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Artificial intelligence in Administration and Community Platform Building in 21st Century Church

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Abstract

Artificial Intelligence (AI) is increasingly transforming various sectors, including church administration. Incorporating AI technologies in church management can enhance operational efficiency, streamline administrative tasks, and improve communication with congregants. AI tools can assist in automating routine tasks such as scheduling, data management, and financial oversight, allowing church leaders to focus more on pastoral duties and community engagement. AI can facilitate personalised outreach by analysing congregational data to tailor communications and programs that meet the specific needs of members. This paper will focus on Artificial Intelligence (AI), which offers innovative solutions for fostering engagement and connectivity among congregants. These platforms leverage AI to create personalised experiences, enabling members to connect based on shared interests, spiritual journeys, and community needs. Features such as automated event recommendations, discussion forums, and resource sharing can enhance the sense of belonging and participation within the church community. The work employs a descriptive method. Sources are mainly secondary, ranging from textbooks and journals to other written sources (Conduct in-depth case studies of churches that have successfully implemented AI). The aim is to understand AI's practical applications, challenges, and benefits in real-world settings. AI-driven analytics play a critical role in understanding congregational dynamics, allowing church leaders to identify trends, measure engagement, and tailor programs accordingly.

Furthermore, these platforms can facilitate virtual worship and community service opportunities, expanding access for members who cannot attend in person. However, implementing AI in community platforms must be approached cautiously, considering inclusivity, accessibility, and the potential for technology to overshadow personal relationships. As churches continue exploring AI-enhanced community platforms, they must prioritise creating environments that nurture authentic connections and spiritual growth, ensuring that technology enhances, rather than replaces, community interactions.

Keywords: Artificial intelligence, Church, Administration, Community and Platform

Introduction

Commixing artificial intelligence (AI) into church contexts is a growing trend, reflecting broader societal shifts towards digital technology. This intersection raises essential questions about the role of technology in spiritual practices, community building, and church administration. It contains a scope of technologies that allow machines to perform tasks requiring human intelligence, such as understanding natural language, recognising patterns, and making decisions. In the church context, AI can enhance worship experiences through tools like chatbots, providing real-time assistance to congregants and answering questions about service times, events, and church activities.

AI can facilitate community building through social media analysis, which analyses engagement metrics to understand congregational needs and interests and helps churches create more relevant outreach programs. Event Planning and organising church events, including scheduling, reminders, and follow-ups, can enhance participation. Church administration can benefit from AI through data management, streamlining member databases, tracking attendance, and managing donations more efficiently through predictive analytics. It can also use data to forecast trends in attendance and giving, allowing for better resource allocation.

The introduction of AI in the church context presents both opportunities and challenges. As churches navigate this technological landscape, they must balance the benefits of efficiency and engagement with the ethical and theological implications of integrating AI into their spiritual missions. Using AI in church settings raises ethical questions, such as privacy and ensuring that congregants' data is handled responsibly and transparently. Human Connection maintains the essence of community and personal

relationships in an increasingly digital environment, which has implications considering how AI aligns with or challenges theological beliefs and practices. This ongoing dialogue will shape the future of faith communities in an increasingly digital world.

Emergence of Artificial Intelligence to the World

In the 1950s, according to Furtado & Furtado (2020), AI was primarily through theoretical models of computation and the pioneering work of key figures like Alan Turing. Turing's significant contribution came with his 1950 paper titled "Computing Machinery and Intelligence," where he proposed the concept of machines that could simulate human intelligence; this led to the formulation of the Turing Test, a method for evaluating a machine's ability to exhibit behaviour indistinguishable from that of a human. Mintz et al. (2019) alluded that in 1956, John McCarthy officially coined the term "artificial intelligence" during a conference at Dartmouth dedicated to the subject, marking the formal beginning of AI as a field of study. However, the ideas surrounding machine intelligence and the potential for machines to think had been discussed before this, notably by Turing and others who explored the capabilities of machines to perform intelligent tasks.

According to Dhar, R. (2022), the Turing Test remains a critical benchmark in AI, as it encapsulates the challenge of creating machines that can convincingly mimic human thought processes. Turing's work laid the groundwork for subsequent developments in AI, influencing theoretical and practical advancements in the field, including integrating AI into various sectors, such as healthcare used to enhance diagnostics and patient care. Weizenbaum (1983) traced the history of AI, stating that in the 1960s and 1970s, AI research shifted to symbolic AI, where systems used symbols to represent problems and logic to manipulate them.

Mitchell (2021) stated that despite initial enthusiasm, early AI systems' limitations became apparent, leading to disillusionment, which resulted from unrealistic expectations and the failure of early AI systems to deliver on their promises; Menzies, T. (2003) enunciated this resulted in the "AI Winter" of the late 1970s and 1980s, characterised by reduced funding and interest in AI research.

The Rise of Expert Systems and Machine Learning (1980s-2000s)

The 1980s saw a resurgence of interest in artificial intelligence (AI) with the development of expert systems. According to Chaudhary, J.

(2024), these systems used rule-based logic to solve complex problems in specific domains, such as medical diagnosis and financial forecasting. Expert systems designed to mimic human experts' decision-making abilities were heralded as the future of AI and computing during this period. Despite their potential, expert systems faced challenges in meeting the high expectations set for them. They tended to be costly to develop and maintain, and their utility was often limited to well-defined tasks. The 1990s and early 2000s marked the rise of machine learning, a subset of AI focused on algorithms that allow computers to learn from and make predictions based on data—this period also witnessed the introduction of neural networks, which mimic the structure of the human brain. Vaux, J. (2001) said the shift from expert systems to machine learning and neural networks has transformed the AI industry. Companies have had to negotiate a market for knowledge, moving from hoarding expert knowledge to supporting human knowledge workers. This transition has also impacted the labour market, with AI platforms reorganising the division and mode of labour under information capitalism Liu (2017).

The Modern AI Era (2010s-Present) and Key Development

The modern era of artificial intelligence (AI) has seen significant advancements since the 2010s, driven by the availability of large datasets, increased computing power, and breakthroughs in machine learning algorithms, and this period has witnessed the rise of data-centric AI (DC-AI).

Majeed & Hwang (2024) illustrated The rise of data-centric AI (DC-AI): DC-AI focuses on improving data quality to enhance AI model performance rather than solely optimising the models, enabling AI systems to generate human-like written content and assist with various professional writing tasks. The Influence of Technological Transformation on Religious Experience In the age of artificial intelligence and the transformative nature of technology, the focal point of discourse revolves around spirituality and the advancement of religious life.

Technology has played an essential role in increasing accessibility to religious activities; through online platforms and religious apps, individuals can engage with spiritual resources, participate in prayers, and listen to sermons regardless of location or time constraints. This newfound convenience allows for a more adaptable religious experience, which can be customised to meet the needs of each individual. This influence manifested in how church organisations adapt communication strategies to reach and engage with

congregations more effectively. It enables religious institutions to automate administrative tasks, such as scheduling, record-keeping, and financial management. It allows them to redirect their resources and focus on their primary mission of spiritual guidance and community support (Kamalov & Gurrib, 2023).

Kshetri (2021) explained that by utilising AI to create personalised learning pathways, religious institutions can better address their congregants' specific needs and preferences, promoting a more inclusive and responsive environment that aligns with contemporary societal demands for accessibility and engagement in religious education. Alkhouri, K. (2024) illustrated that AI technologies, including chatbots and virtual reality, can simulate religious experiences, providing immersive spiritual encounters that may enhance individual connections to faith. These technologies enable users to engage innovatively with religious texts and teachings, potentially making spiritual guidance more accessible. Systems can offer personalised religious counselling, mimicking the roles of religious leaders. However, this capability raises questions about the authenticity and depth of such interactions, as reliance on AI for spiritual guidance may diminish the importance of human connection in religious practices.

Theological considerations related to Artificial Intelligence adoption

As artificial intelligence (AI) and other emerging technologies rapidly advance, it is essential to carefully consider the ethical implications and ensure they align with core faith values; it requires navigating complex dilemmas and making difficult trade-offs between the potential benefits of technological progress and the need to uphold moral principles and spiritual beliefs.

Blending AI into religious settings raises significant ethical and theological concerns despite the potential benefits. One major issue is the idea of "playing God," where the creation of advanced AI systems may challenge divine authority and human activity. Some critics argue that if artificial intelligence systems are allowed to make autonomous decisions, there is a risk that these decisions could conflict with established religious teachings and moral principles.

According to Brittain (2020) the emergence of artificial intelligence raises substantial and, for many, uncomfortable questions about the future of human society and existence itself. Such concerns relate to three areas of theological significance: *the doctrines of the imago Dei, Providence, and ethical issues impacting human labour and community*. He further explained that the doctrine of the imago Dei,

or the idea that humans are created in the image of God, has important implications for how we view the relationship between AI and humanity. If humans are created in God's image, it raises questions about whether AI systems can also be considered to bear God's image and how this might affect our ethical obligations towards them. Brittain ponders the doctrine of Providence, which holds that God is actively involved in the world and guides its course. It also has implications for how we understand the rise of AI. If God is sovereign over all things, including the development of AI, it raises questions about whether AI is part of God's plan for the world and how we should respond to it from a theological perspective. Perhaps the greatest challenge to the Christian theological tradition posed by AI is ethical issues impacting human labour and community. As AI systems become more advanced and capable of performing tasks traditionally done by humans, they raise questions about the future of human work and its impact on human communities.

Langford (2022) argues that creating AI systems with human-like intelligence may challenge divine authority and human agency, raising questions about the boundaries of human creativity and God's sovereignty. This concern emphasises the need for careful consideration of how AI aligns with the core values of religious communities. Additionally, Catholic Insight writes that relying on AI for spiritual guidance may lead to devaluing human relationships within religious contexts. As AI takes on roles traditionally held by human leaders, such as providing counselling or interpreting sacred texts, there is a risk of diminishing the significance of community and fellowship, which are central to many religious practices.

Xu Simeon (2023) discusses that theologians must grapple with the moral implications of AI on religious practice. AI systems are created in the image of humanity, as they are designed to simulate human thinking processes. However, Brittain, C. (2020) articulated that AI and humans remain fundamentally distinct due to their different natures - AI is silicon-based, while humans have biological bodies; this means AI does not share the same moral agency as humans, who are created in the image of God. The potential for AI to make decisions that contradict established religious principles poses a dilemma for faith-based communities, as it may lead to a devaluation of human dignity and the erosion of authentic relationships within the church—according to the Daily Post, an online newsletter, Ajakaye, the Catholic Bishop of Ekiti, warned against the widespread adoption of AI, citing concerns over unemployment and moral implications. He argued that "*AI could exacerbate job losses, particularly in an economy already struggling with high unemployment rates. He called*

for restrictions on AI's use, emphasising that technology should not replace human roles in spiritual and social contexts".

AI technologies are changing from usual to unusual; things about Science and Technology are advancing daily, including generative AI, which is increasingly recognised for its potential to enhance evangelism and mission work. AI can significantly improve communication strategies for missionaries and church leaders. Tools powered by Natural Language Processing (NLP) can translate sermons and religious texts into multiple languages, allowing for broader outreach to diverse populations. This capability helps to break down language barriers, fostering unity and inclusivity within the global community. One of the greatest hindrances to gospel progress is the language barrier. How can the good news be shared without understanding

There are various kinds of languages in the world, and none of them is without significance. The Bible says, "Therefore, if I do not know the meaning of the language, I shall be a foreigner to him who speaks, and he who speaks will be a foreigner to me." (1 Cor. 14:10-11) NKJV

AI tools, including those created by organisations such as OpenAI, can quickly and accurately translate written text and spoken language to other languages, benefiting Bible translations and studies. For instance, OpenAI's automatic speech recognition system, Whisper, is designed to convert spoken language into written text in any language of choice. Whisper can understand spoken language and transcribe from one spoken language into multiple other languages nearly simultaneously, for example, leading a Bible study with people from diverse backgrounds speaking different native languages in attendance.

The language barrier requires human translators. However, these new AI tools could be efficient, personal translators for each person in their language of choice. Microsoft Teams, a real-time collaboration and communication software, currently uses AI-enabled features to provide live captions for virtual meetings, which allow the ability to translate a speaker's words into captions written in the selected language as the words are spoken directly.

In assertion, Dustin R. (2024), Christian theology recognises technology, including AI, as a tool to enhance human flourishing and facilitate the church's mission. Also, Afunugo & Molokwu (2024) opined that Theological reflection on AI includes examining its implications for divine revelation and the nature of human interaction with

technology. While AI can analyse data and provide insights, it lacks the spiritual discernment from a personal relationship with God. This distinction emphasises the need for human involvement in ministry, ensuring that technology supports rather than supplants the essential human touch in evangelism and community building. The Lausanne Movement emphasises that technology should draw people closer to God and promote communal well-being. This perspective encourages the church to utilise technological advancements, including AI, for evangelism and outreach, fulfilling its mission in a modern context. Religious institutions can enhance spirituality through digital technologies while maintaining core values by implementing several strategies:

Challenges and Opportunities

The intersection of religious experience and artificial intelligence (AI) presents a complex landscape where technology influences spirituality, belief systems, and spiritual practices. Various studies by scholars and discussions highlight the potential benefits and challenges AI introduces to faith. Religious institutions should develop comprehensive ethical frameworks prioritising privacy, transparency, and fairness in digital technology, including safeguarding sensitive data shared by congregants and ensuring that technology does not manipulate or exploit users' spiritual needs. Schwarz (2019) asserts that AI presents new opportunities and barriers to expressing the Christian faith. On the one hand, AI has been used for tasks such as analysing congregation-related data, automating sermons, and creating digital religious music and artwork.

According to theologian and philosopher of technology Noreen Herzfeld, AI has the potential to enhance spirituality in unprecedented ways. For example, interactive chatbots and voice assistants can serve as partners for dialogue during contemplation and the search for significance. Nevertheless, it warns against the risk of reductionism and manipulation arising from excessive AI personification (Herzfeld, 2022). From a pragmatic perspective, there are several examples of utilising Artificial Intelligence for spiritual benefit. These include applying machine learning techniques to research sacred texts (Chung et al., 2021), generating hymns and reflective melodies based on AI, and developing prayer and meditation apps that adapt to user preferences.

AI Applications in Church Administration

Churches today face increasing demands to operate mission and administrative works efficiently while providing meaningful ministry. One way to achieve this balance is by automating routine administrative tasks. Leveraging technology and automation can significantly enhance a church's operations. Recent research highlights the potential for automating administrative tasks in religious organisations, particularly churches. Studies indicate that approximately 44% of administrative tasks in general practice could be automated using current technology (Willis et al., 2020). Implementing accounting information systems for financial management in churches can improve service quality and accountability (Sarlin et al., 2021). Effective church administration is crucial for efficient stewardship, resource management, and event planning (Sihombing, 2023). Web-based information systems for church administration and finance can facilitate financial reporting and transparency (Setiabudi et al., 2022). However, cautious implementation and ongoing evaluation are necessary when introducing automation in these settings (Willis et al., 2020). Improving administrative capabilities, enhancing communication channels, and encouraging member participation are recommended strategies for optimising church administration and stewardship (Sihombing, 2023).

Automating church administrative tasks such as scheduling and finance management can significantly enhance efficiency and reduce manual workload. Some approaches and tools can be helpful for this purpose; by using these tools and technologies, churches can automate administrative tasks, freeing up staff and volunteers to focus more on ministry and community engagement.

Online Scheduling Tools: Platforms like Calendly or Doodle can help streamline event scheduling by allowing members to select available times, reducing back-and-forth communication. Online scheduling tools have gained attention in various sectors in Nigeria. An online appointment booking system for NHIS outpatients was developed in healthcare to reduce missed appointments and improve efficiency (Idowu et al., 2014). The construction industry has recognised the importance of project scheduling, with factors like project complexity and material requirements significantly impacting schedule performance (Michael et al., 2018). An online bus ticket reservation system was proposed in the transportation sector to streamline the booking process and reduce waiting times (Oloyede et al., 2014). Online scheduling tools make it easier for church members to view available time slots and book appointments for events, classes, or meetings at their convenience. This accessibility is especially beneficial for busy individuals who may have difficulty attending in-

person scheduling sessions. For church staff, online scheduling systems can significantly reduce the time and effort required to manage appointments manually. Automated reminders, cancellation policies, and real-time updates help streamline the scheduling process and minimise no-shows. Many online scheduling tools integrate seamlessly with church management software, allowing for a more comprehensive and efficient workflow. This integration enables churches to maintain accurate records, track attendance, and analyse scheduling data to optimise their programs.

Church Management Software (ChMS): Many ChMS solutions, such as Planning Center or Breeze, offer integrated scheduling features that allow churches to manage services, events, and volunteer schedules effectively. Wobodo (2020) argued that adopting Information and Communication Technology (ICT) in church management and communication has become increasingly prevalent in Nigeria, particularly in response to challenges like the COVID-19 pandemic. Churches are utilising ICT platforms for worship, prayer, and information dissemination, although affordability remains a constraint for many. Implementing contemporary Facilities Management practices, including software and mobile applications, is encouraged to improve efficiency over traditional approaches (Fadumo et al., 2023). According to Bolu (2012), Churches also leverage ICT for growth strategies, administration, and human capital management. However, adoption levels vary across different church groups and budgets. Proper records management practices, including creation, maintenance, access, use, preservation, and disposal, have been identified as crucial factors influencing church administration (Ajiboye et al., 2016). These technological advancements and management practices are reshaping Nigeria's church operations and communication strategies.

Automated Reminders: Automated reminders help streamline communication between church leaders and members. They can be used to notify congregants about Service Times for weekly services, special events, or holiday services.

Meetings and Events: Notifications about upcoming meetings, Bible study sessions, or community outreach programs. AI can handle routine inquiries through computerised responses, such as service times and event details, reducing the administrative burden on church leaders.

Finance Management Automation

Accounting Software: Tools like QuickBooks or Xero can automate financial tracking and reporting, making it easier for churches to manage donations, expenses, and budgets.

Online Giving Platforms: Implementing platforms such as Tithe.ly or Pushpay allows congregants to give online, reshuffling the donation process and automatically tracking contributions.

Budgeting Tools: Automated budgeting tools can help churches plan their finances more effectively by analysing past spending and projecting future needs.

Integration of Tools

API Integrations: Many modern platforms offer APIs that allow seamless integration between scheduling and finance management systems, ensuring that all administrative tasks are interconnected and data is synchronised.

Data Management: A centralised database can help churches keep track of member information, attendance, and financial contributions, allowing for better decision-making and planning.

Communication within Congregations

AI tools can significantly improve communication within congregations by facilitating better engagement between church leaders and members. Chatbots and automated messaging systems can provide timely information about events, services, and community outreach programs. These tools can help streamline administrative tasks, allowing church leaders to focus more on personal interactions and pastoral care, which are crucial for fostering community ties. Recent research explores the integration of artificial intelligence (AI) in religious contexts, particularly within church communications and pastoral care. La Cruz & Mora (2024) AI tools can enhance engagement between church leaders and members, streamline administrative tasks, and facilitate outreach programs. While AI offers opportunities for improving Bible translation and distribution and fostering spiritual revival, the potential for AI-driven pastoral care, including automated "carebots," is being investigated. However, technology can only partially replace human providers (Young, 2022). The integration of AI in congregational settings presents both opportunities and challenges. By enhancing communication, aiding sermon preparation, and balancing technology with the

human touch, church leaders can better serve their communities while preparing for the future of ministry.

Chatbots: AI-powered chatbots can provide immediate assistance to congregants visiting church websites. They can answer common questions and guide users to relevant information, making the church more accessible and inviting.

Personalised Outreach: AI can analyse congregational data to create tailored content for members. This customised approach can enhance engagement and foster deeper connections within the community.

Scheduling and Reminders: AI can assist in scheduling appointments and sending reminders for events or counselling sessions, ensures better organisation and helps maintain engagement with congregants.

Content Creation: AI can repurpose sermon content into various formats, such as blog posts or social media updates, maximising the reach of church messages without requiring additional time from leaders.

Social Media Management: AI tools can schedule posts to optimise engagement, analyse trends, and suggest content that resonates with the audience, enhancing the church's online presence. AI tools can help churches optimise their social media strategies by analysing engagement metrics and suggesting content that resonates with their audience. This can lead to more effective campaigns encouraging church participation encouraging church participation and community service.

Enhanced Community Engagement: AI can analyse feedback from congregants through surveys and social media to gauge community sentiment, allows church leaders to address concerns proactively and foster a positive environment.

Event Management: AI can help organise and manage virtual events, ensuring smooth operations and encouraging participation from the congregation in online activities. Event Planning and Management with AI can assist in planning and managing events by predicting attendance, optimising schedules, and suggesting suitable venues based on past events. This ensures that outreach programs are well-organised and cater to the community's preferences.

Crafting Sermons with AI Assistance: AI can assist in sermon preparation by analysing scriptural texts and providing insights into themes, historical context, and contemporary applications. AI-driven writing assistants can help clergy generate ideas, outline sermons, and suggest relevant illustrations or anecdotes, enhancing the sermon's richness while saving time for church leaders and enabling them to focus on delivering impactful messages. Lisaldy et al. (2024) write that AI tools can help clergy prepare biblically sound sermons relevant to modern audiences' scriptural text analysis. AI systems can deeply analyse biblical texts, identifying key themes, historical context, and potential applications for contemporary listeners. By quickly processing large amounts of data, AI can surface insights that may have been overlooked in manual study. AI-powered writing assistants can help clergy generate sermon ideas, create detailed outlines, and even suggest relevant illustrations or accounts to include; it can save significant time in the writing process while ensuring the sermon flows logically and engages the audience. To make sermons impactful, clergy must adapt the biblical message to their congregation's specific needs and culture. AI tools can provide data-driven insights into a local church body's demographics, concerns, and communication styles, allowing pastors to tailor their sermons accordingly.

Multilingual support: according to Momot, V. et al. (2024). For churches with diverse language backgrounds, AI translation and localisation tools can help make sermons accessible to all attendees. Clergy can prepare sermons in their native tongue and then use AI to translate the content into multiple languages and adapt cultural references.

Balancing Technology and Human Touch in Ministry

While technology offers numerous benefits, maintaining the human touch in ministry is essential. The challenge lies in ensuring that the use of AI and other technologies does not replace personal interactions but complements them. For instance, while AI can handle administrative tasks or provide information, human leaders' emotional and spiritual support is irreplaceable. Striking a balance between leveraging technology and preserving personal connections is crucial for effective ministry, as congregants often seek empathy and understanding that technology cannot provide. As AI continues to evolve, church leaders must be equipped with new skills to effectively integrate these technologies into their ministries. Training programs should focus on digital literacy, understanding AI tools, and developing strategies for maintaining personal connections in a tech-

driven environment. This preparation will empower leaders to navigate the complexities of modern ministry while ensuring that their congregations remain connected and supported.

Building AI-Powered Community Platforms

Integrating Artificial Intelligence (AI) into community engagement transforms how communities interact, manage relationships, and address member needs. This evolution presents significant opportunities and challenges, necessitating a careful balance between technological efficiency and human connection.

Benefits of AI in Community Engagement AI offers various advantages that can enhance community engagement efforts:

Personalisation: AI can analyse data to tailor communications and content to individual preferences, making members feel valued. This one goes beyond simply using names in messages; it involves sending relevant information that resonates with community members' interests. Personalised communications powered by AI create a more engaging and rewarding experience for community members. When members receive content that aligns with their interests, they are more likely to feel understood, valued, and invested in the community.

Automation of Responses: AI-powered chatbots can handle common inquiries and provide instant responses, ensuring community members receive timely information even when human staff are unavailable. This capability allows community managers to focus on more complex issues that require a human touch.

Feedback Analysis: AI can efficiently process large volumes of feedback, identifying trends and sentiments that help community leaders understand member opinions and areas for improvement. This data-driven insight supports more informed decision-making. AI can analyse feedback from community members regarding church programs and services. This information can be used to refine outreach strategies and ensure that the church remains responsive to the needs of its congregation.

Content Creation: AI tools can generate engaging content, from social media posts to newsletters, streamlining the communication process and allowing community managers to dedicate more time to relationship-building activities, content for newsletters, blogs, and social media posts, helping churches maintain a consistent online

presence. By using AI to create engaging content, churches can keep their congregation informed and connected.

Predictive Analysis: By analysing trends and patterns, AI can anticipate community needs and interests, enabling proactive engagement strategies that resonate with members before they even voice their concerns.

Enhanced Member Engagement: AI can identify the types of activities and content that generate the most interest, helping to keep members actively participating in community initiatives.

Leveraging AI for Community Engagement and Church Outreach

AI can analyse demographic and behavioural data to identify community needs and preferences. It allows churches to tailor their outreach programs effectively. For instance, AI algorithms can segment community members based on interests, age, or engagement levels, enabling personalised communication and targeted initiatives.

Advantages

Integrating AI in pastoral care for Nigerian churches can offer several benefits, enhancing the overall effectiveness of ministry and support services.

1. Personalised Support: AI can analyse data from congregants to provide tailored recommendations for counselling and spiritual guidance, ensuring that individual needs are met more effectively.

2. 24/7 Availability: AI-powered chatbots and virtual assistants can offer round-the-clock support, allowing church members to seek help or guidance anytime, especially during crises.

3. Improved Communication: AI tools can streamline communication between church leaders and members, facilitating better engagement through automated messaging and personalised outreach.

4. Data-Driven Insights: AI can analyse attendance patterns, engagement levels, and feedback, providing church leaders with valuable insights to inform decision-making and improve pastoral care strategies.

5. Mental Health Support: AI applications can provide resources and support for mental health, helping pastors identify members needing additional care and facilitating referrals to professional services.

6. Efficient Resource Allocation: AI can help churches allocate resources more efficiently by predicting trends and identifying areas of need, ensuring that pastoral care efforts are focused where they are most needed.

7. Enhanced Community Engagement: AI can facilitate online community-building efforts, helping congregants connect, share experiences, and support each other in their spiritual journeys.

8. Language Translation: AI can provide real-time translation services during services or counselling sessions for multilingual congregations, making pastoral care more accessible to all members.

9. Content Creation: AI can assist in generating personalised spiritual content, such as prayers, devotionals, or sermon outlines tailored to the congregation's specific needs.

10. Streamlined Administrative Tasks: AI can automate routine administrative tasks related to pastoral care, freeing up time for church leaders to focus on more meaningful interactions with their congregants.

Adopting AI in pastoral care can significantly enhance Nigerian churches' ability to meet their congregations' diverse needs. By leveraging technology, churches can improve communication, provide personalised support, and foster a more engaged and connected community.

Ethical Considerations in AI Use

Afunugo and Molokwu (1993) state that tasks are efficiently managed in AI-based systems, are always productive, available 24/7, and can be accessed whenever required. According to Duggai (2024), human beings are driven by emotions; AI, on the other hand, is devoid of emotions and highly practical, along with being rational. This equally aids AI in offering unbiased decisions, which ensures more accurate decision-making. AI saves humankind from undertaking unnecessary, risky jobs that place them in harm's way. AI robots

undertake complex tasks on behalf. Duggai (2024) notes that it can be utilised effectively in any natural or artificial calamity, whether it be going to Mars, defusing a bomb, exploring the deepest regions of the oceans, or mining for coal and oil The Ethical and Societal Consequences of Artificial Intelligence While AI becomes more pervasive, concerns about its ethical and social impact intensify. Issues such as safeguarding data privacy, addressing bias in AI systems, and preventing AI from widening societal inequalities are increasingly prominent. Discussions revolve around the ethical implications of AI in various domains like surveillance, weaponry, and law enforcement. Additionally, the emergence of AI-generated content, like deep fakes, raises doubts about the authenticity of digital information. It underscores the urgent need for comprehensive ethical guidelines and regulatory frameworks to ensure responsible and fair deployment of AI technologies. Besides, integrating ethics and moral principles into AI systems poses significant challenges and raises concerns about the potential for unchecked AI advancement, leading to existential threats such as AI singularity. Further opposing challenges of AI to human society (Duggai, 2024) collated are as follows:

1. Limited Adaptability: Unlike human intelligence, AI systems are constrained by their programmed parameters and struggle to adapt or improve without manual intervention, hindering their flexibility and ability to address new challenges effectively. These limitations can lead to failures or inadequate outcomes when faced with tasks beyond their programming or unexpected emergencies that demand alternative options.

2. Costly Development: Creating AI systems that mimic human intelligence demand excessive cum extensive resources and investment due to the need for cutting-edge hardware and software, resulting in significant financial burdens.

3. Job Displacement: Automation facilitated by AI, mainly through robotics, can lead to unemployment as machines replace human labour in various industries; however, it may also generate new job opportunities in some cases.

4. Lack of Emotional Intelligence: Since AI can excel in specific tasks, it lacks the emotional intelligence and interpersonal skills inherent in human interaction, limiting its ability to collaborate and function within teams or groups effectively.

5. Lack of Innovation: Despite the ability to learn from data and experiences, AI struggles with originality and creativity, often relying on pre-fed information and past patterns rather than thinking outside the box.

6. Dependency and Laziness: AI's automation of mundane tasks can foster reliance on technology, potentially diminishing the need for human cognitive engagement and problem-solving skills, thus leading to complacency and reduced mental activity. As expatiated above, The shortcomings of AI signal As expatiated above failures of AI signals expatiated above, The shortcomings of AI signal As expatiated above, The failures of AI signal that humankind should not wholly depend on Artificial Intelligence, especially in evangelisation, particularly within church missions in Nigeria. Humanity must always fill in the gaps and equally take the lead in all human endeavours, particularly in missionary enterprise. AI should always serve as an aid and helping hand.

Ethical Boundaries for Churches Using AI

As churches explore the potential benefits of AI, it is crucial to establish clear ethical boundaries to ensure responsible and beneficial integration:

Maintaining Human Interaction and Empathy: AI should never replace the personal touch and human connection central to pastoral care and spiritual guidance. AI can assist in administrative tasks, but human involvement and oversight are essential for heart and soul matters.

Ensuring Transparency and Consent: Churches must be transparent about how AI is used and obtain consent from congregants regarding collecting and using their data. Privacy and data security should be top priorities.

Aligning with Biblical Principles: AI applications in churches must align with biblical teachings and Christian ethics. AI should never be used in ways that undermine faith, promote unbiblical beliefs, or manipulate people.

Providing Human Oversight: AI systems require ongoing monitoring by church leadership to ensure they are functioning as intended and not causing unintended harm. Humans must remain in control of critical decisions.

Educating the Congregation: Churches should educate congregants on the role of AI and its limitations; this builds trust and ensures AI is not misunderstood or misused.

Upholding Accessible Ethical Boundaries for Churches Using AI

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Educating the Congregation

Churches should educate congregants on the role of AI and its limitations. It will build trust and ensure AI is not misunderstood or misused.

Upholding Accessibility and Inclusion: AI should enhance accessibility and inclusion, not create new barriers. Churches must ensure AI does not disadvantage those less technologically inclined.

Maintaining Theological Integrity: AI should never be used to undermine core theological beliefs. Churches must carefully consider the philosophical and theological implications of AI. By establishing these ethical boundaries, churches can harness the benefits of AI while preserving the human touch, personal connection, and theological integrity central to Christian ministry. Responsible AI integration requires ongoing discernment, oversight and a commitment to biblical principles.

Deficiency of Artificial Intelligence

AI is a powerful tool that can process information and perform tasks at incredible speeds, but it does have several weaknesses. Understanding these limitations is crucial for effectively utilising AI in various applications; AI cannot learn but experiences no soul or mind and only performs based on the training and instruction of the programmer. According to this paper, these deficiencies are categorised into technical and ethical aspects.

Technical Deficiencies

Data Limitations: AI systems heavily rely on data for training. A common reason for AI failure is the lack of sufficient, relevant, or diverse data. Insufficient, biased, or poorly labelled data can lead to inaccurate predictions and reinforce existing biases, resulting in unfair or flawed outcomes.

Algorithmic Limitations: According to McKendrick and Thurai, in their Harvard Business Review, "AI isn't ready to make unsupervised decisions" Current AI algorithms cannot often understand or incorporate ethical and moral considerations in decision-making. This inability to capture intangible human factors can lead to technically correct outcomes but is socially or ethically unacceptable.

Limited Generalisation: AI systems are often designed for specific tasks and may need to generalise better to new, unseen situations. This lack of adaptability can limit their effectiveness in dynamic environments where conditions frequently change.

Ethical Deficiencies

Lack of Empathy and Emotional Intelligence: AI systems are not equipped to handle decisions requiring empathy or ethical reasoning. They operate based on predefined algorithms and data patterns, which can result in cold, calculating judgments that do not consider

the broader human context. AI does not possess emotions or empathy, which limits its ability to interact effectively in social situations. While it can simulate conversation, it cannot truly understand human feelings or provide emotional support as a human can. Misinterpretation of Human Emotions is one of the weaknesses; AI may misinterpret or fail to recognise emotional cues in human communication, leading to responses that may seem robotic or insensitive.

Lack of Common Sense: AI systems often need help with tasks that require common sense reasoning. They can process data and recognise patterns but may fail to understand context or make logical inferences that a human would quickly grasp.

Bias and Fairness: AI can perpetuate or even exacerbate biases present in the training data. If the data reflects societal prejudices, the AI's outputs may also reflect these biases, leading to unfair treatment of individuals or groups.

Security Vulnerabilities: AI systems can be vulnerable to adversarial attacks, where malicious inputs are crafted to deceive the AI into making incorrect predictions or classifications. This can undermine the reliability and security of AI applications, particularly in critical areas like finance and healthcare.

Data Privacy Concerns: AI often involves processing large amounts of personal data, raising concerns about privacy and security. Mismanagement of this data can lead to breaches of confidentiality.

Case Studies of Recent High-Profile AI Mistakes

Google's AI chatbot Bard made headlines when it provided incorrect information during a live demonstration, leading to a significant drop in Google's stock price. As reported in BBC New York Business reports on 9th February 2023, the error was highlighted in a promotional video, which ultimately resulted in Alphabet losing around $100 billion in market value, with shares dropping over 7% following the incident. Recent investigations by the United States of America National Highway Traffic Safety Administration (NHTSA) have revealed a troubling pattern of accidents linked to Tesla's Autopilot and Full Self-Driving (FSD) features. According to the Guardian News released on Friday, 26th April 2024, "Between January 2018 and August 2023, NHTSA analysed 956 crashes involving these systems, resulting in 29 fatalities and numerous injuries. A specific incident in March 2023 highlighted a case where a Tesla struck a student exiting a school bus

while the driver was using Autopilot, underscoring the system's shortcomings in recognising critical road conditions and reacting appropriately".

Amazon developed an AI-based recruitment engine to streamline hiring by scoring candidates based on their resumes. However, it became apparent that the tool was biased against female candidates. The system was trained on resumes from a predominantly male workforce, leading it to favour male applicants. Specifically, it penalised resumes that included "women's," adversely affecting candidates associated with women's colleges or organisations (BBC, 2018, p.1). While AI is a powerful technology with the potential to revolutionise many aspects of life and work, it is essential to recognise its limitations. By understanding these weaknesses, we can better harness AI's capabilities while remaining vigilant about its potential pitfalls.

Conclusion

Ultimately, the successful integration of AI in church administration and community building will enrich congregants' lives and strengthen the church's mission in a digital age. The thoughtful application of artificial intelligence within the church setting is not merely a trend but a vital step toward creating vibrant, connected, and adaptive faith communities that thrive in the 21st century. Embracing this technological evolution will ensure churches remain relevant, engaged, and impactful in their mission to serve and uplift their communities.

Lessons learned and recommendations.

AI should enhance accessibility and inclusion, not create new barriers. Churches must ensure AI does not disadvantage those less technologically inclined.

Church leaders must remain open to AI's possibilities as we look to the future. By investing in training and resources, they can harness the full potential of these technologies to enhance their ministries.

Maintaining Theological Integrity, AI should never be used in ways that undermine core theological beliefs. Churches must carefully consider the philosophical and theological implications of AI. By establishing these ethical boundaries, churches can harness the benefits of AI while preserving the human touch, personal connection, and theological integrity central to Christian ministry. Responsible AI

integration requires ongoing discernment, oversight and a commitment to biblical principles.

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