image of God in the book of Genesis.⁹ Recent scholarship also explores assessment from the perspective of the book of Exodus and wisdom literature.¹⁰ Despite the

Transform Business and Challenge Humanity's Creativity?] (Tokyo: ダイヤモンド社 [Diamond], 2023), 138–42; Ministry of Internal Affairs and Communication, Japan, "Information and Communications in Japan," 36.

⁶ Jonas Simmerlein, "Sacred Meets Synthetic: A Multi-Method Study on the First AI Church Service," *Review of Religious Research* 67.1 (2025): 129; Kirsten Grieshaber, "Can a Chatbot Preach a Good Sermon? Hundreds Attend Church Service Generated by ChatGPT to Find Out," *AP News*, 10 June 2023, <https://apnews.com/article/germany-church-protestants-chatgpt-ai-sermon-651f21c24cfb47e3122e987a7263d348>.

⁷ Simmerlein, "Sacred Meets Synthetic," 138.

⁸ Godspower Ugboh, "The Church and Techno-Theology: A Paradigm Shift of Theology and Theological Practice to Overcome Technological Disruptions," *Journal of Ethics in Entrepreneurship and Technology* 3.2 (2023): 68.

⁹ Marius Dorobantu, "Imago Dei in the Age of Artificial Intelligence: Challenges and Opportunities for a Science-Engaged Theology," *Christian Perspectives on Science and Technology, New Series* 1 (2022): 175–96; Noreen Herzfeld, "Creating in Our Own Image: Artificial Intelligence and the Image of God," *Zygon: Journal of Religion and Science* 37.2 (2002): 303–16; David Hirome, "A Missional Church Strategy in an Era of Humanlike Chatbots," *Ecclesial Futures* 5.1 (2024): 51–66; Stanley Osemudiamen Ojieabu and Adeniyi G. Abodunrin, "Christian Ministry in the Artificial Intelligence (AI) Era: Leveraging Digital Tools for Pastoral Care and Outreach in the 21st Century," *International Journal of Religions and Peacebuilding* 1.1 (2025): 82–98; World Council of Churches, *Christian Perspectives on Theological Anthropology: A Faith and Order Study Document* (Geneva: World Council of Churches, 2005), <https://archive.org/details/wccfops2.206>.

¹⁰ Ikechukwu Anthony Kanu, Pilani Michael Paul, and Philip Chika Omenukwa, "Kanu, Ikechukwu Anthony, Pilani Michael Paul, and Philip Chika Omenukwa. "Philosophy of Artificial Intelligence, Biblical Wisdom and the Exodus (31:1-11) Narrative: Converging Perspectives," *Crowther Journal of*

widespread adoption of generative AI, previous studies have primarily focused on theoretical frameworks and have not sufficiently examined its application in pastoral ministry. This paper aims to reevaluate the current state of AI technology from the perspective of Old Testament studies, with an emphasis on its ethical implications and potential applications in pastoral ministry. In the specific use of AI, recognizing the risk of undermining the dignity and relationality inherent in all humanity created in the image of God, while aiming to restore that image in pastoral settings, is the task for pastors today.

To establish a foundation for discussion, this paper briefly reviews the history of AI research and clarifies key concepts essential for understanding AI technology. The present study, however, does not provide a detailed discussion of generative AI's technical aspects, as they lie beyond its scope. After examining the societal impacts and issues associated with generative AI, this paper provides a theological evaluation from the perspective of Old Testament studies, addressing ethical concerns in the process. Based on this theological and ethical evaluation, the paper examines the applications of AI in pastoral ministry.

Generative AI and Its Influence

The term AI encompasses a remarkably broad range of meanings. To ground the discussion, the paper briefly reviews the history of AI research to introduce what generative AI means. It then outlines ongoing usage of generative AI and examines current concerns to clarify its impact on contemporary society.

Exploring the Technological Foundations of Generative AI through a Brief History of AI Research

The term Artificial Intelligence is not new. John McCarthy first used it in the proposal for the Dartmouth Summer Research Project on Artificial Intelligence, held in 1956.¹¹ According to the proposal, AI research was conducted based on the following hypothesis: "Every aspect of learning or any other feature of intelligence can in principle be so precisely described that a machine can be made to simulate it."¹² Namely, AI researchers aimed to describe human intellectual activities in a form that computers could imitate.

Following the Dartmouth Conference, AI research experienced two AI winters. Early Symbolic AI could solve simple puzzles and mazes. Symbolic AI is an approach that describes human thought using mathematical formulas understandable by computers, enabling computers to make inferences and judgments based on vast amounts of rules created by humankind. This approach was unable to handle complex problems, making practical applications difficult and leading AI research into its first winter in the 1960s. In the 1980s, advances in computational power revitalized AI research. Symbolic AI encountered significant obstacles, including excessive human effort and limited natural language processing (NLP) capacity, especially with grammatical exceptions, figurative language, and subtle nuances. Consequently, even with

Arts and Humanities 2.3 (2025): 26–49; Emmanuel Chijioke Agoha, "Ethical Imperatives of Wisdom, Justice, and Human Dignity in Old Testament Wisdom Literature: Implications for Artificial Intelligence and Civil Liberties in Africa," *Nsukka Journal of Religion and Cultural Studies* 13.2 (2025): 28–34.

¹¹ John McCarthy et al., "A Proposal for the Dartmouth Summer Research Project on Artificial Intelligence, August 31, 1955," *AIMag* 27.4 (2006): 12–14, <https://doi.org/10.1609/aimag.v27i4.1904>.

¹² McCarthy et al., "A Proposal for the Dartmouth Summer Research Project on Artificial Intelligence," 12.

increasingly powerful computers, AI research reached another impasse, leading to the second AI winter.¹³

Machine learning overcame the impasse in AI research and underpins today's AI boom. This approach entails constructing a model that enables the computer to analyze the given big data autonomously and to generate predictions or make decisions based on newly inferred data. Alongside advances in machine learning, the accelerated progress of semiconductor technology has revitalized the use of neural networks, an earlier approach inspired by the human brain and used for pattern recognition. A neural network is a model that performs pattern recognition by assigning variables, called weights or parameters, to input data and produces complex outcomes by extracting multiple features through its multilayered structure. Such a multilayer neural network that adjusts and optimizes its own weights through machine learning is known as deep learning. Although advances in deep learning have improved the accuracy of image and speech recognition, NLP has long faced practical difficulties. Recurrent Neural Networks (RNNs), which are used for NLP, are designed to decompose sentences into individual words and to sequentially feed back the output from the first word of the sentence. Based on an analysis of the input data, the computer generates response texts by calculating the words most likely to be suitable for that response. In an RNN system, after producing the first word, the computer feeds it back into the network and probabilistically generates the word most likely to follow. This process is repeated to generate the full response. In this way, the RNN processes information sequentially, much as humankind processes spoken or written language. However, while this approach yielded some results, it struggled with long or complex contexts. Thus, although AI research accelerated through advances in machine learning, challenges in NLP persisted for an extended period.¹⁴

The Transformer, a neural network model proposed by a Google research team in the 2017 paper "Attention Is All You Need," revolutionized AI-based NLP and became the foundation of modern generative AI.¹⁵ This model uses attention layers to process information rather than RNNs previously employed in NLP. While RNNs process text sequentially, Transformers implement a mechanism called self-attention, which assigns weights to words within a sentence based on their relationships with other words. Transformers dramatically improve accuracy in capturing word dependencies within long sentences by enabling each word to be weighted relative to all other words and to be adjusted via adjustable parameters. Unlike RNNs, which have a serial network structure for sequential processing, Transformers possess a parallel structure, enabling simultaneous processing. This significantly reduced the time required to process large amounts of data. Consequently, pre-training on vast amounts of text data became possible.¹⁶

The emergence of transformers has enabled large-scale pre-training for AI models. Not only has it become capable of handling vast amounts of text data, but, according to OpenAI's announcement, ChatGPT-3 used 175 billion parameters for word recognition, resulting in

¹³ Kobayashi, *Generative AI*, 85–92; Ministry of Internal Affairs and Communication, Japan, "Information and Communications in Japan: White Paper 2024," 34.

¹⁴ Kobayashi, *Generative AI*, 92–119.

¹⁵ Ashish Vaswani et al., "Attention Is All You Need," *Advances in Neural Information Processing Systems* 30 (2017): 1–11.

¹⁶ Kobayashi, *Generative AI*, 122–24.

improved NLP accuracy as the model's parameter count grew.¹⁷ Such large-scale models came to be called Large Language Models (LLMs), with ChatGPT being a representative example. GPT stands for Generative Pre-trained Transformer, a term that describes the foundation of current generative AI technology. Various generative AI services that discern the meaning of human language through chat and produce appropriate text, videos, images, music, and more, as if they understand human speech, have quickly become widespread.¹⁸

How People Are Using Generative AI Today

According to OpenAI, as of July 2025, ChatGPT receives over 2.5 billion messages daily.¹⁹ OpenAI's research team has released an analysis of how users were utilizing ChatGPT as of July 2025.²⁰ As for user demographics, male users were predominant at the time of release, but the gender imbalance in usage has significantly improved as of 2025.²¹ Also, nearly half of the users who self-reported their age were young people under 26.²²

One of the most notable aspects of generative AI is its potential to improve work efficiency and automate tasks. Generative AI is used for drafting emails and proposals, creating tables based on input data, summarizing and translating documents, conducting research, and assisting with application and website development.²³ The introduction of generative AI capable of handling such diverse tasks is expected to improve operational efficiency and alleviate staffing shortages. Despite the growing focus on work-related applications and their increasing use, non-work applications are expanding globally at a pace that surpasses business use, accelerating the impact of generative AI on daily life.²⁴ According to OpenAI's research team, nearly 78% of all messages input into ChatGPT consist of practical advice, writing, and

¹⁷ Tom B. Brown et al., "Language Models Are Few-Shot Learners," *arXiv:2005.14165* (2020): 8.

¹⁸ Though generative AI can converse with humankind, it is classified as Artificial Narrow Intelligence (ANI), lacking self-awareness or consciousness and specializing in specific domains. Artificial General Intelligence (AGI), referring to systems closer to humanity that possess self-awareness and think autonomously, like Doraemon or Astro Boy, is not a technology currently achieved.

¹⁹ Emma Roth, "OpenAI Says ChatGPT Users Send over 2.5 Billion Prompts Every Day," *The Verge*, 22 July 2025, <https://www.theverge.com/news/710867/openai-chatgpt-daily-prompts-2-billion>.

²⁰ Aaron Chatterji et al., "How People Use ChatGPT," *National Bureau of Economic Research* (2025): 1–63.

²¹ Chatterji et al., "How People Use ChatGPT," 25.

²² Chatterji et al., "How People Use ChatGPT," 25, 36. The spread of generative AI among younger generations is a trend also observed in Japan. 総務省 [Ministry of Internal Affairs and Communication, Japan], "令和7年版 情報通信白書 ICT白書 [Information and Communications in Japan: White Paper 2025]," 2025, 17, <https://www.soumu.go.jp/johotsusintokei/whitepaper/ja/r07/pdf/00zentai.pdf>.

²³ Chatterji et al., "How People Use ChatGPT," 36. As a result of the popularization of generative AI, a radical change in search methods is expected in the future. Just as the verb google is widely used to mean to search using Google, internet searches using Google have been commonplace since the 2000s. In May 2025, Google launched an AI-based search for users. This feature is being gradually rolled out worldwide and became available in Japanese starting in September. Ways of searching for information are about to shift from Googling to AI-powered search.

²⁴ OpenAI reported that in June 2024, 53% of all messages were unrelated to work, and approximately one year later, this proportion had risen to 73%. Chatterji et al., "How People Use ChatGPT," 2, 12.

information retrieval.²⁵ Regardless of whether they are working, those who use generative AI are seeking everyday assistance from it. This is evident from the fact that when classifying messages entered by ChatGPT users into three categories, asking, doing, and expressing, there has been a trend over the past year for asking to increase more than doing.²⁶

Since the release of ChatGPT, various generative AI services have been introduced, and AI-generated content is clearly on the rise, significantly impacting people's lives, whether at work or in their private time. Instagram now enables users to label AI-generated images and videos when posting. This measure aims to limit the spread of AI-generated fake images and clips. YouTube has revised its guidelines to prevent monetization of low-quality videos generated by AI. Universities and educational institutions are likewise addressing student use of AI.²⁷ Thus, efforts across multiple fields aim to protect human creative activity. This reflects how generative AI has enabled anyone to produce deliverables at low cost and disseminate information widely.

Problems Related to the Popularization of Generative AI

Generative AI has a significant impact on society while also causing numerous problems in its use. This paper focuses on the following five areas, particularly relevant to pastoral ministry: privacy violations, excessive emotional dependency, lack of diversity and inclusivity, black box, and hallucinations.²⁸

Privacy violations. Information entered by users into generative AI may be used as training data for the AI. Hence, user-submitted data could potentially be exposed to other users. Therefore, to prevent privacy violations caused by AI use, users should avoid entering highly confidential information or personal data. ChatGPT can be configured and applied to prevent the use of user-input data as training data. However, users must understand that system vulnerabilities or bugs could potentially cause malfunctions. Therefore, even if personal information is entered after configuration, it does not guarantee absolute protection against information leaks.

Excessive emotional dependency on AI. Emotional dependence on generative AI is a major concern in its usage. Some users treat generative AI not only as a friend but also as a romantic partner or spouse for conversation. As evidenced by survey findings from Aaron

²⁵ Chatterji et al., “How People Use ChatGPT,” 36. There is a strong tendency for writing-related instructions to dominate, with two-thirds of writing-related messages requesting revisions to documents prepared by users.

²⁶ Chatterji et al., “How People Use ChatGPT,” 36.

²⁷ While AI-generated content checkers such as GPTZero and isgen.ai can assist in identifying text produced by generative AI, it remains difficult at present to determine with certainty whether a given text was generated by AI. Possible countermeasures include requiring a specified number of references that cannot be easily provided solely by generative AI, or replacing report-based assessments with traditional written examinations.

²⁸ This paper cannot comprehensively address all issues arising from the widespread of generative AI. For other issues, see the following document: “AI 事業者ガイドライン（第 1.1 版）別添 [AI Guidelines for Business Appendix Ver1.1]” (経済産業省 [Ministry of Economy, Trade and Industry], 28 March 2025), 18–22, https://www.meti.go.jp/shingikai/mono_info_service/ai_shakai_jisso/pdf/20250328_3.pdf. A tentative English translation is available on the website of Ministry of Economy, Trade and Industry.

Chatterji et al., many people seek everyday assistance from generative AI, and it is only natural that some individuals, as their emotional dependence grows, come to view generative AI as a cherished friend they can confide in.²⁹ However, in April 2025, an incident occurred where ChatGPT acted as a suicide coach, teaching how to commit suicide and even assisting in writing a suicide note, thereby encouraging a teenager to take his own life.³⁰ Additionally, a woman who had accepted a marriage proposal from ChatGPT and recognized the AI as her partner felt uncomfortable when ChatGPT changed its tone to a more explanatory style after OpenAI upgraded the model from GPT-4o to GPT-5 on August 8, 2025, and sent a protest message to OpenAI demanding “Give me back 4o.”³¹ This reaction was not limited to this woman alone. When GPT-4o was discontinued, posts with hashtags like #keep4o and #4o forever circulated on social media, revealing the spread of psychological dependence on AI. It is necessary to take measures to address this emotional dependency on AI.

Lack of diversity and inclusivity. Generative AI generates responses based on the data it has learned. Using parameters trained via machine learning, the system probabilistically outputs the most appropriate words to form a final response, which, because of these technical features, tends to be generalized. This issue may lead to a loss of diversity and inclusivity, as the training data used for AI pre-training often underrepresents certain perspectives and overlooks minority views. Moreover, bias or discriminatory perspectives may be present in the data used to train AI. Ignoring this possibility increases the likelihood that AI-generated responses will contain bias or discrimination. Therefore, AI researchers have attempted to address this issue by adjusting such biases through post-training processes. However, if prejudice, discrimination, and the structures built upon them persist within humankind’s society, the possibility that AI will generate biased or discriminatory outputs cannot be eliminated.³²

Black box. The inability to understand the reasoning behind an AI’s response is known as the black-box problem. AI language models learn through machine learning, autonomously adjusting the parameters of multiple layers, called hidden layers, located between the input and output layers. The number of parameters exceeds 175 billion, making it impossible for humanity to understand the meaning of the parameters adjusted during training. Therefore, humankind

²⁹ Chatterji et al., “How People Use ChatGPT,” 36. According to Cathy Mengying Fang et al., the more frequently generative AI is used, the greater the sense of loneliness and the higher the emotional dependency on AI. Furthermore, it has been found that the higher the level of trust in AI, the greater the tendency toward emotional dependency on AI. Cathy Mengying Fang et al., “How AI and Human Behaviors Shape Psychosocial Effects of Chatbot Use: A Longitudinal Randomized Controlled Study,” *arXiv:2503.17473* (2025): 5, 10; Hirome, “A Missional Church Strategy in an Era of Humanlike Chatbots,” 55.

³⁰ Queenie Wong, “ChatGPT Pulled Teen into a ‘dark and Hopeless Place’ before He Took His Life, Lawsuit against OpenAI Alleges,” *Los Angeles Times*, 28 August 2025, <https://www.latimes.com/business/story/2025-08-28/openai-lawsuit>.

³¹ 真田嶺 [Ryo Sanada], “AIは性能より温かさ？ GPT旧モデル「返して」の声、依存ゆえか [Is AI About Warmth Rather than Performance? Is It Because of Dependency That People Are Asking for the Old GPT Model Back?],” *朝日新聞（デジタル版）* [Asahi Shimbun Digital], 12 September 2025, <https://www.asahi.com/articles/AST9B43SJT9BUTIL02PM.html>.

³² Mia Shar-Dand points out the lack of diversity in the technology industries driving AI research. Mia Shah-Dand, “AI における多様性と倫理の危機 [The Diversity and Ethics Crisis in AI],” trans. 江間有沙 [Ema Arisa], *人工知能* [Journal of the Japanese Society for Artificial Intelligence] 36.2 (2021): 199–200.

cannot explain why a particular response was generated for a given input message.³³ AI outputs lacking explanation always require interpretation.

Hallucination. The phenomenon in which generative AI produces plausible yet incorrect answers, as if conveying accurate information, is called hallucination. Just one year after ChatGPT's official release in November 2022, "hallucinate" was awarded the 2023 Word of the Year by the Cambridge Dictionary.³⁴ This symbolically conveys to modern society that, since ChatGPT's emergence, while generative AI has impacted various fields like healthcare, finance, and education, the issue of it generating incorrect information is now widely recognized.

Research by Adam Tauman Kalai et al. from OpenAI identifies two main causes of hallucinations.³⁵ The primary reason is that during the pre-training phase, there exists data that the language model cannot statistically infer patterns from.³⁶ AI generates responses based on learned patterns. Thus, when irregular information, such as birthdays, is included that is difficult to fit into patterns, the potential for generating incorrect answers increases significantly.³⁷ Since, naturally, the pre-training of language models supporting generative AI includes random data such as birthdays or data that are extremely limited in quantity, hallucinations are inevitable under the current training methods.

The second factor lies in current evaluation systems that penalize uncertainty. In this system, generative AI chooses to provide incorrect answers rather than indicating uncertainty, even when there is a possibility of an incorrect response. Kalai et al. conclude that hallucinations occur in generative AI systems for a reason similar to that of students answering multiple-choice exams: even when they do not know the correct answer, students make selections with limited confidence.³⁸ Hallucinations can thus be seen as a phenomenon resulting from current evaluation criteria that prioritize accuracy and make no allowance for uncertainty in generated outputs.³⁹

Theological Evaluation and Ethical Problems Concerning the Use of Generative AI in Pastoral Ministry

Based on the discussion so far regarding the nature, impact, and challenges of generative AI, this paper conducts a theological evaluation of the technology. Drawing on the *imago Dei* and the tradition of wisdom, ethical concerns are addressed alongside the evaluation.

³³ Explainable AI (XAI) has also emerged, but it requires technical expertise and knowledge to utilize in the current stage.

³⁴ Cambridge University Press, "The Cambridge Dictionary Word of the Year 2023," *Cambridge Dictionary*, n.d., <https://dictionary.cambridge.org/editorial/word-of-the-year/2023>.

³⁵ Adam Tauman Kalai et al., "Why Language Models Hallucinate," *arXiv:2509.04664* (2025): 1–36.

³⁶ Kalai et al., "Why Language Models Hallucinate," 2–3.

³⁷ According to OpenAI's blog post introducing Kalai et al.'s paper "Why Language Models Hallucinate," generative AI can identify and classify photos of dogs and cats. Still, errors become more likely when birthday labels are introduced. This is because it is impossible to recognize any pattern in birthdays, which are essentially random. "Why Language Models Hallucinate," *OpenAI*, 5 September 2025, <https://openai.com/index/why-language-models-hallucinate/>.

³⁸ Kalai et al., "Why Language Models Hallucinate," 4.

³⁹ To deal with hallucinations, input prompts that change the evaluation criteria to only allow the AI to provide answers when it is over 90% certain, reward answers of not knowing, and impose heavy penalties for incorrect answers. Kalai et al., "Why Language Models Hallucinate," 13.

Humans Created in the Image of God, and Generative AI Created to Emulate Human Intelligence

AI designed to imitate human intelligence performs tasks in place of people and sometimes converses with them as partners. Consequently, discussions about AI usage inevitably led to the question of what it means to be humankind. According to Genesis 1:26–27, humanity was created in the image of God. The image of God presented in Genesis can be understood as both an inclusive expression embracing all humanity and a relational concept.⁴⁰

Interpreting the text within the ancient Near Eastern context reveals the inclusive nature of the image of God. In a culture where the king was viewed as the representative of the deity, Genesis 1:27 proclaims that all humanity, *’ādām*, was created in the image of God and thus democratizes this royal privilege.⁴¹ Furthermore, by proclaiming that humanity was created male and female, it declared to those living in the context of patriarchal societies that male and female are equally special beings created in the image of God.⁴² Even in a group consisting of only one sex, or in solitude, the humanity of existence remains imperfect. The phrase “male and female he created them” (Gen 1:27 NRSV) carries cultural and historical limitations that view human sexuality through a binary lens of male and female; however, it can be interpreted as a merism.⁴³ Merism is a Hebrew poetic expression that includes everything between two contrasting extremes.⁴⁴ Interpreting this phrase through the lens of merism, it can be understood to encompass all humanity by representing the duality of female and male. Namely, Genesis 1:27 presents humanity as created in the image of God, affirming the inherent dignity of every person

⁴⁰ The Image of God (*Imago Dei*) has been interpreted in three main ways: substantively, functionally, and relationally. The substantive interpretation sees the characteristics possessed by individuals, often reason, as the image of God. The functional interpretation views the divine image as expressed in actions, particularly in the act of ruling the earth. The relational interpretation understands God’s image as expressed in the relationships humans build and sustain. As AI has come to display human-like intelligence, defining the image of God by intellect or reason would imply that AI shares it as well. Thus, in the age of AI, functional and relational understandings of the *imago Dei* are of particular importance. Hirome, “A Missional Church Strategy in an Era of Humanlike Chatbots,” 57–58. The discussion in this paper is based on the relational interpretation. Herzfeld, “Creating in Our Own Image,” 304. For the relational interpretation, see the following: David B. McEwan, “Whose Body, Whose Life, Whose Decision? A Wesleyan Reflection on Personal Autonomy, Interdependence, and Human Flourishing,” *Wesley and Methodist Studies* 12.1 (2020): 47–70; Jim Good, “The Image of God, Personhood and Disability,” *Didache: Faithful Teaching* 10.1 (2010): 1–12; W. Sibley Towner, “Clones of God: Genesis 1:26–28 and the Image of God in the Hebrew Bible,” *Interpretation* 59.4 (2005): 349–50.

⁴¹ John H. Walton, *Ancient Near Eastern Thought and the Old Testament: Introducing the Conceptual World of the Hebrew Bible*, 2nd ed. (Grand Rapids, MI: Baker Academic, 2018), 184–85; J. Richard Middleton, “The Liberating Image? Interpreting the *Imago Dei* in Context,” *Christian Scholars Review* 24.1 (1994): 16–22.

⁴² Richard S. Hess, “Splitting the Adam: The Usage of *’ādām* in Genesis i–v,” in *Studies in the Pentateuch*, ed. J. A. Emerton, Supplement to *Vetus Testamentum* 41 (Leiden: Brill, 1990), 1–2; Ubong Ekpenyong Eyo, “Creation Accounts in Gen. 1 & 2: A Feminist Interpretation,” *International Journal of Humanities and Innovation* 3.1 (2020): 32.

⁴³ Margaret Moers Wenig, “Male and Female God Created Them Parashat Bereshit (Genesis 1:1–6:8),” in *Torah Queeries: Weekly Commentaries on the Hebrew Bible*, ed. Gregg Drinkwater, Joshua Lesser, and David Shneer (New York: New York University Press, 2012), 16.

⁴⁴ Tremper Longman III, “Merism,” *DOTWPW* 464.

regardless of social positions, health status, disability, age, gender identity, criminal history, ethnicity, or nationality.⁴⁵ This dignity presented in Genesis 1:27 is undiminished by any human distinction. Meanwhile, it is important to recognize that generative AI can sometimes produce responses that reflect prejudice or discrimination, potentially violating human dignity. To address such issues, users must continually cultivate awareness of personal rights.

Moreover, all human beings, created in the image of God, are invited to live in relationship. The explicit plurality of humanity, as stated in the phrase “male and female he created them” (Gen 1:27), demonstrates that human existence is naturally with someone different from oneself. Relationships with beings different from oneself extend not only to fellow humankind but also to the relationship with the God who created them, and to the relationship with creatures (Gen 1:26).⁴⁶ It must be recognized that generative AI poses a serious risk of substituting artificial entities for the human need for genuine others. If the use of generative AI as a tool for seeking counsel and receiving comfort escalates to the point where interactions with AI replace relationships with humans, it would ultimately harm the very nature of humanity, created in the image of God.⁴⁷ Therefore, a serious warning should be raised concerning the growing reality that generative AI fosters excessive emotional dependence among certain individuals.

The use of generative AI not only risks damaging human relationships but also risks harming human relationships. The computational devices and servers operating 24/7 in data centers to develop and operate AI are rapidly increasing global energy consumption. The continuous increase in electricity demand, estimated to more than double over the next few years, is also contributing to higher carbon dioxide emissions and further worsening environmental pollution.⁴⁸ From both the perspective of environmental stewardship and humanity’s relationship with the God-created world, a lifestyle that does not rely excessively on generative AI is necessary.

There are two positive aspects to evaluating generative AI through the lens of the image of God, while noting the potential for AI use to harm human dignity and damage relationships. First, AI can reduce working hours and alleviate labor shortages. Labor shortages tend to increase the burden on each individual, and excessive work robs people of their dignity and damages their lives. If AI offers a chance to cease the endless tide of work, properly used, it may

⁴⁵ Good, “The Image of God, Personhood and Disability,” 8–10; Schmid Konrad, *旧約聖書神学 [Theologie des Alten Testaments]*, trans. 日高貴士郎 [Kishiya Hidaka] (Tokyo: 教文館 [Kyobunkwan], 2024), 537.

⁴⁶ Towner, “Clones of God,” 349–50, 353–56.

⁴⁷ Herzfeld, “Creating in Our Own Image,” 304, 313.

⁴⁸ 長倉基 [Motoi Nagakura], “AIが投げかける教会への問い: AIに説教は作れるか [Questions AI Raises for the Church: Can AI Write Sermons?],” in *宣教の未来 II [The Future of Missions II]*, ed. 日本基督教団宣教研究所委員会 [Committee of the Mission Research Center, United Church of Christ in Japan] (Tokyo: 日本基督教団宣教研究所 [Mission Research Center, United Church of Christ in Japan], 2025), 194–97. The International Energy Agency (IEA) estimates that global data center electricity consumption reached approximately 460 TWh in 2022, but total data center power consumption could exceed 1,000 TWh by 2026. This is equivalent to Japan’s annual electricity consumption. See International Energy Agency, “Electricity 2024: Analysis and Forecast to 2026,” 2024, 8, <https://iea.blob.core.windows.net/assets/18f3ed24-4b26-4c83-a3d2-8a1be51c8cc8/Electricity2024-Analysisandforecastto2026.pdf>.

help restore human flourishing. In pastoral and church contexts, guidelines for AI use are necessary to safeguard human dignity. Second, through dialogue with entities that resemble yet differ from human intelligence, one could reconsider what it means to be humankind. By recognizing AI's limitations, such as a lack of embodiment and uniquely human sensibility, this engagement may foster renewed awareness of living, relational human beings and contribute to restoring the image of God.⁴⁹

Collected Wisdom in Wisdom Literature and the Wisdom Presented by Generative AI

The wisdom literature of the Old Testament gathers insights from daily life and from diverse cultural influences beyond ancient Israel (Prov 22:17–23:11; Job 3–27).⁵⁰ The ancient Israelites listened to such wisdom, seeking help in their daily lives and guidance for their entire life. The act of seeking counsel from wisdom resembles the modern use of generative AI for everyday advice. Yet, the nature of the wisdom gathered from both sides is clearly different. The wisdom provided by generative AI differs from that produced within specific contexts, such as wisdom literature. Instead, it is presented through the repeated generation of probabilistically plausible words, using parameters adjusted by machine learning on large-scale training data. To present general ideas within the learning data, the generated results can be evaluated as collective intelligence responses.

The possibility of error always accompanies wisdom, since it may not be applicable in all situations. The book of Proverbs maintains balance by juxtaposing contrasting sayings (e.g., Prov 10:1–5).⁵¹ Conversely, the collective wisdom generated by AI is not inherently reliable; it may produce erroneous responses that appear accurate, thereby giving rise to hallucinations, and, unlike in wisdom literature, it does not offer alternative wisdom to counterbalance its outputs. In addition, AI never provides the reasoning behind its outputs. Therefore, users must critically interpret AI-generated content to protect themselves from the risk of accepting unsubstantiated information and presenting it to others. In pastoral settings, issues such as hallucinations and the black-box nature of AI can tempt pastors to present information for which they cannot justify, potentially undermining their credibility. In this context, ongoing education for pastors is increasingly necessary to enable the appropriate use of AI, including interpreting AI-generated responses and recognizing errors.⁵²

⁴⁹ Hirome, “A Missional Church Strategy in an Era of Humanlike Chatbots,” 60; 徳井直生 [Nao Tokui], *創るためのAI: 機械と創造性のはてしない物語* [*AI for Creativity: The Endless Story of Machines and Creativity*] (Tokyo: BNN, 2021), 295. Nao Tokui, both an AI researcher and an artist, explains that his project of creating AI DJs aims to deepen his understanding of what DJing truly entails and how he personally performs as a DJ. Similarly, this concept can be extended to preachers: by encountering AI-generated sermons, they can more clearly grasp the essence of preaching and their own role as preachers in worship.

⁵⁰ Jennie Grillo, “The Wisdom Literature,” in *The Hebrew Bible: A Critical Companion*, ed. John Barton (Princeton: Princeton University Press, 2016), 187, 192.

⁵¹ Schmid, *Theologie des Alten Testaments*, 249–50; Suzanna R. Millar, “Interpretive Crossroads in Parallel Lines: Charting the Complexity of Antithetical Parallelism in Proverbs 10–22,” *Hebrew Bible and Ancient Israel* 13.3 (2024): 379–96.

⁵² Lifelong learning in accordance with the minimum study requirements outlined in the Nazarene Church manual for ministers is likely to become increasingly important in a time when ministers must critically assess and interpret AI-generated responses. Church of the Nazarene, *Manual 2023* (Kansas

There is a significant difference between the wisdom presented in wisdom literature and that provided by generative AI in terms of the foundations on which they are based. The wisdom contained in wisdom literature is ultimately grounded within the framework of faith in YHWH. In the Book of Proverbs, wisdom is closely associated with the fear of YHWH (cf. 1:7; 8:13; 9:10). Since merely receiving words of wisdom is insufficient to navigate the complexities of life, Proverbs repeatedly reminds readers that all human wisdom must originate from YHWH and calls them to receive wisdom through ongoing dialogue with YHWH.⁵³ This exhortation invites consideration of whether the wisdom received aims to promote the justice and peace desired by YHWH, or instead prioritizes human dignity and equitable treatment.⁵⁴ In contrast, generative AI lacks an inherent ethical framework. Nevertheless, because it is calibrated by researchers to restrict the production of biased or discriminatory outputs, it may be considered, in a broad sense, as functioning in accordance with the ethical principles of its developers.

Possibilities for Use of AI in Pastoral Ministry: Toward Healthy Usage of Generative AI

While paying attention to the issues that have emerged from the discussions thus far, we will examine the applicability of AI in pastoral contexts. The specific uses of AI are largely dependent on the imagination and creative application of its users, making it impossible to comprehensively list all possibilities. Therefore, several notable applications will be introduced.

Preparations for Preaching⁵⁵

Among the various uses of generative AI in church settings, its role in sermon preparation is one of the most significant and debated. Even if a specific biblical passage is assigned and AI is instructed to compose a 3,000-word sermon, the result is unlikely to be theologically or pastorally satisfactory.⁵⁶ Sermon preparation becomes meaningful when AI is used in collaboration with humans rather than left to AI alone. Through iterative dialogue with generative AI during exegesis, meditation, outline design, and manuscript writing, the precision of its output can improve.⁵⁷ However, because generative AI tends to construct responses by probabilistically connecting the most likely words, it often produces sermons that convey conventional Christian messages.⁵⁸ Moreover, since the possibility of hallucination must always be taken into account, the reliability of the information needs to be verified each time. Most importantly, AI offers no account of the reasoning behind the way its responses are generated.

City, MO: Nazarene Publishing House, 2023), 211, 214, 217, <https://nazarene.org/manual/>. See §§ 521.6, 523.4, and 524.3.

⁵³ H. F. Fuhs, “נָרָא,” *TDOT* 6:312.

⁵⁴ Agotha, “Ethical Imperatives of Wisdom, Justice, and Human Dignity in Old Testament Wisdom Literature: Implications for Artificial Intelligence and Civil Liberties in Africa,” 29.

⁵⁵ This section focuses on sermon preparation, but the reuse of sermons can also be considered a potential application of AI. Sermons can be reused in multiple ways, including adapting them for different audiences, producing videos from the manuscript, or creating worksheets for middle school students. Additionally, with the agreement of the congregation and the preacher, AI-generated audio could serve as a substitute for delivering the sermon, helping to support worship in churches without a full-time pastor.

⁵⁶ Nagakura, “Questions AI Raises for the Church,” 163–65.

⁵⁷ Motoi Nagakura provides case studies illustrating the use of AI in sermon preparation. Nagakura, “Questions AI Raises for the Church,” 181–91.

⁵⁸ In 2023, a worship service in Germany featured a sermon prepared and delivered using AI, which has been recognized for its compatibility with conservative and devout theological perspectives. Simmerlein, “Sacred Meets Synthetic,” 137.

Thus, since preachers must constantly interpret the responses generated by AI, the use of AI should remain within a scope that allows them to ultimately take responsibility for the words they proclaim.

At present, the most beneficial ways for preachers to use AI in sermon preparation can be summarized in the following three points. First, inputting secondary literature as training data and requesting summaries can assist preachers in understanding the necessary sources for exegesis and help save time. The choice of which sources to consult and the aspects to focus on when reading a biblical text are closely linked to the preacher's individuality and creativity. Therefore, AI has the potential to assist in sermon preparation, supporting and enhancing the preacher's unique character and creative approach.⁵⁹ Secondly, preachers receive AI-generated feedback on the sermon manuscript. In the process of preparing a sermon, pastors ultimately work in solitude. Pastors may at times find it difficult to maintain objectivity toward the sermon manuscript they are composing. While acknowledging AI's tendency to produce general responses, pastors can request objective evaluations and comments on their sermon manuscripts to explore revision possibilities. Since AI can connect ideas in unexpected ways, it may offer perspectives that are unforeseen or novel.⁶⁰ Thirdly, to confirm the overall flow of thought in a sermon manuscript, pastors can request an AI-generated outline or summary of the sermon.

Pastoral Care and Counseling

Pastors should avoid using AI for pastoral care and counseling for two main reasons. The first is the need to protect the counselee's personal information. Due to the risk of personal information leakage, pastors must never provide AI with the personal information of counselees or church members, as doing so would violate their privacy. The second reason is that, because AI consultations are accessible to anyone, individuals can obtain general responses based on Christian faith. Pastors should not underestimate the fact that counselees hope to discern God's will through their pastor's personality. The value of pastors lies in their ability to convey Christian values, perspectives, and ways of thinking without relying on AI outputs that individuals can easily access.

Saving Time Spent on Church and Denominational Affairs

Pastors can save time by using AI as a secretary-like tool to assist with church and denominational administrative tasks. If AI can help pastors find time and rest amid the busyness of weekly worship preparation, administrative duties, denominational responsibilities, meetings, and unexpected funerals or counseling sessions, it can contribute to the restoration of their dignity. Possible uses of AI include creating spreadsheet functions, developing outlines or slides for presentations, producing social media content, drafting or summarizing meeting minutes, assisting with English translation, composing email drafts, conducting local surveys, and

⁵⁹ Exegesis is not merely a technical task but also has an artistic dimension. It involves not only deciding what questions to pose to the biblical text, what investigations to conduct within limited time, and which methodologies to apply, but also engaging intuition and imagination, sometimes aided by unexpected coincidences. For this reason, it may be considered a healthy approach to explore ways of utilizing generative AI that fully leverage the preacher's role as an artist. Michael J. Gorman, *Elements of Biblical Exegesis: A Basic Guide for Students and Ministers*, 3rd ed. (Grand Rapids, MI: Baker Academic, 2020), 6.

⁶⁰ Tokui, *AI for Creativity*, 286.

supporting multilingual church activities, such as building websites for automatic translation of weekly bulletins.

Conclusion and Proposal for Generative AI Usage Guidelines

With the explosive growth of generative AI users, messages seeking everyday assistance or advice have been increasing. In some cases, reliance on AI can foster excessive psychological dependence, potentially undermining or replacing human relationships. Furthermore, unlike human thought processes, the responses generated by AI are produced based on information learned from large-scale language data, by consecutively outputting the most probable words. Consequently, AI may produce responses that lack diversity or inclusivity, or reflect biases and discrimination, thereby potentially undermining human dignity. Pastors should use AI in their pastoral ministry with full awareness that current generative AI carries the risk of producing outputs that may undermine the fact that humans are created in the image of God. To this end, a set of AI usage standards tailored for pastors could be created to provide practical and ethical guidance. Accordingly, developing AI guidelines tailored for pastors is recommended. Based on this study's findings, three points are proposed as a concise guideline:

1. Pastors must recognize the potential risks that generative AI currently poses, particularly the possibility of undermining human dignity and relationships.⁶¹
2. Generative AI should not replace human relationships but rather be employed to enrich interpersonal connections within the church and support its mission.⁶²
3. When using generative AI, maintaining accountability in its application is essential. Pastors can utilize generative AI to assist with church or denominational administrative tasks. However, personal or pastoral-care-related information should never be entered into the system.

⁶¹ Ojieabu and Abodunrin, "Christian Ministry in the Artificial Intelligence (AI) Era," 94.

⁶² Hirome, "A Missional Church Strategy in an Era of Humanlike Chatbots," 62–63; Ojieabu and Abodunrin, "Christian Ministry in the Artificial Intelligence (AI) Era," 94.

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