

Algorithmic Ulama: Generative AI, Religious Authority, and the Reconfiguration of *Da'wah* Communication Ethics in Indonesian Islam

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Abstract

Objective: This study aims to examine how generative artificial intelligence (AI) is transforming religious authority and *da'wah* (Islamic propagation) communication ethics in Indonesia, the country with the world's largest Muslim population. Specifically, it seeks to analyze the implications of AI for the production, circulation, and legitimacy of religious knowledge and guidance within the Indonesian Islamic public sphere. **Method:** The study employed a systematic literature review (SLR) guided by the PRISMA 2020 protocol. Forty peer-reviewed and Scopus-indexed sources published predominantly between 2021 and 2026 were analyzed using thematic synthesis. The review focused on five analytical domains: institutional AI adoption within Nahdlatul Ulama and Muhammadiyah, the epistemic reliability of AI-generated religious guidance, algorithmic mediation and fragmentation of religious authority, ethical tensions in AI-mediated *da'wah* communication, and comparative global perspectives on digital Islamic authority. **Results:** The findings indicate that generative AI simultaneously functions as an enabling and destabilizing force in Indonesian Islamic communication. On the one hand, AI enhances the reach, personalization, and efficiency of *da'wah* communication. On the other hand, it destabilizes the traditional *isnad*-based model of religious legitimacy, introduces risks of misattribution and doctrinal oversimplification, and creates new forms of algorithmically mediated religious influence operating outside conventional institutional accountability structures. The study further identifies a significant asymmetry between the rapid pace of AI adoption and the comparatively slow development of ethical and regulatory frameworks governing AI-mediated religious communication. **Conclusion:** This study proposes the concept of the *algorithmic ulama* to describe the emerging hybrid configuration of human and machinic religious authority, and develops a preliminary ethical framework for AI-mediated *da'wah* grounded in Islamic communication ethics (*akhlaq al-i'lam*) and mediatization theory. It contributes a theoretically integrated, context-specific account of AI's implications for Islamic communication scholarship and offers practical recommendations for religious institutions, media regulators, and communication educators in Indonesia.

Keywords: Algorithmic Authority; Artificial Intelligence; *Da'wah* Communication; Islamic Communication Ethics; Religious Authority.

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Introduction

Indonesia is home to the largest Muslim population in the world, and its religious public sphere has historically been shaped by two major socio-religious organizations, Nahdlatul Ulama (NU) and Muhammadiyah, alongside a dense ecosystem of *pesantren*, *majelis taklim*, and independent preachers. Over the past decade, this public

sphere has undergone a profound process of mediatization, whereby religious authority that was once transmitted primarily through face-to-face pedagogy, sanad (chains of transmission), and institutional certification has increasingly migrated to digital platforms (Campbell, 2012; Slama, 2018). The COVID-19 pandemic further accelerated this transformation, shifting congregational worship, religious instruction, and *da'wah* (Islamic propagation and communication) activities onto platforms such as YouTube, Instagram, TikTok, and WhatsApp (Simamora & Farid, 2024; Tijani & Banyal, 2024). Consequently, digital media have become not merely channels for religious dissemination, but constitutive spaces in which religious meaning, legitimacy, and authority are increasingly negotiated.

More recently, a second and arguably more consequential transformation has emerged: the integration of generative artificial intelligence (AI) into the production, translation, and dissemination of religious content. Indonesian Islamic organizations have begun experimenting with AI-based tools for internal administration, cadre training, and content generation. Nahdlatul Ulama, for example, has piloted platforms such as Siskader, Kitab AI, and sentiment-analysis systems, while Muhammadiyah has developed AI-based customer-service tools and organizational assessment instruments (Nada-Qisthina & Musyafak, 2025). At the same time, a proliferation of independent Islamic chatbots, AI-generated fatwa-style answers, and algorithmically curated devotional content has emerged outside formal institutional oversight (Ahmed, 2024; Munshi et al., 2022). This dual trajectory, institutional experimentation on the one hand and unregulated proliferation on the other, raises urgent questions for the field of Islamic communication: what happens to religious authority when the production of religious speech is partially delegated to statistical language models trained on heterogeneous and largely uncensored corpora?

The implications of this question are not merely technical, but deeply communicative and ethical. *Da'wah* has traditionally been understood not simply as the transmission of religious information, but as an ethically bounded communicative practice governed by principles such as *qawlan sadidan* (truthful speech), *qawlan balighan* (effective yet honest speech), and accountability to a living chain of religious authority (isnad). Generative AI systems, by contrast, are capable of producing fluent religious-sounding text without possessing the epistemic scaffolding, hermeneutic training, or moral accountability that has traditionally legitimized religious speech in Islam. Recent empirical evaluations of Islamic chatbots reveal recurring problems, including the misattribution of Quranic verses and hadith, the oversimplification of complex juristic positions, and inconsistent responses to ostensibly similar questions.

Other studies have documented persistent anti-Muslim bias embedded in large language models more broadly (Abid et al., 2021), thereby intensifying concerns regarding the epistemic and representational risks of AI-mediated religious communication.

Despite the growing body of international scholarship on AI and religion (AlMazaedh et al., 2026; Astor et al., 2024; Andok, 2024), and a parallel body of Indonesian-language scholarship on digital *da'wah* (Nadia & Rifa'i, 2025; Srigita & Rifa'i, 2025), a significant research gap remains. Few studies have integrated these two strands of literature into a single, theoretically coherent account of how generative AI reconfigures religious authority and communication ethics within the Indonesian Islamic public sphere. Existing Indonesian scholarship has tended to be descriptive, focusing on isolated case studies of particular platforms or organizations, while much of the international literature on algorithmic religious authority has been developed primarily within Christian, Jewish, or generic digital-religion contexts (Blackmer, 2024; Dein & Watts, 2023; Febrian, 2024), with limited attention to the distinctive epistemic architecture of Islamic religious authority grounded in *isnad*, *ijtihad*, and *usul al-fiqh*.

This article addresses that gap through a systematic literature review synthesizing recent Scopus-indexed and peer-reviewed scholarship published predominantly between 2021 and 2026 on generative AI, digital religious authority, and Islamic *da'wah* communication, with particular attention to the Indonesian context. The review is guided by three research questions: (1) How are Indonesian Islamic organizations and independent religious actors currently adopting and deploying generative AI in *da'wah* communication? (2) In what ways does algorithmic mediation reshape the structure and legitimacy of religious authority in Islamic communication? and (3) What ethical tensions emerge from AI-mediated *da'wah*, and how might these tensions be theorized and addressed within an Islamic communication ethics framework?

In answering these questions, this article develops the concept of the “algorithmic ulama,” understood as a hybrid and distributed configuration of human religious authority and machinic content generation. This concept serves as a heuristic framework for understanding the emergent relationship between generative AI and Islamic religious communication in Indonesia. The novelty of this study lies in its theoretical synthesis, which integrates mediatization theory, algorithmic authority theory, and Islamic communication ethics into a single analytical framework specifically tailored to the Indonesian Islamic public sphere. By doing so, the article contributes not only to the growing scholarship on digital religion and AI, but also to

the development of Islamic communication studies by providing a normative and epistemic framework for evaluating the opportunities and risks of AI-mediated *da'wah*.

Method

This study employed a systematic literature review (SLR) guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) protocol. The SLR approach was selected because the rapidly evolving relationship between generative AI and Islamic religious authority is best examined through the systematic synthesis of an emerging and geographically dispersed body of scholarship, rather than through premature primary data collection. Literature was identified through structured searches of Scopus, Web of Science, and supplementary academic search platforms, including Google Scholar, DOAJ, and publisher databases such as Springer, Taylor & Francis, Emerald, Brill, and MDPI, consistent with the multi-database strategy recommended for interdisciplinary religion-and-technology reviews (AlMazaedh et al., 2026). Search strings combined three concept clusters using Boolean operators: technology terms ("artificial intelligence" OR "generative AI" OR "chatbot" OR "large language model" OR "algorithm*"), religious communication terms ("da'wah" OR "dakwah" OR "Islamic communication" OR "fatwa" OR "religious authority"), and contextual terms ("Indonesia" OR "Muslim" OR "Islam*"). Searches were limited to English- and Indonesian-language publications from 2020 to 2026, covering the period in which generative AI tools became widely accessible following the public release of large-scale language models.

Sources were included if they were published in peer-reviewed journals, edited academic volumes, or Scopus-indexed conference proceedings; addressed the intersection of digital technology or artificial intelligence with Islamic religious authority, *da'wah* communication, or religious communication ethics; and were published between 2020 and 2026, with priority given to recent scholarship from 2021 to 2026. Foundational theoretical works predating this period, including Hirschkind (2006), Eickelman and Anderson (2003), Bunt (2009), and Hjarvard (2013), were retained when they provided indispensable conceptual grounding that remains actively cited in contemporary scholarship. Non-peer-reviewed opinion pieces, duplicate publications, and sources lacking substantive relevance to religious authority, *da'wah*, or Islamic communication ethics were excluded.

Following PRISMA guidance, the review proceeded through identification, screening, eligibility assessment, and inclusion. Records retrieved from the databases were exported and de-duplicated by title, author, and DOI. Titles and abstracts were screened against the inclusion criteria, after which the remaining full texts were assessed for thematic relevance to the study's research questions and the quality of their engagement with AI, digital religious authority, or *da'wah* ethics. Sources discussing digital religion broadly without addressing AI, algorithmic mediation, or Indonesian *da'wah* communication were excluded. The final corpus comprised forty sources, including Indonesia-specific empirical and conceptual studies of *da'wah*, digital religious organization, and Islamic communication ethics; international scholarship on digital religion, algorithmic authority, and AI-religion intersections; and foundational works in mediatization, digital religion, and Islamic communication ethics (Campbell, 2012; Hjarvard, 2013; Hirschkind, 2006; Bunt, 2009, 2018; Eickelman & Anderson, 2003). Approximately eighty percent of the corpus was published between 2021 and 2026, ensuring that the synthesis prioritized recent Scopus-indexed evidence while retaining a limited number of essential theoretical anchors.

The included sources were analyzed using thematic synthesis through line-by-line coding, the development of descriptive themes, and the generation of analytical themes. Coding was conducted both deductively, based on the study's theoretical framework of mediatization, algorithmic authority, and Islamic communication ethics, and inductively, allowing additional themes to emerge from the corpus. This process produced five thematic domains presented in the results section: institutional AI adoption patterns, epistemic reliability of AI-generated religious guidance, algorithmic mediation and fragmentation of authority, ethical tensions in AI-mediated *da'wah*, and comparative global perspectives. As this study was based exclusively on published literature, no human participants, interviews, or original datasets were involved; all findings are derived from and attributed to the cited secondary sources.

Result and Discussion

The synthesis of the reviewed literature reveals that generative AI has begun to reshape the Indonesian Islamic communication landscape through multiple interconnected dimensions. The findings are organized into five thematic domains that emerged from the coding process, namely institutional AI adoption, epistemic reliability of AI-generated religious guidance, algorithmic mediation and the fragmentation of religious authority, ethical tensions in AI-mediated *da'wah*

communication, and comparative global perspectives. Together, these themes demonstrate that the integration of generative AI into Islamic communication is not merely a technological development, but also an epistemic, ethical, and institutional transformation.

Patterns of AI Adoption in Indonesian Islamic Organizations

The reviewed literature demonstrates that Indonesia's two largest Islamic organizations have adopted distinct yet parallel strategies for integrating artificial intelligence into their institutional and communicative practices. Nada-Qisthina and Musyafak (2025) report that Nahdlatul Ulama has implemented AI through platforms such as Siskader, a cadre-management system; Kitab AI, a tool designed for searching classical Islamic texts; and AI-based sentiment-analysis systems. Muhammadiyah, by contrast, has developed instruments including ChatGPT-based services, a Goal Align Assessment system, and AI-driven customer-service applications. Both organizations frame these initiatives within the dual imperatives of institutional modernization and the projection of a progressive organizational identity to younger, digitally native cadres. Nevertheless, the same study identifies substantial obstacles to deeper AI integration, including limited financial resources, inadequate computational infrastructure, and extensive staff-training requirements. These findings suggest that institutional AI adoption in Indonesia remains uneven and is constrained more by resource asymmetries than by ideological resistance alone.

This pattern aligns with earlier scholarship on NU's broader trajectory of digital adaptation. Haq (2020) and Tijani and Banyal (2024) describe NU's historical movement from an initial ambivalence toward internet technology, rooted in its self-identification as a traditionalist rather than anti-modern organization, toward a more confident digital repositioning. This repositioning has included the strategic use of digital platforms for deradicalization messaging, organizational activism, and the expansion of its public religious presence. Murharyana et al. (2024) likewise find that NU's *da'wah* apparatus increasingly privileges digital platforms as a means of preserving doctrinal continuity while responding to generational and technological change. However, they also note that this strategy is complicated by the growing competitive pressure posed by independent digital preachers and, increasingly, AI-generated religious content.

Firdaus et al. (2025) extend this discussion by comparing traditionalist and modernist Muslim community perspectives on AI in Indonesia. Their findings reveal a shared ambivalence: both communities acknowledge AI's potential to expand the reach of *da'wah*, yet simultaneously express concern regarding its implications for

interpretive authority. This concern echoes the position articulated during the 2023 Nahdlatul Ulama National Congress (*Munas*), which affirmed that consulting AI is permissible, while rejecting its use as a binding source of religious guidance.

Beyond these two major organizations, the reviewed corpus documents a diverse range of independent and grassroots AI-related *da'wah* initiatives. These initiatives encompass AI-assisted content production on Instagram and YouTube (Achmad et al., 2023), as well as AI-supported translation and dissemination tools designed to facilitate cross-linguistic *da'wah* expansion. Qisthina and Musyafak (2025) further observe that the use of religious applications in Indonesia is increasingly shaped by AI-driven personalization, which tailors devotional content, reminders, and recommended teachers to individual user behavior. While this personalization enhances user engagement and broadens access to religious resources, it also raises significant concerns regarding the concentration of algorithmic authority and the potential narrowing of users' exposure to diverse religious perspectives.

Epistemic Reliability of AI-Generated Religious Guidance

A recurring and consequential finding across the reviewed literature concerns the epistemic reliability of AI-generated religious content, particularly fatwa-style outputs. Systematic evaluations of Islamic chatbots using structured assessment frameworks (cognitive-level analysis, doctrinal accuracy checks against Ahl al-hadith and *Ahl al-ra'y* perspectives, and hallucination-risk assessment) found substantial performance variability, with recurring problems including misattribution of Quranic verses and hadith, oversimplification of complex juristic positions, and inconsistent answers to substantively similar questions; critically, none of the evaluated systems met a "trusted educational output" threshold. Ahmed (2024) similarly concludes that while AI-powered chatbots offer accessibility, consistency, and scalability advantages for fatwa-seeking, particularly for geographically remote populations, they lack the interpretive apparatus (*ijtihad*) and moral accountability historically vested in the mufti.

Munshi et al. (2022) approached this problem from the engineering side, developing and testing an automated system for generating Islamic legal opinions, and found that while natural language generation techniques can produce plausible juristic-style text, ensuring doctrinal fidelity and methodological transparency (i.e., making the underlying *usul al-fiqh* reasoning visible and auditable) remains a substantial technical and epistemological challenge. This technical finding aligns with the broader concern, raised by Abid et al. (2021), that large language models can

encode persistent biases, including anti-Muslim bias, in their training data and outputs, which is particularly consequential when such models are deployed to generate content purporting to represent Islamic teachings to Muslim and non-Muslim audiences alike.

The Nahdlatul Ulama Bahsul Masail (deliberative jurisprudence forum) has itself engaged directly with this question, examining ChatGPT-generated responses to religious-moderation questions through qualitative-comparative textual analysis; while the study found that the tested AI responses did not indicate answers leading toward intolerant or radical positions, it stopped short of endorsing AI outputs as authoritative guidance, reflecting institutional caution about the boundary between AI as a supplementary research tool and AI as a source of binding religious authority (Wibowo & Triadi, 2025).

Algorithmic Mediation and the Fragmentation of Religious Authority

A third theme concerns how algorithmic mediation, independent of any single AI system's accuracy, restructures the field of religious authority itself. Astor et al. (2024) argue that digital anonymity and algorithmic curation allow religious voices to gain influence through platform-native communicative skill and reach rather than traditional scholarly credentialing, a dynamic they term “digital Islamic authority”. Andok (2024) similarly finds that online media measurably impacts religious authority by diversifying the pool of recognized religious voices and by making that recognition increasingly contingent on platform metrics (views, shares, algorithmic recommendation) rather than institutional endorsement. Febrian (2024) documents this concretely in the case of religious influencers on Instagram, finding that visual aesthetics, editing quality, and platform-native performance strategies are now central to how religious authority is constructed and perceived, a process AlMzaedh et al. (2026) describe more broadly as the production of “visual piety”, wherein sacred meaning is communicated through media form as much as theological content.

Wael and Abdelgalil (2025) extend this analysis to explicitly consider digital Islamic authority and Muslim identity construction, finding that platform architectures increasingly determine which religious interpretations circulate widely, independent of their scholarly grounding. Fikri et al. (2024) illustrate the contested nature of this dynamic through a case study of online fatwas attributed to prominent scholars (Ali Jum’ah and Yusuf al-Qaradawi), finding that social media circulation can both amplify and distort scholarly positions, as fragments of longer juristic reasoning are decontextualized and recirculated. Hakim and Mukhlis (2023) summarize this

broader pattern as the “fragmentation and contestation” of religious authority in cyberspace, a fragmentation that this review finds is intensified, not merely continued, by generative AI, because AI systems can synthesize authoritative-sounding religious text on demand, without the delay, cost, or accountability associated with human scholarly production. Amin (2025) documents a related mechanism, showing that social media algorithms themselves shape which Islamic narratives gain visibility, independent of their doctrinal accuracy or the credentials of their source, a finding directly relevant to understanding how AI-generated content interacts with existing platform recommendation systems to further amplify certain religious framings over others.

Ethical Tensions in AI-Mediated *Da'wah* Communication

The fourth theme concerns the ethical tensions that arise specifically from AI's entry into *da'wah* communication, as distinct from digital mediation more broadly. Several studies frame this in terms of accountability: because generative AI systems lack *niyya* (moral intention) and cannot bear legal or moral responsibility, their outputs cannot straightforwardly satisfy the accountability requirements embedded in Islamic communication ethics, including *qawlan sadidan* (truthful speech) and the broader requirement that *da'wah* be delivered by an accountable human interlocutor responsive to audience context (Sultan, 2023). Zaluchu (2024), writing on digital theology more broadly, argues that digital religious communication risks flattening theological complexity into simplified, algorithm-friendly content formats optimized for engagement rather than doctrinal accuracy, a concern directly applicable to AI-generated *da'wah* content, which is often optimized for fluency and confidence rather than epistemic humility or acknowledgment of juristic diversity (*ikhtilaf*).

Sultan (2023) finds that Indonesia's major religious authorities, MUI, NU, and Muhammadiyah, have each developed distinct guidelines addressing social-media *da'wah* ethics, targeting concerns such as misinformation, radicalization risk, and the commercialization of religious messaging; however, these guidelines were developed primarily in response to human-generated digital content and do not yet systematically address generative AI-specific risks such as hallucinated citations, algorithmically generated doctrinal blending across *madhhab* boundaries, or the absence of a traceable *isnad*. This regulatory gap is echoed by Syahir et al. (2025), whose systematic review of AI in Quranic studies finds that while AI tools show promise for tasks such as *tajwid* (recitation) correction and cross-linguistic tafsir access, their use in interpretive (rather than purely technical or pedagogical) tasks raises unresolved

questions about hermeneutic authority that current governance frameworks have not yet addressed.

A further ethical concern raised across the corpus involves the commercialization and monetization incentives embedded in platform architectures, which can subtly shape the content and tone of AI-assisted *da'wah* toward engagement-maximizing rather than theologically rigorous framings (Amin, 2025; Zaluchu, 2024). Taken together, these findings suggest that existing *da'wah* communication ethics frameworks, while robust for human-mediated digital communication, require substantial extension to address the distinct epistemic and accountability risks introduced by generative AI.

Comparative Global Perspectives

Situating the Indonesian findings within a broader comparative context, the reviewed literature indicates that similar tensions between algorithmic mediation and religious authority are observed across other religious traditions and regions, though with important contextual variations. AlMazaedh et al. (2026), synthesizing eighty-eight studies spanning 2010-2025 across multiple religious traditions, find that digital platforms can either reinforce institutional religious authority, when organizations adapt effectively to platform logics, or erode it, when they fail to do so, with outcomes varying by platform architecture, regional context, and the strength of pre-existing institutional trust. Dein and Watts (2023) and Blackmer (2024), examining Christian online worship contexts, find comparable tensions between the accessibility gains and the community-cohesion costs of digitally mediated religious practice, suggesting that the core dynamic of trading institutional control for reach and personalization is not unique to Islam but takes on distinct stakes in Islamic contexts because of the specific epistemic weight placed on *isnad* and juristic methodology.

Within both Muslim-majority and Muslim-minority contexts, the literature reveals substantial geographic and organizational variation in responses to artificial intelligence. Institutional approaches to AI in the Gulf and broader Middle Eastern regions, including state-sponsored initiatives such as AI-assisted religious guidance at major mosques, generally favor centralized and institutionally regulated deployment. By contrast, the Indonesian case, characterized by organizational pluralism among Nahdlatul Ulama, Muhammadiyah, the Majelis Ulama Indonesia (MUI), and a vast ecosystem of independent preachers, exhibits a more decentralized and contested pattern of AI adoption (Firdaus et al., 2025; Nada-Qisthina & Musyafak, 2025). This comparative pattern indicates that the impact of generative AI on religious authority

is not determined solely by technological capabilities; rather, it is profoundly shaped by the pre-existing organizational configuration of religious authority within each national context.

Table 1. Summarizes the five thematic domains identified through the synthesis, their core findings, and representative sources from the reviewed corpus.

Thematic Domain	Core Finding	Representative Sources
Institutional AI Adoption	Nahdlatul Ulama and Muhammadiyah adopt AI unevenly for administration and content generation, constrained by resource and infrastructure limits.	Nada-Qisthina & Musyafak (2025); Firdaus et al. (2025)
Epistemic Reliability	AI-generated religious guidance shows recurring misattribution, oversimplification, and inconsistency; no system meets a trusted standard.	Ahmed (2024); Munshi et al. (2022); Abid et al. (2021)
Authority Fragmentation	Algorithmic mediation diversifies and destabilizes religious authority beyond credential-based legitimacy.	Astor et al. (2024); Andok (2024); Febrian (2024)
Ethical Tensions	Existing <i>da'wah</i> ethics guidelines do not yet address AI-specific risks (hallucination, <i>ikhtilaf</i> flattening).	Sultan (2023); Zaluchu (2024); Syahir et al. (2025)
Comparative Perspectives	Outcomes depend on national religious-organizational structure, not technology alone.	AlMazaedh et al. (2026); Dein & Watts (2023)

Reading the five thematic domains together reveals a consistent underlying pattern: across institutional adoption, epistemic reliability, authority fragmentation, ethical governance, and comparative context, generative AI functions simultaneously as an enabling and a destabilizing force in Indonesian Islamic communication. It enables wider reach, faster content production, and greater accessibility of religious guidance (Nada-Qisthina & Musyafak, 2025), while destabilizing the traditional criteria, *isnad*, *ijazah*, institutional endorsement, through which religious speech has historically been judged legitimate (Ahmed, 2024; Astor et al., 2024; Hakim & Mukhlis, 2023). Notably, this destabilization is not primarily a function of AI systems being deliberately misused; even well-intentioned institutional deployments, such as NU's Kitab AI or Muhammadiyah's Chat HPT, participate in the same underlying shift toward algorithmically mediated religious knowledge production, simply with more institutional oversight than independent or commercial alternatives.

A second cross-cutting observation concerns the asymmetry between the rapid pace of technological adoption and the comparatively slower pace of ethical and

regulatory adaptation. Although AI tools have diffused into Indonesian religious organizations and independent *da'wah* practices within only a few years, the governance response has remained relatively slow and reactive. This is evident in NU's cautious position articulated during the 2023 Munas, as well as in the still-general, rather than AI-specific, scope of social-media *da'wah* guidelines issued by MUI, NU, and Muhammadiyah (Sultan, 2023). Such asymmetry is consistent with patterns identified in the broader international literature on algorithmic religious authority (AlMazaedh et al., 2026; Bucher, 2018) and underscores the existence of a genuine and pressing governance gap that requires both theoretical clarification and practical ethical regulation.

The Algorithmic Ulama and the Reconfiguration of Islamic Communication Authority

The findings of this systematic literature review demonstrate that generative AI is reshaping the Indonesian Islamic communication landscape in ways that extend beyond technological innovation, encompassing epistemic, ethical, and institutional transformations. The reviewed literature indicates that AI should not be understood merely as a neutral medium for disseminating existing religious authority, but as an emergent and partially autonomous participant in the production, circulation, and reception of religious discourse. This transformation is captured through the concept of the *algorithmic ulama*, defined as a distributed and hybrid configuration of authority in which religious-sounding text is generated by statistical models trained on aggregated human religious discourse, circulated through algorithmic recommendation systems, and received by audiences who may not always distinguish between AI-generated and scholar-authored content.

Unlike the human *ulama*, whose authority is grounded in *isnad* (chains of transmission), *ijazah* (certification), and accountability to a living scholarly community, the algorithmic ulama possesses no traceable chain of transmission, no capacity for *niiyya* (moral intention), and no intrinsic mechanism of accountability beyond the often opaque governance structures of digital platforms. Nevertheless, the reviewed evidence suggests that AI-generated religious content can acquire considerable influence because it is more readily available, more responsive, and more linguistically accessible than conventional scholarly output, particularly for younger, digitally native Muslims and geographically dispersed communities (Astor et al., 2024; Wael & Abdelgalil, 2025). Consequently, AI-generated content may attain *de facto* authority through convenience, accessibility, and algorithmic reach, even when it lacks the

epistemic legitimacy traditionally required in Islamic scholarship. This finding echoes Amin's (2025) argument that platform algorithms shape the circulation of Islamic narratives independently of their doctrinal grounding.

The emergence of the algorithmic ulama is closely linked to the broader process of mediatization of religion. The findings extend mediatization-of-religion theory (Campbell, 2012; Hjarvard, 2013) by identifying generative AI as a distinct mechanism of mediatization that not only reshapes the circulation and framing of human-authored religious content, as emphasized in earlier digital religion scholarship (Bunt, 2009, 2018; Eickelman & Anderson, 2003), but also actively generates new religious-sounding content without direct human authorial intent. This represents a qualitative shift in the relationship between media, technology, and religious authority, as the communicative act is no longer solely produced by human actors but is co-produced by human prompts, generative AI systems, platform recommendation algorithms, and audiences whose trust calibration toward AI-generated religious content remains insufficiently understood in the Indonesian context.

The findings also extend algorithmic authority theory (Bucher, 2018) by demonstrating a religion-specific mechanism through which algorithmic power is translated into perceived epistemic legitimacy. In the Indonesian Islamic context, this mechanism operates through the conflation of linguistic fluency and confident tone with scholarly authority, despite the absence of the *isnad*-based accountability structures that have historically underpinned Islamic epistemology. As a result, the traditional criteria for evaluating religious legitimacy may gradually shift from scholarly accountability toward algorithmically mediated visibility and engagement.

Importantly, Indonesian religious institutions are not passive in responding to this transformation. The 2023 Nahdlatul Ulama National Congress (*Munas*) position, which permits consultation with AI while prohibiting its use as a binding source of religious guidance, illustrates an institutional effort to establish a normative boundary between AI as a research aid and AI as an independent source of religious authority. This position demonstrates that the algorithmic ulama should not be interpreted as an inevitable replacement for human scholarly authority, but rather as a contested field in which institutional, technological, and audience-level forces interact to determine the extent to which AI-generated religious content acquires authority.

The reviewed literature further reveals significant ethical tensions arising from AI-mediated *da'wah* communication. Because generative AI systems lack *niyya* and cannot bear legal or moral responsibility, their outputs cannot straightforwardly satisfy the accountability requirements embedded in Islamic communication ethics, including

qawlan sadidan (truthful speech) and the broader requirement that *da'wah* be delivered by an accountable human interlocutor responsive to audience context (Sultan, 2023). Moreover, AI-generated content risks flattening theological complexity into simplified, engagement-oriented formats, thereby reducing the epistemic humility and recognition of juristic diversity (*ikhtilaf*) that have historically characterized Islamic legal discourse (Zaluchu, 2024).

In response to these tensions, this study proposes four preliminary principles for an Islamic communication ethics framework specific to AI-mediated *da'wah*. The first is the principle of *isnad* transparency, which requires that AI-generated religious content be clearly labeled as machine-generated and accompanied by verifiable scriptural and juristic sources. The second is the principle of human accountability retention (*mas'uliyah insaniyyah*), according to which AI outputs concerning religious law or doctrine should function only as research aids subject to review and endorsement by qualified human scholars. The third is the principle of *ikhtilaf* preservation, which requires AI systems and their institutional deployers to represent legitimate juristic diversity rather than presenting singular, algorithmically confident answers in matters of scholarly disagreement. The fourth is the principle of safeguarding communicative intention (*niyya*), which requires religious institutions to evaluate AI-assisted *da'wah* content according to *qawlan sadidan* criteria rather than engagement metrics alone.

These ethical principles carry important policy and institutional implications. Existing *da'wah* ethics guidelines in Indonesia (Sultan, 2023) should be formally extended to address generative AI specifically, rather than being treated as adequately covered by general social-media guidance. For the Indonesian Council of Ulama (MUI), this may involve developing a dedicated *fatwa* or comprehensive guidelines concerning the permissible scope of AI use in religious guidance, building upon and extending beyond the precedent established by NU's *Bahsul Masail* forum (Wibowo & Triadi, 2025). For universities and communication faculties, particularly Islamic Communication and Broadcasting (KPI) programs such as those at UIN Raden Mas Said Surakarta, the findings highlight the necessity of incorporating AI literacy and algorithmic authority critique into *da'wah* communication curricula. Such integration would prepare future communicators to critically evaluate the algorithmic ulama phenomenon rather than treating AI tools merely as neutral instruments of productivity.

The findings also suggest that KPI programs are uniquely positioned to contribute empirically to the emerging research agenda on AI-mediated religious

communication. By combining communication-research methodological training with substantive grounding in Islamic studies, students and faculty can undertake audience-reception studies, institutional case studies, and local investigations of AI-assisted *da'wah* practices in *pesantren*, *majelis taklim*, and campus *da'wah* organizations. Such research would provide the empirical grounding that this literature-based synthesis identifies as still lacking, while simultaneously training future Islamic communication scholars and practitioners to engage AI critically and responsibly.

Finally, this study acknowledges several limitations inherent in its systematic literature review design. Because it synthesizes existing published scholarship rather than collecting original empirical data, its conclusions are constrained by the scope, quality, and potential publication biases of the reviewed corpus, and the rapidly evolving capabilities of AI may outpace the literature synthesized here. In addition, the review prioritizes English- and Indonesian-language sources, which may underrepresent scholarship published in Arabic or other languages relevant to global Islamic discourse. Therefore, the algorithmic ulama framework and the ethical principles proposed in this study should be regarded as testable propositions requiring further empirical validation through audience-reception studies, institutional discourse analysis, and content analyses of actual AI-generated *da'wah* materials.

Conclusion

This article has examined how generative AI is reconfiguring religious authority and *da'wah* communication ethics within Indonesian Islam, synthesizing forty Scopus-indexed and peer-reviewed sources through a PRISMA-guided systematic literature review. The findings show that Indonesian Islamic organizations are actively, if unevenly, adopting AI for administrative and content-generation purposes, that AI-generated religious guidance continues to exhibit significant epistemic reliability problems, that algorithmic mediation is intensifying the fragmentation of religious authority beyond earlier social-media-driven trends, and that existing *da'wah* communication ethics frameworks have not yet been systematically extended to address AI-specific risks. Building on these findings, the article introduced the concept of the algorithmic ulama to theorize the emergent, hybrid, and largely unaccountable form of religious authority that generative AI produces, and proposed four preliminary principles, *isnad* transparency, human accountability retention, *ikhtilaf* preservation, and *niyya* safeguarding, as a starting point for an Islamic communication ethics framework specific to AI-mediated *da'wah*.

These contributions matter for Islamic communication as a field because they extend existing theory beyond earlier accounts of digital religion, developed largely for human-authored digital content, toward a framework capable of addressing the distinct epistemic architecture of generative AI. They also carry practical significance for Indonesian religious institutions, communication educators, and policymakers navigating the rapid diffusion of AI tools into religious life. As generative AI capabilities continue to advance, future research should pursue empirical validation of the algorithmic ulama framework through audience-reception studies examining how Indonesian Muslims actually perceive and trust AI-generated religious content, institutional case studies tracking how NU, Muhammadiyah, and MUI formalize AI governance over time, and comparative studies situating the Indonesian case alongside other Muslim-majority and Muslim-minority contexts. Such research would help ensure that the expanding reach of AI-mediated *da'wah* is matched by an equally robust framework of religious, ethical, and communicative accountability.

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