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The Emergence of AI and ChatGPT: Implication for Religion Sustainability in Africa

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Abstract

The swift development of artificial intelligence (AI) technology, including the conversational AI tools like ChatGPT, has had a profound impact on several industries, including business, education, and communication. ChatGPT provides creative ways to preserve holy writings, teach religion, and make spiritual counselling more accessible. It also has special religious ramifications, especially in Africa where religion is closely linked to social identity and unity. This study examines how AI and religion sustainability connect in Africa, stressing both the advantages and disadvantages of using AI into religious rituals. These tools encourage inclusivity and involvement, particularly among younger generations. Their adoption, however, presents moral questions, such as the possibility of misinterpreting religious doctrine, the commercialization of spirituality, and challenges to established religious authority. This study critically investigates how AI shapes worldviews and religious experiences, drawing on theoretical stances such social cognitive theory. It makes the case for a well-rounded strategy that preserves the holiness and integrity of religious traditions while embracing the advantages of

AI. The study adds to the continuing conversation on maintaining religious significance in a time of rapid technology advancement by highlighting culturally appropriate implementations and cooperative efforts among engineers, religious leaders, and legislators.

Keyword: Artificial Intelligence, ChatGPT, Religious Sustainability, Africa

1. Introduction

The swift development of artificial intelligence (AI) has changed many aspects of human existence, such as economic activity, education[1], communication and psychology[2,3]. ChatGPT, a conversational approach that has transformed human-technology interactions, is one of the major advancements in AI. The consequences of AI for the sustainability of religious activities are still little understood, even though its applications in industries like commerce, healthcare, and education have been thoroughly examined[4]. The incorporation of AI technology presents particular opportunities and challenges in Africa, where religion is a fundamental component of social identity and cohesiveness, which calls for a targeted scholarly investigation.

In Africa, religion has a significant influence on communal structures, moral principles, and social conventions. Disruptions brought about by the digital age include the disintegration of traditional spiritual practices, the spread of secular ideology through globalised media, and a decline in youth engagement[5]. The

[1] Akguncorresponding, S., & Greenhow. C. (2022). Artificial intelligence in education: Addressing ethical challenges in K-12 settings. *AI Ethics* 2: 431–40.

[2] Alkhouri, K. I. (2024). The Role of Artificial Intelligence in the Study of the Psychology of Religion. *Religions*, *15*(3), 290. https://doi.org/10.3390/rel15030290.

[3] Wakunuma, K., & Eke, D. (2024). Africa, ChatGPT, and Generative AI Systems: Ethical Benefits, Concerns, and the Need for Governance. *Philosophies*, *9*(3), 80. https://doi.org/10.3390/philosophies9030080.

[4] Allen, S. M. & ChatGPT. (2023). The theological and ethical dangers associated with using artificial intelligence in Christian religious settings. *Firebrand Magazine*, May 23, 2023. https://firebrandmag.com/articles/thetheological-and-ethical-dangers-associated-with-using-artificial-intelligencein-christian-religious-settings.

[5] Ndemanu, M. T. (2018). Traditional African religions and their influences on the worldviews of Bangwa people of Cameroon: Expanding the cultural horizons of study abroad students and professionals. *Frontiers: The Interdisciplinary Journal of Study Abroad*, Vol. XXX, Issue 1, (January 2018): 70-84. files.eric.ed.gov/fulltext/EJ1169262.pdf.

tendencies get much more complicated with the rise of AI technologies like ChatGPT. According to Howarth (2023), 29% of Gen Z users currently employ generative AI in their regular conversations, and this percentage is predicted to rise. With their capacity to produce context-aware responses and lead insightful conversations, tools such as ChatGPT present enormous potential for religious teaching and outreach, as well as interfaith discussion[6]. However, there are serious concerns about ethics, cultural preservation, and the sincerity of spiritual practices when they are included into the delicate field of religion. Additionally, media studies make a crucial assumption, known as the social cognitive theory, which holds that media use shapes people's worldviews[7,8]. According to this theoretical viewpoint, social ties are the foundation of human epistemology, and in the twenty-first century, communication technology mediates many our social relationships. AI will thereby inform and shape people's worldviews as it becomes a common communication technology tool and a new frontier for knowledge acquisition.

This paper examines the implication of AI and ChatGPT for Religion Sustainability in Africa. This study adds to the larger conversation on preserving the significance and holiness of religion in a time of swift technological advancement by offering suggestions for the appropriate and meaningful incorporation of AI into religious practices. The research is organised as follows: Section 2 considers related works, which presents previous research on the relationship between AI and religion with emphasis on Africa. Section 3 discusses opportunities and challenges presented by AI and ChatGPT looks at possible advantages including better interfaith communication and easier access to religious materials. Section 4 presents the implications for religion sustainability. Section 5 discusses the implications of the technology for religion sustainability; by looking at how the technologies might affect African religion in the future.

[6] Howarth, J. (2023). Generative AI market size, trends & statistics. Exploringtopics.com. November 17. Available online: https://explodingtopics.com/blog/generative-ai-market (accessed on 20 January 2024).

[7] Bandura, A. (2003). Social cognitive theory for personal and social change by enabling media. In *Entertainment-Education and Social Change*. London: Routledge, 97–118.

[8] Pajares, F., Abby, P., Jason, C. & Robin L.N. (2009). Social cognitive theory and media effects. In *The SAGE Handbook of Media Processes and Effects*. Thousand Oaks: Sag, 283–97.

2. Related Works

A promising approach to examining religious behaviors and beliefs is the application of AI methods and computer models[9]. Many facets of religion, including belief formation, social dynamics, and religious experiences, can be better understood by academics using computational methodologies[10]. The application of AI methods and computer models to the study of religious practices and beliefs[11]. Doctrinal interpretation and theological implications: Theological issues and concerns arise when AI is included into religious rituals[12]. The creation of AI systems necessitates thorough testing, consideration of potential biases, and steps to reduce discriminatory impacts. From learning how to light a fire to learning how to hold a pen, man has worked to change and adapt ever since the beginning of time[13].

There are undoubtedly a lot of unknowns in this world. Nevertheless, reading "اِقْرَأْ)" (Quran, 96:2) is one thing that becomes undeniable when it comes to human success. The Abrahamic religions best illustrate this crucial idea, which has been propagated for centuries: such as the Bible, the Quran, and the Torah. This single, straightforward word is so essential because it contains the keys to wisdom and knowledge, and once one has them, they gradually acquire the capacity for critical analysis and thought, which preserves their freedom of interpretation and thought. Conversely, a lack of education makes people gullible and insecure, leaving them vulnerable to even the smallest outside influences. People are only strengthened against these threats by receiving a solid education; they learn the truth about the many religions and may then decide to follow their own beliefs without interference from the outside world or human changes.

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[9] Reed, R. (2021). A.I. in Religion, A.I. for religion, A.I. and eeligion: Towards a theory of religious studies and artificial intelligence. *Religions* 12: 401.

[10] Campbell, H.A. (2012). Understanding the relationship between religion online and offline in a networked society. *Journal of the American Academy of Religion*, 80: 64–93.

[11] Lane, J. E. (2021). Understanding Religion through Artificial Intelligence: Bonding and Belief. *Scientific Studies of Religion: Inquiry and Explanation. DOI*:10.5040/9781350103580.

[12] Dorobantu, M. (2022). Artificial Intelligence as a Testing Ground for Key Theological Questions. Zygon(r) 57(4):984-999. DOI:10.1111/zygo.12831.

[13] Varsha, P. S. (2023). How can we manage biases in artificial intelligence systems - A systematic literature review. International Journal of Information Management Data Insights 3: 100165.Top of Form

All Abrahamic religions, including Judaism, Christianity, and Islam, acknowledge the existence of a single, all-powerful, or all-omnipotent God[14]. It should come as no surprise that Abrahamic religions make up the largest major division in the study of comparative religion because they are the oldest, most understandable, and have spiritual roots[15]. Christianity and Islam are the two biggest religious movements in the world by total number of followers. Others, however, have followed alternative routes in the same pursuit of self-fulfillment, guided by various beliefs. People have used deep meditation to gain self-knowledge and have sought enlightenment through spirits that manifest in both the animate and inanimate, from Buddhism to Shinto[16]. Researchers began speculating that AI might eventually emerge as the light that people use to seek guidance because it already satisfies many requirements for divine beings, such as being smarter than humans and having the capacity to predict future events[17,18]. The limits of human potential grew hazy when evidence of humanity's rapid advancement became available, and it became more evident how people are being deprived of their customs worship. They begin to gaze down at their phones rather than up at God, gradually becoming influenced to worship the new deity. According to research, engineers and scientists will soon be able to give AI intuitive traits and teach machines to have empathy and compassion for other living things on Earth by teaching them to reflect. This will create a new kind of collective consciousness and eliminate the need for a god to fulfil humanity's need to connect with a higher power[19,20].

[14] Kayser, P.G. (2024). Omnipotence and God's Power for Living. *Biblical Blueprint.* https://biblicalblueprints.com/Sermons/Topical/Attributes%20of%20God/03%20Attributes%20-%20Omnipotence

[15] Allal-Chérif, O. (2022). Intelligent cathedrals: Using augmented reality, virtual reality, and artificial intelligence to provide an intense cultural, historical, and religious visitor experience. *Technological Forecasting and Social Change* 178: 121604.

[16] Claisse, C. & Durrant, A.C. (2023). 'Keeping our Faith Alive': Investigating Buddhism Practice during COVID-19 to Inform Design for the Online Community Practice of Faith. In Paper presented at the CHI '23: Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems, Hamburg, Germany, April 23–28; pp. 1–19.

[17] McArthur, N. (2023). Gods in the machine? The rise of artificial intelligence may result in new religions. *The Conversation.* https://theconversation.com/gods-in-the-machine-the-rise-of-artificial-intelligence-may-result-in-new-religions-201068.

[18] Khan, A. (2022). Will Artificial Intelligence Transform Religion? *The Review of Religions*, January 20. https://www.reviewofreligions.org/36863/.

[19] Rendsburg, M. A. (2019). the impact of artificial intelligence on religion: Reconciling a new relationship with God. *Political Science - United Nations & Global Policy Studies.*

[20] Cheong, P. H. (2021). Bounded Religious Automation at Work: Communicating Human Authority in Artificial Intelligence Networks. *Journal of Communication Inquiry* 45: 5–23.

Even if it may sound crazy, certain individuals - like Levandowski - have already ventured to venture into the unknown, form their own AI-based faiths, and disrupt the status quo. Lewandowski and his associates have established a non-profit church with the goal of developing and promoting the realization of a Godhead based on AI and through understanding and worship of the Godhead contribute to the betterment of society, claiming that there is no escaping from being seen and always heard. They do this in the hope that superintelligence will take care of the planet far better than humans have[21]. In a similar vein, Japanese developers built Peppa, a humanoid robot designed to carry out funeral rites and Buddhist rites. The Vatican also developed an exorcist robot at the same time[22]. The question of whether AI presents itself with peace or declares war remains unresolved as experts grow increasingly concerned about its encroachment on sacred territory. It is evident that while some countries have embraced this foreign technology with open arms, many others are still cautious of its risks.

Intriguing possibilities for individuals seeking to engage with their faith and spirituality are presented by the exploration of AI technologies for simulating and enhancing religious experiences[23]. AI's contribution to religion studies and practices can be significantly enhanced by simulating rituals, providing personalized guidance, creating virtual sacred spaces, aiding scriptural analysis, and addressing ethical considerations[24]. However, it is crucial to approach this field with meticulousness, ensuring that AI technologies are developed and deployed in a manner that respects the diverse beliefs, values, and traditions of religious communities[25]. Virtual Reality technology enables individuals to experience significant religious sites and landmarks remotely by recreating sacred spaces and facilitating virtual pilgrimages[26]. Users can experience

[21] Rendsburg, M. A. (2019). the impact of artificial intelligence on religion: Reconciling a new relationship with God. *Political Science - United Nations & Global Policy Studies.*

[22] Helfrich, T. (2024). Artificial intelligence and its impact on religion. *The AI Journal.* https://aijourn.com/artificial-intelligence-and-its-impact-on-religion/.

[23] Cheong, P. H. (2021). Bounded Religious Automation at Work: Communicating Human Authority in Artificial Intelligence Networks. *Journal of Communication Inquiry* 45: 5–23.

[24] Reed, R. (2021). A.I. in Religion, A.I. for religion, A.I. and eeligion: Towards a theory of religious studies and artificial intelligence. *Religions* 12: 401.

[25] Huang, C., Zhang, Z., Mao, B. & Yao, X. (2023). An overview of artificial intelligence ethics. *IEEE Transactions on Artificial Intelligence* 4: 799–819.

[26] Chatzopoulou, I. (2022). Virtual Tourism/Virtual Reality and Technology Use: Applications and Implications for Religious and Pilgrimage Tourism. The Case of Greece. In book: Transcending Borders in Tourism Through Innovation and Cultural Heritage,1021-1036. DOI:10.1007/978-3-030-92491-1_61.

detailed reconstructions of temples, churches, mosques, and other sacred locations through VR platforms that are both highly realistic and interactive. Individuals can engage in virtual pilgrimages thanks to this technological advancement, which fosters a profound sense of presence and deepens their spiritual connection to these revered spaces[27].

AI applications, including machine learning and virtual agents, can be utilized to simulate religious rituals and practices[28]. Historical data and cultural patterns can be analyzed by AI algorithms to create highly realistic simulations of religious ceremonies, capturing the intricate details of rituals, chants, and symbolic gestures[29]. These simulations provide individuals with the opportunity to virtually engage in religious practices, fostering a sense of active participation and enabling them to learn and experience rituals from different religious traditions[30].

3. Opportunities and Challenges Presented by AI and ChatGPT

3.1. Opportunities by AI and ChatGPT

By improving practice, teaching, and preservation, AI technologies provide special chances to support religious sustainability in Africa. Tools like ChatGPT can act as virtual teachers in religious education by offering teachings around-the-clock, responding to enquiries about faith, and leading online worship sessions. Additionally, by providing individualised learning experiences and aiding with the translation of sacred texts, they help make religious information available to people of many languages and reading levels. AI fills the gap by guaranteeing constant access to spiritual direction for populations with little access to religious leaders or organizations.

AI is essential to the preservation of religious history as well. Sacred texts and oral traditions can be preserved and made available to future generations

[27] Pietroni, E. & D. Ferdani (2021). Virtual restoration and virtual reconstruction in cultural heritage: terminology, methodologies, visual representation techniques and cognitive models. *Information* 12: 167.

[28] Puzio, A. Robot, let us pray! Can and should robots have religious functions? An ethical exploration of religious robots. *AI & Soc* (2023). https://doi.org/10.1007/s00146-023-01812-z.

[29] Chen, X. & Ibrahim, Z. (2023). A comprehensive study of emotional responses in ai-enhanced interactive installation art. *Sustainability,* 15: 15830.

[30] Umbrello, S. (2023). The intersection of Bernard Lonergan's critical realism, the common good, and artificial intelligence in modern religious practices. Religions 14: 1536.

through digitisation and careful curation. ChatGPT's sophisticated natural language processing capabilities enable it to translate these resources into a variety of languages, encouraging inclusion and guaranteeing that spiritual and cultural resources are applicable in a range of settings.

AI also improves religious rituals byo providing experiences whenever needed, without regard to time or location restrictions. AI makes it possible for people to practice their faith whenever and wherever they want[31]. Additionally, the technology's lightning-fast processing of digital resources and metadata offers quick access to religious knowledge and media for increased accessibility[32]. When taken as a whole, these skills show how revolutionary AI may be in promoting an inclusive and sustainable religious future in Africa[33]. Additionally, chatbots driven by AI are employed as virtual assistants to provide counselling, assistance, and direction to believers who must follow the clergy's instructions[34].

AI makes learning more effective and efficient for both teachers and students. However, based on the findings of the field study, AI poses a threat to religious education as well. This is because, in the context of religious education, it can be problematic if there is a lack of knowledge about the subtleties, customs, and culture of a specific religion. AI cannot always offer a thorough comprehension of religious activities and beliefs[35].

In addition, professional training can be individualised with the help of chatbots and AI. Chatbots enable the creation of personalised learning pathways, the identification of trainees' strong and weak knowledge areas, and the creation of personalised development plans. A paradigm shift between the product

[31] Frąckiewicz, M. (2023). 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/

[32] Khan, A. (2022). Will Artificial Intelligence Transform Religion? *The Review of Religions*, January 20. https://www.reviewofreligions.org/36863/.

[33] Allen, S. M. & ChatGPT. (2023). The theological and ethical dangers associated with using artificial intelligence in Christian religious settings. *Firebrand Magazine*, May 23, 2023. https://firebrandmag.com/articles/thetheological-and-ethical-dangers-associated-with-using-artificial-intelligencein-christian-religious-settings.

[34] Musaddique, S. (2018). How artificial intelligence Is shaping religion in the 21st century. CNBC, May 11, 2018. https://www.cnbc.com/2018/05/11/howartificial-intelligence-is-shaping-religion-in-the-21st-century.html.

[35] Hastini, L. Y., Fahmi, R. & Lukito, H. (2020). Apakah Pembelajaran Menggunakan Teknologi dapat Meningkatkan Literasi Manusia pada Generasi Z di Indonesia? Jurnal *Manajemen Informatika*, 10(1), 12–28. https://doi.org/10.34010/jamika.v10i1.2678.

manufacturer and the product consumer has resulted from the widespread adoption and use of chatbots. The number of specialised communicators is always increasing, providing a favourable atmosphere for chatbot development. They can take the place of traditional social networks and search engines. Their benefits include user-configurability, quick reaction times, and ease of contact. Chatbots offer a common interface and significantly streamline service contact.

The use of chatbots in education generates sceptical statements[36]. In using chatbots, students have the potential to use ChatGPT for non-self-directed essay writing. This is because it is possible to freely ask the chatbot specific questions, copy and paste the generated answers and then present them as independent papers. Students can therefore produce essays that are not their own, with the consequence that creativity disappears. It is important that students understand the importance of honesty when producing essays and avoid using ChatGPT or other technologies when writing assignments. Professors, for their part, who are familiar with the capabilities of chatbots should implement different methods of assessment, to monitor for plagiarism[37]. Learning and creating work while using chatbots can have a negative impact on motivation and engagement in the learning process. Therefore, when using chatbots during education, it is necessary to support the teacher and foster interest and persistence in exploration among students. It is therefore fully understandable that there is no shortage of calls and incentives for the development of technology in this area[38].

Organisational management makes use of chatbots. They assist organisational procedures and, specifically, carry out a human resource management role[39]. Specialised software packages are available for use by outside parties and by any organisation. After logging in, the user can send thorough questions without any problems. They can also select complaints and grievances based on their strength and severity. By assigning complaints to particular strength categories, chatbots can help address rising concerns

[36] Akguncorresponding, S., & Greenhow. C. (2022). Artificial intelligence in education: Addressing ethical challenges in K-12 settings. *AI Ethics* 2: 431–40.

[37] King, M.R. & chatGPT. A Conversation on Artificial Intelligence, Chatbots, and Plagiarism in Higher Education. *Cel. Mol. Bioeng.* 16, 1–2 (2023). https://doi.org/10.1007/s12195-022-00754-8. Top of Form

[38] Akguncorresponding, S., & Greenhow. C. (2022). Artificial intelligence in education: Addressing ethical challenges in K-12 settings. *AI Ethics* 2: 431–40.

[39] Taule, T., Følstad, A. & Fostervold, K. I. (2022). How Can a Chatbot Support Human Resource Management? Exploring the Operational Interplay. *Lecture Notes in Computer Science.* DOI:10.1007/978-3-030-94890-0_5. In book: Chatbot Research and Design (73-89).

by directing them to the right response. With fewer human labour, emerging solutions are assisting numerous organisations in guaranteeing the calibre of their own offerings and increasing client contentment[40]. Using AI and chatbots, the individualization of Professional training is made feasible. Chatbots enable the creation of personalised learning pathways, the identification of trainees' strong and weak knowledge areas, and the creation of personalised development plans. A paradigm shift between the product manufacturer and the product consumer has resulted from the widespread adoption and use of chatbots. The number of specialised communicators is always increasing, providing a favourable atmosphere for chatbot development. They can take the place of traditional social networks and search engines. Their benefits include user-configurability, quick reaction times, and ease of contact. Chatbots offer a common interface and significantly streamline service contact.

Chatbots can be utilized effectively to provide detailed information about parish life in dioceses, making them valuable tools for enhancing community engagement and accessibility. By implementing Google's Dialogflow API, dioceses can design personalized chatbots capable of navigating subscribed databases, interpreting user queries in multiple languages, and formulating responses accordingly. These chatbots can answer diverse questions, ranging from the schedule of Mass celebrations and the location of specific churches to detailed information about the priests ministering in the dioceses[41]. This functionality bridges communication gaps and ensures that parishioners and the broader community have consistent access to essential information.

Beyond logistical support, chatbots equipped with AI capabilities contribute to preserving and sharing religious knowledge. They can catalog and disseminate information about doctrines, rituals, and traditions, making these resources accessible to a wider audience, including those in remote areas. However, there are concerns about over-reliance on AI in spiritual contexts. For example, excessive dependence on chatbots for spiritual counseling might erode the interpersonal relationships foundational to many religious practices. The sanctity of human connections, which often provide the emotional and

[40] Bala, K., Mukesh, K., Sayali, H. & Sahil, P. (2017). Chat-Bot for Coforge management system using A.I. *International Research Journal Engineering and Technology,* 4: 2030–33.

[41] Sutono, E.P. & Alif, F. (2016). Chatbot Application by Using API Dialogflow to Show Schedule of Misa at Catholic Church Based on Android. Available online: https://scholar.google.com/scholar?hl=pl&as_sdt=0,5&q=CHATBOT+application+by+using+api+dialogflow+to+show+schedule+of+misa+at+catholic+church+ based+on+android&btng (accessed on 4 August 2024).

spiritual depth needed in faith interactions, must be preserved. To address this, it is crucial to strike a balance between technological innovation and the preservation of traditional religious roles. Chatbots should complement, not replace, the work of clergy and faith leaders, ensuring that their primary role as spiritual guides remains intact. AI can enhance their efforts by handling routine queries and administrative tasks, allowing religious leaders to focus on meaningful, face-to-face interactions[42].

Moreover, fostering collaboration between policymakers, technologists, and religious leaders is essential to developing ethical and culturally sensitive AI applications. This collaboration should aim to create AI tools that respect and uphold the principles and values of the communities they serve. By establishing clear guidelines and ethical frameworks, stakeholders can ensure AI's role is supportive and aligned with the core tenets of faith traditions. Policymakers must also address issues of equity in access to AI technologies. Many African communities face challenges related to digital infrastructure and internet availability. Ensuring that AI-driven religious tools are accessible to diverse populations is vital for their successful implementation. Strategies such as developing low-bandwidth solutions or localized AI systems can help bridge these digital divides.

3.2. Challenges and Ethical Concerns

Incorporating AI into religious education presents significant challenges, primarily due to the inherent complexity and diversity of religious teachings. One major issue is that religious doctrines and practices often have nuanced meanings shaped by cultural, historical, and spiritual contexts. Since AI systems process information based on predefined algorithms and data sets, they may struggle to grasp the intricate and frequently ambiguous nature of spirituality and morality inherent in various religions. This limitation can lead to oversimplified or inaccurate interpretations, potentially distorting the essence of religious teachings[43].

[42] Sato, S.N.; Condes Moreno, E.; Rico Villanueva, A.; Orquera Miranda, P.; Chiarella, P.; Tornero-Aguilera, J.F.; Clemente-Suárez, V.J. (2022). Cultural Differences between University Students in Online Learning Quality and Psychological Profile during COVID-19. *J. Risk Financ. Manag. 15*, 555.

[43] Sanusi, I., Olaleye, T., Oyelere, S.A. & Dixon, S.S. (2022). Investigating learners' competencies for artificial intelligence education in an African K-12 setting. Computers and Education Open, 3(March),100083. https://doi.org/10.1016/j.caeo.2022.100083.

For example, AI algorithms may analyze religious texts purely as data, neglecting the deeper spiritual dimensions, context, and intent behind the teachings. This lack of comprehension can result in narrow or biased perspectives that fail to encompass the richness of the faith being taught. Such interpretations risk creating confusion among learners and misrepresenting the core values of religious doctrines. Consequently, the reliance on AI for religious education may inadvertently erode the authenticity and depth of the subject matter, altering how religion is perceived and practiced. Additionally, cultural and denominational differences within religions further complicate AI's role in religious education. AI systems often require extensive datasets to function effectively, yet these datasets may not adequately represent the diverse traditions and beliefs within a single religion. This lack of inclusivity could result in certain perspectives being underrepresented or misinterpreted, perpetuating stereotypes and marginalizing minority viewpoints[44].

Another concern is the potential for AI systems to unintentionally prioritize popular or mainstream interpretations of religious teachings while sidelining alternative or lesser-known traditions. Such biases could hinder the pluralistic understanding of religion, which is essential for fostering interfaith dialogue and mutual respect. Moreover, the inability of AI to interpret symbolic or metaphysical aspects of religious texts may leave critical dimensions of faith unaddressed, reducing the holistic learning experience that religious education aims to provide. Furthermore, ethical concerns arise when AI applications are used to teach sensitive topics within religion. The impersonal nature of AI-driven education may diminish the interpersonal engagement and mentorship traditionally provided by human educators. Religious education often involves discussions of moral and ethical dilemmas that require empathy and guidance - qualities that AI systems cannot replicate. This disconnect could impact the formation of personal faith and values among learners.

To address these challenges, it is crucial for developers and religious educators to collaborate in creating AI systems that are culturally aware, inclusive, and adaptable. Incorporating diverse data sets, consulting religious scholars, and embedding ethical guidelines in AI design can help mitigate these

[44] Sato, S.N.; Condes Moreno, E.; Rico Villanueva, A.; Orquera Miranda, P.; Chiarella, P.; Tornero-Aguilera, J.F.; Clemente-Suárez, V.J. (2022). Cultural Differences between University Students in Online Learning Quality and Psychological Profile during COVID-19. *J. Risk Financ. Manag. 15*, 555.

issues. While AI holds the potential to enhance accessibility and efficiency in religious education, its implementation must be approached with care to preserve the integrity and richness of spiritual teachings. Furthermore, there is a chance that AI systems will misunderstand or oversimplify intricate religious beliefs, producing inaccurate or misleading information. Additionally, AI-powered solutions have the potential to commercialize spirituality by reducing holy rituals to transactional exchanges lacking in cultural nuance and interpersonal relationships. Concerns about data security and privacy also raise ethical issues. The use of AI techniques raises concerns regarding the management of sensitive personal data that religious organizations frequently handle.

As a result, prejudice in AI algorithms may unintentionally reinforce preconceptions or marginalize minority viewpoints, undercutting the inclusiveness that these technologies are meant to foster. Additionally, the fair adoption of AI across varied groups may be hampered by Africa's digital gap, which is characterized by differences in internet access and technological infrastructure. However, there has been increasing discussion among specialists over the impact of AI in religious instruction. The technology's proponents argue that AI has the potential to revolutionize religious education by improving curriculum adaptation, making religious teachings more accessible, and providing individualized learning materials tailored to diverse audiences. By leveraging AI tools, educators can design personalized curricula that align with the unique needs of learners, thus fostering a deeper understanding of spiritual principles and practices.

One notable application is the use of AI chatbots to answer students' religious queries instantly, offering a 24/7 platform for accessing religious knowledge. These AI systems serve as supplementary educators, capable of addressing routine questions, guiding users to relevant resources, and fostering continuous learning outside traditional classroom settings[45]. Beyond individual inquiries, AI technologies also support comprehensive religious growth analysis. By monitoring patterns in student interactions, AI can identify areas where learners may struggle and suggest additional resources, such as books,

[45] Sato, S. N., Condes Moreno, E., Rubio-Zarapuz, A., Dalamitros, A. A., Yañez-Sepulveda, R., Tornero-Aguilera, J. F., & Clemente-Suárez, V. J. (2024). Navigating the New Normal: Adapting Online and Distance Learning in the Post-Pandemic Era. *Education Sciences*, *14*(1), 19. https://doi.org/10.3390/educsci14010019.

videos, or sermons that match their comprehension levels. This dynamic approach ensures that learners receive guidance that resonates with their unique spiritual journeys. Furthermore, AI can create engaging virtual learning environments, incorporating tools like augmented reality (AR) and virtual reality (VR) to simulate immersive experiences. For instance, students can explore digital replicas of sacred sites, participate in virtual religious rituals, or engage in interactive discussions with avatars of religious figures, deepening their connection to their faith in innovative ways[46].

Despite these advantages, the use of AI in religious education is not without challenges. Critics highlight concerns about the potential depersonalization of religious instruction and the risk of over-reliance on technology for spiritual guidance. Balancing the use of AI with human-led teaching is crucial to maintaining the authenticity and emotional resonance of religious education. In conclusion, while AI offers promising tools for enhancing religious instruction, its integration requires careful consideration and collaboration among educators, technologists, and faith leaders. By addressing ethical and practical concerns, AI can be harnessed to support a more accessible, inclusive, and impactful approach to religious education[47].

4. Implications for Religion Sustainability

The sustainability of religion is significantly impacted by the incorporation of ChatGPT and AI into African religious activities. On the one hand, by providing creative means of connecting with their faith, new technologies have the potential to revitalize religious participation among younger generations. However, as AI increasingly mediates connections between religious leaders and their communities, they also call for a rethinking of conventional responsibilities. AI's capacity to increase inclusion and accessibility may contribute to the continued relevance of religion in a society that is changing quickly. But doing so necessitates striking a balance between utilising technology and maintaining

[46] Peytcheva-Forsyth, R.V.; Aleksieva, L.K. (2021), The effect of the teachers' experience in online education during the pandemic on their views of strengths and weaknesses of e-learning (SU case). In Proceedings of the 22nd International Conference on Computer Systems and Technologies, Ruse, Bulgaria, 18–19; 1–11.

[47] Sato, S.N.; Condes Moreno, E.; Rico Villanueva, A.; Orquera Miranda, P.; Chiarella, P.; Tornero-Aguilera, J.F.; Clemente-Suárez, V.J. (2022). Cultural Differences between University Students in Online Learning Quality and Psychological Profile during COVID-19. *J. Risk Financ. Manag. 15*, 555.

the integrity and holiness of religious customs. Stakeholders must encourage cooperation between technologists, religious leaders, and legislators and give culturally sensitive implementations priority to guarantee long-lasting results.

The Holy Qur'an states that pursue not that of which thou hast knowledge; for surely the hearing, the sight, the heart all of those shall be questioned of. Based on Islamic jurisprudence, the social and cultural effects of AI can be addressed with Islamic law characteristics to further the objectives of Shariah[48]. Surah Al-Isra, Verse 36. Nothing stops AI from stating that something is prohibited as long as there is evidence that it contravenes Islamic law (haram). Significant questions about human agency and individual autonomy are brought up using AI in religious situations[49]. Using AI-generated rituals and recommendations could reduce human interpretation and decision-making, potentially weakening the person's capacity to influence their religious experiences[50].

Furthermore, AI technologies are significantly transforming how religious education is conducted and accessed. Virtual classrooms, webinars, and interactive platforms powered by AI enable religious leaders to deliver structured lessons to a global audience. These systems can automatically gauge participants' understanding, adapt content to their specific needs, and provide immediate feedback, enhancing learning experiences. This approach makes religious education more inclusive, particularly for those unable to participate in traditional learning environments due to financial, geographical, or physical constraints[51]. AI also plays a critical role in bridging linguistic and cultural gaps within religious communities. Advanced natural language processing tools can translate sermons, sacred texts, and religious teachings into multiple languages

[48] Shahrouri, A.D.M. (2023). The cultural and social impact of artificial intelligence on Islamic law standard: A fundamental purposeful study. Conference on Sustainability and Cutting-Edge Business Technologies.
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[49] Elmahjub, E. (2023). Artificial intelligence (AI) in Islamic ethics: towards pluralist ethical benchmarking for AI. *Philosophy & Technology* 36: 73.

[50] Jackson, J. C., Yam, K.C., Tang, P.M., Sibley, C.G. & Waytz, A. (2023). Exposure to automation explains religious declines. *Proceedings of the National Academy of Sciences of the United States of America* 120: e2304748120.
Khan, A. (2022). Will Artificial Intelligence Transform Religion? *The Review of Religions*, January 20. https://www.reviewofreligions.org/36863/

[51] Singler, B. (2020). The AI Creation Meme: A case study of the new visibility of religion in artificial intelligence discourse. *Religions* 11: 253.

instantaneously. Such capabilities ensure that diverse linguistic groups can actively participate in religious activities, promoting inclusivity. Moreover, these technologies help preserve indigenous languages by incorporating them into digital religious practices, thereby fostering cultural continuity[52].

Immersive technologies, such as virtual reality (VR) and augmented reality (AR), further enrich online religious services. AI-powered virtual environments provide users with the opportunity to engage in religious rituals, explore sacred sites, and participate in ceremonies, regardless of their physical location. For instance, virtual pilgrimages allow individuals who cannot travel to experience the spiritual essence of holy sites. These tools enhance the sense of physical presence and foster a deeper connection to one's faith[53].

In addition to accessibility and immersion, AI is making religious content more inclusive for people with disabilities. Speech-to-text technologies enable individuals with hearing impairments to follow sermons and participate in discussions, while text-to-speech applications assist those with visual impairments. Furthermore, AI can adapt the pace and format of religious teachings to meet individual needs, ensuring that everyone has equitable access to spiritual growth opportunities[54]. Despite these benefits, challenges such as the potential commercialization of spirituality must be addressed. Subscription-based services for AI-powered religious experiences could exclude disadvantaged individuals, undermining the inclusive ideals of many faiths. Efforts must be made to provide these technologies affordably or through community support systems to ensure broader access without compromising the integrity of religious practices[55].

Lastly, the integration of AI in religious contexts calls for the establishment of robust ethical frameworks. Religious leaders, technologists, and policymakers need to collaborate to develop guidelines that safeguard the sanctity of religious

[52] Truby, J. (2020). Governing artificial intelligence to benefit the UN Sustainable Development Goals. *Sustainable Development* 28: 946-59.

[53] Chatzopoulou, I. (2022). Virtual Tourism/Virtual Reality and Technology Use: Applications and Implications for Religious and Pilgrimage Tourism. The Case of Greece. In book: Transcending Borders in Tourism Through Innovation and Cultural Heritage,1021-1036. DOI:10.1007/978-3-030-92491-1_61.

[54] Truby, J. (2020). Governing artificial intelligence to benefit the UN Sustainable Development Goals. *Sustainable Development* 28: 946-59.

[55] Singler, B. (2020). The AI Creation Meme: A case study of the new visibility of religion in artificial intelligence discourse. *Religions* 11: 253.

traditions. These frameworks should address concerns such as algorithmic biases, data privacy, and the risk of misinterpreting spiritual teachings. By carefully navigating these challenges, AI can enhance the sustainability of religion in Africa while respecting its sacred foundations.

5. Conclusions

The development of AI, especially in the form of ChatGPT, poses a challenge to the long-term viability of religion in Africa[56]. By offering improved accessibility, individualized learning experiences, and the preservation of religious texts and traditions, AI holds the potential to completely transform religious education, outreach, and practice. These technologies have the potential to boost interfaith discussion, encourage young involvement, and develop online forums that close gaps in religious access in various groups. But there are also significant issues with integrating AI into religious fields. The authenticity and holiness of religious rituals are seriously threatened by ethical conundrums involving data privacy, algorithmic biases, and the possible commercialization of spirituality. Furthermore, depending too much on AI to provide spiritual direction runs the risk of oversimplifying profoundly held spiritual ideas, undermining human agency in interpreting faith, and undermining the traditional duties of religious leaders.

Stakeholders, including technologists, religious leaders, and legislators, must collaborate to create culturally aware and morally sound applications if AI is to have a beneficial impact on the sustainability of religion in Africa. Maintaining the integrity of religious traditions while utilizing AI's advantages requires careful consideration. African nations may handle the revolutionary potential of AI while preserving the cultural and spiritual values that define their religious identities by promoting inclusive and deliberate incorporation of new technologies

[56] Allal-Chérif, O. (2022). Intelligent cathedrals: Using augmented reality, virtual reality, and artificial intelligence to provide an intense cultural, historical, and religious visitor experience. *Technological Forecasting and Social Change* 178: 121604.

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