

Digital Technologies and Faith: Enhancing Religious Communication and Practice in Modern Nigeria

Esther Gani

Abstract

This paper examines how digital technologies such as Artificial Intelligence (AI), Virtual Reality (VR), Augmented Reality (AR), and social media are transforming religious communication, outreach, and engagement. It highlights the contributions of Pope Francis' *Antiqua et Nova*, which emphasizes the ethical use of AI to strengthen faith-based communication while preserving doctrinal integrity. Emerging technologies enable immersive religious experiences such as virtual pilgrimages, interactive scripture studies, and simulated gatherings, allowing individuals to worship and engage across geographical and physical boundaries. Social media platforms further extend the reach of religious messages through live-streaming, podcasts, and digital storytelling, fostering global religious communities. The study uses an exploratory research approach by reviewing existing literature on digital technology and faith. It critically evaluates the benefits and challenges of digital integration in religious contexts, noting concerns about virtual worship's authenticity and the growing digital divide, especially in rural areas. Theological concerns such as the loss of liturgical reverence and the potential weakening of traditional communal worship are also discussed. The paper concludes that while digital tools offer transformative potential for faith-based practices in Nigeria, careful and ethical adoption is essential. It recommends that religious institutions prioritize digital literacy, establish doctrinally sound content guidelines, and collaborate with faith-based organizations to develop inclusive digital platforms. Furthermore, it calls for targeted government interventions to expand broadband access and NGO-led digital literacy programs to ensure equitable access to digital religious resources. By offering a comprehensive analysis, the paper contributes to broader discussions on the intersection of technology, spirituality, and contemporary religious practice.

Key words: Religious communities, Artificial Intelligence, Social media, Digital Evangelization, *Antiqua et Nova*.

Introduction

In today's Nigeria, over 75% of the population has access to mobile phones. Social media platforms host millions of active users (Oyigan and Okwu, 2024). These digital technologies (DT) are transforming how faith is practiced and shared within the nation's vibrant religious communities. Nigerians are

religious people. "McKinnon, (2020) and Commission & International, (2019) discovered that with over 99% of its inhabitants identifying as religious, it is one of the world's most faith-centered nations. The Pew Research Center revealed that 46.3% of Nigerians are Christians, while 46.1% are Muslims, showcasing a balanced religious diversity (-Tongo et al., 2023).

The Nigerian religious communities historically relied on face-to-face communication, sermons, and printed materials (-"Lewinsky et al., 2024). However, the rise of digital technologies is transforming this landscape. Dzirasa-Payne, (2024) asserts that digital technologies are offering new ways to share faith, connect congregations, and expand outreach. Despite these advancements, communities face challenges such as inadequate technology, slow innovation, limited inclusivity, overreliance on digital tools, a widening digital divide, and risks of secularization and misinformation (Rahman & Masud-All-Kamal, 2024).

Efforts by scholars, religious bodies, and NGOs address challenges in religious communities, such as during COVID-19 when over 80% of Nigerian churches livestreamed services on platforms like Facebook and YouTube (Statista, 2021) and the Catholic Bishop Conference of Nigeria (CBCN) recorded over 500,000 participants annually through webinars (CBCN Annual Report, 2022). The Redeemed Christian Church of God (RCCG) launched apps for hybrid worship, catering to tech-savvy congregants. The Islamic Society of Nigeria subsidized devices and internet for rural Imams and students (Idris, 2019). Interfaith dialogue platforms promoted spiritual values and countered secular influences, while social media companies like Facebook collaborated with Nigerian Religious groups to flag religious content (Ojebuyi and Salawu, 2024). Blending traditional and digital worship to prevent overreliance on technology, while Adekunle et al. (2023) advocate for integrating offline practices. The Nigerian government's National Broadband Plan (2020–2025) aims for 70% broadband penetration, complemented by NITDA's initiatives to integrate IT into religious activities. NGOs, including Africa Check (2020) and ActionAid Nigeria (2024), combat misinformation, enhance digital literacy, and enable over 60% of rural religious organizations to access online content, fostering inclusivity and sustainable religious engagement. Such efforts illustrate a growing awareness and the proactive measures of the various stakeholders to address the challenges and create a balanced approach for integrating digital technologies in religious communication and practices. Yet the problems are still persisting because there is a gap.

The Gap in the Study

While digital technologies have transformed sectors like education and commerce, their impact on religious communication in Nigeria is underexplored. Key gaps include limited research addressing challenges like inclusivity, the digital divide, secularization risks in Nigeria's faith-centered

society, and the role of emerging technologies in religious contexts. Few studies analyze inadequate technology, misinformation, and overreliance on digital tools. Theoretical frameworks like the Diffusion of Innovations Theory are rarely applied, and multi-stakeholder efforts by religious organizations, Non-Governmental Organizations, and government agencies lack proper documentation. Additionally, empirical data on the impact of digital tools on religious engagement, inclusivity, and innovation remains scarce, necessitating actionable solutions and deeper insights.

Defining Digital Technologies

Digital technologies, including social media, mobile apps, AI, and immersive tools, facilitate information creation, storage, and distribution (Aceto et al., 2019) that enhance communication, global connectivity, and accessibility. Beyond education and business, they are increasingly integrated into religious contexts to support evolving faith-based community needs.

Digital technologies enhance religious outreach, spiritual growth, and community building. Social media platforms facilitate live-streaming and devotional sharing (Campbell, 2013). Mobile apps provide prayer guides and faith-based education, while virtual reality enables immersive worship and pilgrimages. These innovations transform religious communication, making faith practices more accessible, especially in Nigeria.

Religious Communication and Practices

Religious communication involves sharing spiritual messages and doctrines with believers and non-believers. Traditionally reliant on sermons and printed texts, it emphasized localized engagement. However, technological advancements now enable broader and immediate outreach. As Horsfield (2015) observes, modern tools extend religious influence beyond physical and geographical boundaries, transforming faith-based interactions.

Modern technologies have transformed religious communication, allowing faith-based organizations to reach wider audiences. Digital platforms like social media, live streaming, and mobile apps enable real-time sermons and prayers. Virtual worship spaces and interactive tools, including podcasts and Virtual Realities, enhance engagement. This shift raises discussions on balancing tradition with modern methods (Cheong, 2022).

The role of emerging technologies in religious contexts

There are several roles of emerging technologies in religious contexts. However, in this study, only three roles are discussed, which are Antiqua et Nova and the Impact of Artificial Intelligence, Virtual and Augmented Reality, and social media and Digital Platforms.

Antiqua et Nova

In January 2025, the Vatican released "Antiqua et Nova: (Vatican, 2025) on the Relationship Between Artificial Intelligence and Human Intelligence. The document explores the ethical implications of Artificial Intelligence in various sectors, including education, healthcare, and warfare "(Watkins, 2025). The Vatican News by Cernuzio, (2025) buttress further that the text emphasizes the necessity of ensuring that AI serves the common good and upholds human dignity. It acknowledges AI's potential to enhance societal functions but warns against risks such as misinformation, erosion of human oversight, and threats to human rights. The document calls for the responsible development and regulation of Artificial Intelligence technologies to prevent potential harm.

Pope Francis has been vocal about the ethical considerations surrounding Artificial Intelligence (Golan & Martini, 2019). He stresses that while Artificial Intelligence can offer significant benefits, it must be developed and utilized in ways that prioritize human values and ethical principles. The Roman Catholic Archdiocese of Manila, 2025, voiced that the Pope advocates for a person-centered approach to Artificial Intelligence, emphasizing that technology should enhance human capabilities without compromising moral and ethical standards. He underscores the importance of love and humanity in the age of artificial intelligence, reminding society that technological advancement should not come at the expense of human connection and ethical responsibility "(DeClue, 2025).

The Impact of Artificial Intelligence and *Antiqua et Nova* on Faith-Based Communication reveals that Pope Francis's *Antiqua et Nova* underlines and supports the ethical and constructive implications of artificial intelligence (AI) in modern society, which includes faith-based communication and religious outreach (Vatican, 2025). Artificial Intelligence can promote spiritual engagement by delivering automated yet meaningful interactions between religious institutions and believers. According to ""OConnell, (2025) Artificial Intelligence -powered chatbots can provide rapid solutions to faith-related inquiries, guiding people through scriptural readings, prayer routines, and theological conversations. To elucidate further, Anyanwu, (2024) noted that sermon production systems that use natural language processing (NLP) can help clergy compose sermons, guaranteeing uniformity in theological messaging while saving time for deeper pastoral care. Such Artificial Intelligence-driven developments are consistent with the Pope's call for the responsible use of emerging technology, which encourages faith communities to utilize Artificial Intelligence while protecting human dignity and spiritual purity.

AI-based content recommendation systems analyze user preferences to personalize spiritual materials like daily devotionals, Bible study plans, and homilies, fostering a more engaged and informed faith community. Beyond

direct communication, Artificial Intelligence helps religious organizations expand their outreach to diverse and multilingual populations. –Florea & Gilder, (2024) asserts that “automated translation tools improve access to religious texts, making scripture available in multiple languages without human intervention”.

Virtual and Augmented Reality for Immersive Worship and Religious Education

Emerging technologies like Virtual Reality (VR) and Augmented Reality (AR) (Anhelova & Mylenka, 2021) are transforming religious experiences by creating immersive and interactive worship environments that allow believers to participate in virtual pilgrimages to sacred sites, engage in interactive scripture studies, and attend online religious gatherings. For instance, –Biggio, (2023) revealed that VR applications can simulate historical religious events, providing users with an experiential understanding of their faith. Augmented Reality, on the other hand, can overlay digital religious texts, artifacts, and interactive lessons onto the physical world, enriching personal and communal worship experiences (Allal-Chérif, 2022). These innovations bridge geographical and physical barriers, enabling individuals unable to attend in-person services, due to distance, health constraints, or mobility issues, to remain spiritually connected.

A Study on Cohabitant: The Design, Implementation, and Evaluation of a Virtual Reality Application for Interfaith Learning and Empathy Building by Rifat et al., (2024) deduced that Faith-based institutions are increasingly exploring Virtual realities and augmented realities for religious education and engagement. Seminaries and religious Schools can leverage Virtual realities to create immersive biblical history lessons, allowing students to "walk through" ancient religious sites and experience scriptural narratives firsthand (Alkhouri, 2024). Augmented reality applications provide interactive learning tools, such as real-time translations of sacred texts or 3D visualizations of religious artifacts (Banaag, 2024) to enhance engagement, particularly for younger generations who are digital natives, fostering a deeper connection with faith-based teachings. As more religious organizations integrate Virtual realities and Augmented realities, ethical considerations regarding accessibility, authenticity, and digital worship practices must be addressed to ensure that the innovations align with religious traditions and values (Wagner, 2023).

The Impact of Virtual and Augmented Reality for Immersive Worship and Communication demonstrates how virtual realities and augmented realities are transforming religious participation by enabling immersive worship experiences, communication, and faith-based education. VR allows believers to participate in virtual pilgrimages, interactive scripture studies, and simulated religious services, making worship more accessible to individuals who are geographically or physically limited (Tsuria, 2021).

Augmented realities enhance religious education by overlaying digital elements onto real-world environments –(Oyasor, 2024) offering interactive tools for scripture interpretation and historical visualizations. These technologies appeal particularly to younger generations, fostering deeper spiritual connections. However, their adoption raises theological and ethical concerns about the authenticity of digital worship and the balance between tradition and technology. As faith communities explore virtual and augmented reality, religious leaders must ensure that the tools align with doctrinal values while expanding access to spiritual experiences (Bock & Armstrong, 2021).

Social Media and Digital Platforms as Tools for Evangelization

Digital technologies, including social media, mobile applications, and live-streaming services, have significantly transformed religious outreach. Platforms like YouTube, Facebook, and TikTok serve as dynamic spaces for sharing sermons, prayers, and theological discussions, reaching audiences beyond traditional congregational settings. Churches and religious leaders utilize these tools to engage with both believers and seekers, offering spiritual guidance through digital content. Additionally, mobile apps provide users with scripture readings, prayer guides, and devotional materials, making faith-based resources more accessible (Dzirasa-Payne, 2024).

Beyond individual engagement, digital storytelling through podcasts, blogs, and online forums fosters virtual faith-based communities, enhancing spiritual discourse and participation. Some religious organizations leverage social media analytics to tailor evangelization efforts, ensuring targeted communication with diverse audiences. However, the rapid digitalization of faith practices raises ethical concerns about online misinformation and the commodification of spirituality, necessitating responsible digital ministry approaches –(Tabassum & Riaz, 2024).

The impact of social media and digital platforms has revolutionized evangelization by expanding the reach of religious messages beyond physical congregations. Platforms like YouTube, Facebook, and TikTok enable churches and faith leaders to share sermons, prayers, and theological discussions with global audiences (Hart, 2022). Digital storytelling through podcasts, blogs, and online forums fosters virtual faith communities, strengthening spiritual engagement and dialogue (Adeoye & Noorhayati, 2024). Additionally, mobile applications offer scripture readings, prayer guides, and devotional content, making religious resources more accessible –(Gozum & Sarmiento, 2021). However, the rise of digital evangelization also presents challenges, such as misinformation and the risk of superficial engagement, highlighting the need for responsible digital ministry practices.

Theoretical Perspectives

The Diffusion of Innovations (DOI) Theory, introduced by Everett Rogers in

1962, explains how innovations spread within societies over time. It identifies five adoption stages: knowledge, persuasion, decision, implementation, and confirmation. Key adopter categories are innovators, early adopters, early majority, late majority, and laggards, who determine the pace of diffusion. The theory highlights five factors influencing adoption: **Perceived Advantage**, which suggests innovations are adopted more readily if they offer superior benefits like efficiency or cost-effectiveness; **Compatibility**, meaning alignment with existing values and needs increases adoption likelihood; **Complexity**, where simpler innovations diffuse faster due to ease of use; **Trialability**, emphasizing that innovations allowing small-scale testing gain acceptance by reducing user risk; and **Observability**, where visible benefits, such as improved outcomes or success stories, promote broader adoption by inspiring confidence. These principles provide a robust framework for understanding how communities embrace change, particularly in adopting digital tools for religious practices.

In the context of Nigeria, the Document Object Identifier (DOI) Theory helps explain the varying rates of digital technology adoption among religious communities. For instance, urban churches and mosques, often led by innovators and early adopters, have embraced live-streaming and mobile apps to enhance outreach. In contrast, rural congregations, typically laggards, face barriers such as limited internet access and digital literacy. By addressing these challenges through targeted interventions, religious organizations can accelerate the diffusion of digital tools, ensuring broader and more equitable adoption.

Digital Technologies and Religious Communication

Digital Technologies and Religious Communication include social media, Mobile Applications, Virtual Worship Platforms, and Digital Storytelling as discussed thus:

Social media platforms like Facebook, WhatsApp, and YouTube have become vital tools for evangelism and outreach. Churches and mosques leverage these platforms to stream services, share inspirational messages, and organize online prayer groups, thus expanding their reach beyond physical boundaries. For example, during the COVID-19 pandemic, over 80% of Nigerian churches used Facebook and YouTube to live stream services, ensuring continuity in worship (Statista, 2021).

These platforms also enable religious leaders to engage with younger audiences who are highly active on social media. By creating relatable and interactive content, such as short videos and live Q&A sessions, faith-based organizations can foster deeper connections with tech-savvy congregants. However, the proliferation of unverified content on these platforms raises concerns about misinformation, highlighting the need for clear content guidelines and digital literacy training (Lopes, 2019).

Mobile applications for prayers, sermons, and devotionals have shown that religious organizations have developed mobile applications that offer prayer reminders, daily devotionals, and sermon archives. These apps foster personal spiritual growth and keep users connected to their faith communities. For instance, the Redeem Christian Church of God (RCCG) launched an app that provides access to sermons, prayer guides, and event schedules, catering to the needs of its global congregation.

Mobile apps enhance religious accessibility for remote and mobility-constrained individuals, offering on-demand faith engagement. However, challenges like internet limitations and the digital divide must be addressed for broader adoption (Olanrewaju & Chilwa, 2023). Virtual platforms such as Zoom and Microsoft Teams have enabled religious gatherings to continue during times of restrictions, such as the COVID-19 pandemic. They provide interactive and participatory worship experiences, ensuring continuity in faith practices. Digital storytelling via podcasts, videos, and blogs enables religious leaders and members to share testimonies and teachings, fostering engagement and relatability. These tools enhance spiritual outreach and community building.

Impact on Religious Practices in Nigeria

Religion's impact in Nigeria centres around accessibility to religious materials and teachings, participation and engagement among youths, and bridging the Urban-Rural Divide in Religious Outreach. The issues are further discussed thus;

Digital tools make it easier to access religious resources, including e-books, online sermons, and prayer schedules, fostering continuous learning and worship. For example, the Catholic Bishops Conference of Nigeria (CBCN) reaches over 500,000 participants annually through webinars, providing access to religious teachings and discussions (CBCN Annual Report, 2022). This increased accessibility has also democratized religious education, enabling individuals to explore their faith independently. However, the reliance on digital tools raises concerns about the potential loss of traditional practices and the risk of over-reliance on technology (Casadella, 2018).

Likewise, young people are highly active on digital platforms, and their participation in online religious activities has grown significantly "(Abubakar & Aliyu, 2024). By leveraging social media and mobile apps, religious organizations can create engaging content that resonates with younger audiences, fostering deeper connections with their faith.

For instance, the Islamic Society of Nigeria subsidized devices and internet access for rural imams and students, enabling them to participate in online religious activities (Idris, 2019) that not only enhances youth engagement but also bridges the urban-rural divide, ensuring that religious outreach is inclusive and equitable (Afolabi & Oderinde, 2024).

Bridging the Urban-Rural Divide in Religious Outreach

Digital technologies have revolutionized religious outreach by bridging geographical divides and promoting spiritual inclusion, especially for rural and underserved communities. Tools like live-streaming services, mobile applications, and social media platforms enable religious leaders to deliver sermons, conduct prayers, and offer pastoral care remotely, facilitating real-time participation in religious activities beyond physical gatherings (Aduloju, 2024). Furthermore, online forums, podcasts, and interactive mobile applications foster spiritual discussions, testimonies, and teachings, ensuring that faith communities remain connected despite geographical challenges. These digital tools allow religious institutions to extend their influence, ensuring that no believer is left isolated due to location (Laughlin, 2021).

Despite such advancements, several challenges hinder the full integration of digital religious outreach in rural areas, like internet connectivity, high data costs, and digital illiteracy that prevent many individuals from fully benefiting from online religious services (Aduloju, 2024). Furthermore, cultural and generational differences may lead to skepticism toward digital worship, as some communities view traditional, in-person gatherings as a more authentic expression of faith. To address the challenges, religious organizations must invest in digital literacy training, advocate for improved rural internet infrastructure, and develop user-friendly platforms tailored to diverse technological proficiencies (Campbell & Connelly, 2020). Collaborative efforts with policymakers and technology providers can also enhance accessibility, ensuring that all individuals, regardless of location, have equal opportunities to engage with their faith in meaningful ways (Golan & Martini, 2023).

Challenges of Digital Technologies in Religious Activities

The challenges of Digital Technologies in religious activities are enormous. However, in this study, only four topics are discussed: digital divide and access inequality, misuse and misinformation, and Ethical and Doctrinal Concerns.

Limited internet connectivity and affordability issues hinder equitable access to digital religious resources in Nigeria, particularly in rural areas, resulting in inequalities that leave marginalized communities underserved (Adebayo & Ashafa, 2021). The proliferation of unverified religious content online has heightened concerns about misinformation, leading to doctrinal conflicts and misinterpretations. Religious organizations are encouraged to establish clear content guidelines and collaborate with social media platforms to identify and flag false information, thereby ensuring the integrity of online religious messages.

Another challenge is that ethical and doctrinal concerns are paramount as religious institutions increasingly utilize digital media. Ensuring that shared content adheres to theological standards is critical. The spread of

misinformation, digital manipulation, and commercialization of religious messages poses serious hazards. Faith-based groups must set criteria to ensure theological correctness while avoiding content that could mislead or exploit audiences. Furthermore, protecting privacy and data security is essential, as online religious interactions might expose individuals to cyber risks. Ibrahim (2024) argues that the responsible use of artificial intelligence (AI) and automated religious message systems should be closely supervised to avoid depersonalizing faith experiences. Religious leaders must strike a balance between engaging digital audiences and maintaining the sacredness of traditional worship.

Ensuring Doctrinal Integrity in Digital Content Transmission

The content disseminated through digital technologies should be rooted in authentic religious teachings and traditions, articulated that digital evangelization must prioritize scriptural accuracy, cultural sensitivity, and inclusivity while avoiding misinterpretations that could dilute or misrepresent core faith doctrines. Messages transmitted through social media, podcasts, blogs, and virtual platforms should reflect the core values of faith communities, emphasizing spiritual growth, moral teachings, and communal support. Additionally, religious leaders and institutions should be wary of sensationalism or content that prioritizes entertainment over theological depth. The use of emerging technologies, such as Virtual Reality (VR) and Augmented Reality (AR), should enhance rather than replace traditional worship practices, ensuring that digital innovations support rather than undermine the spiritual essence of faith (Mahmud & Sakinah, 2024).

Theological Concerns

The transition to digital platforms for religious engagement, such as live-streamed services and virtual prayer meetings, has raised concerns about the erosion of traditional communal worship. The physical gathering of believers has historically been central to spiritual formation, fostering a sense of community and shared faith experiences. Theologians caution that virtual interactions may lack the depth and intimacy of in-person fellowship, potentially leading to a more individualized and less relational faith experience (Nyakwara, 2023).

Secondly, the challenges to doctrinal authority and theological Unity mean that the democratization of religious discourse through digital media allows a multitude of voices to contribute to theological discussions. While this inclusivity can be positive, it also poses challenges to established doctrinal authority. The proliferation of diverse interpretations and teachings online can lead to theological fragmentation and the spread of unorthodox doctrines (Oloba & Blankenship, 2025).

Thirdly, the erosion of liturgical sanctity and reverence denotes that the pervasive use of digital devices and social media during worship services can

disrupt the solemnity and reverence traditionally associated with liturgical practices. Uncontrolled digital engagement may interfere with moments of silence, contemplation, and the overall sanctity of worship, challenging the theological emphasis on sacredness in religious rituals – (Nwobodo, 2025).

Commercialization and Ethical Concerns in Digital Evangelism maintain that the monetization of digital religious content, including paid subscriptions, advertisements, and donation solicitations, raises ethical questions about the commercialization of faith. This trend can lead to the commodification of religious experiences, where spiritual messages are tailored for profit rather than doctrinal integrity, potentially undermining the authenticity and ethical foundations of religious teachings (Nyakwara, 2023).

Recommendations and Strategies for Effective Integration of Digital Tools in Religious Practices

Religious institutions should prioritize digital literacy training and develop clear content guidelines to ensure responsible use of digital tools. Technology developers, in collaboration with faith-based organizations, should create inclusive and user-friendly platforms that cater to the diverse needs of religious communities.

Promoting Digital Literacy among Religious Leaders and Congregants signifies the need to create training programs that can equip religious leaders and members with the skills needed to navigate digital platforms responsibly and effectively. By fostering digital literacy, faith-based organizations can ensure that their congregations derive maximum benefit from digital tools while mitigating risks such as misinformation and over-reliance on technology (Ifeanacho, 2023). Moreover, developing clear content guidelines for online religious platforms plays a crucial role in mitigating the spread of misinformation and maintaining consistency in online religious communications. By implementing well-defined standards for the creation and distribution of digital content, religious organizations can safeguard the accuracy of their messages and uphold their doctrinal integrity in the digital space (Jackelén, 2021). Such measures also help build trust among followers and ensure that online platforms align with the organization's values and mission. Then, leveraging digital platforms such as social media, virtual forums, and faith-based mobile applications fosters community building by providing spaces for spiritual discussions, emotional support, and shared worship experiences, thereby strengthening social bonds among believers.

Conclusion

This paper highlights the transformative potential of digital technologies in enhancing religious communication and practices in Nigeria through many tools that offer numerous benefits, including increased accessibility and youth engagement in the midst of challenges such as the digital divide and misinformation that persist among others. Future research could explore the

long-term impact of digital technologies on religious practices, particularly in rural areas, and investigate strategies for balancing traditional worship with modern communication methods to ensure that the integration of digital tools aligns with the cultural and doctrinal values of faith-based communities to minimize the challenges.

References

- Abubakar, A., & Aliyu, S. A. (2024). Assessment of The Application of Social Media Among Muslims in Tertiary Institutions and Its Implications on Their Lives in Kaduna State, Nigeria. *Bulletin of Islamic Research*, 2(4), Article 4. <https://doi.org/10.69526/bir.v2i4.156>
- Aceto, G., Persico, V., & Pescapé, A. (2019). A survey on information and communication technologies for industry 4.0: State-of-the-art, taxonomies, perspectives, and challenges. *IEEE Communications Surveys & Tutorials*, 21(4), 3467–3501.
- Adeoye, M. A., & Noorhayati, S. M. (2024). Sacred Bytes: Assessing The Influence Of Social Networks And Virtual Space On Religious Beliefs. *Journal of Social Science and Economics*, 3(1), Article 1. <https://doi.org/10.37812/josse.v3i1.1738>
- Aduloju, E. T. (2024). Investigating the Future of Digital Worship Within the Catholic Church in Nigeria. *JORAS - Nigerian Journal of Religion and Society*, 13. <https://www.acjol.org/index.php/joras/article/view/5906>
- 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.
- Anyanwu, U. S. (2024). Towards a Human-Centered Innovation in Digital Technologies and Artificial Intelligence: The Contributions of the Pontificate of Pope Francis. *Theology and Science*, 22(3), 595–613. <https://doi.org/10.1080/14746700.2024.2359196>
- Banaag, E. L. (2024). Digital Corporate Prayer: Connecting to God Together in the Cyber Ekklesia [PhD Thesis, Nazarene Theological Seminary]. <https://search.proquest.com/openview/05866efb5684b06619b0ab3f4ed6450e/1?pq-origsite=gscholar&cbl=18750&diss=y>
- Bock, D., & Armstrong, J. (2021). *Virtual Reality Church: Pitfalls and Possibilities (Or How to Think Biblically about Church in Your Pajamas, VR Baptisms, Jesus Avatars, and Whatever Else is Coming Next)*. Moody Publishers.
- Campbell, H. A., & Connelly, L. (2020). Religion and digital media. *The Wiley Blackwell Companion to Religion and Materiality*, 471–486.
- Cernuzio. (2025, January 28). New Vatican document examines potential and risks of AI - Vatican News. <https://www.vaticannews.va/en/vatican-city/news/2025-01/new-vatican-document-examines-potential-and-risks-of-ai.html>

- DeClue, D. R. (2025, February 13). 'Antiqua et Nova' on Human and Artificial Intelligence. Word on Fire. <https://www.wordonfire.org/articles/antiqua-et-nova-on-human-and-artificial-intelligence/>
- Dzirasa-Payne, G. (2024). Hybrid Faith: A Study on the Impact of Digital Technology on Church Communication During the Covid-19 Pandemic. <https://digitalcommons.georgefox.edu/dmin/628/>
- Experience, W. L. in R.-B. U. (n.d.). Match Between System and Real World: 2nd Usability Heuristic Explained. Nielsen Norman Group. Retrieved December 15, 2021, from <https://www.nngroup.com/articles/match-system-real-world/>
- Florea, D., & Gilder, E. (2024). PUSHING THE LIMITS OF THEOSIS IN THE DIGITAL AGE: EXPLORING AI COMPLEXITIES AND THEIR IMPACT ON ROMANIAN TRADITIONAL RELIGIOUS PRACTICES. *Journal for the Study of Religions and Ideologies*, 73–87.
- Golan, O., & Martini, M. (2019). Leading the Digital Flock: Visual Strategies for the Online Construction of Papal Authority. *Problemi Dell'informazione*, 3/2019. <https://doi.org/10.1445/95659>
- Ibrahim, M. (2024). Islam in the digital infrastructure: The rise of Islamic cyber practices in Northern Nigeria. *Religion, State and Society*, 52(2-3), 114-132. <https://doi.org/10.1080/09637494.2024.2353956>
- Idris, A. (2019). Rural Migrant Hausa Girls, A Community Faith-based School, and Environmental Change in Sokoto, Northwest Nigeria. Michigan State University. <https://search.proquest.com/openview/4ff9075b870bd0a5d232ef7da8f82d5a/1?pq-origsite=gscholar&cbl=18750&diss=y>
- Ifeanacho, E. (2023). Preaching the Gospel in a Digitalized World through Proper Communication Skills: Considering Urban Catholic Churches in Nigeria. *NIGERIAN JOURNAL OF ARTS AND HUMANITIES (NJAHS)*, 3(1). <https://nigerianjournalonline.com/index.php/NJAHS/article/view/3510>
- Jackelén, A. (2021). TECHNOLOGY, THEOLOGY, AND SPIRITUALITY IN THE DIGITAL AGE. *Zygon®*, 56(1), 6–18. <https://doi.org/10.1111/zygo.12682>
- Laughlin, C. (2021). Redeem all: How digital life is changing evangelical culture. Univ of California Press. https://books.google.com/books?hl=en&lr=&id=Hq5IEAAAQBAJ&oi=fnd&pg=PP7&dq=This+resistance+often+stems+from+a+desire+to+preserve+their+spiritual+practices%27+integrity+and+maintain+their+faith%27s+authenticity+in+an+increasingly+digital+world.&ots=9iOXU_7vby&sig=aecGLvwCNa71YFDang-dWChzFvA
- Lewinsky, D., Te'eni, D., Yahav-Shenberger, I., G Schwartz, D., Silverman, G., & Mann, Y. (2024). Detecting terrorist influencers using reciprocal human-machine learning: The case of militant Jihadist Da'wa on the Darknet. *Humanities and Social Sciences Communications*, 11(1), 1-11.
- Mahmud, I., & Sakinah, N. (2024). Modernization of Religious Practices: Challenges and Opportunities in the Technological Era. *JPCIS: Journal of Pergunu and Contemporary Islamic Studies*, 1(1), Article 1.
- McKinnon, A. (2020). Demography of Anglicans in Sub-Saharan Africa: Estimating the Population of Anglicans in Kenya, Nigeria, South Africa, Tanzania and Uganda. *Journal of Anglican Studies*, 18(1), 42–60. <https://doi.org/10.1017/S1740355320000170>

- Nyakwara, A. D. (2023). Assessment Of Cyberspace And Traditional Church Models: A Study Of Selected Seventh Day Adventist Churches In Nyanchwa Station, South Kenya Conference, Kisii, Kenya [Thesis, Kisii University]. <http://localhost:8080/xmlui/handle/123456789/4439>
- O'Connell. (2025). New Vatican document on A.I. warns against 'creating a substitute for God' | America Magazine. <https://www.americamagazine.org/politics-society/2025/01/28/vatican-artificial-intelligence-document-249797>
- Ojelade, O. A., Oyerinde, O. O., & Olaoye, T. (2023). Effect of Training Intervention on Mental Health Literacy Among Religious Leaders in Ogun State, Nigeria. *International Journal of Public Health, Pharmacy and Pharmacology*, 8(2), Article 2.
- Oloba, B. L., & Blankenship, A. M. (2025a). Gender Dynamics in Online Religious Leadership in Nigeria: Investigating How Digital Platforms Shape Communication, Authority, and Influence. *Religions*, 16(1), Article 1. <https://doi.org/10.3390/rel16010005>
- Oyazor, E. I. (2024). The Emergence of AI and ChatGPT: Implication for Religion Sustainability in Africa. *International Journal of Social Science and Religion (IJSSR)*, 507–528.
- Rahman, S., & Masud-All-Kamal, M. (2024). *Social Transformation in Bangladesh: Pathways, Challenges and the Way Forward*. Taylor & Francis. <https://books.google.com/books?hl=en&lr=&id=uO0YEQAA>
- Rifat, M. R., Ayad, R., Asha, A. Z., Huang, B., Okman, S., Sabie, D., Ferdous, H. S., Soden, R., & Ahmed, S. I. (2024). Cohabitant: The Design, Implementation, and Evaluation of a Virtual Reality Application for Interfaith Learning and Empathy Building. <https://doi.org/10.1145/3613904.3642821>
- Roman Catholic Archdiocese of Manila. (2025). Vatican Releases Groundbreaking Document on AI and Human Dignity – Roman Catholic Archdiocese of Manila. <https://rcam.org/vatican-releases-groundbreaking-document-on-ai-and-human-dignity/>
- Tabassum, N., & Riaz, M. (2024). Preaching Islam in the Digital Age: A Study of Dr. Farhat Hashmi's Communication and Media Strategies. *The Dialogue*, 19(3), 09–27.
- Tongo, S. O., Dada, O. T., Odunsi, O. M., Oladimeji, S. T., & Uzzi, F. O. (2023). Socio-Economic Drivers of Climate Change Perception in Metropolitan Cities of Sub-Saharan Africa. *NIU Journal of Social Sciences*, 9(4), 101–110.
- Vatican. (2025). Antiqua et nova. Note on the Relationship Between Artificial Intelligence and Human Intelligence (28 January 2025). https://www.vatican.va/roman_curia/congregations/cfai