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ARTICLE

A Missional Church Strategy in an Era of Humanlike Chatbots

David Hirome

Abstract

The recent prominence of advanced chatbots that greatly mimic human intelligence and conversation appears to have set a new stage in the rapidly developing field of Artificial Intelligence. Chatbots such as ChatGTP and Bard have risen to global popularity among internet users who interface with the chatbots in a nearly humanlike manner through a question-and-answer format. But such great technological developments also give rise to questions regarding theology and spirituality. Thus, this paper asks: what does it mean to be human in an increasingly AI-driven world? How can Christian communities around the globe respond to the ongoing developments in the field of AI? Based on missional anthropology, this paper argues for an understanding of humans as embodied agents of God as central in a missional strategy to respond to the proliferation of advanced AI chatbots today.

Keywords: Chatbots, Artificial intelligence, Human intelligence, Christian communities, Missional anthropology, Embodied agents

Introduction

We are now living in an era where a Christian can simply swipe their smartphone and instantly get curated responses to difficult spiritual questions, interpretations of the Bible, personalized prayers and written sermons, all with a human touch. This is the power of Chat Generative Pre-trained Transformer (ChatGPT), a recent advance in Artificial Intelligence that continues to excite and engage internet users across the world since its launch in November 2022.

Despite its recent appearance on the technological scene, ChatGPT has already made significant inroads among Christians in Southeast Asia. This has been more pronounced in South Korea, a global technological powerhouse. ChatGPT-powered startups have penetrated the South Korean Christian landscape at an astonishing

pace (Ko 2023). One of these startups is called Meadow and it can write wonderful sermons for pastors. The other is named Biblely and it can have the Bible read to you in your pastor's voice or even in your parent's voice. Such technological developments raise pertinent areas of theological and missiological reflection for the Church today.

Background

ChatGPT exemplifies the ongoing progress in artificial intelligence (AI) that is revolutionizing human–machine communication online. However, it's important to note that chatbots like ChatGPT rely on distinct artificial intelligence technologies, highlighting the need to view AI as a diverse rather than uniform technological system (Coghill 2023: 605).

AI chatbots are designed to simulate human conversation and respond to user queries in real time. Originally emerging as tools for customer support and online assistance, these AI-driven conversational agents have evolved to encompass a wide range of applications, from virtual assistants in mobile devices to integrated communication platforms on websites and social media (Følstad and Skjuve 2019).

AI chatbots continue to impact human communication by altering traditional modes of interaction and reshaping the dynamics of interpersonal relationships. For instance, unlike conventional communication channels, chatbots operate 24/7, providing instantaneous responses and information retrieval. This accessibility has transformed the way individuals seek and receive information, fostering a culture of immediate gratification and expectation in communication.

The proliferation of AI chatbots is part of a broader trend in the increasing integration of technology into virtually every facet of contemporary life. From healthcare and education to business and entertainment, AI technology has become an omnipresent force, reshaping the way individuals interact with their environments and with each other. Chatbots are categoric technologies of the Fourth Industrial Revolution (4IR) and particularly artificial intelligence. The technology of AI has been considered key for 4IR and thus needful of "serious scrutiny as it will influence humanity and the world" (Mdingi, 2020: 2). Advances in AI present challenges to the biblical view of humanity and that of the world, a locus of God's mission. Thus, the relationship between advanced technologies such as AI chatbots, and the Church's mission, is an area that requires sustained scrutiny (McAlpine, 2011: 144).

It is against this background that this article asks: what does it mean to be human in an increasingly AI driven world? How can Christian communities around the globe respond to the ongoing developments in the field of AI? From a perspective of missional anthropology, this article argues for an understanding of humans as embodied agents of God as a central tenet in a missional strategy to respond to the proliferation of advanced AI chatbots today. In talking about a missional church

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strategy, the aim is not to propose a model or structure but rather spur local Christian communities to "engage their context, learn to listen and see where God is at work in the midst of all the confusion, anxiety, pluralism, and technological transformation" (Roxburgh and Boren 2009: 86).

Purpose of the Article

The primary objective of this article is to propose steps towards a missional church strategy in light of the proliferation of humanlike chatbots. This entails an exploration of how the Church, in the face of advancing AI technology, can adapt and leverage humanlike chatbots in a manner that enhances its mission. In doing so, this article examines the intersection of humanlike chatbot technology and missional anthropology with particular emphasis on the *Imago Dei*.

Importance of the Topic

Humanlike chatbots (HLCs) present significant challenges and opportunities in the context of the Church's missional engagement in the world. The technology of HLCs continues to evolve with a goal of producing chatbots whose performance appears to erase the distinction between machines and humans. It is thus significant to ensure that such technological advancements align with the core values and identity of the Church. By proactively engaging with these considerations, the Church is better placed to harness the positive use of AI while mitigating potential pitfalls in its missional engagement in the world. In this way, the people of God are formed for mission-shaped lives in an era of humanlike chatbots.

Literature Review

Overview of Humanlike Chatbot Technology

It is evident that theological research today strives to keep up with the rapid advances in artificial intelligence as new prototypes of chatbots evolve on a regular basis. What is certain is that AI chatbots have emerged as sophisticated tools in the realm of digital communication, exhibiting remarkable capabilities in understanding and responding to user queries. A chatbot is an AI system "which responds like an intelligent entity when conversed with" (Khanna et al. 2015: 277). Chatbots are diverse and oftentimes different AI systems may be identified as chatbots. Thus, a chatbot is often synonymous with "the terms 'conversational agents' and 'dialogue systems' and may refer to task-oriented as well as non-task-oriented solutions" (Skjuve et al. 2021). The history of chatbots stretches way back to 1966 with the earliest example of ELIZA (Weizenbaum 1966). More recent examples from the last decade include virtual assistance systems such as Google Assistant and Siri. ChatGPT illustrates the capability that chatbots have gained today.

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The current state of AI chatbot technology reflects advances in the areas of natural language processing (NLP) and deep learning (DL) contributing to their widespread adoption across various industries. NLP is a key chatbot technology that enables algorithms to build and represent human languages (Singh and Mahmood 2021). Conversely, DL technology mimics the human brain function to "decode patterns from the training data and uses the same patterns to process new information" (Maher, Kayte and Nimbhore 2020: 507). Together, NLP and DL enable chatbots to interact with users in a nearly humanlike manner. OpenAI, the company behind ChatGPT, have leveraged NLP and DL in a framework known as Generative Pre-training Transformer or GPT (Radford et al. 2018). This has enabled ChatGPT to implement "unsupervised pre-training and supervised fine-tuning to generate human-like responses to queries and provide responses to topics that resemble that of a human expert" (Dwivedi et al. 2023: 3).

Furthermore, the advances in HML chatbots extend beyond text-based interactions to include multimodal capabilities. Some chatbots can now interpret and generate responses based on images, videos and audio inputs, providing a richer and more interactive user experience (Lin et al. 2023). For instance, ChatGPT4, an advanced version of OpenAI's chatbots, can output text in response to a users' input of an image (OpenAI 2023). The incorporation of such multimodal capabilities in HLCs further serves to anthropomorphize these machines. This prompts a review of the societal impact of these HLCs.

Societal Impact of Humanlike Chatbots

HLCs are becoming influential actors in shaping societal interactions, transforming communication patterns, and redefining community dynamics. This means humanlike chatbots pose a significant impact on individuals and communities. Some of the ways in which this impact unfolds include: enhanced accessibility, shift in communication channels, personalised experiences, and human relationships. Ethical issues related to chatbot use in society also raise concern.

First, HLCs contribute to enhanced accessibility, providing users with immediate and convenient access to information and services. This is particularly evident in sectors like customer service, where chatbots offer instant support, reducing response times and increasing overall convenience (Xu et al. 2017). The increased access and convenience afforded by HML chatbots points to a possible wider deployment of these chatbots in virtually all sectors of society.

Second, the increased integration of HLCs has led to a notable shift in communication channels. Users increasingly engage with organizations and services through chat-based interfaces, influencing expectations for real-time and asynchronous communication (Li et al. 2021). This shift has implications for traditional forms of

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communication as an increasing number of users interact with HLCs perceiving them as similar to humans.

Third, HLCs leverage data analytics and machine learning to personalize user experiences. By analysing user preferences and behaviour, chatbots can tailor responses and recommendations, fostering a sense of individualized interaction. This personalization can enhance user satisfaction and engagement (Tamara, Tumbuan and Gunawan 2023: 168).

Fourth, the prevalence of HLCs raises questions about the impact on human-to-human social interactions. Some studies suggest that an over-reliance on digital communication, facilitated by chatbots, may lead to a decrease in face-to-face interactions, potentially affecting the quality of human-to-human relationships as users find it more comfortable to self-disclose to a chatbot than a human (Lee et al. 2020). Such developments imply that users may soon perceive HCLs to be real humans. But this would also imply an erasure of the distinction between a human and chatbot with repercussions for christian theology and its teaching on the uniqueness of humans. Hence the need for sustained missional and theological responses to the evolving chatbot technology in the world today.

Finally, the societal challenges with HLCs relate to issues of trust and ethical concerns regarding the interaction between humans and chabots. For instance, there is a direct relationship between the degree of trust that users confer upon chatbots and the level of human likeness in the chatbot (Go and Sundar 2019). This means the more HLCs are designed to mimic human language and behaviour, the more confidence humans will put in these chatbots. Ethical issues have also been raised regarding the unidirectional emotional bond that users form with their HLC (Scheutz 2011). This suggests that the chatbot manufacturers prioritize a user dependence on these machines. With all this integration of AI technology in society, Christian communities have moved to harness AI for missional purposes.

Missional Approaches amid AI Technological Advancements

The integration of the technologies of 4IR in society has prompted churches to incorporate these innovations into their missional approaches. The uptake of technology by the Church stretches from the first century, and the manner in which technological shifts have aided Christian mission throughout history is variously documented. From the technology of writing to the global reach of electronic and digital media, mission has always been on a par with the technological innovations of the time. But as Hollinghurst notes, digital technology presents "probably the most important development facing Christian mission" (Hollinghurst 2020: 75). The evolving digital technologies, such as social media, streaming services and mobile apps, provide churches with unprecedented opportunities to share their message, connect with a global audience, and engage in online evangelism at a scale not equalled in mission

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history. Accompanied to this is the rise of virtual communities facilitated by online platforms. This has led to discussions about how these spaces can foster discipleship. Several studies have examined how churches can leverage technology to create virtual small groups, Bible studies and discipleship programmes, allowing for meaningful connections and spiritual growth beyond physical church spaces.

Yet the incorporation of AI technology and particularly chatbots by Christian communities for missional purposes is not yet widespread. Instances of missional use of AI technologies have been identified in the fields of community engagement and pastoral care. The Church of England was one of the early adopters of chatbots for missional purposes with the use of Amazon's virtual assistant Alexa to offer prayers and answer theological queries for people (Church of England 2018). Following the 2022 advent of ChatGPT, several Christian innovators created chatbots to reach an even more diverse group of people. Chatbots on sites such as Biblemate.io can now answer difficult theological questions while biblemate.org provides options for Bible study and counselling. Pastors.ai allows churches to customize chatbots using digital resources of their local church. These innovations open up the space for a sustained missional use of chatbots in the digital space.

But at the sametime, theological frameworks should inform how Christian communities ought to respond to AI technology. To illustrate, a vast difference exists in the fundamental nature of humans and products of AI. Individuality as espoused in AI "starts from a substance into personal and, finally, interpersonal. However, humanity as a created being is interpersonal from the beginning, both in essence and existence" (Saragih 2023: 242). Thus the question of human identity is linked with relationality and forms a point of departure to examine theological perspectives in the context of HLCs and missional approaches of Christian communities.

Understanding the Intersection: HLCs and Theology

Theological Perspectives on Humanlike Chatbots

In navigating the intersection of HLCs and missional church, it is crucial to consider theological perspectives that shape how technology is understood within the context of human interaction. Theological frameworks provide a lens through which the church interprets and responds to the advancements of technology. The two main questions that arise at the intersection of AI technologies and theology deal with issues of ethics and anthropology (Puzio 2023: 35).

Ethical dimensions of human enhancement through AI technology centre on whether certain technological advancements such as chatbots align with the theological understanding of human nature and the moral responsibilities of humanity. HLCs may appear morally superior to humans. As part of the latest in the developments in AI, an HLC such as ChatGPT, can be "seen in a form that is purer and less affected

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by defilements than human beings, meaning it is technically in a better position to preach, practice, or even reach the final goal of Enlightenment" (Travagnin 2023: 41). Arguing from the reformed theology of archetype-ectype distinction as regards moral agency, Xu notes that artificial moral agents, such as HLCs, are imitations of human moral agency (Xu 2023: 644). He considers human moral agency as archetype while HLCs are ectype and thus imitate human moral agency. Such imitation means that AI moral agency can be described in at least two ways: as an extension of human morality but also as limited. The extension of human moral agency through AI artefacts means that "humans mediate their moral values into these artefacts while creating them" (Xu 2023: 644). But this extended human moral agency is limited since it is "only related to particular moral issues" (Xu 2023: 644). This demonstrates that HLCs have no moral agency of their own and instead display extended but limited human morality. It is thus suggestive that in spheres that require moral agency, HLCs should be approached as replicas rather than replacements for humans. For instance, HLCs can be deployed in pastoral care to extend the human agency. However, attending to the unique moral matters of those receiving pastoral care is presently beyond scope for HLCs and can only be addressed by humans.

Another way in which AI imitates humans is illustrated by the inherent bias that surrounds AI systems. Developers of AI often model these systems after themselves (Foerst 2005: 67). The result is that the bias in human society is carried on in these systems especially in the areas of "race, class, gender and territory" (Coleman 2023: 350). For instance, Chat GPT-2 was known to produce "racist output even when conditioned on non-racial contexts" (Wallace et al. 2021). It is evident that HLCs like ChatGPT are trained on millions of internet pages and thus imitate the human culture contained in those pages.

The same is reflected in the religious sphere as HLCs often project the bias inherent in the data they are trained upon. It was revealed that "there was clearly a sharp and distinguishable strain of Evangelical theology in GPT-2" (Reed 2021: 8). This calls for attention to the inherent bias in Bible based HLCs such as those running on ChatGPT. It is also worth recognizing that this bias is not purely down to data upon which the HLCs are trained but to what occurs at "every level of the construction of A.I." (Reed 2021: 6). Bias permeates the whole culture that produces the AI. It is in the people, data, algorithms and processes.

As regards anthropology, an understanding of how the concept of humanity is expressed in technology provides a base "for a theological engagement with AI and technology" (Puzio 2023: 35). Theologians have long affirmed the uniqueness of humans based on human beings' creation in the image of God. A theological approach to the anthropological debate on the technologies of 4IR has been marked by an "interest in what it means to be made in the image of God in an age of robots and AI" (Green 2018: 237–8). However, an appeal to the concept of the image of God appears

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to have waned in modern theology. The image of God as understood through power of intellect, reason and rationality is no longer unique to human beings but has also been interpreted to apply to AI agents. This leaves the relational and functional views of *imago Dei* as the only available points to contrast humans and AI agents (Fourie 2020: 25–6).

The relational view of *imago Dei* is particularly relevant since it necessitates embodiment. The relationality of humans, such as argued by Karl Barth, is an expression of the *imago Dei* and is displayed in embodied human to human encounters (Barth 1960: 225–6). But efforts are underway to enhance human to machine encounters through embodiment of HLCs, like suggested by OpenAI (Degeurin 2024). Thus, a consideration of HLCs and embodied intelligence is vital as churches strategize missions in a rapidly evolving AI environment.

Embodied Intelligence

The combined technologies of robotics and AI are geared towards creating machines which possess humanlike intelligence in the physical world. This technology is known as embodied intelligence. Cangelosi et al. (2015) note that embodied intelligence is a foundational term in computer intelligence which refers to:

> *The computational approach to the design and understanding of intelligent behavior in embodied and situated agents through the consideration of the strict coupling between the agent and its environment (situatedness), mediated by the constraints of the agent's own body, perceptual and motor system, and brain (embodiment).*

The new frontier in embodied intelligence aims to enable HLCs like ChatGPT to ground their language into concepts of the physical world. ChatGPT, like other Large Language Models (LLMs), possesses vast knowledge of the physical world but lacks an experience of the same world (Biggie et al. 2023: 2). Thus, for ChatGPT to ground its language implies "associating words with sights, sounds, and actions, in order to anchor their meanings in day-to-day life and in communicable expressions" (Oregon State University College of Engineering 2024). A typical case is an experiment based on the human brain-body system that integrated a robotic arm and three LLMs including PaLM 2, GPT-3.5 and GPT-4, to successfully perform a task in the real world (Bhat et al. 2024). This creates a key avenue for theological reflection.

Embodied intelligence is an important point for a theological critic as regards AI and robotics because AI agents are designed to mimic the nature of a human being in the physical world. Some theologians have thought positively of embodied intelligence. For example, Hazel notes that "embodied intelligence is a point of contact in the dialogue between AI and Christian theology, which affirms the psychosomatic

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unity of the human person" (Heltzel 1998: 22). To Hazel, an AI agent that is designed to perform tasks with intellect is a bridge to a human.

But other theologians stress that the issue of embodied intelligence is key in delineating the difference between humans and AI agents, and this is more relevant as LLMs are integrated with robotics. Humans are intellectual embodied beings who are dissimilar to embodied AI agents. Herzfeld has this in view when she asks, "Does a human-like intelligence require a human-like body?" (Herzfeld 2010: 119). She adds that the human experience of the world is unique from other creatures such as dogs. This implies that "a different body would mean we would experience a different world" (Herzfeld 2010: 120). Thus the experience of embodied AI agents as they accomplish human tasks in the real world would differ significantly from the human experience. For Haugeland, intelligence in humans is not simply a mental occurrence, "it's in their bodies and, even more, out there in the world" (Haugeland 1997: 26). In this way, human intelligence takes on a holistic dimension.

Humans are also conceived to dwell holistically with the environment and the overall ecosystem. This view is promoted by ecotheologians who "argue for a worldview grounded in cosmogenesis – the whole universe story – which decentralizes the human as individual and promotes holistic thinking about both the human and its broader context in creation" (Green 2018: 29). The holistic view of humans looks beyond the "traits associated with the human mind and individual human bodies" (Green 2018: 29). A human being is thus understood in consideration to both his immediate and distant surroundings. These surroundings include all aspects of creation whether natural or artificial.

The holistic view confronts "the focus on individuals as the locus of wisdom and relationality and expand theological imagination to include all webs of relationship, including societies and ecosystems" (Green 2018: 29). On the other hand, AI agents are often one-dimensional in their replication of humans. The holistic understanding of humans also challenges the focus on individual wisdom that is prevalent in AI agents. Thus, humans are able to intelligently function in harmony with others in the society and environment. An appreciation of the holistic and relational qualities of humans is thus essential in understanding the difference between humans and AI agents.

Towards a missional church strategy

Christian Communities as Embodied Agents of God in Humanlike Chatbot World

The technologies of AI as shown above particularly in the combined fields of robotics and HLCs call for relevant responses from the church. Christian communities need theological exposure to the functioning of the technologies of AI chatbots. Fourie

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points to the fact that "the lack of literacy is one of the contributing factors why efforts to address the significance and impact in theological terms have been somewhat scattered and disorganised" (Fourie 2020: 13). Intentional effort to acquire a knowledge of robotics and LLMs is vital if Christians are to learn how to live as embodied agents of God in a world of advancing HLCs.

Stephanus Joubert notes that "believers must be present in this never-ending drama of technological change, culture and human experience without losing their identity" (Joubert 2020: 8). The aspect of embodiment is thus an essential guide for Christians in the world of HLCs. As shown in the preceding section, the concept of embodied intelligence is evolving as LLMs are combined with robots to function in a more humanlike manner in the real world. Joubert notes that "the church must facilitate immersive, yet provocative performances of the Gospels while simultaneously embodying and empowering others with wisdom to traverse this unchartered terrain of technological innovation with insight and discernment" (Joubert 2020: 1). Christians are therefore better placed to respond to these technologies by emphasizing the relational and holistic qualities that define each member in their communities as an embodied intelligent being who differs from a combination of LLMs and robots. Green's (2018: 109) reminder is also important for Christian communities, "honouring the relational quality of the human also helps underscore differences between us and robots. As it stands now, robots and AI are at best superficially relational, and function independent of social and ecological contexts."

The above note is important in guiding Christians as embodied agents of God in a world of advancing HLCs. An intentional effort at stressing the relational qualities of humanity as Christians in a context of embodied HLCs will not only differentiate humans from these advanced chatbots. More importantly, it will enable a Christian to act as an embodied agent of God and bring an authentic human presence to others. A Christian's bodily presence that engages in activities or movements such as sports, dance, and work, in person and with others, will emphasise the relational and holistic qualities of humanity. This human bodily engagement will, at same time, set a clear boundary with HLCs, and ultimately with advancing technologies of LLMs and robotics.

Missiological Implications in a World of Humanlike Chatbots

The Great Commission as spelt out in Matthew 28.16–20 demands "Go therefore and make disciples of all nations." This phrase has also been interpreted in missiological circles to include the domain of the cyber world. Christian mission is called to "enter into the domains of the cyberspace in order to deliver the minds and souls – essentially, the consciousness – of the present generation who are either alienated or captured in the cyberspace" (Kim 2019: 64). An undertaking of this nature requires

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several considerations, one of which includes "embracing the essence of the incarnational model and practicing embodiment principles of integrating mind, body and action in all aspects of life, ministry, and mission" (Kim 2019: 64).
A pattern of embodiment of the whole person in the whole Christian life also relates to the concepts of "relational and holistic anthropology" (Green 2018: 263). These concepts also relate to the contextual and ecological theologies that are relevant to mission studies and praxis. This will aid in thinking more missiologically in terms of social justice and liberation for the less advantaged in an era of humanlike chatbots. In relation to social justice and liberation in an age AI, Eugene Baron (2020: 8) notes:

> *There is a need for missiologists to have their contextual theologies (postcolonial, Black Liberation, etc.) in their front pockets. It will be imperative to read the Bible from the perspective of the most vulnerable and marginalised in society. Public theology of human dignity is crucial to understand our value, contribution and agency in the Kingdom of God on earth.*

A first missiological implication in a world of humanlike chatbots regards human dignity. Human dignity is an important concept in regard to AI agents. It is necessary to ensure that mission is always directed at the embodied human rather than humanlike chatbots. A poor human being needs more attention than the most intelligent chatbots.
A second missiological implication regards the necessity of human agency in mission, Baron (2020: 4) notes that

> *The idea that the 4IR will reproduce the human being's functions and abilities in the form of artificial intelligence (AI). Though this would rapidly change the efficiency of responsibilities and tasks being carried out in business environments, as well as promise various benefits within ecclesial contexts, missiologists should be posing critical questions on the (non)-agency of human beings.*

Chatbots may outperform humans in all fields and this includes church contexts where for example a chatbot counsellor would be preferred to a human being. In a related way, robots equipped with AI will pose questions of standardisation. Barron notes that "it would be imperative … to ask in terms of human agency: whose human being standards, actions and patterns would all human beings be standardised?" (Barron 2020: 4). Such questions are important when taking into account issues of race and class. There are missiological implications for instance in standardising robots to white in a South African context that has suffered apartheid.
A third missiological implication in a world of HLCs concerns the authentic experience of humans. Baron notes that "the agency of the world in 'God's mission' (*missio Dei*)

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will also be tested on the sharing of authentic experiences of God's creatures" (Baron 2020: 4). This is particularly important in cases where a victim interfaces with an AI agent on behalf on the perpetrator. As illustrated in the context of trauma, the use of robotics raises questions about authentic human encounters in the healing process. While AI may facilitate interaction, the absence of personal involvement from those responsible for the pain poses a challenge to the idea of true reconciliation and healing (2020: 4).

Thus, a context such a trauma raises questions about the relational and holistic attributes of humans, which are deficient in AI agents such as HLCs. Mission in the era of humanlike chatbots will therefore need to consider the relational and holistic nature of human beings even as engagement is made with attention to the need for human dignity, human agency and human experience. Christian communities should also consider that "as the bearer of God's image, it is our duty to direct technology development for the greatest good. It demands wisdom and care; we should never delegate the duty to machines" (Saragih 2023: 243).

Practical Considerations

Some practical concerns related to missional approaches in Christian communities in an era of HLCs are reflected in the following five suggestions.

1. Maintain human oversight in AI chatbot interactions, especially for complex pastoral care issues. Back this up by training pastoral staff to collaborate with chatbots, ensuring a seamless integration of technology with the church's human-centered approach. This will help to balance AI capabilities with human oversight and ensure that the church maintains its relational and pastoral focus, using technology as a supportive tool rather than a substitute for genuine human connections.
2. Not all members may have equal access to technology, leading to a potential digital divide within the congregation. Therefore, seek to implement inclusivity measures such as providing technology resources for those in need, offering offline alternatives, and ensuring that AI chatbots complement traditional communication channels.
3. Privacy concerns may arise as members express concerns about data privacy when interacting with AI chatbots. A solution here is make early communication about the church's commitment to privacy, implement robust data protection measures, and offer opt-in/opt-out features for individuals to control their level of engagement.
4. Aim for community building beyond technology. Emphasize that while technology enhances community engagement, it does not replace the essence of human connection. As such, encourage members to balance digital interactions

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with in-person relationships, reinforcing the importance of face-to-face connections.

5. Seek transparency and communication. Foster a culture of transparency by openly communicating the role and limitations of AI chatbots within the church community. Regularly update members on how technology is being used to support the church's mission.

Towards a Missional Church Strategy

The advancements in AI technologies have posed a number of challenges to Christian communities today. One of the key concerns for Christian communities in an era of the humanlike chatbots is how to foster an understanding of a human being as an embodied agent of God. It is also crucial for Christian communities to consider the avenues of mission in a world increasingly adapting to AI chatbots. Christians are therefore better placed to respond to these technologies by emphasising the relational and holistic qualities that differentiate humans from embodied chatbots. They can help other humans affirm these qualities while also advocating for a definition of each member in their communities as an embodied intelligent being that far surpasses the possibilities of AI technology. A missional church in the era of advancing HLCs will therefore need to consider the relational and holistic nature of human beings even as engagement is made with attention to the need for human dignity, human agency and human experience.

About the Author

David Hirome is a PhD student at ACTS University in South Korea. His interests include digital culture, mission theology and world Christianity. He is an ordained minister in the Anglican Church of Uganda. Contact: hiromedavid@gmail.com

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