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Navigating Digital Frontiers

Preliminary Ethical Reflections on Islamic Learning in Contemporary Nigerian Muslim Societies

AbdulGafar Olawale Fahm, 2025







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University of Bayreuth African Studies WORKING PAPERS

Navigating Digital Frontiers

Preliminary Ethical Reflections on Islamic Learning in Contemporary Nigerian Muslim Societies



AbdulGafar Olawale Fahm, 2025

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AbdulGafar Olawale Fahm is a Reader in the Department of Religions at the University of Ilorin, Ilorin, Nigeria. He completed his doctorate at the International Islamic University Malaysia and has since dedicated his academic career to advancing the study of Islamic thought and practice. His extensive research spans various facets of Islamic studies, including digital pedagogy, religious ethics, and intercultural communication. Dr. Fahm's scholarly work has been published in reputable journals such as *Heliyon*, *Education and Information Technologies*, *Journal of Religion & Spirituality in Social Work: Social Thought*, *Sage Open*, *The International Journal of Religion and Spirituality in Society*, *Islamic Economic Studies*, and the *Journal of Intercultural Communication Research*. His commitment to rigorous research and innovative inquiry positions him as a leading voice in exploring how digital technologies intersect with traditional religious education in contemporary Nigerian Muslim societies.

Abstract

This paper examines the ethical implications of the digital transformation in Islamic learning within contemporary Nigerian Muslim societies. It explores how digital platforms have reshaped educational practices, expanded access to Islamic knowledge, and introduced new challenges regarding authenticity, authority, and equitable access. The study investigates the interplay between traditional pedagogical methods and modern digital tools using a mixed-methods approach that integrates qualitative insights and quantitative data from extensive surveys. The findings highlight opportunities and dilemmas: while digital technologies democratize learning and enhance connectivity, they also raise concerns over misinformation and the erosion of established scholarly hierarchies. The paper concludes with reflections on the need for robust ethical frameworks and policy interventions to safeguard the integrity of Islamic education in the digital age.

Keywords: Digital Islamic Learning, Digital Ethics, Nigerian Muslim Societies, Religious Education, Digital Pedagogy

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Navigating Digital Frontiers

Preliminary Ethical Reflections on Islamic Learning in Contemporary Nigerian Muslim Societies

AbdulGafar Olawale Fahm

"The medium is the message."

—Marshall McLuhan

1 Introduction

The rapid digitization of educational and religious spheres has heralded a paradigm shift in disseminating knowledge, with profound implications for diverse learning communities worldwide. In recent decades, digital technology has transformed traditional classroom settings into dynamic, interactive, and borderless learning environments (Bilyalova, Salimova, and Zelenina 2020). This transformation is particularly evident in Islamic education, where longstanding pedagogical practices are increasingly interfacing with modern digital tools. In Nigeria—a country marked by its rich Islamic heritage and dynamic social landscapes—the evolution of digital learning has begun to reshape how religious knowledge is accessed, interpreted, and transmitted.

The digital transformation in education is driven by advances in information and communication technologies (ICTs), which have led to the proliferation of online platforms, mobile applications, and virtual classrooms. Globally, these tools have been credited with increasing accessibility, enhancing learner engagement, and fostering interactive modes of instruction (Kwan et al. 2008). In the religious context, digital media have provided new avenues for *da'wah* (Islamic outreach) and self-education, enabling Muslim communities to engage with sacred texts, scholarly discourses, and spiritual practices through innovative formats such as podcasts, webinars, and social media forums (Jima'ain 2023). In Nigeria, where socio-economic challenges and infrastructural constraints often impede traditional educational delivery, the advent of digital technology presents a unique opportunity to democratize access to Islamic learning and bridge long-standing educational divides (Fahm et al. 2022).

This study situates itself at the confluence of these trends, aiming to explore the ethical dimensions of digital Islamic education in contemporary Nigerian Muslim societies. A dual purpose guides the research: first, to document and analyze the transformative impact of digital tools on the landscape of Islamic learning in Nigeria, and second, to critically examine the ethical challenges that arise from this digital mediation. By interrogating how digital platforms affect notions of authenticity, authority, and inclusivity in Islamic education, this study seeks to contribute to the broader discourse on digital ethics in religious education.

This research's scope encompasses pedagogical innovations and ethical dilemmas emerging from digital Islamic learning environments. The primary research questions guiding this inquiry are: (1) How have digital tools reshaped the methods and accessibility of Islamic learning in Nigerian Muslim communities? (2) What are the key ethical challenges associated with the digital mediation of religious education, particularly regarding misinformation, authority, and equitable access? (3) How can stakeholders—educators, learners, and digital platform providers—collaborate to foster an ethically robust digital learning ecosystem? These questions are designed to unravel the complex interplay between technological innovation and traditional religious education, offering insights that are both context-specific and relevant to broader global trends.

The significance of this study is multifaceted. First, exploring the intersection of digital technology and Islamic learning is critical in an era when the rapid pace of digital innovation often outstrips regulatory and pedagogical frameworks. In Nigeria, where rapid urbanization and the widespread adoption of mobile technologies are transforming daily life, understanding how digital tools influence Islamic learning can inform policies promoting inclusivity and quality education (Oyeniyi 2024). Second, by examining the ethical implications of digital mediation in religious education, this research contributes to a nascent body of literature that addresses the balance between modern technological practices and traditional ethical values. Digital ethics, as applied to religious education, not only concerns issues of access and authenticity but also touches on broader questions of moral responsibility, community engagement, and the preservation of cultural heritage (Gul and Abrar 2024).

Moreover, the findings of this research are poised to offer valuable contributions to academic and policy-making communities. Academically, the study enriches interdisciplinary debates that bridge theology, education technology, and ethics, challenging scholars to reconsider how religious knowledge is structured in the digital age. Practically, the insights derived from this inquiry can guide educational policymakers and religious institutions in Nigeria as they navigate the challenges of integrating digital tools into traditional learning environments. For instance, recommendations emerging from this study could inform initiatives to improve digital infrastructure in underserved regions, enhance digital literacy among educators and students, and establish ethical guidelines for online religious content. These interventions are not only critical for safeguarding the integrity of Islamic learning but also for ensuring that the benefits of digital technology are equitably distributed across Nigeria's diverse Muslim communities (Adedoyin and Soykan 2023).

In synthesizing these perspectives, this study underscores that the digital frontier is not merely a technological challenge but a deeply ethical one. As digital platforms continue to proliferate and evolve, they bring transformative opportunities alongside significant risks—including the potential dilution of scholarly authority, the spread of misinformation, and the widening of socioeconomic disparities. Addressing these challenges requires a holistic approach that integrates technological innovation with ethical rigor, ensuring that the principles of authenticity, accountability, and inclusivity remain at the core of Islamic education in Nigeria.

2 Literature Review

Contemporary literature converges on the view that digital technology is profoundly reshaping education across the globe, redefining how learners access information and how teachers deliver content. Educators increasingly leverage online platforms, multimedia resources, and mobile applications from primary schools to universities to create more flexible and interactive learning experiences. Research indicates that, when used wisely, digital tools can enrich pedagogy by enabling more "meaningful learning experiences" and providing "tremendous benefits" in terms of student engagement and access (Yanti, Nur Cahyono, and Hayani 2023). The COVID-19 pandemic dramatically accelerated these trends: at the peak of global school closures in April 2020, over 1.6 billion students worldwide were deprived of in-person schooling, forcing an unprecedented experiment in remote learning at scale (Muñoz-Najar et al. 2021). This emergency transition demonstrated the potential of technology to sustain education beyond the physical classroom, cementing the notion that hybrid and online learning models are "here to stay" in the post-pandemic world (Saavedra 2020).

In Nigeria, as in many developing contexts, the digital turn in education presents a mix of opportunities and challenges. On the one hand, the diffusion of the Internet and mobile devices has expanded educational reach. Nigeria's internet penetration has climbed to roughly half of the population in recent years (Kemp 2022), enabling millions of learners to connect to e-learning resources, virtual classrooms, and open educational content. Studies have documented the adoption of digital platforms to supplement or even replace traditional teaching with positive outcomes for learning flexibility and continuity. For example, online educational initiatives and EdTech startups are increasingly active in Nigeria, aiming to bridge gaps in the conventional system (Patil 2024). On the other hand, scholarship emphasizes that deep inequalities persist in digital access and capacity. Azubuike, Adegboye, and Quadri (2021) found stark disparities in Nigerian students' access to remote learning during COVID-19: socio-economic status strongly correlated with whether students could engage online, and those in urban, private schools had far better connectivity and device access than their rural or public-school counterparts. This "digital divide" extends to the skills and support needed for effective online learning; parents' education level, for instance, significantly affected their ability to help children navigate remote lessons. Such findings underscore that technology's impact on educational accessibility is double-edged—while digital tools can democratize knowledge, they may also widen inequities where infrastructure and digital literacy are lacking. Nigerian educators are therefore confronted with the dual task of innovating with technology to enhance pedagogy and simultaneously addressing gaps in connectivity, teacher training, and student readiness for digital learning (Adedoyin and Soykan 2023). Importantly, researchers note that technology integration should be guided by pedagogical purpose: simply introducing gadgets is not enough without rethinking teaching methods to maintain student engagement and learning quality (Haleem et al. 2022)Successful examples in Nigeria involve blended learning approaches, interactive radio instruction, and mobile tutoring systems that adapt global digital trends to local realities. These suggest that a contextualized use of educational technology yields the most significant benefits.

This digitization of learning has not been limited to secular education; it is also increasingly transforming religious educational spaces. Nigeria's experience exemplifies how global digital trends penetrate Islamic learning circles, raising new possibilities for disseminating religious knowledge. The broader implication of digital technology in education is thus a reconfiguration of learning environments at all levels – a backdrop against which Islamic educational institutions and traditions are now navigating their own "digital frontier."

2.1 Islamic Learning at the Digital Frontier

Islamic education has a rich history of adapting to new media and modes of instruction, even as it remains rooted in classical traditions. Scholars remind us that since the early centuries of Islam, religious learning has incorporated technological innovations—from manuscripts and printing presses to radio broadcasts and cassettes—often sparking debates before eventual acceptance (El Shamsy 2020). Indeed, "religions, including Islam, have embraced, adapted and resisted various technologies" over time (Whyte 2022). The current digital age is no exception: the volume, speed, and accessibility afforded by the Internet and mobile technology have "significantly altered the way [Islamic] knowledge is communicated and consumed", with profound implications for educational practice and authority (Whyte 2022). In many Muslim societies, online resources are increasingly supplemented or even replaced by traditional forms of learning—such as halaqāt (arab., study circles), *madāris* (arab., Islamic schools), and one-on-one mentorship with scholars. Students today might learn *Qur'ānic* recitation via YouTube, study jurisprudence through Zoom classes, or seek fatāwa (arab., legal advice within sharia) from question-and-answer websites and apps. This burgeoning ecosystem of digital Islamic learning has made religious instruction more accessible than ever, transcending geographic and social barriers. Rural women, for instance, can attend virtual tajwīd classes (arab., classes on Qur'ānic recitation) that were once available only in urban centers; diaspora Muslims can connect with teachers in their homeland through learning portals; and autodidacts can delve into vast libraries of Arabic texts scanned and posted online. In Nigeria, these shifts are evident in Islamic education's formal and informal sectors. Recent research by Sanni (2022) chronicles the "digitalisation of traditional Islamic schools (ile-kewu [Yoruba language])" in southwestern Nigeria, showing that the COVID-19 pandemic, along with increasing emigration and demand for flexible learning, catalyzed the rise of online madāris in Yoruba-speaking communities. Through interviews with facilitators of these e-madāris, the study found that digital platforms greatly expanded the reach of Islamic teachings, offering unprecedented flexibility and convenience for learners (Rabbanie, Katni, and Fadil 2022). Even in northern Nigeria's Muslim society—home to a robust scholarly tradition and several religious universities—there is growing use of digital tools for da'wa (arab., call to Islam) and education. Ibrahim (2024) describes how Salafi-oriented teachers have become "cyber imams" who leverage social media and YouTube to engage followers and assert religious authority online. These techsavvy scholars cultivate virtual communities or a "cyber 'umma (arab., global community of Muslim believers)" that transcends physical locality, as believers gather on Facebook pages, Telegram groups, and other forums to learn and debate religious matters. Social media algorithms even shape these learning experiences—curating which Islamic lectures or fatwa videos users see—contributing to what Ibrahim terms "algorithmic religiosity," where recommendation engines influence religious subjectivities and the formation of religious authority online.

The digital turn in Islamic learning has generated lively debate in the literature about authenticity, authority, and the very ethos of religious education. On one side, scholars highlight the democratizing impact of technology. Digital media have "facilitated religious pluralism" by opening up a diversity of viewpoints and allowing minority voices a platform (Whyte 2022). They also significantly improve accessibility—knowledge once locked in distant libraries or obtainable only through years of study under a qualified *shaykh* is now available to anyone with an internet connection. This openness can empower self-motivated learners and communities historically excluded from formal scholarship. For Nigerian Muslims, online repositories of Islamic texts, learning apps, and virtual study groups have provided new opportunities to acquire religious knowledge outside the traditional *madrasa* system (Sanni 2022). The flexibility noted in Sanni's study is particularly beneficial for students who balance secular schooling or jobs with their religious education and for women who may face social constraints attending male-dominated study circles in person. Moreover, digital archives and translation projects have made classical

Islamic teachings more widely accessible in local languages, enriching the educational resources available to Nigerian Muslim societies (Adamu 2023).

On the other side of the debate, many Islamic scholars and educators voice concerns about the integrity and authority of knowledge in the online sphere. A recurring theme in the literature is anxiety over the erosion of the teacher-student relationship that has traditionally underpinned Islamic pedagogy. Classical Islamic learning hinges on isnād (arab., chain of transmission) and direct mentorship—students absorb content from a teacher, adab (arab., ethical conduct), and interpretive wisdom. As Hamdeh (2020) observes, traditionalist scholars maintain that "Islam can only be properly understood under the tutelage of a teacher," cautioning that solitary reliance on the internet or books divorce knowledge from its authoritative lineage. They worry that a generation raised on "Shaykh Google" might lack the discernment to distinguish sound knowledge from misinterpretations. Indeed, participants in Whyte's Australian study warned of the dangers of "information anarchy" in digital settings, where the absence of gatekeepers means false or fringe interpretations can spread unchecked (Whyte 2022). Nigerian 'ulamā' (arab., Islamic scholars) has similarly lamented cases of young people adopting deviant views or religious innovations after unsupervised online study (Olalekan and Badmus 2024). The question of authority looms large: who has the right to teach and interpret scripture in the boundless space of the internet? In pre-digital times, communities could more easily identify recognized scholars by their credentials and scholarly lineage. Now, charismatic bloggers or YouTube preachers can amass large followings without formal qualifications, potentially supplanting traditional authorities. Empirical research is beginning to document this shift. For example, in Northern Nigeria's online sphere, the rise of "cyber imams" shows how certain preachers skillfully use digital tools to project authority, sometimes independently of established religious hierarchies (Ibrahim 2024). This can create tension between the new digital clergy and the traditional scholarly class. At the same time, some traditionally trained scholars are adapting to the new landscape by establishing online institutes and distance-learning programs that aim to marry authenticity with convenience. They often stress that while they utilize digital platforms, these are merely extensions of the orthodox pedagogical model rather than replacing it (Hamdeh 2020). An illustrative example is the emergence of reputable online madāris (such as Qibla, formerly Sunnipath) staffed by certified 'ulama' who provide structured courses in Islamic sciences, attempting to emulate the mentorship model via webinars and personalized feedback. Such initiatives reflect an effort to "prioritise face-to-face learning as more reliable," whenever possible, while not shunning the benefits of online dissemination (Whyte 2022). In Whyte's study, Imams and educators acknowledged that digital resources are valuable "so long as [users] possess the skills to cross-examine online content and verify the credentials" of the teachers. In other words, improving learners' digital literacy—teaching them how to vet sources and distinguish scholarly opinions from unsound information—becomes critical if Islamic learning is to thrive in the online age without sacrificing its authenticity.

2.2 Navigating Ethical Challenges in Digital Islamic Education

The intersection of digital technology, education, and religion raises complex ethical questions that scholars now examine through various theoretical frameworks. A key concern is upholding ethical norms and values in an environment where traditional checks and balances may be weakened. One theoretical approach discussed in recent literature is the application of digital ethics or "information ethics" to guide behavior in online learning. In secular education contexts, this often includes issues of academic honesty, equitable access, data privacy, and respectful online conduct. When transposed to religious education, additional layers emerge: the ethics of representing sacred knowledge accurately, the responsibility of instructors and platforms to prevent the spread of harmful misinformation, and the need to cultivate moral integrity in

learners even when they engage anonymously or remotely. Muslim scholars writing on the subject argue that an Islamic ethos must inform the use of technology for it to be genuinely beneficial (Santoso et al. 2021). They point to foundational principles like *ikhlās* (arab., sincerity), amāna (arab., honesty, trust), and the maqāsid al-sharī'a (arab., higher objectives of Islamic law, such as preserving intellect and faith) as relevant yardsticks for evaluating digital practices. For instance, ensuring "content authenticity" in online Islamic courses is not just a pedagogical matter, but an ethical one—teachers and website administrators carry an amāna to convey correct information and cite reputable sources. A recent structured analysis by Mustapha et al. (2025) underscores this by identifying "content authenticity" and an overarching "Islamic ethics framework integration" as foundational components for Islamic schools adapting to the digital age Their proposed guidelines also stress modern concerns like privacy and data protection, reflecting an awareness that collecting students' data or recording class sessions must be handled in line with ethical and legal standards (Mustapha et al. 2025). Furthermore, they highlight defined responsibilities for both students and teachers in upholding etiquette and integrity online (e.g., avoiding plagiarism, preventing cyber-bullying, and maintaining teacher authority), all embedded within a supportive "digital learning environment" (Mustapha et al. 2025). This indicates a holistic ethical framework where traditional Islamic values and contemporary digital norms are bridged to foster a healthy learning ecosystem. The findings suggest that successful implementation of EdTech in Islamic education "requires careful consideration of both traditional Islamic values and modern educational needs," along with continuous oversight and adaptation (Mustapha et al. 2025). In practical terms, such a framework could translate into curriculum modules on digital literacy from an Islamic perspective, policies for vetting online guest lecturers, or community guidelines for behavior in virtual classroom forums - all aimed at aligning digital practices with ethical conduct.

Another dimension of the ethical discourse centers on misinformation and interpretive authority. As discussed, the ease of publishing online means that erroneous or extreme interpretations of Islam can proliferate, intentionally or unintentionally. This raises the ethical duty of educators and platform owners to monitor and correct misinformation. Some authors advocate for stronger community-based verification, reviving the Islamic tradition of tashīh (arab., peer review or correction) in digital spaces to collectively uphold the integrity of knowledge (Messick 2018). In addition, digital accountability is emerging: teachers who issue fatāwa or lessons over social media should arguably be as accountable for their statements as they would be in person if not more so, given their broad reach. However, enforcing accountability online is fraught with challenges, from anonymity to jurisdictional issues. These challenges have led to calls for international or at least intra-Muslim collaborative efforts to establish ethical standards for online religious content (Fahri and Zulkifli 2023; N. Zulkifli et al. 2022; C. N. Zulkifli and Rajandran 2024). For example, could reputable councils of 'ulama' provide certification or a "stamp of authenticity" for specific e-learning programs or popular religious websites? Such proposals remain in infancy, but they reflect a growing awareness that ethical self-regulation needs to accompany the technical spread of digital Islamic learning. At the individual level, many writers emphasize character education and cultivating critical thinking as the best defense against digital pitfalls. Teaching students how to learn and evaluate (with *adab*) is as important as the content. This aligns with broader moves in education toward digital citizenship training, adapted here for a religious milieu. Whyte's findings, again, are instructive: rather than forbidding the internet, seasoned educators suggest imparting the "skills to cross-examine online content"—essentially, nurturing an ethically aware, media-literate Muslim learner who can reap the benefits of the digital age while guarding their faith and understanding (Whyte 2022).

Moreover, some scholars urge a widened ethical lens beyond the immediate educator-learner interaction to consider the socio-political ramifications of embracing digital technology. Ekeremat

(2021) observes that Muslim discourse on ICT often focuses narrowly on intention (arab., nīya) and usage. It is assumed to be ethically sound if one uses the internet for da'wa or educational good. However, this perspective can neglect broader questions of justice and well-being. As one commentary puts it, "if you are using ICTs for a good purpose then you don't have to think much beyond that. However, a more holistic approach is needed, one that takes into account the consequences of the mass adoption of ICTs" (Islam 2021). Indeed, critical voices point out issues like the exploitation behind hardware production (conflict minerals, poor labor conditions in gadget manufacturing), or the attention economy business models of big tech that can encourage addictive usage patterns and consumerism (Islam 2021). These factors might seem distant from the context of an Islamic studies class in Nigeria, but they form part of the ethical landscape in which digital education is embedded. Therefore, an ethically grounded approach to digital Islamic learning might also inculcate awareness of these justice issues, encouraging students to use technology in moderation and advocate for equitable access and fair tech practices as part of their Islamic responsibility to society. In this vein, the literature increasingly calls for an interdisciplinary ethical outlook—drawing on fields like information ethics, education policy, and Islamic theology—to navigate the evolving digital frontiers. By integrating insights from these domains, contemporary Nigerian Muslim educators and policymakers can better ensure that the shift to digital platforms for Islamic learning not only imparts knowledge effectively but does so in a manner aligned with both universal educational values and the moral compass of Islam.

3 Methodology

Central to my investigation was a qualitative-dominant design complemented by quantitative data to enhance validity and triangulation. The qualitative component involved semi-structured interviews with diverse stakeholders – including Islamic scholars, teachers, students, and administrators – and content analyses of digital platforms used for Islamic learning. These interviews provided rich, narrative data capturing personal experiences, ethical concerns, and reflections on digital access and engagement. Simultaneously, the quantitative element comprised surveys administered across several Nigerian states to gather measurable data on digital literacy, frequency of use, and perceptions of online Islamic content's authenticity and ethical quality. This mixed-methods framework enabled us to capture the nuance of personal experience while situating these insights within broader statistical trends.

3.1 Research Design

The study is structured around a sequential exploratory design. Initially, qualitative data collection guided the development of an in-depth understanding of how digital platforms are utilized in Islamic learning. This phase focused on gathering firsthand accounts through purposive sampling of thirty interviewees—fifteen male and fifteen female—selected to represent students, educators, and imams across diverse social statuses and ethnicities (Yoruba and Hausa). Interviews were conducted primarily in English (the country's academic lingua franca), with occasional use of Yoruba or Hausa to ensure participant comfort. In parallel, we analyzed content from major digital platforms—WhatsApp study groups, Telegram channels, YouTube lecture series, Facebook pages, and dedicated Islamic-learning websites—to capture the full spectrum of online Islamic pedagogy. A structured survey instrument was later developed to capture broader quantitative data based on emergent themes from these qualitative methods. This sequential design ensured that the survey questions were contextually grounded in the lived experiences and ethical reflections reported by participants.

The qualitative research component employed semi-structured interviews to allow for flexible probing of issues as they arose in conversation. Interview questions were designed to explore

participants' experiences with digital Islamic learning, their ethical dilemmas, and strategies to balance tradition with innovation. The interview sample was purposively selected to represent a range of perspectives – from digitally adept youth in urban centers to older traditional scholars and educators in rural areas. These interviews were conducted in person and via digital communication tools (e.g., Zoom, WhatsApp), reflecting the phenomenon under investigation. In addition, digital content analysis was performed on Islamic educational websites and social media platforms (e.g., YouTube, Facebook, Telegram groups) to examine how religious instruction and ethical content are presented and moderated online.

The quantitative survey was distributed to a larger, more diverse sample of Nigerian Muslims actively engaged in online Islamic learning. The survey instrument included both closed- and open-ended questions covering topics such as frequency of digital platform use, perceived benefits and challenges, quality and reliability of online content, and ethical concerns (e.g., issues related to misinformation and digital distraction). The survey was administered online using a web-based platform and disseminated through social media networks and Islamic community organizations. Responses from over 500 participants provided a robust dataset, which was then analyzed using descriptive and inferential statistics to identify patterns and correlations. As this article represents a preliminary study—focused on developing and validating our mixed-methods framework rather than reporting full quantitative findings—I intentionally omitted the detailed survey items and their complete results. Including them here would shift the paper's scope away from its primary aim of exploring emergent ethical reflections and toward a full empirical report.

3.2 Data Collection

Data was collected over six months, during which primary and secondary data were obtained. Primary data were sourced from:

3.2.1 Interviews

Semi-structured interviews were conducted with 30 participants, including Islamic scholars, educators, and students. The interviews were audio-recorded (with participants' consent) and transcribed verbatim. These interviews provided direct quotes and rich narratives that capture the ethical nuances of digital Islamic learning. For instance, one participant noted, "Digital platforms have democratized Islamic learning, but they also allow pseudo-scholars to spread misinformation without accountability".1

3.2.2 Digital Platform Analysis

I conducted a content analysis of 20 digital platforms – including Islamic educational websites, Facebook groups, and YouTube channels – to assess how religious teachings and ethical guidelines are presented. The analysis involved coding for themes such as authenticity, scholarly authority, user engagement, and ethical standards.

3.2.3 Surveys

The quantitative survey was disseminated via online channels. Sampling was achieved through convenience and snowball sampling techniques, ensuring a wide reach across various socioeconomic and geographic segments in Nigeria. The survey included questions on demographics, digital literacy, the frequency of use of specific digital platforms, and perceptions regarding the ethical dimensions of online Islamic education. The Excel data documents provided were instrumental in guiding the survey design and subsequent statistical analysis, ensuring that key variables (e.g., age, education level, digital access) were captured accurately.

¹ Interview, AbdulBasit, a scholar, via Zoom, 23 November 2024.

Secondary data sources included scholarly articles and policy documents related to digital religious education globally. These sources were used to supplement primary data and provide a broader context for understanding the trends and challenges observed in Nigeria. For example, studies by Ansori et al. (2022), Elbanna (2025), and Hasanah (2024) on digital Islamic pedagogy in Southeast Asia provided comparative frameworks that enriched the analysis of our Nigerian data.

3.2.4 Integration with Preliminary Findings

The methodology described above provided a strong foundation for the preliminary findings and subsequent ethical reflections. The integration of qualitative interviews with quantitative survey data allowed for a nuanced picture of how digital tools are impacting Islamic learning. For example, while survey data indicated that a majority of respondents appreciated the increased accessibility afforded by digital platforms, interview narratives provided insight into the ethical dilemmas – such as misinformation and loss of scholarly authority – that underlie these positive developments. This layered understanding is critical for developing policies and practices that support ethical digital learning in Nigeria. Moreover, the use of digital platform analysis as part of the data collection process enabled the research team to assess not just user perceptions but also the content dynamics of online Islamic education. By coding digital content for authenticity, authority, and ethical messaging, the study was able to link the subjective experiences of participants with observable trends in digital discourse.

4 Preliminary Findings

Digital technology is reshaping Islamic learning in contemporary Nigerian Muslim societies in profound ways. Early evidence from our interviews indicates that online platforms have dramatically expanded access to knowledge while simultaneously introducing new challenges of authenticity, authority, and equity. These preliminary findings reveal a complex interplay: digital media empower learners and educators with unprecedented resources and connectivity, yet also unsettle traditional practices and ethical norms in Islamic education. What emerges is a nuanced picture of enthusiastic engagement tempered by caution, aligning with broader observations that the internet has "introduced new ways of learning and sharing Islamic knowledge" even as it challenges "traditional Islamic knowledge and pedagogical techniques" (Hamdeh 2020).

4.1 Enhanced Access and Engagement

Nearly all participants highlighted the positive impact of digital technology on access to Islamic learning. One interviewee noted that "by virtue of the digital space, you can now download PDFs [...] from the comfort of our homes, so it has brought knowledge close to us. It has made it easy for us to seek knowledge from anywhere". Indeed, smartphones and laptops have become portals to vast libraries of Islamic books, lectures, and courses. A young female student in Lagos described how free access to books and articles online has helped her, because buying physical texts is costly – "nowadays... it's not easy to afford such books offline, so [online access] assists in terms of the monetary aspect and easy access as well". For many learners, digital platforms collapse geographical barriers: a university staff in Borno State recounted that instead of having to "go and meet a scholar, your *malam* (Haussa, Islamic teacher) [...] now [...] you just have to go online [...] get their email or go to their page" to ask questions and receive guidance "at your comfort zone".4

² Interview, AbdulKabeer, , a scholar and Imam, via Zoom, 25 November 2024.

³ Interview, Barakat, 2024, a student, via Zoom, 17 November 2024.

⁴ Interview, Murjanatu, 2024, an educator, via Zoom, 21 November 2024.

Likewise, she and others feel a new "sense of global Islamic community" online, where a sister in Nigeria can study with peers and scholars from the UK or elsewhere, "meeting new people [...] from different communities" and becoming "family online" despite vast distances.⁵ These experiences underscore how digital connectivity is broadening participation in Islamic learning beyond local circles. They resonate with national trends - with over 122 million internet users in Nigeria (about 55% of the population) as of 2023 (Kemp 2022), more Muslims than ever are online. The reach of Islamic content has accordingly widened. A male teacher in Ilorin emphasized that even those who never attended Islamic schools are now aware that "going digital is [...] quite important," noting that social media and YouTube lectures have enabled basic religious knowledge to spread "little by little" across the country.6 In his view, "information is getting to almost everybody... just as information is reaching people in town, it's reaching people in the rural areas as well" via phones and WhatsApp, even if indirectly and with some delay.7 Some participants shared concrete examples of digital outreach bridging gaps: one 26-year-old online tutor reported teaching Qur'an and Arabic via WhatsApp to students in southern Nigeria, including Christian adults preparing to move to the Middle East.8 For such learners, "digital technology [provides] the opportunity of sitting at home and learning," offering instruction that would otherwise be out of reach.9

Yet, participants also acknowledged that access is not evenly distributed. Several noted a "digital divide" in terms of infrastructure and literacy. A rural teacher in Oyo State explained that inconsistent network coverage in the village sometimes disrupts her class - "when there is no network we can't go on [...] I'm working in a village so the network has always been fluctuating".10 Others pointed out socioeconomic disparities: data costs and device quality can hinder poorer students. One respondent suggested more public awareness and digital literacy training to help those unfamiliar with technology tap into online learning, saying "if you have a smartphone... you can easily do this, you don't have to pay transport to go meet an imam" - but people need to be shown how.¹¹ In our survey, high data costs and connectivity were indeed frequently cited obstacles. Gender emerged as another factor in access. A male scholar who runs an Islamic Facebook page observed that "there are more men [online] than women" engaging with his content, based on follower analytics.¹² He also lamented that Muslims with limited formal education, especially in rural areas, often lack smartphones and remain reliant on radio programs or local clerics, thus missing out on the trove of online resources.¹³ According to him, such communities risk being "left with...regurgitated" information from decades past, since digital knowledge "has not really reached them that much". 14 These insights highlight that while digital learning greatly extends the reach of Islamic education, it may also accentuate divides between those with internet access and those without. As one study notes, the challenges of the digital era

⁵ Interview, Murjanatu, 2024, an educator, via Zoom, 21 November 2024.

 $^{^{\}rm 6}$ Interview, Abdul Salam, 2024, a scholar, via Zoom, 16 November 2024.

⁷ Interview, AbdulSalam, 2024, a scholar, via Zoom, 16 November 2024.

⁸ Interview, Muhammad, 2024, an educator, via Zoom, 21 November 2024.

⁹ Interview, Muhammad, 2024, an educator, via Zoom, 21 November 2024.

 $^{^{10}}$ Interview, Fatimoh, 2024, an educator, via Zoom, 24 November 2024.

 $^{^{11}}$ Interview, Bilikis, 2024, a student, via Zoom, 12 December 2024.

¹² Interview, Ibrahim, 2024, a scholar and Imam, via Zoom, 30 December 2024.

¹³ Interview, Ibrahim, 2024, a scholar and Imam, via Zoom, 30 December 2024.

¹⁴ Interview, Ibrahim, 2024, a scholar and Imam, via Zoom, 30 December 2024.

include both authenticity and accessibility – ensuring reliable content and broad inclusion (Fakhrudin 2024). Our findings echo this dual concern: the next step is devising strategies so that equality of access accompanies the vast new opportunities online.

4.2 Transformations in Learning Practices

Participants consistently reported that digital technology is altering how Islamic knowledge is taught and learned. Traditional methods are not replaced so much as supplemented and enriched. For example, educators described blending conventional classroom teaching with digital tools to improve student engagement. "I have been supporting [teaching] by using digital technology," explained a secondary school teacher, "making use of my phone to show them some things we learn in class."15 Instead of only lecturing about historical battles or Islamic art, she now plays short videos in class, finding that visual media captivate her students: "with pictures and videos, students always get to remember things... it makes them so eager to learn". 16 Her students even ask ahead of time what video she will show next, and she observed that using multimedia has "really improved their love for learning".17 This example illustrates how digital content can enhance understanding and motivation in ways conventional methods may not. Other teachers leveraged online platforms to reach learners beyond the physical classroom. A madrasa instructor in Lagos recounted how the COVID-19 lockdown was a turning point: having already been trained to write lesson plans on a laptop and use interactive whiteboards, he helped his school pivot to Zoom and Google Classroom when the pandemic struck. 18 "We created accounts for the students... [and] integrated all the students together for them to continue learning even when they were at home," he said, noting that since then he has regularly used e-learning applications for Islamic Studies and Arabic courses.¹⁹ This early adoption made him something of a digital pioneer at his institution, and it ensured continuity of Qur'ānic and Islamic lessons during a crisis. In northern Nigeria, a number of 'ilm (arab., knowledge) circles and seminaries similarly moved to WhatsApp and Telegram groups to hold virtual classes, according to interviewees. One scholar remarked that Zoom, Google Meet, and Telegram have become common tools through which "graduates of Islamic studies... teach people basic knowledge of $d\bar{\imath}n$ (arab., religion (of Islam))," bringing structured learning to people's phones.²⁰ Such innovations show how technology can complement and extend traditional Islamic pedagogy. Indeed, several respondents stressed the importance of blending the old and new. A female madrasa graduate in Edo State reflected that digital learning hasn't replaced her appreciation for traditional methods, but it has made study more convenient. She still prefers physical books for intensive reading (partly due to eye strain from screens), yet she switches to digital when needed - "if I may not be able to afford [a book], then I switch to the digital [...] I prefer hardcover books, but when the money issue comes in, I use digital".²¹ In her *madrasa*, teachers balanced both: some course materials were provided online while others were given as printed texts, an approach she felt "helped a lot" because it combined the strengths of each medium.²² This sentiment, that digital technology can complement rather than displace

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¹⁵ Interview, Fatimoh, 2024, an educator, via Zoom, 24 November 2024.

¹⁶ Interview, Fatimoh, 2024, an educator, via Zoom, 24 November 2024.

¹⁷ Interview, Fatimoh, 2024, an educator, via Zoom, 24 November 2024.

¹⁸ Interview, AbdulKabeer, 2024, a scholar and Imam, via Zoom, 25 November 2024.

¹⁹ Interview, AbdulKabeer, 2024, a scholar and Imam, via Zoom, 25 November 2024.

²⁰ Interview, Ismail, 2024, a scholar, via Zoom, 5 December 2024.

²¹ Interview, Shenazrania, 2024, a student, via Zoom, 1 December 2024.

²² Interview, Shenazrania, 2024, a student, via Zoom, 1 December 2024.

traditional Islamic education, was common. Notably, even traditional scholars have begun to embrace online teaching to remain relevant. As Hamdeh (2020) observes, print and digital media have "facilitated autodidactic learning" and lessened "the necessity of the teacher," so in response many 'ulamā' now maintain an online presence to "compete with non-experts" and preserve their influence. We saw this dynamic in our interviews: classically trained teachers now host Facebook Live halaqas and YouTube channels, effectively becoming "online mu'allim (arab., teacher)" to reassert their authority in the digital arena. One interviewee quipped that scholars who once frowned on the internet are now on YouTube precisely because they realize those "on the screen every day" have the ears of the youth.²³ The pedagogical landscape is shifting towards a hybrid model. Digital platforms enrich learning through multimedia resources, global interactivity, and flexible access, while in-person and traditional mentorship still provide structure and depth. The most successful practitioners are navigating this fusion deftly – using new tools to invigorate Islamic learning, not abandon its time-tested foundations.

4.3 Emergent Ethical Dilemmas

Alongside these benefits, this research uncovered several ethical and practical dilemmas arising on the digital frontier. Foremost among them is the issue of information authenticity and religious authority in an age of user-generated content. Virtually all respondents expressed concern about misinformation online. "I make sure that I filter [online information]," said a female student, "because there are some websites... that are kind of sectarian... I need to filter to make sure I'm getting accurate and precise information, not adulterated ones".24 She gave the example of stumbling upon a Shī'a-run website that presented biased interpretations; recognizing the sectarian slant, she learned to double-check any figh (arab., Islamic jurisprudence) answers with her lecturers or through trusted texts.²⁵ Another interviewee similarly described how WhatsApp forwards about *Qur'anic* teachings can lead one astray: "people will be sending you links – follow this one for teaching [...] but at the end of the day, you end up following people that [...] introduce another form of religion".26 She now approaches unsolicited Islamic content with healthy skepticism – "the first question you ask yourself is, how authentic are they?".27 This vigilance reflects a broader awareness that the internet's open floodgates let in wisdom and falsehood in equal measure. Participants from diverse backgrounds – traditional scholars and young students alike - observed that anyone can claim authority online, and this democratization is a doubleedged sword. On one hand, knowledge has been "democratized" such that lay Muslims can learn directly from primary sources or diverse teachers, empowering self-study. On the other hand, the lack of gatekeepers means "every Tom, Dick and Harry... thinks they can become scholars" without proper training.²⁸ A scholar warned that social media has "made it easy for every... person to just say whatever they want, because [it] has given them that license", even to issue fatāwā or interpretations beyond their competence.²⁹ This has led to what he and others termed "pseudoscholars" attracting large followings. For example, an Ilorin-based interviewee noted that many unqualified personalities are boldly positioning themselves as religious authorities online, to the extent that "people are referring to [them] as scholars now," while sidelining those with real

²³ Interview, AbdulSalam, 2024, a scholar, via Zoom, 16 November, 2024.

²⁴ Interview, Barakat, 2024, a student, via Zoom, 17 November 2024.

²⁵ Interview, Barakat, 2024, a student, via Zoom, 17 November 2024.

²⁶ Interview, Shenazrania, 2024, a student, via Zoom, 1 December 2024.

²⁷ Interview, Shenazrania, 2024, a student, via Zoom, 1 December 2024.

²⁸ Interview, AbdulKabeer, 2024, a scholar and Imam, via Zoom, 25 November 2024.

²⁹ Interview, AbdulBasit, 2023, a scholar, via Zoom, 23 November 2024.

credentials.³⁰ He observed that the charismatic self-taught preachers often garner the most accolades and followers, whereas traditionally trained 'ulamā' who don't engage online remain largely unseen.31 This "popularity contest" dynamic worries community leaders: "people look at those who have the largest numbers, but they don't look at whether they are the right people to take knowledge from", he said.32 The erosion of the customary hierarchy of knowledge – where students would defer to learned scholars – was frequently mentioned. One educator commented that Islam is a religion that "respects authority," but "the online space does not really care about anybody's [status] - everybody gives their opinion".33 He recounted seeing junior students on Facebook brusquely dismiss renowned professors, behavior that "usually cannot happen in a real classroom with an elderly teacher".34 This aligns with academic analyses noting that the internet's "anti-hierarchical, individually empowering" ethos appeals to many Muslims even as it undermines traditional authority structures (Hamdeh 2020). In response, several interviewees advocated renewed efforts to verify scholars' credentials and regulate online content. One suggestion was establishing official bodies for fact-checking and certification – e.g., a platform run by credible Nigerian Muslim scholars to "correct [misinformation]... when anyone is trying to pass incorrect information" by publishing clarifications and rebuttals.³⁵ Others went further to propose that "religious authorities should clamp down on individuals doing things like this" and find ways to "sanction them if possible".36 While enforcement may be difficult, these comments show a desire for communal oversight to uphold standards of knowledge online. Even without formal policing, participants employ personal strategies to cope with authenticity issues: crossreferencing multiple sources,³⁷ consulting known scholars directly (via email or messaging) before accepting new information, and sticking to reputable platforms. As one student put it, "I try to consult some lecturers about what I saw online and their view about its authenticity".38 Such self-regulation echoes Hamdeh's finding that traditionalists still stress rigorous verification, warning that "just because we have the resources at hand does not mean we really know [...] what exactly to say" on complex religious matters (Hamdeh 2020).

In addition to authenticity concerns, digital addiction and distraction emerged as an ethical challenge. The allure of endless content – even beneficial Islamic content – can lead to loss of focus. One respondent admitted that the online environment sometimes causes him to "waste more time browsing through than actually learning", due to the pull of social media notifications and unrelated videos.³⁹ An Islamic studies teacher similarly observed that while researching a topic, "before you know what's happening, you start seeing different types of other videos... distraction begins to set in".⁴⁰ He gave a detailed account of algorithms serving tempting content: "the way

³⁰ Interview, AbdulBasit, 2023, a scholar, via Zoom, 23 November 2024.

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³¹ Interview, AbdulBasit, 2023, a scholar, via Zoom, 23 November 2024.

³² Interview, AbdulBasit, 2023, a scholar, via Zoom, 23 November 2024.

³³ Interview, AbdulSalam, 2024, a scholar, via Zoom, 16 November 2024.

³⁴ Interview, AbdulSalam, 2024, a scholar, via Zoom, 16 November 2024.

³⁵ Interview, AbdulKabeer, 2024, a scholar and Imam, via Zoom, 25 November 2024.

³⁶ Interview, AbdulBasit, 2023, a scholar, via Zoom, 23 November 2024.

³⁷ Interview, Baidou, 2024, a student, via Zoom, 24 November 2024.

³⁸ Interview, Shenazrania, 2024, a student, via Zoom, 1 December 2024.

³⁹ Interview, Usman, 2023, a student, via Zoom, 16 November 2024.

⁴⁰ Interview, AbdulSalam, 2024, a scholar, via Zoom, 16 November 2024.

this algorithm has been programmed... once it sees you are searching for something... it will bring up a video... then you see adverts of different things you did not even search for", luring the student off-task. 41 This kind of digital distraction can derail one's study session or lead to superficial learning. A few participants framed excessive social media use as a moral issue, terming it "digital addiction" that can steal time from worship or serious study. However, they emphasized personal responsibility in tackling it. "It is an individual responsibility... to train themselves on better time management", one scholar asserted, "religious organizations can only warn people". 42 In other words, just as with other temptations, discipline and mindful habits are needed to benefit from the internet without becoming its slave. Importantly, our data suggest that many Nigerian Muslims are aware of these pitfalls and are actively negotiating them – whether by scheduling dedicated study time away from social media, or using apps that limit distractions (one student mentioned using a $Qur'\bar{a}n$ app that also reminds her to make supplications (arab., $adhk\bar{a}r$) at set times, helping keep her "on task" spiritually). 43

Also, participants touched on cultural shifts that digital learning is catalyzing. Some worried about a loss of *adab* and human interaction. The convenience of online answers may erode the practice of sitting with a teacher and the *tarbiya* (arab., spiritual training) that comes with it. "Some people are gradually losing their respect for the scholars, and this is not supposed to be so," one interviewee warned, linking it to the ease of accessing books without guidance. Another noted that "in knowledge there is hierarchy... everybody knows [in person] that this particular place I'm not supposed to speak", whereas online, that deference is often missing. At the same time, digital media are bringing positive cultural change by exposing learners to a wider range of Islamic perspectives and cultures. A respondent in Ilorin mentioned that through social media he has encountered "many systems of learning from across the globe", enriching his understanding of Islam's diversity. This pluralism can foster tolerance and cross-fertilization of ideas, as long as learners are equipped to discern sound knowledge from unsound.

These preliminary findings reveal that Nigerian Muslim communities are navigating the digital frontier with a mix of enthusiasm and caution. Digital technology unquestionably enhances access – transcending geographic, social, and temporal barriers to Islamic learning – and it is spurring innovative pedagogies that make learning more engaging. As one young woman happily concluded, "I have gained a lot from these digital tools. I gained more knowledge from it".⁴⁷ At the same time, the transition is accompanied by real ethical challenges: information authenticity, the dilution of scholarly authority, digital divides, and the need for etiquette and concentration online. These challenges are not unique to Nigeria, but reflect global trends in the Muslim world where the internet has "facilitated autodidactic learning" and empowered new voices, prompting traditional scholars to adapt and reassert the importance of authoritative knowledge (Hamdeh 2020). What is heartening in the Nigerian context is the reflexive awareness shown by many stakeholders – students verifying sources, teachers blending old and new methods, and scholars calling for fact-checking initiatives. Such awareness is the first step in addressing the dilemmas identified. Moving forward, a concerted effort involving educators, religious authorities, and the

⁴¹ Interview, AbdulSalam, 2024, a scholar, via Zoom, 16 November 2024.

⁴² Interview, Maryam, 2024, an educator, via Zoom, 21 December 2024.

 $^{^{43}}$ Interview, Najibat, 2024, , a student, via Zoom, 21 November 2024.

 $^{^{\}rm 44}$ Interview, Muhammad, 2024, an educator, via Zoom, 21 November 2024.

⁴⁵ Interview, AbdulKabeer, 2024, a scholar and Imam, via Zoom, 25 November 2024.

⁴⁶ Interview, AbdulBasit, 2023, a scholar, via Zoom, 23 November 2024.

 $^{^{47}}$ Interview, Aminah, 2024, an educator, via Zoom, 21 December 2024.

tech-savvy youth will be needed to harness digital technology for the collective good. By improving digital literacy, promoting quality content, and fostering dialogue on ethics, Nigerian Muslim society can continue to leverage the "opportunity" that, as one participant put it, "digital technology give[s] – the opportunity of sitting at home and learning"– while safeguarding the integrity of the knowledge being transmitted.⁴⁸ These initial insights lay the groundwork for deeper interdisciplinary analysis into how the "navigating of digital frontiers" is reshaping Islamic learning, raising critical ethical questions that will demand thoughtful, context-sensitive solutions as the journey unfolds.

5 Ethical Reflections

In navigating Nigeria's new digital frontiers of Islamic learning, our findings reveal profound ethical implications. Participants celebrate greater access to knowledge yet voice concern over misinformation, eroding scholarly authority, and unequal access. These concerns echo broader debates in digital ethics and Islamic education. As one interviewee observed, the internet has emboldened many to "just come out and say whatever they like without actually going through the process" of proper learning. This democratization of voice, while empowering, risks a dilution of religious authority. Unvetted opinions can circulate widely, creating what one scholar called "pseudo scholars" – individuals who present themselves as experts without the requisite training. According to Aladodo, easy access to online resources has led some to lose "due regard to the traditional scholars,"49 mistakenly thinking that having a book or video clip means they no longer need the guidance of 'ulamā'. This pattern is ethically fraught: it not only breeds misinformation but also undermines the long-established channels of religious authority and knowledge transmission in Nigerian Muslim communities. Traditional Islamic pedagogy prizes authenticated knowledge (arab., 'ilm) and respect for scholarship, yet the digital age has introduced an ethos where "anybody can be a scholar" in their own eyes. The result, as AbdulBasit lamented, is that someone with a social media following can wield more influence than learned clerics.⁵⁰ Such a shift challenges the ethical foundation of Islamic learning, which historically relied on trust in qualified teachers and a verified chain of knowledge (arab., isnād). It raises pressing questions: How can Muslim societies discern authentic scholarship online? What mechanisms might prevent "untrained false self-acclaimed scholars" (as one survey respondent put it) from misleading the unwary? The consensus in our data leans toward greater oversight - many respondents advocated for "a committee... as a watchdog for the digital contents" and even outright removal of those who preach Islam incorrectly. This suggests a perceived responsibility to curate online religious space so that authority is earned through knowledge, not mere clicks. Balancing freedom of expression with the mandate to curb misinformation becomes a delicate ethical dance in the digital ummah.

Interpreting these findings through an ethical lens also means addressing the quality of information. The prevalence of "fake news" and religious misinformation is not just a hypothetical fear; it is a lived reality for Nigerian Muslims online. Ethno-religious tensions in Nigeria have in fact been inflamed by fake news on social media, underscoring that digital misinformation can carry real-world consequences for social cohesion. Islam's epistemic tradition strongly condemns the spread of falsehood – the Prophet Muḥammad said, "It is enough falsehood for someone to relate everything they hear". In the context of digital Islamic education, this translates into an ethical imperative for both content creators and consumers to verify information. Our

 $^{^{\}rm 48}$ Interview, Murjanatu, 2024, an educator, via Zoom, 21 November 2024.

⁴⁹ Interview, AbdulSalam, 2024, a scholar, via Zoom, 16 November 2024.

⁵⁰ Interview, AbdulBasit, 2023, a scholar, via Zoom, 23 November 2024.

interviewees stressed intentionality and vigilance: nīya should drive learners to seek authentic knowledge, not quick answers. Several participants recommended cross-checking online lessons against authoritative texts and scholars. One scholar advised that if you hear a claim from a YouTube sheikh, you should be able to say, "I verified it in a particular book," rather than basing your faith on a viral clip alone. Such practices resonate with modern concepts of information literacy - the skill set needed to "discover, evaluate, interpret, and use information properly and truthfully". Indeed, the classical Islamic emphasis on rigorous scholarship and adab in seeking knowledge foreshadow today's call for digital critical thinking. Scholars note that information literacy in Islam means assessing the authority of a source and not taking knowledge from just anyone. "Are those who know equal to those who do not know?" - a reminder that expertise matters.⁵¹ Therefore, ethically navigating digital Islamic content requires humility from learners: recognizing the limits of one's own knowledge and the fallibility of internet sources. It also demands honesty and restraint from content creators: as Aladodo put it, "it is not ethical for someone to position themselves as a scholar of Islam, when in reality they are not".52 Hence, curbing online misinformation will hinge on a community-wide commitment to authenticity – by elevating qualified voices and filtering out erroneous or unverified content. Building such an ethos of digital trustworthiness is a shared moral project for Nigerian Muslim society.

Another ethical dimension emerging from our study is the digital divide and its implications for justice and inclusion. While urban, educated Muslims enjoy unprecedented access to Islamic learning via apps, social media, and digital libraries, those in rural or underprivileged settings often remain left behind. This gap is not merely technological; it has ethical ramifications in terms of equity and communal obligation (fard kifaya) in an educational sense. Interview insights illustrated how geography and socioeconomic status mediate the benefits of digital learning. During the COVID-19 pandemic - a period that "opened our eyes" to remote learning opportunities - many madrasa teachers and students in cities seamlessly transitioned to Zoom classes and WhatsApp study circles. One participant recounted that even a teacher who traveled abroad could continue teaching his village students: "the Ustaz connects to them from Egypt... every Wednesday" for a lesson.⁵³ Such anecdotes show the promise of digital tools in bridging distances and sustaining learning under lockdowns. Yet, the same interviewee cautioned that rural communities often place less importance on digital education, simply because "what they grew up with is not the current way of teaching and learning".54 For many, traditional modes - the village mallam, the local madrasa – remain the default, and there is limited awareness or trust in online alternatives. Moreover, infrastructural challenges loom large: "poor internet connectivity" and the high cost of data were recurring refrains among survey respondents, cited as major barriers to online learning. The result is an ethical conundrum: digital Islamic resources are abundant, but not universally accessible, potentially widening knowledge gaps. Ethically, this raises the question of digital justice: how can the benefits of technology be distributed fairly within the 'umma? If one segment of society surges ahead with e-learning and virtual halaqāt, while another struggles with electricity and network issues, communal bonds and equal opportunity suffer. Addressing this requires concerted effort from multiple stakeholders. Our respondents and interviewees alike emphasized awareness and empowerment as key strategies. First, increase

هَلْ يَسْتُوي الَّذِينَ يَعْلَمُونَ وَالَّذِينَ لَا يَعْلَمُونَ ۗ إِنَّمَا يَتَذَكَّرُ أُولُو الْأَلْبَابِ 51

[&]quot;Are those who know equal to those who do not know? Only those endowed with understanding will take heed. "(Q 39:9)

⁵² Interview, AbdulSalam, 2024, a scholar, via Zoom, 16 November 2024.

⁵³ Interview, AbdulKabeer, 2024, a scholar and Imam, via Zoom, 25 November 2024.

⁵⁴ Interview, AbdulKabeer, 2024, a scholar and Imam, via Zoom, 25 November 2024.

digital literacy and outreach in underconnected regions – "give awareness [...] make them see that it is being used well," urged one educator, suggesting that success stories of online learning be showcased to skeptical parents or imams. Second, invest in infrastructure: better broadband, affordable data plans, and localized e-learning centers can alleviate the inequity (indeed, several participants called for "better internet infrastructure" or subsidized access as solutions). There is also a socio-cultural element: bridging the divide means sensitively integrating technology without undermining local Islamic traditions. In practice, this might involve training respected rural scholars to use digital platforms, thereby combining the trust they command with the tools that can broaden their reach. Ultimately, digital inclusion in Islamic education is not just a technical goal but a moral one – aligning with the Islamic principle that the path to knowledge should be open to all, rich or poor, urban or rural. A failure to strive for inclusiveness would mean consenting to an unethical two-tiered system of religious knowledge. Conversely, successfully narrowing the digital divide can rejuvenate Islamic learning in Nigeria, bringing remote communities into a shared educational sphere and fostering a more informed, united Muslim society.

A recurring theme in this research is the balance between tradition and innovation – an ethical negotiation between the time-tested methods of Islamic pedagogy and the demands of a rapidly evolving digital world. Nigerian Muslim learners and teachers are acutely aware of this tension. On one hand, there is reverence for turāth (arab., heritage): face-to-face study circles, memorization under a teacher's guidance, classical texts and commentaries - modes of learning that inculcate discipline and spirituality. On the other hand, there is excitement about the "ease and immense benefit" technology has brought, from accessing rare manuscripts online to attending lectures by scholars across the globe. Ethically, the challenge is to harness the benefits of digital tools without losing the baraka (arab., blessing) and rigor of traditional learning. Many participants advocated a complementary model, not a substitution. As one survey respondent succinctly put it, "digital technology helps in accessing information about dīn, [but it] should [...] not [be] a substitute for the traditional system of learning but rather a supplementary [tool]." Traditional Islamic education in Nigeria - whether in formal madāris or informal halagāt provides structured curricula, character training, and direct teacher-student mentorship that online platforms struggle to replicate. Even tech-savvy learners recognized this; several admitted that without the discipline of a teacher, they tend to get distracted or cherry-pick topics online. This is why scholars like AbdulBasit counsel young people to maintain a foothold in both worlds: enjoy the convenience of YouTube khutba (arab., Friday cancel speech) and Qur'an apps, but ground oneself in a real madrasa or study circle for systematic knowledge. Such balance is also reflected in institutional responses. We observed how some Nigerian Islamic schools are cautiously integrating e-learning alongside classical modes. For instance, during COVID-19, madrasa instructors adopted Zoom out of necessity, but many reverted to in-person teaching once possible, using digital tools as a supplementary aid (for homework, revision, or reaching absent students) rather than a wholesale replacement. This hybrid approach seeks to uphold ta'dīb (arab., proper discipline and etiquette in learning) – a core ethical value – even as pedagogical delivery modernizes. Scholarly literature supports this integrative strategy: studies on technology in Islamic education suggest that blending modern tools with "classical religious values such as tarbiya, ta'līm (arab.,teaching), and ta'dīb" leads to more effective outcomes. In Indonesia, for example, traditional pesantren (jav., Islamic boarding schools) found they must adapt to the "disruptive era" of digital learning while still maintaining their spiritual training methods (Ansori et al. 2022). Nigerian Muslim communities are engaging in a similar negotiation. Ethically, this calls for ijtihād (arb.; creative reasoning in Islamic jurisprudence) - finding new solutions that honor foundational principles. We see this in how teachers encourage students to use Islamic apps for memorization but still require them to recite in person for evaluation, or how online fatwa forums provide quick answers but remind users to consult local scholars for complex matters. The goal is a symbiosis: tradition provides the ethical compass and depth, while innovation offers breadth and accessibility. Far from being at odds, when aligned thoughtfully, they can reinforce each other. Indeed, many respondents "strongly agreed" that digital platforms complement rather than replace traditional learning – a stance that bodes well for ethical continuity. By consciously balancing these elements, Nigerian Muslims are crafting a model of digital Islamic learning that is anchored in authenticity and spirituality, yet open to creative growth. This balance is itself an ethical achievement, reflecting the *Qur'ānic* ideal of a community that is "ummatan wasaṭan" (arab., a global balanced Islamic community or nation) – a justly balanced nation.

In addition, the study highlights the shared responsibilities of stakeholders – educators, learners, platform providers, and religious authorities - in cultivating an ethical digital learning environment. Each has a critical role to play, and neglecting anyone can undermine the whole. Educators and Islamic scholars carry the trust (arab., amāna) of transmitting knowledge. In the digital sphere, this means they must actively guide their communities, not only by producing quality content, but by teaching media literacy from an Islamic perspective. For example, a qualified ustādh (arab., Islamic teacher) might host a webinar on how to identify reliable hadith online, or a sheikha might use her Facebook page to debunk popular religious misconceptions. By engaging with the online 'umma, traditional scholars can help sift truth from falsehood. They also set the tone in modeling adab: when users see scholars interacting online with humility and evidence-based answers (citing Qur'ān, Hadith, and classical jurists), it reinforces ethical norms for discourse. Educators should encourage critical thinking, reminding students that not everything on an Islamic website or app is automatically correct. As one respondent suggested, "learners should cross-reference information with multiple credible sources" and refer back to "right scholars in order to avoid misinform[ation]."55 This advice mirrors classical Islamic practice, where students would verify new ideas with their teacher or consult additional references before accepting them. Learners, for their part, must exercise discipline and sincerity online. One interviewee recommended time management as a guardrail: allocate specific periods for Islamic study online and avoid aimless scrolling.⁵⁶ This addresses both information overload and the risk of digital addiction. Indeed, when faith-driven curiosity slides into compulsive online behavior, it becomes an ethical problem - diverting one from reflection or duties. Many young Nigerians admitted struggling with distraction: "I tend to waste more time browsing through than actually learning," one said, noting how social media's mix of content can derail even religious intentions. To combat this, some create curated feeds – following only scholars and educational pages – so that their digital space is more ethically aligned with their learning goals. Learners also have a duty to verify before believing and especially before forwarding any religious message. The Yaqeen Institute stresses that with today's torrents of data, "it is possible for a person to have access to all kinds of misinformation...creating the illusion of knowledge", which Islam would deem jahl murakkab (arab., compounded ignorance).57 Thus, an ethical learner is one who pauses before clicking "Share" on that sensational Islamic story or fatwa, asking: Is this authentic? Did I consult someone knowledgeable? This self-regulation at the individual level is perhaps the first line of defense against digital *fitna* (arab., trials) in knowledge.

Platform providers and regulators also shoulder significant responsibility. Digital companies hosting Islamic content – from global giants like YouTube and Facebook to local Nigerian apps – influence what information spreads and how users encounter it. Ethically, these platforms are

 $^{^{55}}$ Interview, Abdul
Basit, 2023, a scholar, via Zoom, 23 November 2024.

⁵⁶ Interview, Barakat, 2024, a student, via Zoom, 17 November 2024.

⁵⁷ Interview, AbdulKabeer, 2024, a scholar and Imam, via Zoom, 25 November 2024.

called to greater accountability in moderating harmful content. Just as they have (imperfectly) tried to police hate speech and extremist propaganda, they might collaborate with religious authorities to flag or down-rank egregious misinformation about Islam. For instance, if a video falsely claims a halal practice is haram (or vice versa), it can misguide thousands. Some respondents went so far as to urge that "unauthentic lectures should be regulated" or even removed.58 The idea of a verification badge for qualified scholars was floated - akin to how medical or legal advice sites ensure contributors have proper credentials. However, implementing such measures raises complex questions: Who decides what counts as "authentic" Islam? Nigeria's Muslim community is diverse (Sunni, Shia, various Sufi orders, Salafi movements, etc.), and what is seen as authoritative in one circle might be contested in another. Any regulatory framework must therefore be inclusive and wise, perhaps focusing on clear red lines (like blatantly fabricated hadith, extremist incitement, or malicious distortion of scripture) while allowing healthy theological diversity. Many participants agreed that religious authorities should have a hand in regulation - in fact, survey data showed an overwhelming majority "agree" or "strongly agree" that online Islamic content should be overseen by trusted scholars or institutions.⁵⁹ This suggests a public appetite for some form of digital hisba (arab., ethical oversight). Already, governments have tried to step in; the Nigerian state, concerned by online hate speech and fake news, has considered regulations on social media use. Yet top-down censorship can be a double-edged sword, potentially stifling legitimate scholarship or silencing minority voices. A more viable path may be self-regulation bolstered by community pressure: encouraging Muslim organizations, councils of 'ulama', and even popular preachers to collectively endorse standards for online teaching. For example, an umbrella body could publish guidelines for ethical digital da'wa emphasizing transparency (citing sources), humility (avoiding personal attacks and sensationalism), and accountability (welcoming correction). Platforms could then incorporate these guidelines by offering training or tools for compliance. Crucially, maintaining ethical standards in digital Islamic education is a shared endeavor. We often observed a chain of mutual expectations: scholars hoped students would be more discerning; students wished scholars and platforms would provide clearer guidance; and both expected the community to support a culture of learning rather than viral entertainment. When each link in this chain assumes its responsibility, the result is a virtuous cycle: accurate knowledge spreads, bad information is marginalized, and the integrity of Islamic learning is preserved even as it traverses new digital landscapes.

6 Discussion

The findings from this preliminary exploration underscore a complex interplay of increased accessibility, pedagogical innovation, and emergent ethical challenges in the digital transformation of Islamic learning in Nigeria. Participants across surveys and interviews consistently noted that digital tools have dramatically expanded access to Islamic knowledge. Many respondents described the online sphere as a leveler, enabling those previously constrained by geography or schedule to engage with religious education. For instance, one survey respondent highlighted those digital platforms "have given access to further research on some contemporary issues and served as an eye-opener," allowing even individuals who "couldn't stay in class or take Arabic due to their schedule" to learn remotely. Such testimonies echo a broader trend in Islamic education: technology is eroding traditional barriers to knowledge.

 $^{^{58}}$ Interview, Abdul Salam, 2024, a scholar, via Zoom, 16 November 2024.

⁵⁹ Author's survey of 512 Nigerian Muslims conducted June-September 2024.

⁶⁰ Interview, Murjanatu, 2024, an educator, via Zoom, 21 November 2024. *University of Bayreuth African Studies Working Papers (LIX)*

In Nigeria's context, this increased accessibility carries significant implications for educational policy and practice. Policymakers and religious educators are increasingly pressed to recognize online Islamic learning as a legitimate complement to traditional madāris and halaqāt. Indeed, a majority of participants agreed that digital resources complement rather than replace classical modes of learning, stressing the need for balance between the two.61 Educational authorities might therefore consider formalizing a blended learning framework – integrating digital content into curricula while preserving face-to-face mentorship. Such integration would require proactive measures at the policy level. Participants frequently pointed to infrastructural and regulatory gaps that must be addressed for digital learning to reach its full potential. Recurrent issues such as poor internet connectivity and high data costs were cited as everyday hindrances, suggesting that without improvements in Nigeria's ICT infrastructure, the promise of democratized Islamic education will remain uneven. As one interviewee from Borno State noted, "we have poor network services [...] in most cases the network [is] the first challenge" when attempting to attend online classes, a problem compounded by the expense of mobile data.⁶² These on-the-ground insights indicate that policy adjustments are necessary to bridge the digital divide in religious education – especially between urban centers (where most respondents reside) and more remote or impoverished regions.

A critical policy implication is the need for investment in digital infrastructure and affordable internet access as foundational support for online learning. Governmental and private stakeholders in Nigeria's education and telecommunications sectors should collaborate to improve broadband penetration in rural areas and subsidize data costs for educational usage. In addition, interview narratives revealed that device access and digital literacy are pertinent factors: even where internet is available, not all learners have reliable devices or the know-how to update and use educational apps effectively.63 This calls for practical interventions such as community digital literacy programs and perhaps initiatives to equip Islamic schools and centers with necessary hardware. Some participants suggested that local mosques and Islamic organizations could serve as digital hubs - spaces with internet and computers where students can access vetted Islamic courses. Beyond infrastructure, capacity building for educators emerged as a theme. Survey comments and interviews highlighted how teachers and Imams often need training to effectively use digital tools.⁶⁴ This aligns with observations in other Muslim societies: for example, in Indonesia, a qualitative evaluation found that successful e-learning in Islamic education hinges on teacher preparedness and support, noting that adequate training and sensitivity to traditional values are key to successful implementation (Saepudin 2022). Nigerian educational authorities, possibly in partnership with Islamic universities and institutes, could develop training modules to help religious instructors blend traditional pedagogy with technology.

At the same time, the data point to a burgeoning need for regulatory frameworks and ethical guidelines in digital Islamic spaces. With the flood of information online, concerns about content authenticity, misinformation, and the dilution of scholarly authority were strongly voiced. One interviewee lamented that in the age of social media, "anybody can just come out and say whatever they like without actually going through the [proper] process", leading to a breakdown of

⁶¹ Author's survey of 512 Nigerian Muslims conducted June-September 2024.

⁶² Interview, Murjanatu, 2024, an educator, via Zoom, 21 November 2024.

⁶³ Interview, Muhammad, 2024, an educator, via Zoom, 21 November 2024.

⁶⁴ Author's survey of 512 Nigerian Muslims conducted June-September 2024.

traditional knowledge authority.65 He observed that Islamic knowledge, once guarded by qualified Islamic scholars is now often overshadowed by charismatic online personalities: "somebody with 10,000 subscribers on YouTube [...] begins to have an opinion about things that are supposed to be studied properly," effectively usurping scholarly roles. 66 Such reflections underscore a key ethical tension of the digital frontier - open access vs. authoritative knowledge. To address this, many participants advocated for greater involvement of reputable religious authorities in the online realm. In the survey, a considerable number agreed that official bodies should play a role in regulating online Islamic content, and respondents suggested solutions like "guidelines on how to operate some digital tools to avoid issues" and even calls to "ban fake scholars who preach Islam the wrong way".67 While outright censorship is neither feasible nor desirable in an open internet, these perspectives point to a demand for quality control mechanisms – perhaps a form of digital accreditation or a content verification system endorsed by credible scholars. Nigerian Islamic organizations (such as national Figh academies or educational boards) could develop white-listing of trustworthy e-learning platforms, certification for online teachers, or collaborative oversight committees to monitor egregious misinformation. There is already some precedent for this: one interviewee noted that in certain northern Nigerian states operating under Sharia, local authorities have instituted forms of content oversight, hinting that "regulations are in place [...] in states where Sharia is in place" as a means to curb religious misinformation.⁶⁸ Learning from such localized models, a broader policy framework could involve Nigeria's inter-religious councils and tech regulators (like NITDA) working together to enforce transparency from platforms and to swiftly flag or rebut misleading religious content. Importantly, any regulatory approach must be carefully balanced to respect free expression and intra-Islamic diversity; the aim would be to empower users with discernment tools rather than impose blanket censorship. On this front, participants themselves reported using strategies to verify information – from consulting multiple sources to cross-checking with trusted scholars- indicating that digital literacy and critical thinking should be core components of Islamic e-learning initiatives.⁶⁹

Broadening the lens beyond Nigeria, these findings resonate with global trends in digital religious education and highlight lessons from other contexts. Around the Muslim world, the integration of technology into religious learning has become a widespread phenomenon, accelerated in part by necessity during events like the COVID-19 pandemic. The global pandemic of 2020-2021 forced religious instruction online across faith communities – churches live-streamed services, synagogues and temples held virtual gatherings, and "Muslims gathered remotely on Zoom for the month of Ramadan", greatly amplifying prior experiments with digital worship and learning (Sutton 2020). This episode demonstrated both the feasibility and the challenges of digital religious engagement at scale. One clear parallel to Nigeria's experience is the universal boost in accessibility: digital Islamic education has made knowledge reachable to remote and underserved communities worldwide. In Indonesia, home to the world's largest Muslim population, online platforms and virtual *ustādh* have allowed students in far-flung islands to receive instruction without the need to relocate, significantly reducing financial and geographic barriers (*Qur'ān* Guest n.d.). Similarly, a study of online Islamic education in remote Australian Muslim communities found that it fostered a sense of inclusion previously lacking (Sutton 2020). The

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⁶⁵ Interview, AbdulKabeer, 2024

⁶⁶ Interview, AbdulKabeer, 2024

⁶⁷ Interview, AbdulBasit, 2023

⁶⁸ Interview, AbdulSalam, 2024, 2024, a scholar, via Zoom, 16 November 2024.

⁶⁹ Author's survey of 512 Nigerian Muslims conducted June-September 2024.

Nigerian respondents' appreciation for the convenience and diversity of online content reflects this global pattern of enhanced inclusivity. Notably, digital learning has particularly benefited groups often marginalized in traditional settings - for example, women and converts. Several female participants in our study indicated that online classes and resources afforded them opportunities to learn that might not have been available through conventional avenues, a trend mirrored in other Muslim societies. Survey responses suggested a perception that internet-based learning is more accessible to women compared to some traditional madāris, provided that gender-sensitive content and community norms are upheld. While classical Islamic education does not distinguish content by gender, local cultural practices in some Nigerian communities restrict women's participation in mixed-gender *madāris*. Internet-based learning platforms can therefore offer women more consistent access—provided that gender-sensitive content and community norms are respected—by enabling private, at-home study that circumvents these social barriers. Case studies from the Middle East and South Asia likewise report that women have leveraged online anonymity and flexibility to partake in religious education from home, gently circumventing certain cultural constraints (Sanyal 2020; Charles et al. 2023). This points to a powerful policy insight on a global level: digital platforms, if managed prudently, can promote greater gender equity in religious education. Educational policymakers in Nigeria could draw on these international experiences by developing online curricula that are inclusive and by encouraging female scholarship in digital spaces – for instance, training more female Islamic educators to teach via webinars or creating forums for women learners.

Another global commonality is the tension between innovation and tradition. Across the Muslim world, scholars are grappling with how to preserve the sanctity of Islamic learning while embracing the advantages of technology (Yuliati et al. 2024; Quran Guest n.d.). The Nigerian interviews echoed sentiments heard in places as different as Malaysia and the UK: elders worry that the ease of the internet can lead to diluted learning (students skipping foundational knowledge), while youth celebrate the democratization of knowledge and the interactive, multimedia learning experiences now available (Bunt 2003). In European Muslim communities, for example, researchers have noted that "digital native" Muslims are more likely than older generations to value YouTube as a source of Islamic knowledge over the local mosque (Volpi 2024). This generational shift, also observable in Nigerian urban centers, underscores the need for religious institutions to adapt. Some global success stories offer blueprints: Singapore's Madrasah Al-Irsyad and the International Islamic University Malaysia (IIUM) are often cited as pioneers in blending tech with Islamic pedagogy. Madrasah Al-Irsyad has integrated digital technology into all aspects of its learning (using learning management systems, tablet-based curricula, etc.) without compromising core religious values, and IIUM has similarly invested in online learning platforms for its programs (Yuliati et al. 2024). These institutions succeeded in large part due to strong support and vision – they benefited from what observers call a "synergy between educational institutions and government support", ensuring that infrastructure, training, and content development moved in lockstep (Yuliati et al. 2024). Their example illustrates that digital Islamic education can flourish under deliberate governance: when governments provide the necessary broadband infrastructure and policy backing, and when educators are prepared to innovate, the outcomes can be transformative. Indeed, progressive policies like Indonesia's national e-learning madrasa initiative and the United Arab Emirates' Smart Learning program show that high-level collaboration can "accelerate the digital transformation of Islamic education, provide wider access for students, and improve quality" (Yuliati et al. 2024). Nigeria can glean valuable lessons here – a coordinated approach involving federal educational authorities, Islamic councils, and technology partners could significantly upscale the integration of digital tools in Islamic schools nationwide. It will be important, however, to tailor any borrowed strategies to local realities; for instance, while Singapore's model thrives in a highly urban, well-resourced context, Nigeria's policy must address its vast socio-economic disparities and linguistic diversity. Still, the underlying principle holds: with robust policy support, digital integration in religious education can be achieved without eroding the essence of the tradition, a finding consistently emphasized in global scholarship (Yuliati et al. 2024).

Despite the rich insights gained, it is essential to acknowledge that our study's findings are preliminary and come with limitations. First, the sample - both in surveys and interviews - is relatively narrow. Respondents skewed toward younger, urban, and educated Nigerian Muslims, a demographic most likely to be already engaged online. Rural perspectives and those of older generations or less educated community members were underrepresented, as evidenced by the survey's dominance of urban, degree-holding participants in the 18–35 age range. This bias means the results may paint an overly optimistic picture of digital access and fluency; in reality, segments of Nigerian Muslim society (especially in rural northern regions) still face significant barriers to internet use and may harbor different attitudes toward digital learning. Future research should strive for a more representative sample, possibly through stratified sampling that includes rural madrasas, older clerics, and traditional Qur'anic school students. Second, the research primarily relied on self-reported data - subjective perceptions of impact, quality, and usage which can be prone to personal bias. Participants enthusiastic about technology may overstate the benefits, while those with negative experiences might emphasize the drawbacks. A mixed-method approach in subsequent studies could mitigate this: for example, complementing interviews with direct observations of how digital tools are used in Islamic classes, or analyzing web analytics from popular Nigerian Islamic websites to gauge actual engagement levels. Third, the crosssectional nature of our study offers a snapshot in time but cannot capture evolving trends. Digital technology is a fast-moving frontier; attitudes and usage patterns might change rapidly with new platforms (for instance, the emergence of AI chatbots for fatwa advice or virtual reality mosque tours could introduce entirely new ethical questions). Longitudinal studies would be valuable to observe how digital Islamic learning practices mature over time - do initial concerns about authenticity lessen as communities develop better filters, or do new challenges emerge as technology advances? Moreover, our focus on Nigeria invites comparative research. While we drew parallels with global trends qualitatively, a systematic comparative study - say, between Nigeria and another Muslim-majority country with high digital uptake (like Indonesia or Malaysia) – could pinpoint unique cultural factors or policy differences that shape outcomes in each context.

In terms of methodology, future investigations might also improve by incorporating quantitative metrics of learning outcomes. An open question remains as to how digital learning compares with traditional learning in terms of knowledge retention, understanding, and spiritual impact. Some respondents opined on the quality of online Islamic content, with opinions ranging from those who rated it "very high" to others who felt it was inferior to traditional instruction. Empirical testing – for example, comparing exam performance or comprehension in students who learned via an Islamic app versus those who learned the same material in person – would provide evidence to either substantiate or allay the quality concerns. In addition, further research could delve deeper into the phenomenon of "digital addiction" mentioned by a few participants. While a minority admitted to experiencing distraction or excessive screen time in the course of Islamic learning, it flags a broader issue of maintaining purposeful use of technology. Ethnographic studies could explore how learners balance the wealth of online information with focused study, and what coping strategies or community norms help mitigate the risks of information overload, distraction, or even exposure to extremist content. Addressing such questions will be crucial for developing a holistic approach to digital ethics in Islamic education – one that not only maximizes access and engagement but also safeguards the spiritual and mental well-being of learners.

7 Conclusion

The transition to digital frontiers in Islamic learning is both promising and precarious. On one hand, the democratization of knowledge through the internet aligns well with famous hadith to seek knowledge "even if it be in China" - it has never been easier for a determined student in Nigeria to learn from scholars around the globe, access classical texts at the click of a button, or participate in worldwide devotional webinars. Our study highlights that Nigerian Muslims are already seizing these opportunities, using everything from YouTube lectures to dedicated prayer apps in pursuit of religious learning. On the other hand, this newfound ease of access brings challenges that require thoughtful response: ensuring authenticity and authority in an age of usergenerated content, extending digital benefits to those currently left behind, and integrating new modes of learning without undermining the cherished teacher-student relationships and ethical frameworks that Islamic education has long valued. The implications for policy and practice in Nigeria are thus multifaceted – calling for investment in infrastructure, development of guidelines and training, and perhaps the creation of new institutions (such as an online Islamic learning certification body) to navigate these challenges. Comparisons with global trends reveal that Nigeria is not alone in this journey; from Southeast Asia to Europe, Muslim communities are negotiating similar terrain, and international best practices (like strong government-educator partnerships and clear digital strategies) can offer valuable guidance. Finally, by recognizing the limitations of the current research, we underscore that our ethical reflections are but an initial foray. They open up numerous avenues for deeper inquiry into how digital technology can be harnessed for the betterment of Islamic learning. Such inquiry is inherently interdisciplinary sitting at the nexus of theology, education, technology policy, and sociology - and it will benefit from scholars and practitioners in all these fields working in concert. The evolving narrative of "navigating digital frontiers" in Islamic education is, in effect, a story of adaptation: how an ancient religious tradition adapts to modern tools, and conversely, how these tools are adapted to honor and enhance that tradition. By continuing to study this evolution with rigor and empathy, stakeholders can ensure that the digital future of Islamic learning remains both ethically grounded and profoundly enriching for learners in Nigeria and beyond.

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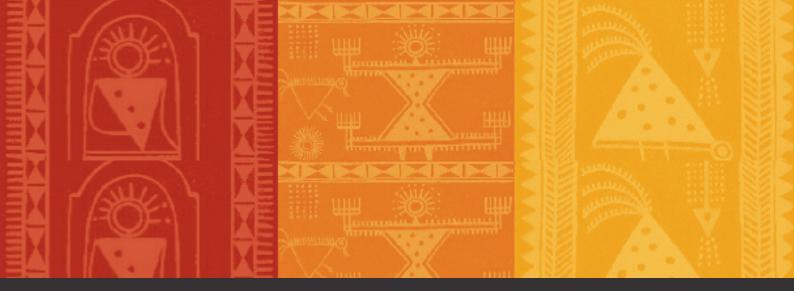
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