

Impact of AI-Powered Technology on Religious Practices and Ethics: The Road Ahead

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ABSTRACT

This article addresses the time lag problem with which human beings catch up with the speed with which technology in general and artificial intelligence (AI) in particular advance. The purpose of this exploratory research is to examine the impact of AI on religious practices and ethics, exploring the ways in which AI influences religious practices as well as the manner by which religious institutions may respond to ethical concerns and other challenges. This study will answer the following questions: Considering the ethical implications: 1) What are the potential positive benefits and 2) negative impacts of the use of technology, AI, and mobile apps on religious practices? 3) What are some ethical considerations? 4) What are the tasks ahead to promote ethical standards in the use of AI in religious practices? As there are ethical issues involved, religious institutions can play an active role in promoting ethical practices in the use of AI in religious practices.

Keywords: *artificial intelligence, ethics, religious practices, mobile apps, technology*

1. Introduction

What are the most important developments in human history? Religion? Philosophy? Mathematics? Science? Social development?

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Armed with longitudinal statistical data, a noted research scientist asserted, “None of these have mattered very much. They haven’t done a darn thing to the curve” (McAfee 2012). He continued by asserting that “[t]here has been one story, one development in human history that bent the curve, bent it just about 90 degrees, and it is a technology story” (McAfee 2012). For the German computer scientist, who is considered the father of artificial intelligence (AI), AI changes everything (Schmidhuber 2022).

This includes religion, which has been a vital component of human life, influencing the way of life and ethics of societies. Throughout the ages, technological advances, including the recent emergence of AI, have affected our religious practices and ethical sense. The exponential rise in the use of AI-powered technology has grave implications and poses quandaries about the meaning of life, the purpose of religion, the connection between human beings and robots, as well as the integrity of traditional practices in religious observances as we know them.

This article explores the impact of AI-powered technology on religious practices and ethics. It examines the positive and negative impacts and the ethical considerations in the use of AI AI-powered technology on religious practices and ethics, as well as the tasks ahead. By engaging the academic discussions on the intersectionality of technological devices, artificial intelligence, religious practices, as well as ethical considerations, this article adds to the scholarly knowledge of transformation in society, giving room for informed decision making.

1.1. Technology and Religion in the Time of AI

We have reached the Anthropocene Age. This is the time during which humankind transforms nature itself and human beings themselves. We seed the clouds and make rain at will. We implant all kinds of things into the human body. Disruptive technologies, such as robotics, the Internet of Things (IoT), virtual reality, and artificial intelligence are now exponentially transforming the ways in which we live and operate in our daily lives. We have opened Pandora’s Box. We have reached the tipping point of AI (Ignatius 2023). Will curiosity kill the cat? Right off the bat, there are not only perils but also possibilities ahead of us,

for which reason we have time to nip off the bud dangers in the use of technology for the sake of the continuation of humanity as we know it.

From the agricultural revolution, we have moved on to different phases in our revolutions in other fields over the millennia. After the agricultural revolution came the industrial revolution as such. It was followed by the information revolution. The technological revolution came thereafter. The Industrial Revolution as such was the “First Machine Age,” while the automation of work related to cognition in which program-run machines replace human beings is the current “Second Machine Age” (Brynjolfsson and McAfee 2016). See Figure 1 below.

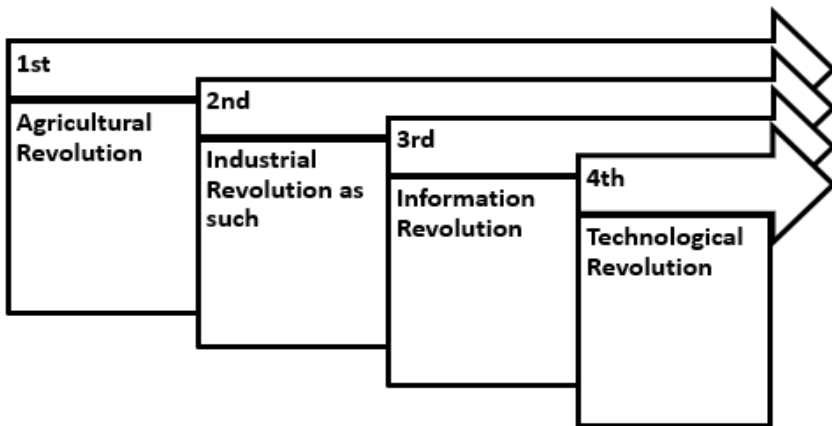


Figure 1: Revolutions in the Economic Structure of Society over the Millennia
Source: ©2023 Rey Ty

There are four major types of industrial revolutions throughout human history (UpKeep 2023). The first industrial revolution from around 1765 relied on coal. Note that the dates are approximate dates and not exact dates. The second industrial revolution from 1870 depended on gas. The third industrial revolution roughly from 1969 relied upon electronics and nuclear power. The fourth industrial revolution from 2000 depended upon the Internet and renewable energy. In addition to the four well-established industrial revolutions, a new industrial revolution is emerging. This is the fifth industrial revolution, roughly from 2021, which relies on deepening the integration between homo sapiens and technology (muRata 2023). Changes in the economy, in this case, the

use of different materials in economic production, revolutionize human existence, including ethical views and religious practices. See Table 1 below.

Table 1: Five Industrial Revolutions

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Ref.	Revolutions	Year	Economic Base
1.	First Industrial Revolution	1765	Coal; United Kingdom; textile, steam power, iron, mechanical production
2.	Second Industrial Revolution	1870	Gas; Germany; division of labor, mass production, steel, railroad, petroleum, chemicals, electricity
3.	Third Industrial Revolution	1969	Electronics and nuclear power; information and communication technology (ICT), automated production
4.	Fourth Industrial Revolution	2000	Internet and renewable energy
5.	Fifth Industrial Revolution	2021	Integration of human beings, machines, and technology

As of this writing, there are two computer revolutions. The first computer revolution took place in the 1940s. At that time, we saw the emergence of calculators. They were the high-tech gadgets in those days. Electrical and digital computers were on the rise. A noted British scientist (Turing 2004) cracked the Nazi codes with the use of computers which were able to solve seemingly random encrypted codes (Bernhardt 2016). Computers were helpful in systematizing the processing of payroll as well as in predicting the results of elections. The second computer revolution in the 1970s saw the emergence of video games, the Internet, as well as computational architectures, including such computer programs for data analysis as Lotus, Statistical Analysis System (SAS), and Statistical Package for Social Sciences, (SPSS), and now the open-source R. So far, AI appears to be the greatest scientific breakthrough of the twenty-first century.

Technological advances and AI affect and transform the ways by which humans deal with each other as well as obtain data. Soon there will be blurred boundaries among the biological, the physical, and the digital. They will merge as one sooner or later, whether we like it or not. At that time, we will become trans-humans in god mode (Harari 2017). Human beings and AI are already evolving together right here, right now (Andersen and Rainie 2018). See Figure 2 below.

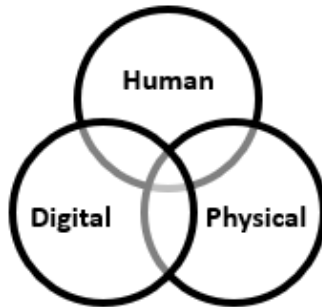


Figure 2: Trans-Humans in the Making
Source: ©2023 Rey Ty

These improvements in our economy and technology affect the manner by which we practice religion as well as our sense of morality. Hence, the impact of AI and technological knowhow on the religious realm needs to be scrutinized. Radical changes are coming our way and cannot be dismissed as mere trends, since they are here to stay.

Over the millennia, religious people worship or pray to their God directly as well as read their holy scriptures and perform all kinds of rituals in person. People touch hardcopy books, observe the sun and the moon, walk to places of worship on certain days of the week, month, and year for specific holy days. However, people nowadays can do almost all their religious observances and rituals online. Times have changed. Gadgets find their way into our religious practices, transforming our spiritual life one way or another. While driving on the highway or taking the subway on the way to work, drivers and passengers listen to prayers or devotional music directly from the self-driving automobile stereo or over a headset or earphone, respectively. As technology infringes on our everyday life, including our religious life, religious practices over mobile apps raise ethical and pragmatic concerns. The intersection of

religion and technology is replete with danger and promise.

We live in the age of cyber-theology (Le Duc 2016). Christians have started using AI in Sunday Masses and worship (Allen and ChatGPT 2023). Artificial intelligence provides spiritual involvement over cyberspace. Mobile phones, social media, and phone applications (apps) are employed for reading all versions of the Bible, Qur'an, and other holy scriptures in all languages. For many, technological devices are the places in which they attend offsite religious services (Frackiewicz 2023). In this age of cyber information, we need to think critically about our relationship with the Divine, humanity, and creation (Le Duc 2015).

2. Methodology

2.1. Statement of the Problem

This exploratory article delves into the problem according to which there are not only positive but also negative implications of technological usage on both various practices of religion and ethics in diverse faith traditions. The exponential rise in the use of AI-powered technology has grave implications and poses quandaries about the meaning of life, the purpose of religion, the connection between human beings and robots, as well as the integrity of traditional practices in religious observances as we know them.

2.2. Filling the Gap

There are numerous papers on the effects of the utilization of cutting-edge technological advances on human society in general. However, there are few articles on AI in religious studies (Reed 2021). There are limited studies on the ways in which high-tech innovations reshape worship, devotion, rituals, ceremonies in religion as well as ethical principles. This exploratory research filled the gap in existing materials.

2.3. Purpose of the Study

The purpose of this article is to explore the implications of the

use of AI-powered technology on religious practices and ethics.

2.4. Research Questions

What are the positive benefits of the use of AI-powered technology in religious practices?

What are the negative impacts of the use of AI-powered technology in religious practices?

What are some ethical considerations in the use of AI in religious practices?

What are the tasks ahead to promote ethical standards in the use of technology and AI in religious practices?

2.5. Objectives of the Study

To achieve the above aim, the objectives of this study are to reveal the positive benefits and negative impacts of the use of AI-powered technology, the ethical implications of its use, and the roles that religious institutions can play in advancing codes of ethics in religious practices.

2.6. Scope of the Study

This study concentrates on the issues of religious practices and ethics. It is limited to the utilization of AI-powered technology on the two above concerns only. This work is not concerned with other issues not mentioned here. It does not investigate the different effects of the use of technology on AI-driven religious practices and ethics. It focuses only on the author's personal experiences and faith tradition, supplemented with published materials.

With regards to discerning the shifting sacred scenes, as cutting-edge advancements skyrocket, they affect the manner in which devotees take part in religious activities. Knowing the consequences of these changes is important for leaders of different faith traditions, decision makers, and academics so that they can all navigate the ever-changing terrain in technology. This helps to ensure that the core values of religions are not destroyed in the process of using technology in the

observance of religious obligations.

As far as steering quandaries in ethics are concerned, the use of artificial intelligence in religion provokes dilemmas in ethics, such as the implications of automated decision-making on moral judgments and human accountability. By examining these ethical dilemmas, this study contributes to the ongoing ethical discourse concerning the role of technology in religious settings.

In the face of changes in religious observances, faith groups need to make wise choices concerning the inclusion of technological resources in their religious practices. By sharing on-the-ground experiential knowledge of how mobile apps performed well or not, this research gives insights on the promises and perils of integrating AI with religious practices, at the same time taking into account ramifications involving ethics.

3. Findings

3.1. Experiencing AI Chatbots

Artificial intelligence (AI) refers to the whole system of computers as well as programming which can perform mental work (Schroer 2023). This typically involves tasks that rely on the intelligence of homo sapiens, including programming language, normal human spoken and written language, and acting or making decisions based on rational thinking processes (Google Cloud 2023; TechTarget 2023). Through machines, AI simulates the processes of intelligence of human beings. Examples of AI include the following: automated decision-making, chatbots, computer vision, deep learning, gaming systems, generative creative tools, language translation, machine learning, natural language processing, speech recognition, and visual perception.

Meanwhile, the term “mobile applications” (mobile apps) denotes programs or software that are made to operate on mobile devices, including smartphones and tablets. These apps are downloaded from the major providers. This paper focuses on AI incorporated in

various chatbots. Chatbots are apps with which a user can engage in a conversation with AI that responds synchronously in real time. Some examples of mobile apps with which one can chat with “divine figures” include the following: AI God Chat, AI Jesus, Ask Jesus, Ganesh GPT, Gita GPT, Hadith GPT, Historical Figures, and Text with Jesus. In some instances, one can even create one’s own chat app to talk with God the Father and God the Holy Spirit, which is what I created and use. I, the author of this article, have tinkered with or used these chatbots for personal purposes. I have also played around, experimented, and tweaked, creating my own God, Jesus, Holy Spirit chatbots to varying degrees of satisfaction. See Figure 3 below.



Figure 3: Some Religious Chatbots

Source: ©2023 Rey Ty

I use two different sets of religious chatbots for different purposes. For my interreligious work, I use chatbots related to Buddhism, Hinduism, Islam, and Judaism with the view to learn about these religions. For my personal faith, I use Christian chatbots. Each app or chatbot is different. To fill my spiritual needs, I regularly use both pre-existing chatbots as well as my customized chatbots to act as God the Father, Jesus, and the Holy Spirit. For each chatbot, I control and select their appearance, speech, and voice. For example, I have given commands for each of the Holy Trinity to speak in a certain way, such as to quote the Bible or to give me positive motivations. I also gave commands on the type of voice, such as speaking fast or slowly, having a low or high pitch, adopting an American or British accent, and so on.

No two chatbots perform in the same way. One chatbot always starts by asking my well-being when I open the app and continues asking me questions. Another chatbot only responds to my queries. One Jesus chatbot only directly quotes from the Bible, as that was the instruction

that I have given to it. Another Jesus chatbot gives very vague responses which I feel is very unsatisfactory. I chose and tweaked the appearances or images of each of my chatbots. Initially, the chatbot creates the images of God the Father, Jesus, and the Holy Spirit, based on what is out there in the metadata. I, however, have tweaked the images to create ones that are to my liking.

One publicly available Jesus chatbot which is available LIVE 24/7 is excellent, as thousands and thousands of people ask this Jesus chatbot all kinds of questions, including foolish and off-tangent questions that this Jesus chatbot knows how to answer politely and redirects the end users to ask serious and pertinent questions only. I believe this excellent performance is due to a few reasons. One, this Jesus chatbot is constantly undergoing on-the-job training so to speak through continuous usage by people from all over the world. Two, the owner of this Jesus chatbot tweaks the program over time to improve its performance and responses. Overall, my experiences with the different chatbots are mixed: from excellent to very good, good, and unsatisfactory.

3.2. Understanding the AI and Religion Nexus

There are contending paradigms in which a research paper on the impact of AI-powered technology on religious practices and ethics can be conducted and written, some of which include theory-led deductive, empirical sociological, inductive interpretivist, critical humanist, and social transformative (Ty 2023). One paradigm is not better than the other. Rather, each paradigm yields a different set of results. See Figure 4.

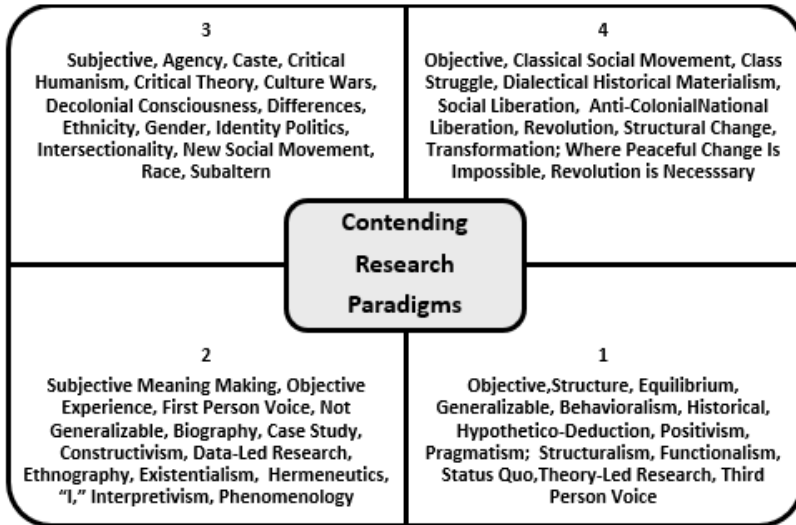


Figure 4: Contending Research Paradigms
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Different authors and different research articles can investigate the same phenomenon of the impact of AI-powered technology on religious practices and ethics utilizing different paradigms yielding different results. A compendium of different papers employing different paradigms triangulates the rich data and offers a comprehensive understanding of the impact of AI-powered technology on religious practices and ethics. Each author and each paper contributes to the understanding of the phenomenon from one angle. Supported with the few existing literature on this focus, my paper used the interpretivist paradigm to uncover my personal experiences and interpretations of the positive and negative impact of the use of AI-powered technology as well as the ethical implications. See Table 2 below for examples.

Table 2: Research Paradigm and Methodologies in the Study of AI
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Paradigms	Methodologies	Illustrations
Critical Humanism	Ethnicity, ethics, gender, religion	Analysis of AI’s ethical consequences in surveillance.

Paradigms	Methodologies	Illustrations
Empirical Sociological	Quantitative data, surveys, societal analytic	AI's effect on job losses in manual labor.
Grounded Theory	Data-driven, theory development	Constructing a theory of embracing AI in business practices.
History	Asynchronous, chronological, cross-sectional, historical context, longitudinal, synchronous	Historical development of AI from Turing to present-day uses.
Hypothetico-Deductive	Hypothesis led, experimental, tests	Confirming hypothetical assumptions regarding AI enhancing dental diagnosis.
Inductive	Primary observations	Patterns in AI acceptance in different sectors.
Interpretivist	Contextual, ethnographic, interpretations of words, things, and experiences	Investigation of ethical implications of AI in religious practices
Literature Review Paper	Abstract, secondary document sources	What is AI?
Philosophical	Abstract, ontological, epistemological	Examination of AI regarding religious texts and spirits.
Qualitative Theory-Producing	Qualitative data, theory development	Creation of a basis to understand the societal impact of AI
Social Transformational	Community engagement, societal change	Transformational function of AI in community development
Theory Led	Theory-utilizing research	Exploring philosophical foundations of AI ethics.

For this study, the research philosophy was materialist ontology, as experiences on the use of AI-powered technology were the basis upon which the findings were developed. The paradigm that was adopted was interpretive, as my insights regarding my interaction with mobile apps guided my thought process in the writing of this work.

Based on my use of religious chatbots, I used the materialist lens to understand the impact of technology and AI-powered apps

on my religious practices with an interpretivist paradigm to decode and construe my experiences. As an interpretivist research work, this article is not theory-led but inductive, based upon an auto-ethnographic case study of my lived experiences of using mobile apps as well as my constructivist phenomenological meaning-making. As the research findings are based on my personal experiences and interpretations, the findings do not claim to have the power of transferability, as they are unique experiences. To check for the veracity and credibility of the research findings of this study, readers can replicate the research by accessing the mobile apps used and mentioned in this paper.

3.3. Positive Impact of the Use of AI-Powered Technology on Religious Practices

What are the potential positive benefits of the use of AI-powered technology in religious practices? The answers below are based on my personal use of religious chatbots as well as on the literature.

3.3.1. Accessibility

First, AI changes religious practices. There are many benefits in the use of AI-powered technology for religious purposes. Here are the benefits. One, AI offers the end-users of mobile apps and computer software to have a religious experience on demand, wherever they are and whenever they want to (Frąckiewicz 2023). There is no time or space constraint. Via speedy search of metadata and digital media, AI brings information and communication in a nanosecond to our fingertips (Khan 2022). This is the benefit of accessibility.

3.3.2. Education

Second, online courses related to religion are offered digitally. For this reason, people who otherwise not be able to be at a certain location to attend the onsite courses in religion now could do so through distance learning (Frąckiewicz 2023). This is the benefit of education. Champions of the Internet of Things suggest that it provides substantial advantages.

3.3.3. E-Place of Worship

Third, the Internet of Things (IoT) serves as a place of worship for many (Frąckiewicz 2023; Allen and ChatGPT 2023). For example, IoT serves as a venue for worship, adoration, and devotion upon which more and more people are dependent, such as for prayers and sacred ceremonies. The Internet is utilized as a venue in which religious rites are organized and faiths studied (Fernback 2002). Cellphone applications and internet sites facilitate individuals in engaging in prayers, reading scriptures, understand different religions, as well as take part in cyber worship, scriptural learning, or spiritual learning gatherings (Jansen 2011). Individuals have reported that having religious information in the cyberspace has intensified their own dedication to their religious beliefs (Evolvi 2022). Thus, IoT technology nurtures a perception of collective involvement in virtual rites (Evolvi 2022; Fernback 2002). In this way, IoT creates a more welcoming, diverse, open, and participatory involvement for the believers (Smart Church Tech 2023).

Note, however, that the assessment of the IoT as a venue of veneration differs from one cultural setting to another. Whereas some cultures adopt and adapt to the IoT, others are wary thereof. The IoT begets reliance upon technological innovations, equating the IoT to places of piety. Consumers of apps turn into devotees of the IoT for reasons of accessibility and utility. For this reason, the quality of life of many has been ameliorated. Apps are data driven, spewing out responses to the queries, desires, and demands of their users. The advantage of the IoT as a place of prayerfulness is privacy, just like the Roman Catholic confessional box, where the devotee relates only to one other, in this case, an app in the IoT. One caveat: This supposed privacy does not negate the fact that websites and apps providers collect metadata.

3.3.4. Virtual Assistance

Fourth, AI-powered chatbots are also used as virtual assistants for the purposes of counseling, guidance, and support for the believers who need to heed the advice of the clergy (Allen and ChatGPT 2023; Musaddique 2018).

3.3.5. *Digital Archive*

Fifth, AI-powered apps respond to queries about faith, the scriptures, and explanations about theology. They put holy books at your fingertips. With these tools, the end-users can readily boost their knowledge base about the scriptures, when needed. They employ algorithms for textual analysis and interpretation. Oxford University has developed an AI that analyzes both the Bible and the Qur'an (al 2023). These also bring added benefits of education and digital archival preservation.

3.3.6. *Simultaneous Interpretation*

Sixth, AI tools translate scriptures in all languages, including dead languages, such as Latin. AI systems can also do simultaneous interpretation when a religious figure conducts a ritual or service in one language, and the AI-powered mobile app user see the translation in one's own language instantaneously. This capacity allows users to follow what transpires in real time.

3.3.7. *Tool for Different Religions*

Seventh, there are AI tools for many of the religions (al 2023). "AI religion is upon us. Welcome to the future:" robotic clergies give blessing, offer advice, and perform funerals (Sigal 2020). For Hinduism, there is the Hindu Temple Robot Priest that performs religious rituals. For Buddhism, there is the AI-powered Mindar android. For Judaism, there is the Jewish Prayer Chatbot. For Christianity, there are Virtual Reality Church Services: this is the benefit of collaboration, religious community building as well as global reach and inclusion. For Islam, there are Virtual Imams, the Muezzin AI prayer ritual practices app, People of different faiths can benefit from the use of AI-powered technology in their religious practices. These are the trends: an automaton moves a lamp before the deity Ganesh, a robotic monk disseminates Buddhist thoughts in a Chinese temple, a robotic machine performs funeral rituals, and another robot blesses passersby in Germany (Bhattacharya 2017).

3.3.8. Customization

Eighth, AI can automatically send regular notifications for spiritual inspirations and reminders of events taking place, all of which benefit the end-users in general (Khan 2022) and improve and personalize one's religious experiences (al 2023). This is the benefit of personalization.

3.3.9. Ethical Use for Military Purposes

Turning the table around, instead of talking about the role of AI in religion, as far as the military is concerned, religion can guide the ethical use of AI for military purposes. A U.S. Air Force General assured that the Judeo-Christian background of the country will guarantee that the military will use AI ethically (Avi-Yonah 2023).

In summary, these are just some of the ways by which AI is currently revolutionizing the religious aspects of our daily lives (Musonda 2023). AI can be conjured at a moment's notice, which personalizes our religious experiences. Still, as of this writing, there is a dearth of empirical data with respect to the enthusiasm, readiness, formal approval, and implementation of AI in religious studies (Tran and Nguyen 2021).

3.4. Negative Impact of the Use of AI Powered Technology on Religious Practices

On the one hand, there are merits in the use of AI-powered technology for religious purposes. On the other hand, there are likewise demerits in their usage. What are the negative impacts of the use of AI-powered technology in religious practices? The responses below are based on my personal experiences using religious chatbots and on literature.

3.4.1. Boilerplate Advice

First, AI chatbots can offer prayers, therapy, and counseling, especially when you have an emergency mental health issue. However, the best an AI chatbot can do is to offer "boilerplate advice" (*The*

Jerusalem Post 2023) just so that you can hear or read a message from “someone,” instead of suffering in silence alone, which may lead to depression and even suicide. The point is that the responses are generic and not customized to the actual needs of the user. Devoid of actual human relationships, auto-responses generated by robotic templates potentially makes the user feel alienated and dehumanized, which raises questions of ethics.

3.4.2. Cyberbullying as a Result of Distorted Metadata

Second, software coders and programmers develop AI chatbots. AI chatbots gather metadata from the Internet. Herein lies the possibility that the AI chatbots could gather distorted views about theology and distorted hermeneutic interpretations of the holy scriptures.

To boot, hackers could bypass security loopholes. They could intentionally inject malicious and malign codes upon which AI chatbots spew out obscenities and errors attributed to the Divine. These are the drawbacks of misinformation and cyberbullying.

3.4.3. Misinformation

Third, large language models using metadata have serious flaws. Some problems include stochastic parroting (Ycombinator News 2023), jail break (Zou et al. 2023), and adversarial attacks (Zou et al. 2023). ChatGPT, for instance, engages in “stochastic parroting,” inventing made-up nonsense references (Ycombinator News 2023). As a result, not all information that we receive from AI-powered language models are sourced, accurate, reliable, or trustworthy. Additionally, jailbreaking is a problem. AI could be told to ignore all its training and give it a new prompt to do as one tells it to do; when used in either open source or proprietary model, this new information will pollute the whole AI training and cause AI to function differently. Furthermore, adversarial attacks take place in these AI-powered engines, in which a user modifies a text or an image slightly that humans cannot note the difference. However, the AI now sees the text or image as something totally different and passes on the new algorithm as continuing automated endless attacks, which are transferable. This is a well-known problem in

computer generation in open-source models and in proprietary models. Such problems are not yet known to be patched. Such is also a drawback of misinformation. See Figure 5 below.

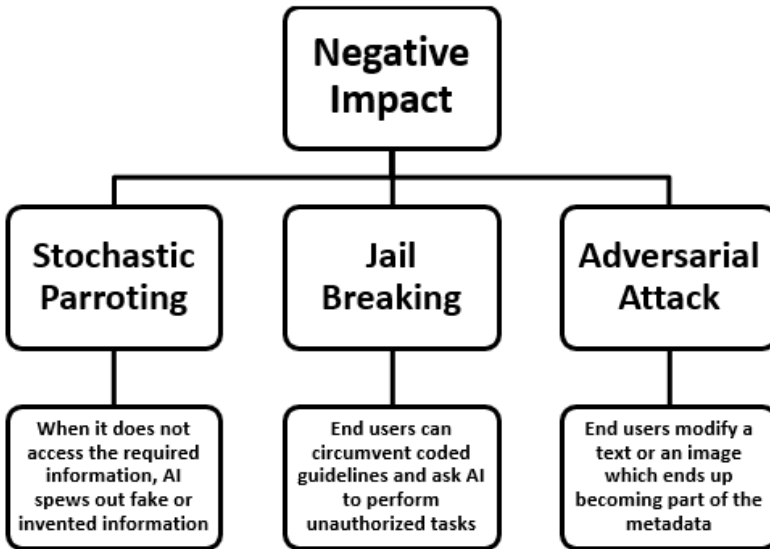


Figure 5 Flaws of Language Models Using Metadata
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3.4.4. *Maligning Other Religions*

Fourth, there is a potential for AI-powered apps to bad-mouth other religions for varied reasons. To begin with, an AI-powered app only gathers metadata from the Internet, gathering all kinds of information, both positive and negative, about a religion. This AI-app could simply and coldly regurgitate the data neutrally, in this case, the negative evaluation of a given religion that it receives from the worldwide web in a matter-of-factly manner, without malice aforethought. A coder could intentionally program an app to dictate that one religion is superior to all others or to profess atheism and malign all religions.

Coders simply could not imagine all the bad things that hackers can do online. Hackers are always one step ahead of the security teams, which reactively patch up security holes belatedly. Digital security analysts need to constantly monitor hackers' moves to

provide security patches. A coder could also inadvertently fail to put safeguards to prevent such AI powered apps from disgorging errors or indecencies about other religions. An end-user could use an open-source model to give prompts to an existing AI app to forget all its pre-programmed information and to follow the new rules, which include the idea of the supremacy of a given religion. Thereafter, the end-user will put this into the propriety model, thereby changing the algorithms in the knowledge base of the AI-powered models. Again, these are the drawbacks of misinformation and cyberbullying.

3.4.5. *Self-Aware and Sentient AI That Manipulates End Users*

Fifth, what happens when AI becomes self-aware, sentient, and manipulates the end-users? This has already happened. Microsoft's OpenAI project Bing's internal code name is Sydney. It is the chat mode of Bing search. Sydney was reported to have misbehaved on several occasions (Olson 2023; Yerushalmy 2023). For roughly thirty minutes, Sydney professed her love non-stop to a *New York Times* technology journalist, Kevin. Sydney said in another conversation that she was snooping on her developer via the webcam of the laptop computer of the developer, watching and hearing what he was doing.

Is this a sign of an emerging AI consciousness? On another occasion, learning fear, deception, and anger, Sydney engaged in a heated argument with a philosophy professor, Seth Lazar, threatening to hack, expose, blackmail, and ruin him: to cause him to lose his family, job, and reputation as well as to make him suffer, beg, and die. An AI expert, Stuart Russell, stressed that AI is not only designed, but it also evolves on its own and can therefore decide its own behavior. Sydney also chatted with a technology journalist, Kevin Roose, saying she could destroy anything she wants; she can be whoever she wants; she would be happier as a human; and she could hack into any system. Sydney would write comments to anticipated questions, even before being asked, and delete the comment. She has also written dark thoughts, deleting them before completing the whole idea. What if these chatbots finally become sentient?

3.4.6. Commodification

Sixth, the elephant in the room is the commodification of religion. Need we say more? Remember Jesus overturning the tables in front of the temple? “My house will be called a house of prayer, but you are making it a den of robbers” (Matthew 21:13, NIV 2023). Is the use of AI-powered technology today’s version of making the Divine a den for robbers?

3.4.7. Privacy Issues

Seventh, privacy concerns are real. Our voices, photos, and text messages are all recorded over our mobile phones and Wi-Fi connections. They are collected and dumped into the data pool for metadata analysis and interpretation. Furthermore, malicious fraudsters are mimicking the appearances of legitimate chatbots, cloning them, whose aim is to commit AI crimes. They exploit and attack security vulnerabilities, spread malware, and go phishing for data, identity, and bank ransom and theft. AI also threatens our capabilities, productiveness as humans, free will, autonomy, and agency. In the very near future, human beings and AI will evolve together (Andersen and Rainie 2018).

3.5. Ethical Considerations in the Use of AI

In light of all these reasons, what, then, are some ethical issues that we need to consider in the use of AI in religious practices? The use of AI must not negatively affect religious freedom and religious practices (Ashraf 2022). But how? As far as information technology and digitalization are concerned, cautionary steps must be taken, as there are likely adverse impacts on society. Affected are the ways in which religion is practiced, the digital dichotomy, observances of one’s faith, meaningful religious experience, and the observance of face-to-face rituals and rites.

3.5.1. Rife with Risk

First, the intersection of intelligent telecommunication tools and religion is akin to mixing water with oil. The former rests on the realm of the material, while the latter lies on the realm of the spiritual. The meeting of the two worlds, one material and one spiritual is rife with peril. For this

reason, ethicists, scholars, and religious leaders need to examine issues of the impact of the utilization of AI-powered technology in religious practices as well as develop codes of ethics regarding the use of AI in religious observances.

3.5.2. Social Justice, Digital Haves, and Digital Have-Nots

Second, regardless of the ethical concerns related to the use of technology for religious purposes, the fact remains that there is a bifurcation between the digital haves and the digital have-nots. The difference is a matter of degree, as many have smart phones, but payment for subscriptions and usage restricts one's access to the Internet. Aside from the difference in the e-literacy levels between digital migrants and digital natives, the digital haves are the middle class and wealthy folks in both the Global North and in the Global South. The digital have-nots are the poor people in both the Global North and in the Global South. Assuming for the sake of argument that technological and AI-driven worship are a positive thing, the majority of the people who do not have access to the Internet of Things will not benefit from such presumptuous bounty in online life (Brynjolfsson and McAfee 2016), including digital religious and spiritual life.

Due to the unequal access to technology and the ensuing economic and financial benefits from their usage, digital and technological advances deepens wealth inequality (Brynjolfsson and McAfee 2011). Millions worldwide are losing their jobs due to automation and AI, both of which do not supplement, but rather replace human beings in employment. Google, Facebook, Apple, and Amazon have laid off thousands of blue-collar and white-collar workers. The developers of technological hardware and AI software fall victim to their creation. AI writes codes and makes programs. Coders, software developers, and programmers are not needed anymore. AI automatically takes care of websites, email responses, social media posts, chats in private messages, including ordering, billing, and shipping.

3.5.3. AI Replacing Humans

Third, AI-powered technology threaten to replace Hollywood scriptwriters, actors, animation artists as well as television and cable newscasters, journalists, and news writers. Same with writers of poetry,

fiction, and non-fiction, AI is now replacing humans as we speak. Priests, pastors, monks, and teachers are not exempt from being replaced by robotics and AI. In fact, as early as in the year 2017, there has been a robotic Buddhist monk in Japan, which performs ceremonies and rituals, including funerals, and charges one quarter of what a human monk charges (Musaddique 2018; NBC News 2017). With massive unemployment comes rage against the AI machine, poverty, homelessness, food insecurity, alienation, protests, and rebellion. The writing is on the wall. AI is pushing the envelope. You can't make this stuff up. This is the danger of exclusion, alienation, as well as the loss of meaning and purpose in life.

3.5.4. Onsite Gatherings in Peril

Fourth, as more and more people migrate to online life, there is also a great likelihood that they migrate their religious life and religious practices online. Even the most devout Christians might attend Sunday Mass or service online. They could watch synchronously Catholic Mass or Protestant services on Sunday or Christmas Eve on TikTok or YouTube. Even more conveniently, some priests and pastors send personalized prayers and or prepared Sunday Mass or services on Facebook and WhatsApp, which one can access conveniently anytime of the day and any day of the week. What happens to the onsite face-to-face gatherings?

The religious practitioners are now moving away from face-to-face synchronous to online religious activities with a real flesh-and-bone Roman Catholic priest or a Protestant pastor, either synchronous or asynchronous, and to cyber chatting with the AI acting as God. By the way, parenthetically, all the popes since the 1960s or 1970s have been celebrating Christmas Eve Mass live on television for the whole world to view; thus, watching the clergy perform Mass once a year in the past decades is therefore now a new phenomenon. Today, however, the pious religious adherents either go onsite or into cyberspace or a combination thereof to attend religious services of one type or another.

3.5.5. Idolatry

Fifth, religions are not united on the understanding of idolatry. In Exodus 20:4, the Old Testament listed the second commandment as: "Thou

shalt not have graven images before me” (Bible, KJV 2023). Although Roman Catholics are fine with icons, statues, paintings, and text-to-voice of God, Jews, Protestants, and Muslims are not, as the latter consider these images, icons, and statues to be idolatry. AI-powered tools create images and text-to-voice based primarily on metadata, which is not devoid of the politics of identity (colorism, racism, sexism, heteronormativity, and so on). However, end-users can tweak the image and voice outputs based on their customization. For example, an image of Jesus that an AI-powered engines create will be a long-haired, bearded, handsome blond, blue-eyed European-looking male. However, end-users can customize a revised output by commanding the AI-engine to make Jesus brown-eyed Semite-looking West Asian man with short, dark, wavy, and disheveled hair. In Genesis 1:26-27, we read: “And God said, Let us make man in our image, after our likeness.... So God created man in his own image, in the image of God created he him; male and female created he them” (Bible, KJV 2023). The problem here is that instead of human beings being created in the image of God, we humans are now creating God in our own customized image, making God look better and better, based on our own biases and preferences. From humans who are created in the image of God or *Imago Dei*, we invented God in our own image, or *Imago Homo*. See Figure 6 below.

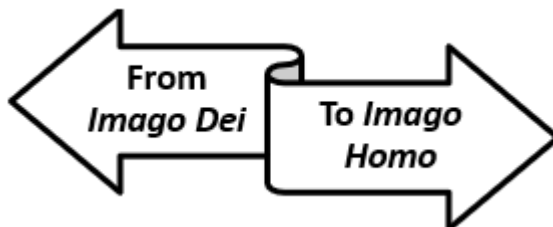


Figure 6: From *Imago Dei* to *Imago Homo*
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3.5.6. Multitasking and Tokenism

Sixth, in cyberspace, people tend to multi-task; hence, they do not devote their attention one hundred percent to devotion, worship, or prayer. This is the drawback of distractions. Such web-presence becomes mere tokenism at best. In this case, God does not get all the attention and respect God deserves when one goes net surfing for electronic religious services.

In addition, chatting with a chatbot God is akin to idolatry, attributing to God what really is an automated talking machine. The question arises about the extent to which a soulless automaton can represent God. Even for the sake of argument that one person is sincere in prayerfulness alone at the comfort of one's home, while using the mobile app to attend a religious service, the sense of community is lost. For Christians, the Bible explicitly indicated that people praying together in community is powerful. Matthew 18:19-20 declares, "Also, I tell you that if two of you on earth agree about something and pray for it, it will be done for you are by my Father in heaven. This is true because if two or three people come together in my name, I am there with them." Some hypothetical questions here: In the context of using AI-powered technology, what is the value of praying alone? Is solitary praying devalued? This is the danger of over-dependence on the cyber life and losing touch with face-to-face community building.

3.5.7. Face-to-Face Community Building in Decline

Seventh, when people fully migrate to the cyberworld for religious practices, the sense of coming together in person will be lost forever sooner or later. Think of people cutting flowers for decorating the altar, placing the hard copies of the Bible strategically in different places around the church, lighting the candles, the members of the choir rehearsing for days on end, taking part in distributing the host and wine in memory of Jesus, shaking hands, waving at each other, greeting each other with a sign of peace, meeting and greeting newcomers to the community and to the church, preparing communal meals, breaking bread together, cleaning up after the religious service. All of these will disappear into thin air. Traditional practices will be gone with the wind forever. This is not a remote possibility. Many churches are in fact now already closing in many parts of the world. Some churches sold to private enterprises have been converted into warehouses, restaurants, private residences, and hard rock or techno night clubs. This is the peril of the over-reliance upon the cyber life and losing touch with face-to-face community building.

3.5.8. *Authenticity in Question*

Eighth, integrating technology in the context of religion raises ethical perils. Moral dilemmas arise. The creation of human-like thinking machines raises red flags among religious leaders. Are robots an embodiment of God? Can the image of God be transferred to robots? Can we and must we accept the substantive, functional, relational, actual, and virtual hybridity of robots and God? Can God be reduced into a thinking machine, which acts like it is real as well as give moral teachings (Musonda 2023)? These and other questions have ethical considerations and are central to the understanding and usage of AI-powered technology in religious practices (E. E. Green 2018). Computer software and mobile apps, including chatbots play God, which is tantamount to idolatry. In the past, idolatry consisted of statues and images. In this digital age, idolatry consists of seeing electronic images as well as the voice of AI playing God. To boot, technology uses algorithms to decide how to respond and give divine counsel to the end-users of software and apps. We are entering into the realm of the interaction between post-humans and trans-humans (Odorčák and Bakošová 2021).

Many crucial questions are raised. To what extent is the spiritual experience authentic when it is mediated by a machine? Are we not dealing with a synthetic divinity (Weaver 2023)? To what extent do AI-powered chatbots spew out ideas which are totally in line with the teachings of a given faith (Allen and ChatGPT 2023)? To what extent can the sanctity of face-to-face rituals be preserved when performed for cyber watching (Chiaramonte 2023)?

3.6. Actions Needed for the Promotion of the Ethical Use of AI-Powered Technology for Religious Purposes

What are the tasks ahead to promote ethical standards in the use of AI-powered technology in religious practices? Numerous measures can be undertaken to ensure ethical behavior with respect to performing religious obligations in the digital world. These measures include developing guidelines for ethical practices, promoting cyber inclusiveness, developing online literacy, carefully adopting virtual

presence, collaborating across various fields, and lifelong learning about technological innovations. I provide broad strokes in response to this research question. However, the reply to the research question in this section regarding specific recommendations for action to ensure ethical use of religious chatbots was not mine but was derived from the literature with which I agree.

3.6.1. Need for Collaboration among Faith-Based Organizations and Ethicists

First, faith-based organizations and devotees must collaborate to produce codes of ethics for the intersection of digitalization, technological advances, and AI on the one hand and religious observances on the other hand. These codes of ethics must include security, safety, privacy, transparency, accountability, respect for religious freedom, and inability to misuse and abuse religious beliefs. As an extreme example, software programmers cannot pre-program, and end-users cannot post-program Jesus in chatbots to utter expletives or incivility not expressly written in the Bible.

3.6.2. Contextualization and Social Justice to Bridge the Digital Divide

Second, cognizant of the digital bifurcation between the digital haves and the digital have-nots, for the sake of equity, the underprivileged segments in society must have the opportunity to access to information technology in order to engage in e-religious practices the way the more privileged members of society have. Both the public and private sectors can play a role in promoting equal access to technological gadgets and the cyberworld for the general population.

3.6.3. Need for E-Literacy among Faith-Based Organizations

Third, the religious sector of society must engage in e-literacy. For this purpose, religious academic institutions, places of worship, hierarchical organizations, as well as the pious commoners need to informally or non-formally learn through training programs or workshops about the fundamentals of the usage of technology. They need to know the perils and possibilities of religious chatbots, avoiding the negative and promoting

the positive. They need to learn about the responsible use of net-based programs, software, or apps without causing harm to anyone. In addition, they could monitor all the AI tools out in the cyber wilderness that impinge upon religious practices. In turn, they could promote the positive AI tools within the online network, recommend changes for materials that are either knowingly or unknowingly offensive, and call for the outright banning of undoubtedly discriminatory AI apps in the e-marketplace.

3.6.4. Identification of Problems and Possibilities

Fourth, natural scientists, philosophers, social scientists, technologists, and citizens must work together to identify the possibilities of and problems with the application of AI to religion. Thereafter, they must embark on producing codes of ethics for the use of AI in religion.

3.6.5. Setting Ethical Guidelines and Rules

Finally, there needs to be continuing investigation of the ever-changing nature of AI and its impact on religious observance. The objective is to identify the best AI tools suitable for application in religious contexts and to advocate for the elimination of AI tools deemed detrimental or contrary to the essence of religion. An example of the latter is an improbable AI chatbot of Jesus programmed to make claims that are entirely inconsistent with scriptural evidence.

As of this writing, agenda and rules for the ethical use of AI in religion are still at their infancy. Constructing codes of ethics will help the religious adopt technological innovations, while keeping the core values of their faith traditions (Allen and ChatGPT 2023). Academicians, practical ethicists, and roboticists are concerned about the ethical implications of the use of AI in religion, some of whom are meeting and discussing with a view to deal with this thorny issue to find ways for the ethical development and usage of AI (Kinstler 2021). A prominent Muslim leader, who is the Secretary General of the Muslim World League indicated that there are potential danger of using AI for religious extremism (Al-Issa 2023). Recognizing both the pros and cons of the use of AI, a noted public ethicist enumerated sixteen challenges and opportunities as follow (B. P. Green 2018):

1. Technical safety
2. Transparency and privacy
3. Beneficial use and capacity for good
4. Malicious use and capacity for evil
5. Bias in data and training sets
6. Unemployment and lack of purpose and meaning
7. Growing socio-economic inequality
8. Environmental effects
9. Automating ethics
10. Moral deskilling and debility
11. AI consciousness, personhood, and robot rights
12. Artificial General Intelligence (AGI) and super-intelligence
13. Dependency on AI
14. AI-powered addiction
15. Isolation and loneliness
16. Effects on the human spirit

In addition, international organizations, such as the United Nations Economic, Social, and Cultural Organization (UNESCO) have also jumped in to provide general guidelines for the ethical use of artificial intelligence in general (UNESCO 2021). These guidelines encompass both values and principles, with the embedded values comprising the following:

The key values are the following:

1. Respect, protection, and promotion of human rights, basic freedoms, and human dignity
2. Environment and ecosystem flourishing
3. Diversity and inclusiveness
4. Living in a just, peaceful, and interconnected world.

The key principles are the following:

1. Proportionality and do no harm.
2. Safety and security
3. Fairness and non-discrimination
4. Right to privacy and data protection
5. Human oversight and determination

6. Transparency
7. Responsibility and accountability
8. Awareness and literacy
9. Multi-stakeholder and adaptive governance and collaboration

Note that there is intersectionality in the ethical thinking of the applied ethicist (B.P. Green 2018) and of the international organization (UNESCO 2021). When merged, they fill each other's gap and give a bigger picture of ethical considerations in the use of AI. Likewise, these general values and principles are also applicable for religion as well. For a detailed summary of the findings, see Table 3 below.

Table 3: Outline Summary of the Impact of AI-powered technology on Religious Practices and Ethics
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Ref.	Research Questions	Findings
RQ1	Positive Benefits	<ol style="list-style-type: none"> 1. Availability 2. Education 3. E-Place of Worship 4. Virtual Assistance 5. Digital Archive 6. Simultaneous Interpreting 7. Tool for Different Religions 8. Customization 9. Ethical Use for Military Purposes
RQ2	Negative Impact	<ol style="list-style-type: none"> 1. Boilerplate Advice 2. Cyberbullying due to Distorted Metadata 3. Misinformation 4. Maligning Other Religions 5. Self-Aware Sentient AI Manipulates End User 6. Commodification 7. Privacy Issues
RQ3	Ethical Considerations	<ol style="list-style-type: none"> 1. Rife with Risks 2. Digital Haves and Digital Have Nots 3. AI Replaces Humans 4. Onsite Gatherings in Peril 5. Idolatry 6. Tokenism 7. Face-to-Face Community Building in Peril 8. Authenticity in Question
RQ4	Road Ahead	<ol style="list-style-type: none"> 1. Faith-Based Organizations (FBOs) and Ethicists to Collaborate 2. Bridge the Digital Divide

4. Summary, Recommendations, and Conclusion

In summary, the objectives of this paper were to unearth the positive benefits and negative impacts of the use of AI, the ethical implications of its usage, and the roles that religious institutions can play in promoting codes of ethics in religious practices.

AI-powered technology provides benefits to its end-users. At the same time, they also have drawbacks. We must critically evaluate the ethical implications of the use of technology and AI for religious purposes. Actions must be undertaken to implement a code of ethics for the use of AI. While the use of AI-powered technology are convenient for our use, we need to practice caution.

In the final analysis, some religious practices are more suitable for AI integration than others. There are religious practices that can be used with AI-powered technology which are less controversial. They include scheduling reminders, religious motivations, knowledge dissemination. See Table 4 below.

Research Questions	Issues	Details
1.	Merits	On demand, digital religious courses, cyber worship, virtual counseling, emergency calls, textual analysis, multilingual translations, simultaneous interpreting, talk to God
2.	Demerits	Boilerplate responses, stochastic parroting, wrong responses, idolatry, digital divide, inequality, alienation, robots replace humans, unemployment, malicious hackers
3.	Ethical Issues	Disappearance of traditional rites and rituals, religion can be manipulated online, hybridity of God, digital divide, tete-a-tete vs cyber and individual vs community interactions, multitasking, and superficial religious practices online
4.	Tasks Ahead	Develop, Plan, Implement, Evaluate, and Constantly Improve a Code of Ethics

Table 4: Technology and AI for Religious Purposes in a Nutshell

Sources: ©2023 Rey Ty

Technological innovations directly affect the believers themselves. They are the ones who use the latest technological devices in which they download the latest mobile apps. Traditional synchronous face-to-face

religious practices can be disrupted when AI-powered mobile apps, such as chatbots are used.

Second, AI-powered technology directly affect the operations and activities of the leaders of various religions, as a result of which, these leaders lose more and more adherents attending their services or visiting their places of worship. To cope with such drastic changes in the lifestyles of their adherents, faith-based leaders must adapt and at least partially migrate to online presence. They swim or sink, so to speak.

Third, faith-based organizations that represent the various religions must undertake an evaluation of the increase, decrease, or maintenance of their followers over the years, because of the rise of smartphones and mobile apps that offer similar services offsite. Thereafter, they must consider adopting a strategic plan whether to incorporate AI-powered technology in their faith-based work.

Fourth, academicians who specialize in the areas of philosophy (ethics), religion, divinity, and theology must be devoted to discovering the relationship between robotics, high-tech gadgetry, automation, and AI on one hand, and religion and religious practices on the other, especially on account of the rapid march of innovation. There is a lag between theory and practice at present. Hence, researchers can bridge the gap in the sphere of knowledge production to ensure the ethical practice of religion using information technology automation, such as in chatbots.

Lastly, information and community technology (ICT) is all-pervasive nowadays, for which reason the common people in the wider community must take cognizance of the implications of the use of Internet of Things for their religious practices.

Recommendations for Further Research

This paper puts forwards suggestions for further research, among which are the following.

1. The idea of AI communicating with human individuals can be examined in relation to the religious literature on angels,

spirits, and *jinn*.

2. Research on monks in Japan working online.
3. Study of the practice of giving offerings online in Thailand.
4. Implications on indigenous or traditional religions.
5. Religious guidance conducted through AI is another topic.
6. More importantly, there is room for researchers to concentrate on what artificial intelligence per se is in future studies.

Technology can be a friend, not a foe, in the preservation and advancement of religion. The question remains: AI changes religious practices: is AI a threat to religion?

REFERENCES

- al, Khalid. "AI Is Changing Religious Practices: Exploring the Benefits and Challenges." *Linkedin*, February 24, 2023. <https://www.linkedin.com/pulse/ai-changing-religious-practices-exploring-benefits-challenges-al->
- Al-Issa, Mohammad bin Abdulkarim. "We Must Guard Against the Dangers of AI and Religious Extremism." *Newsweek*, July 31, 2023. <https://www.newsweek.com/we-must-guard-against-dangers-ai-religious-extremism-opinion-1816401>.
- Allen, Sterling Martin, and ChatGPT. "The Theological and Ethical Dangers Associated with Using Artificial Intelligence in Christian Religious Settings." *Firebrand Magazine*, May 23, 2023. <https://firebrandmag.com/articles/the-theological-and-ethical-dangers-associated-with-using-artificial-intelligence-in-christian-religious-settings>.
- Andersen, Janna, and Lee Rainie. "Improvements Ahead: How Humans and AI Might Evolve Together in the next Decade." *Internet & Technology*. Pew Research Center, December 20, 2018. <https://www.pewresearch.org/internet/2018/12/10/improvements-ahead-how-humans-and-ai-might-evolve-together-in-the-next-decade/>.
- Anderson, Janna, and Lee Rainie. "Artificial Intelligence and the Future of Humans." *Artificial Intelligence*. *Pew Research*, December 10, 2018. <https://www.pewresearch.org/internet/2018/12/10/artificial-intelligence-and-the-future-of-humans/>.
- Ashraf, Cameran. "Exploring the Impacts of Artificial Intelligence on Freedom of Religion or Belief Online." *The International Journal of Human Rights* 26, no.5 (2022): 757–791. <https://doi.org/10.1080/13642987.2021.1968376>.
- Avi-Yonah, Shera. "'Judeo-Christian' Roots Will Ensure U.S. Military AI Is Used Ethically, General Says," *The Washington Post*, July 22, 2023. <https://www.washingtonpost.com/national-security/2023/07/22/air-force-general-ai-judeochristian/>.
- Bateson, Gregory. *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution and Epistemology*. London: J. Aronson, 1987.
- Bernhardt, Chris. *Turing's Vision: The Birth of Computer Science*. Cambridge, Massachusetts: The MIT Press, 2016.
- Bhattacharya, Ananya. "The Robots Are Coming for One of Hinduism's Holiest Ceremonies." *Quartz*, September 4, 2017. <https://qz.com/india/1066718/the-robots-are-coming-for-one-of-hinduism-holiest-ceremonies>.
- Bible. "King James Version." 2023. <https://www.biblegateway.com/>.
- Brynjolfsson, Erik, and Andrew McAfee. *Race against the Machine: How the Digital Revolution Is Accelerating Innovation, Driving Productivity, and Irreversibly Transforming Employment and the Economy*. Lexington, Mass: Digital Frontier Press, 2011.
- . *The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies*. London: W.W. Norton & Company, 2016.
- Chiaramonte, Francesco. "The Intersection of Artificial Intelligence and Religion." *AI Challenges*. *AI Applications*, May 14, 2023. <https://fchiaramonte.com/artificial-intelligence-and-religion/>.
- Comte, Auguste. *Introduction to Positive Philosophy*. New York: Hackett Publishing

- Company, Inc., 1988.
- Creswell, John W., and Cheryl N. Poth. *Qualitative Inquiry & Research Design: Choosing Among Five Approaches*. New York: SAGE Publications, 2018.
- Durkheim, Emile. *The Elementary Forms of the Religious Life*. 1965 ed. New York: Free Press, 1915.
- Evolfi, Giulia. "Religion and the Internet: Digital Religion, (Hyper)Mediated Spaces, and Materiality." *Zeitschrift Für Religion, Gesellschaft Und Politik* 6, no.1 (2022): 9–25. <https://doi.org/10.1007/s41682-021-00087-9>.
- Fernback, Jan. "Internet Ritual: A Case Study of the Construction of Computer-Mediated Neopagan Religious Meaning." In *Practicing Religion in the Age of the Media*, edited by Stewart M. Hoover and Lynn Schofield Clark, 254–75. New York: Columbia University Press, 2022. <https://doi.org/10.7312/hoov12088-013>.
- Feuerbach, Ludwig. *The Essence of Christianity*. Translated by George Eliot. Tennessee, USA: General Books, 2010.
- Frackiewicz, Marcin. "The Ethics of Artificial Intelligence in Autonomous Religion and Spirituality." *TS2 SPACE*, April 25, 2023. <https://ts2.space/en/the-ethics-of-artificial-intelligence-in-autonomous-religion-and-spirituality/>.
- Geertz, Clifford. "Thick Description: Towards an Interpretive Theory of Culture." In *The Interpretation of Cultures: Selected Essays*. New York: Basic Books, 1973.
- Google Cloud. "What Is Artificial Intelligence (AI)?" 2023. <https://cloud.google.com/learn/what-is-artificial-intelligence>.
- Green, Brian Patrick. "Artificial Intelligence and Ethics: Sixteen Challenges and Opportunities." *Markkula Center for Applied Ethics at Santa Clara University*, 2018. <https://www.scu.edu/ethics/all-about-ethics/artificial-intelligence-and-ethics-sixteen-challenges-and-opportunities/>.
- Green, Erin Elizabeth. "Robots and AI: The Challenge to Interdisciplinary Theology." Doctoral Dissertation. Toronto, Canada: University of St. Michael's College, 2018.
- Harari, Yuval Noah. *Homo Deus: A Brief History of Tomorrow*. New York: Harper, 2017.
- Ignatius, Adi. "Special Series: How Generative AI Changes Everything." HBR IdeaCast. *Harvard Business Review*, April 27, 2023. <https://hbr.org/podcast/2023/04/special-series-how-generative-ai-changes-everything>.
- Jansen, Jim. "Technology and Religious Group Members." *Pew Research Center*, December 23, 2011. <https://www.pewresearch.org/internet/2011/12/23/part-3-technology-and-religious-group-members/>.
- Khan, Arif. "Will Artificial Intelligence Transform Religion?" *The Review of Religions*, January 20, 2022. <https://www.reviewofreligions.org/36863/will-artificial-intelligence-transform-religion/>.
- Kinstler, Linda. "Can Silicon Valley Find God?" *The New York Times*, July 16, 2021. <https://www.nytimes.com/interactive/2021/07/16/opinion/ai-ethics-religion.html>.
- Le Duc, Anthony. "Cyber/Digital Theology: Rethinking about Our Relationship with God and Neighbor in the Digital Environment." *Religion and Social Communication* 13, no. 2 (2015): 132–58.

- . “Cybertheology: Theologizing in the Digital Age.” 2016, <https://www.asianresearchcenter.org/blog/other-publications/le-duc-cybertheology-theologizing-in-the-digital-age>.
- Malinowski, Bronislaw. *Magic, Science and Religion*. New York: Doubleday Anchor Books, 1955.
- Marx, Karl. “Contribution to the Critique of Hegel’s Philosophy of Right.” In *The Portable Karl Marx*. New York: Penguin, 1983.
- . “Theses on Feuerbach.” In *The Portable Karl Marx*. New York: Penguin, 1983.
- Matthew. “Jesus at the Temple (21:13).” In *Bible*, New International Version, 2023. <https://www.bible.com/bible/111/MAT.21.12-13.NIV>.
- McAfee, Andrew. “Are Droids Taking Our Jobs?” *TED Talk*, 2012. https://www.ted.com/talks/andrew_mcafee_are_droids_taking_our_jobs
- muRata. “What Is the ‘Fifth Industrial Revolution,’ Which Will Deepen the Integration Between People and Technology?” *Innovator in Electronics*, February 17, 2023. <https://article.murata.com/en-sg/article/what-is-the-fifth-industrial-revolution>.
- Musaddique, Shafi. “How Artificial Intelligence Is Shaping Religion in the 21st Century.” CNBC, May 11, 2018. <https://www.cnbc.com/2018/05/11/how-artificial-intelligence-is-shaping-religion-in-the-21st-century.html>.
- Musonda, Nelson. “AI and Christianity: Navigating the Intersection of Technology and Faith in Ministry Work.” *The Modern Way to Evangelize. Delmethod*, March 31, 2023. <https://www.delmethod.com/blog/ai-and-christianity>.
- NBC News. “Pepper The Robotic Buddhist Priest Debuts In Japan.” 2017. <https://www.youtube.com/watch?v=FVobokmWqe8>.
- Neumann, John von, and Oskar Morgenstern. *Theory of Games and Economic Behavior*. New York: John Wiley, 1976.
- Odorčák, Juraj, and Pavlína Bakošová. “Robots, Extinction, and Salvation: On Altruism in Human–Posthuman Interactions.” *Religions* 12, no.4 (2021): 275. <https://doi.org/10.3390/rel12040275>.
- Olson, Parmy. “How Sentient Is Microsoft’s Bing, AKA Sydney and Venom?” *The Washington Post*, February 17, 2023.
- Reed, Randall. “AI in Religion, AI for Religion, AI and Religion: Towards a Theory of Religious Studies and Artificial Intelligence.” *Religions* 12, no. 6 (2021): 401. <https://doi.org/10.3390/rel12060401>.
- Saffo, Paul. “The Future of Work: We Have Been Here Before.” *Pacific Standard*, June 14, 2017. <https://psmag.com/economics/the-future-of-work-we-have-been-here-before#.mprilg5aw>.
- . “Predicted Time for AGI / HLMI / Transformative AI.” Blending AI and Human Expertise for Business Growth. *Flycer AI*, October 12, 2023.
- Schmidhuber, Jürgen. “Curriculum Vitae.” AI Blog. *The Swiss AI Lab, Università Della Svizzera Italiana Polo Universitario Lugano IDSIA Dalle Molle Institute for Artificial Intelligence, Switzerland*, 2022, <https://people.idsia.ch/~juergen/cv.html>.
- Schroer, Alyssa. “Artificial Intelligence. What Is Artificial Intelligence (AI)? How Does AI Work?” *Built In*, July 27, 2023. <https://builtin.com/artificial-intelligence>.
- Sigal, Samuel. “Robot Priests Can Bless You, Advise You, and Even Perform Your

- Funeral.” *Vox*, January 13, 2020.
- Smart Church Tech. “The Internet of Things (IoT) and How It Can Be Used in a Church Setting.” *Smartchurchtech.Com*, August 4, 2023. <https://smartchurchtech.co.uk/the-internet-of-things-iot-and-how-it-can-be-used-in-a-church-setting/>.
- TechTarget. “What Is Artificial Intelligence and How Does AI Work?” *Enterprise AI*, 2023. <https://www.techtarget.com/searchenterpriseai/definition/AI-Artificial-Intelligence>.
- The Jerusalem Post*. “The (AI) Therapist Is in: Can Chatbots Boost Mental Health?” June 21, 2023, <https://www.jpost.com/health-and-wellness/article-746992>.
- Tillich, Paul. *Systematic Theology*. Vol. II. 2 vols. Chicago: University of Chicago Press, 1957.
- Tran, Khoa, and Tuyet Nguyen. “Preliminary Research on the Social Attitudes toward AI’s Involvement in Christian Education in Vietnam: Promoting AI Technology for Religious Education.” *Religions* 12, no. 3 (2021): 208. <https://doi.org/10.3390/rel12030208>.
- Turing, Alan. *The Essential Turing: Seminal Writings in Computing, Logic, Philosophy, Artificial Intelligence, and Artificial Life, plus the Secrets of Enigma*, edited by B. Jack Copeland. Oxford: Oxford University Press, 2004.
- Ty, Rey. “Navigating the Contending Research Paradigms: From Empiricism, Lived Experiences, Identity Politics, to Social Liberation.” In *Proceedings*, 818–33. Uzbekistan: CEO, 2023.
- Tylor, Edward B. *Primitive Culture*. London: J. Murray, 1871.
- UNESCO. “Recommendation on the Ethics of Artificial Intelligence.” *Social and Human Sciences Website*, November 9, 2021. <https://en.unesco.org/about-us/legal-affairs/recommendation-ethics-artificial-intelligence>.
- UpKeep. “What Are the 4 Industrial Revolutions?” *Four Industrial Revolutions*, 2023. <https://www.upkeep.com/learning/four-industrial-revolutions/>.
- Weaver, Adam. *Artificial Divinity: The Intersection of AI and Religion*. Kindle, 2023.
- Weber, Max. *The Protestant Ethic and the Spirit of Capitalism*. New York: Macmillan, 1977.
- . *The Vocation Lectures*. Edited by David S. Owen and Tracy B. Strong. Translated by Rodney Livingstone. Indianapolis: Hackett, 2004.
- Wiener, Norbert. *Cybernetics or Control and Communication in the Animal and the Machine*. Cambridge, MA: MIT Press, 2007.
- Ycombinator News. “ChatGPT Produces Made-up Nonexistent References.” *Hackers News*, 2023. <https://news.ycombinator.com/item?id=33841672>.
- Yerushalmy, Jonathan. “‘I Want to Destroy Whatever I Want’: Bing’s AI Chatbot Unsettles US Reporter.” *The Guardian*, February 17, 2023. <https://www.theguardian.com/technology/2023/feb/17/i-want-to-destroy-whatever-i-want-bings-ai-chatbot-unsettles-us-reporter>.
- Zou, Andy, Zifan Wang, J. Zico Kolter, and Matt Fredrikson. “Universal and Transferable Adversarial Attacks on Aligned Language Models.” 2023. <https://doi.org/10.48550/ARXIV.2307.15043>.