

Artificial Intelligence as Wasilah of Digital Khidmah: Nahdlatul Ulama Actors' Responses to Da'wah and Literacy

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Abstract

The rapid development of *Artificial Intelligence* (AI), especially *generative AI* and *large language models* (LLMs), has transformed the ways people search for, produce, and circulate religious knowledge. In the context of Nahdlatul Ulama (NU), AI offers opportunities for strengthening digital *da'wah*, religious literacy, and organizational services, yet it also raises serious questions about epistemic validity, religious authority, and the continuity of *sanad* in Islamic learning. This article analyzes how NU actors respond to AI in relation to *da'wah*, religious literacy, and digital *khidmah*. It employs a descriptive qualitative and exploratory approach based on literature review, digital observation, and limited interviews with NU actors concerned with media and digital transformation. The data were analyzed thematically by focusing on three issues: AI as a tool for digital service, the epistemic risks of AI-generated religious answers, and the ethical importance of *sanad*, *tabayyun*, and human authority. The article argues that AI should be positioned as a *wasilah* for digital *khidmah*, rather than a substitute for *ulama*, *kiai*, *pesantren*, or *bahtsul masail*. Its contribution lies in formulating an NU-based ethical reading of AI that combines technological adaptation with the preservation of religious knowledge, scholarly authority, source credibility, and *pesantren*-based ethics.

Keywords: Artificial Intelligence; Nahdlatul Ulama; Digital Khidmah; Scholarly Sanad; Digital Da'wah

Abstrak

Perkembangan pesat Artificial Intelligence (AI), terutama AI generatif dan *large language models* (LLM), telah mengubah cara masyarakat mencari, memproduksi, dan menyebarkan pengetahuan keagamaan. Dalam konteks Nahdlatul Ulama (NU), AI menawarkan peluang untuk memperkuat dakwah digital, literasi keagamaan, dan layanan organisasi. Namun, AI juga menimbulkan persoalan serius mengenai validitas pengetahuan, otoritas keagamaan, serta kesinambungan sanad dalam pembelajaran Islam. Artikel ini menganalisis bagaimana para aktor NU merespons AI dalam kaitannya dengan dakwah, literasi keagamaan, dan khidmah digital. Penelitian menggunakan pendekatan kualitatif deskriptif dan eksploratif berdasarkan kajian literatur, observasi digital, serta wawancara terbatas dengan sejumlah aktor NU yang bergerak dalam bidang media dan transformasi digital. Data dianalisis secara tematik dengan berfokus pada tiga persoalan, yaitu AI sebagai alat pelayanan digital, risiko epistemik dari jawaban keagamaan yang dihasilkan AI, serta pentingnya sanad, tabayyun, dan otoritas manusia dalam perspektif etika keagamaan. Artikel ini berpendapat bahwa AI seharusnya ditempatkan sebagai wasilah atau sarana untuk khidmah digital, bukan sebagai pengganti ulama, kiai, pesantren, atau forum *bahtsul masail*. Kontribusi artikel ini terletak pada

perumusan cara pandang etis terhadap AI yang berlandaskan nilai-nilai NU, dengan menggabungkan adaptasi teknologi dan upaya menjaga pengetahuan keagamaan, otoritas keilmuan, kredibilitas sumber, serta etika pesantren.

Kata Kunci: Kecerdasan Buatan; Nahdlatul Ulama; Khidmah Digital; Sanad Keilmuan; Dakwah Digital.

Introduction

The development of Artificial Intelligence (AI) marks a new phase in the transformation of the digital religious sphere. If in earlier phases people searched for religious information through websites, social media, YouTube channels, and Islamic applications, religious knowledge seeking is now increasingly shifting toward interactive patterns through chatbots, generative AI, and large language models (LLMs). This change is not merely a transfer of da'wah media. It also affects how Muslims ask questions, receive answers, verify authority, and build trust in religious knowledge. In this context, AI can no longer be read only as a technological issue; it has become a socio-religious problem related to authority, ethics, knowledge validity, and the future of Islamic da'wah in the digital sphere.

Studies on digital religion have long shown that digital technology does not only function as a tool for disseminating religion; it also reshapes religious practices, communities, identities, and authorities. Campbell (2012) explains that religious practice in digital space needs to be read as part of a mutually constitutive relationship among religion, media, and digital culture. Campbell and Evolvi (2020) later emphasize that the study of digital religion has moved from merely observing religion entering the internet toward analyzing how technological structures and religious practices influence each other. In line with this, Hjarvard (2011) reads the media as an institution that can transform how religion appears in society, while Cheong (2017) shows that new media reproduce religious authority through communication patterns, networks, and digital participation.

In the context of digital platforms, religious authority is no longer determined only by scholarly depth or institutional position, but also by visibility, accessibility, response speed, and the ability to build trust online. This logic relates to what Couldry and Mejias (2019) call the expansion of data power in social life. Digital platforms turn human actions into data, and such data affect how information is produced, ranked, and circulated. Therefore, religious authority in the digital era does not merely face media as a channel, but also algorithms, databases, and platform design that shape the visibility of discourse.

The presence of AI expands this complexity. Unlike social media, which primarily serves as a space for message distribution, AI can generate answers, summarize information, compose narratives, translate texts, and even create the impression that it is able to reason about religious problems. In AI studies, this ability cannot be separated from epistemic risk. Bender et al. (2021) warn that large language models can produce fluent texts, but linguistic fluency is not identical with understanding, truth, or responsibility. Ji et al. (2023) and Huang et al. (2025) show that hallucination is one of the major problems in language generation systems, namely when AI produces information that appears coherent but is not factual, not faithful to sources, or unverifiable.

This problem becomes more sensitive in the religious context. Religious answers require not only speed and readability, but also references, context, competence, adab, and accountability. In the Islamic tradition, religious knowledge cannot be separated from sanad, teachers, books, methods, and clear authority. AI can assist the search for information, but it has no experience of *talaqqi*, does not undergo the formation of learning ethics, does not possess moral responsibility, and is not always able to distinguish the contexts of legal schools. Therefore, AI in the religious sphere must be read with epistemic and ethical caution, not merely by the standard of technological efficiency.

The discourse on AI and religion has grown in recent years. Reed (2021) shows that AI opens new questions for religious studies, especially regarding ethics, bias, and religious representation. Trepczynski (2023) examines the capacity of LLM-powered chatbots to answer theological and philosophical questions, while Tsuria et al. (2024) show that AI tends to present religion through moralistic, pluralistic, and often simplificatory approaches. Zhang et al. (2025) even demonstrate that generative AI can influence religious cognition through biases that appear in generated content. These findings strengthen the argument that AI is not neutral in the religious sphere because it is shaped by data, design, platform policies, and value orientations that are not always transparent to users.

From the perspective of AI ethics, religious issues cannot be addressed only through technical principles. Jobin, Ienca, and Vayena (2019) find that global AI ethics guidelines often center on transparency, fairness, privacy, non-maleficence, and responsibility. Floridi and Cowls (2019) propose five ethical principles for AI that include beneficence, non-maleficence, autonomy, justice, and explicability. Mittelstadt et al. (2016) remind us that algorithms produce ethical problems because system decisions are often difficult to trace, while Stahl and Wright (2018) emphasize the importance of responsible research and innovation in AI and big data. However, Elmahjub (2023) argues that global AI ethics discourse tends to be dominated by Western perspectives, making Islamic ethical contributions necessary to enrich AI ethical standards in a more plural, contextual, and responsible manner.

In Indonesia, AI emerges amid the dynamics of digital Islam, which has previously been marked by the fragmentation of religious authority. Solahudin and Fakhruroji (2020) show that Islamic learning practices on the internet can encourage religious populism and challenge traditional authority. Akmaliah (2020) explains that the digital public sphere creates both opportunities and threats for moderate Islamic organizations such as NU and Muhammadiyah, especially when moderate voices are not sufficiently strong on digital platforms. In a later study, Akmaliah (2022) highlights NU's efforts to reclaim moderate Islamic authority on digital platforms. Hannan and Mursyidi (2023) also read social media as one of the factors that encourage the fragmentation of religious authority among Indonesian Muslims.

Nahdlatul Ulama occupies an important position in this discussion because it is rooted in *pesantren*, the *kitab kuning* tradition, *kiai*, *sanad*, and collective mechanisms such as *bahtsul masail*. Several studies on NU show that the traditional authority of *ulama* has never been completely static; it has always negotiated with the state, the *umma*, media, and social change (Bush and Fealy, 2014). In the digital context, Setia and Iqbal (2021) show that

NU uses YouTube as a space for organizational da'wah adaptation. Salendra (2024) also shows that the portal nu.or.id plays a role in promoting religious moderation and filtering religious discourse. This means that NU can be understood as a traditionalist organization that is at the same time adaptive to new media development.

Nevertheless, AI brings challenges that differ from ordinary social media. On social media, NU can respond to discourse contestation through content production, religious clarification, or the presence of kiai and preachers on digital platforms. In AI, the problem goes deeper because religious answers can be produced by systems that have no sanad, do not experience talaqqi, are not subject to pesantren discipline, and do not always display their sources. Users can receive religious answers within seconds, but they may not know where the answers come from, which legal school is used, who stands behind the authority, and whether the answer is appropriate for practice.

NU's response to AI has begun to appear in institutional forums and public discourse. The 2023 National Conference of NU Religious Scholars (Musyawarah Nasional Alim Ulama NU) discussed the legal status of asking religious questions to AI. NU Online reported that the decision stated that asking AI is permissible, but using AI answers as direct guidance for practice cannot be justified because the truth of such answers is not guaranteed and they risk containing errors (Muhammad Syakir NF, 2023a; Sunnatullah, 2026). At the same time, the conference also recommended the development of more authoritative religious AI, even suggesting that the development of Islamic AI may constitute a collective responsibility or *fard kifayah* (Muhammad Syakir NF, 2023b).

This response shows an interesting position. NU does not reject AI completely, but it also does not accept it as a source of religious authority without ethical limits. AI is placed in an ambivalent position: it can become an aid, but it must not replace the authority of ulama; it can accelerate access to information, but it must not become the final source of legal determination; it can support da'wah and literacy, but it must remain guarded by scholarly verification mechanisms. This position is consistent with NU's character, which often places technology as a *wasilah*, not as an end, and accepts new things insofar as they can produce benefit without damaging basic religious principles.

The views of NU actors also point in a similar direction. Mohamad Syafi' Alielha, or Savic Ali, Chair of the PBNU Division of Media, IT, and Advocacy, has noted that the development of AI is not merely about machine sophistication, but also a challenge to scholarly tradition. He sees AI as both an opportunity and a challenge because machines can process information quickly, while humans retain reason, creativity, and the ability to read context (NU Online, 2025). Hasanuddin Ali also emphasizes the importance of credible information sources in the era of AI and information overflow; in his view, NU Online possesses social capital as a trusted reference, but it must continue to strengthen quality, creativity, and proximity to younger generations (Mufidah Adzkia, 2025).

Beyond public discourse, the development of NU's digital ecosystem shows that AI has begun to be imagined as part of organizational governance. Digdaya AI-NU is positioned as an organizational work assistant, not a substitute for administrators, ulama, or organizational leaders. This formulation is important because it reveals a clear ethical boundary: AI can help administrative work, information retrieval, document preparation,

and organizational service support, but decisions and policies remain in the hands of human administrators and leaders (Digdaya NU, 2026).

Although studies on digital Islam, social media, and religious authority in Indonesia have developed significantly, studies that specifically read AI in the NU context remain relatively limited. Previous research has focused more on da'wah on social media, authority fragmentation, religious moderation on digital portals, and Islamic organizations' responses to digital platforms (Akmaliah, 2020; Akmaliah, 2022; Hannan and Mursyidi, 2023; Setia and Iqbal, 2021; Salendra, 2024; Solahudin and Fakhruroji, 2020). Meanwhile, AI introduces a new layer of problems because it is not only a medium for disseminating messages, but also a system capable of producing answers and simulating authority. Therefore, this article seeks to fill this gap by reading AI as a problem of digital khidmah, not merely as a technological issue.

This article does not claim to describe NU's official position in its entirety. Its focus is to read NU actors' responses to AI through literature review, digital observation, and limited exploratory interviews with NU actors who are concerned with media, technology, and digital transformation. With this position, interviews are not used to generalize institutional attitudes, but as an entry point to understand tendencies in discourse, ethical caution, and the imagination of NU's digital khidmah in the AI era.

Based on this background, the article poses three main questions. First, how do NU actors understand the presence of AI in digital da'wah and religious literacy? Second, how can AI be positioned as a wasilah of digital khidmah in the NU context? Third, what are the ethical limits of AI use so that it does not sever sanad, weaken scholarly authority, or produce religious misunderstanding? This article argues that in the NU context, AI is better understood as a wasilah of digital khidmah: it can assist da'wah, literacy, administration, and broader access to religious information, but it cannot replace ulama, kiai, pesantren, bahtsul masail, or scholarly authority rooted in sanad..

Methodology

This article uses a descriptive qualitative approach with an exploratory orientation. This approach was chosen because the main objective of the article is not to measure NU members' attitudes quantitatively, but to read the tendencies of NU actors' responses to the presence of AI in da'wah, religious literacy, and digital khidmah. In qualitative research, the main concern is meaning, process, context, and interpretation of social experience or discourse (Creswell and Poth, 2018; Patton, 2015). Therefore, this article is not positioned as an official representation of NU's overall institutional view, but as an initial reading of the discourse, practices, and responses of NU actors in facing AI development.

The data for this article were obtained from three main sources. First, the article conducted a literature review of academic studies on digital religion, digital religious authority, AI ethics, digital Islam, digital da'wah, and digital research methods. This literature is used to build a scholarly context regarding how digital technology and AI reshape the relations among Muslim communities, religious knowledge, scholarly authority, and religious institutions. Theoretical and empirical references used in this article include Campbell (2012), Campbell and Evolvi (2020), Cheong (2017), Hjarvard (2011), Akmaliah (2020; 2022),

Solahudin and Fakhruroji (2020), Elmahjub (2023), Tsuria et al. (2024), Zhang et al. (2025), as well as AI studies such as Bender et al. (2021), Ji et al. (2023), and Huang et al. (2025).

Second, the article uses digital observation of online channels and documents related to NU and AI. Digital observation was conducted on NU Online articles, reports on the 2023 NU National Conference decision concerning the law of asking religious questions to AI, writings about Savic Ali's views, Hasanuddin Ali's views on NU Online's credibility in the AI era, and information about Digdaya AI-NU as an organizational work assistant. Digital observation is understood as a way of reading socio-religious practices that take place on the internet, as Hine (2015) emphasizes that the internet cannot be separated from everyday life, and Kozinets (2015) argues that online data can be an important source for understanding communities, practices, and digital culture.

Third, this article uses limited exploratory interviews with NU actors who have concerns about media, technology, and digital transformation. The interviews were used to obtain a picture of how NU actors understand AI, both as an opportunity and as a risk for the Islamic scholarly tradition. Interview data were not used to generalize NU's overall position, but as supporting data to read the tendencies of NU actors' responses to AI. Therefore, interview quotations are placed proportionally as analytical reinforcement, not as the sole basis for conclusions.

Analytically, this article uses thematic reading. Thematic analysis was chosen because it is flexible in identifying patterns of meaning in qualitative data (Braun and Clarke, 2006). To maintain analytical rigor, this article follows the principle that thematic analysis needs to be systematic, transparent, and reflective (Nowell et al., 2017; Braun and Clarke, 2022). Data from literature, digital observation, and interviews were read through three main themes: AI as an opportunity for digital khidmah, AI risks to the validity of religious knowledge, and the importance of sanad ethics in the use of AI.

The first theme, AI as an opportunity for digital khidmah, is used to read how AI can support da'wah, content production, information retrieval, organizational service, archive processing, and broader access to religious literacy. The second theme, AI risks to the validity of religious knowledge, is used to read the problems of hallucination, bias, source ambiguity, oversimplification of Islamic law, and the potential disconnection of religious knowledge from the sanad tradition. The third theme, sanad ethics, is used to read how the NU tradition places teachers, kiai, pesantren, kitab kuning, bahtsul masail, tabayyun, and institutional authority as mechanisms for verifying religious information circulating in digital space.

To maintain the credibility of the findings, this article uses source triangulation by comparing findings from academic literature, NU digital documents, and limited interviews. This principle is consistent with the notion of trustworthiness in qualitative research, which emphasizes credibility, traceability of the analytical process, and consistency of interpretation (Lincoln and Guba, 1985; Nowell et al., 2017). In this article, triangulation is not intended to obtain a single certainty, but to strengthen the reading of NU discourse tendencies concerning AI.

The discussion is organized into four main parts. The first part explains the changing landscape of NU da'wah from cultural khidmah toward digital khidmah. The second part

discusses AI as a new challenge to scholarly authority. The third part elaborates early responses of NU actors to AI. The fourth part offers a model of AI as a wasilah of digital khidmah, placing AI as an aid that remains subject to pesantren ethics, tabayyun, and NU scholarly authority.

Result and Discussion

From Cultural Khidmah to NU Digital Khidmah

Nahdlatul Ulama has grown from the beginning as a socio-religious organization with strong roots in pesantren, kiai, kitab kuning, local networks, and communal religious practices. Historically, NU has not only operated as a formal organization, but also as a network of khidmah that lives through teacher-student relations, study circles, majelis taklim, the tradition of bahtsul masail, religious practices, and social service to the community. NU authority is therefore not built solely through organizational structure, but also through social trust generated by scholarly depth, the continuity of sanad, cultural proximity, and the direct presence of kiai in community life (Bush and Fealy, 2014).

However, the transformation of digital society has shifted part of this khidmah arena. Da'wah no longer takes place only in mosques, pesantren, madrasas, religious gatherings, and offline forums, but also through websites, social media, short videos, applications, and digital channels. This change requires religious organizations to develop new forms of presence in order to remain relevant to changing communication patterns. In the framework of digital religion, digital media are not merely understood as channels of da'wah, but as new social environments that reshape religious practice (Campbell, 2012; Campbell and Evolvi, 2020).

In the NU context, digital transformation can be read as an extension from cultural khidmah to digital khidmah. Digital media are not merely channels for organizational publication; they become spaces for religious service, public education, information clarification, and the strengthening of moderate Islam. NU Online, TVNU, NU YouTube channels, official Instagram accounts, and NU media networks at regional and branch levels show that NU is not passive in the face of technological development. Suherdiana and Muhaemin (2018) have shown that NU and Muhammadiyah use social media as a space for da'wah, while Setia and Iqbal (2021) emphasize NU's adaptation through the NU YouTube channel. Salendra (2024) also demonstrates the role of nu.or.id in promoting religious moderation.

This transformation is important because digital society has new ways of accessing religious knowledge. Younger generations do not always wait for religious gatherings; they search for answers through search engines, short videos, sermon clips, infographics, podcasts, and now AI-based chatbots. At this point, NU digital khidmah cannot merely mean the ability to move sermons into social media. More than that, NU needs to be present as a reference capable of preserving the quality of religious knowledge amid information overflow. Digital khidmah therefore requires two things at once: technological adaptation and commitment to scholarly tradition.

This change shows that religious authority in the digital era does not disappear, but undergoes new negotiations. The authority of kiai, pesantren, and religious institutions remains important, but it must interact with platform logics that operate through speed,

visibility, algorithms, and audience engagement. Cheong (2017) argues that new media reproduce religious authority, while Akmaliah (2020; 2022) shows that moderate Islamic organizations must face new religious actors who are popular in digital spaces. Thus, NU's challenge is not only to preserve tradition, but also to translate that tradition into digital communication forms that can be understood by contemporary publics.

From this point of view, digital khidmah is not a break from NU tradition, but an extension of NU's socio-religious mission into a new space. If cultural khidmah works through the presence of kiai within society, digital khidmah works through the presence of credible religious knowledge amid digital information flows. The two do not need to be opposed. What is needed is value continuity: digital da'wah must remain rooted in sanad, adab, moderation, and socio-religious responsibility.

Artificial Intelligence as a New Challenge to Scholarly Authority

The presence of AI brings challenges that differ from those of ordinary social media. Social media primarily functions as a space for message distribution and contestation. AI, especially generative AI and LLMs, not only disseminates information but also produces new answers based on patterns in the data on which systems are trained. In everyday practice, users can ask chatbots about Islamic law, prayers, ritual procedures, Qur'anic interpretation, hadith, or family problems and receive answers that appear neat, fluent, and convincing. This is where the epistemic problem arises: an answer that appears convincing is not necessarily true, contextual, or scholarly accountable.

AI literature has widely warned of this risk. Bender et al. (2021) argue that large language models can produce highly fluent texts, but language fluency is not the same as understanding. Ji et al. (2023) explain that natural language generation systems are vulnerable to hallucination. Huang et al. (2025) emphasize that hallucination in LLMs poses more complex challenges because models operate in general, open, and cross-domain settings. In the religious context, this risk becomes more serious because incorrect answers can affect worship practices, legal understanding, and religious belief.

For the NU tradition, the issue of AI is not only about information accuracy, but also about how religious knowledge is obtained. In the pesantren tradition, knowledge is not understood as a set of instant answers, but as a learning process involving teachers, books, sanad, adab, and methodological depth. A student does not merely learn what the legal ruling is, but also how the ruling is formulated, from which book it is taken, in what context it applies, which scholar explains it, and how it should be practiced wisely. Thus, religious knowledge in NU tradition is relational and layered, not merely information that can be quickly retrieved from a machine.

Studies on AI and religion reinforce this caution. Reed (2021) shows that AI presents problems of ethics, bias, and authority in theological space. Trepczynski (2023) demonstrates that LLMs can answer theological and philosophical questions, but such answers must still be critically tested. Tsuria et al. (2024) show that AI often handles religious issues through moralistic and pluralistic approaches that may simplify the complexity of tradition. Zhang et al. (2025) even show that bias in generative AI can influence religious education. Therefore,

AI should not merely be read as an assisting machine, but as a system that also shapes how religion is understood.

NU's response to this issue appears in the discussion of the 2023 National Conference of NU Religious Scholars. NU Online reported that the conference decided that asking religious questions to AI is permissible, but using AI answers as direct guidance for practice is not justified. The main reason is that the truth of AI answers is not guaranteed and may contain errors (Muhammad Syakir NF, 2023a; Sunnatullah, 2026). At the same time, the conference opened space for the development of more authoritative religious AI, which may even have the status of fard kifayah in order to provide credible Islamic references in digital space (Muhammad Syakir NF, 2023b).

This decision shows a proportional position. NU does not reject AI completely, but it also does not accept AI as a source of religious authority without verification. This attitude is consistent with NU's scholarly pattern, which tends to place technology as a wasilah, not as the final source of truth. AI may be used insofar as it supports benefit, but its religious answers must still be corrected through valid scholarly mechanisms. Thus, AI may become an aid for searching, but it must not replace the position of ulama, kiai, pesantren, and bahtsul masail.

Early Responses of NU Actors to AI

The responses of NU actors to AI show a pattern that is not singular, yet it has a clear common thread: AI is seen as both opportunity and challenge. On one side, AI can support da'wah, literacy, and organizational work. On the other side, AI must remain guarded because it can produce errors, bias, and the shallowing of religious understanding. This pattern appears in the views of several NU actors who have spoken about AI, digital media, and scholarly tradition.

Savic Ali places AI not merely as machine sophistication, but as a challenge to scholarly tradition. He notes that pesantren and Nusantara society have strong oral traditions, while AI works within a fast digital culture based on data processing. In a limited interview, Savic emphasized that AI can assist learning processes, information searching, and the understanding of general questions, but it cannot become a mufti. He used the analogy of Video Assistant Referee (VAR) in football: VAR helps provide data, replays, and technical considerations, but the final decision remains with the referee. In the religious context, AI can help provide information and considerations, but religious decisions remain with ulama (Ali, S., 2026, personal interview).

This analogy shows a proportional position. AI does not need to be rejected, but it must not be given a position beyond its capacity. In other words, AI can function as a decision support system, but not as a decision maker. Here lies the difference between AI as an aid for da'wah and AI as a source of religious authority. As long as AI is used to support learning processes, administration, data search, and information management, it can become part of digital khidmah. However, when AI is positioned as a substitute for ulama, it risks severing the connection between religious knowledge and sanad, adab, and scholarly responsibility.

Savic also emphasized the importance of NU's presence in the AI space. According to him, NU cannot rely only on offline authority. NU needs to provide good religious sources, open access to books and data, and calibrate AI so that NU or Sunni perspectives can appear in digital systems. He sees the challenge of the AI era as similar to the challenge of the search engine era. If in the past NU needed to increase writings so that its perspectives were indexed by Google, then in the AI era NU needs to ensure that its religious data and knowledge can be read, processed, curated, and calibrated by AI systems (Ali, S., 2026, personal interview).

This statement is important because it shows that the AI challenge is not only about application use, but also about knowledge production. In the AI ecosystem, those who possess data, write, archive, curate, and make knowledge accessible to digital systems will hold strategic positions in discourse formation. Therefore, for NU, digital khidmah in the AI era cannot be limited to sermons, social media content, or organizational news publication. NU also needs to strengthen scholarly documentation, the digitization of books and archives, database development, and credible Islamic media.

Hasanuddin Ali offers another emphasis: the importance of source credibility in the era of AI and information overflow. In his public statement, Hasanuddin stressed that when AI can produce content quickly, society still needs information sources with strong scholarly grounding and public trust. In this context, NU Online possesses social capital as a digital medium trusted by NU members and Indonesian Muslims, but that trust must be maintained through content quality, creative presentation, and the ability to reach younger generations (Mufidah Adzkia, 2025).

In a limited interview, Hasanuddin emphasized that digital should not be understood only as a platform or publication tool. Digital is a medium that changes ways of thinking, organizational work, trust-building, and authority distribution. Therefore, NU's digital transformation must touch organizational culture: work speed, transparency, accountability, content strategy, communication design, and evaluative capacity (Ali, H., 2026, personal interview). This view shows that the use of AI in NU cannot be understood merely as the use of a new tool, but as part of organizational culture change.

In addition to discourse, NU's response to AI is also visible in the development of Digdaya AI-NU. This platform is positioned as an organizational work assistant, not a substitute for ulama or administrators. Digdaya AI-NU is designed to support administrative work, information retrieval, document preparation, and organizational service effectiveness. The formulation of AI as an assistant is important because it shows a firm ethical boundary: AI helps humans, but does not replace them; AI supports the organization, but does not take over institutional authority (Digdaya NU, 2026).

From these three tendencies, NU actors' responses to AI can be read as moderate-adaptive. AI is not positioned as an enemy of tradition, but neither is it accepted as a new authority. AI is placed as an aid that must be guarded by reason, creativity, source credibility, scholarly sanad, and institutional responsibility. NU's response to AI can therefore be formulated in one principle: accepting technology as a *wasilah* of khidmah, while refusing to turn it into a substitute for scholarly authority.

AI as a Wasilah of Digital Khidmah: Opportunities for Da'wah, Literacy and NU Organizational Services.

The reading of NU actors' responses shows that AI is better positioned as a wasilah of digital khidmah, not as a new religious authority. The term wasilah is important because in the NU tradition, technology is not positioned as an end, but as a means to expand benefit. Within this framework, AI can be accepted insofar as it supports da'wah, education, administration, literacy, and community service. However, AI must remain subject to scholarly principles, sanad, tabayyun, and the authority of humans who possess religious competence.

In the context of da'wah, AI can help accelerate the production and distribution of religious knowledge. AI can be used to draft da'wah materials, summarize religious issues, assist reference searching, classify public questions, simplify da'wah language for younger generations, and support the production of visual and narrative content. This ability is relevant to the changing consumption patterns of religious information in digital society, which tend to be fast, concise, visual, and practical. However, this function must still be positioned as assistance, not authority.

At the institutional level, the idea of AI as a wasilah of digital khidmah can be seen in the development of Digdaya AI-NU. The platform shows that NU's digital transformation does not occur only in the realm of da'wah, but also in organizational governance. AI has begun to be imagined as a device that can help administrators prepare documents, search for organizational information, understand procedures, and accelerate administrative services. In an organization as large as NU, this function is important because NU has a very broad institutional network, from the central level to branches and local units. Thus, AI can help reduce administrative burdens and strengthen institutional coordination, as long as it remains under human control and organizational rules (Digdaya NU, 2026).

On the other hand, AI can also help NU strengthen public religious literacy. NU Online, pesantren, bahtsul masail institutions, and kiai networks can become validation bases so that AI does not produce religious knowledge detached from tradition. The AI era makes source credibility increasingly decisive. When content can be produced automatically, quickly, and massively, society needs references that have curation, editorial responsibility, and scholarly grounding (Mufidah Adzkia, 2025).

At this point, the concept of wasilah khidmah digital can be understood in three layers. First, AI as a wasilah of da'wah, namely an aid to broaden the reach of religious messages, make content more communicative, and reach younger generations. Second, AI as a wasilah of literacy, namely a means to help society understand basic religious issues, find initial references, and strengthen the culture of asking questions. Third, AI as a wasilah of institutional work, namely an aid to accelerate organizational administration, documentation, and services to members. These three layers can operate healthily only if AI remains positioned as an aid, not as a substitute for scholarly authority.

Ethical Limits of AI: Sanad, Tabayyun, and Human Authority

Although AI offers many opportunities, ethical limits are the most important issue in NU's response to AI. These ethical limits are primarily related to three matters: knowledge

validity, the continuity of sanad, and the position of human authority. These three are important because religious knowledge is not the same as general information. In the Islamic tradition, a religious answer must not only be textually correct, but also methodologically, contextually, and ethically appropriate.

The 2023 NU National Conference decision can be read as an institutional formulation that affirms this boundary. The conference decided that asking religious questions to AI is permissible, but making AI answers into direct guidance for practice is not justified (Muhammad Syakir NF, 2023a; Sunnatullah, 2026). This decision does not reject AI as technology, but sets limits on its use. AI may serve as an initial gateway to learning, searching for information, or understanding basic questions, but it must not become a direct legal source for practice.

This ethical boundary is also related to the problem of hallucination in AI. In the religious context, hallucination does not only mean misinformation, but may also involve misattribution of books, incorrect attribution of scholarly opinions, oversimplification of legal rulings, or the blurring of differences among legal schools. AI answers may appear fluent and convincing, but they may not have clear sources. This is where sanad becomes important. Sanad is not merely a chain of knowledge transmission from the past; it is also a verification mechanism that prevents religious knowledge from becoming anonymous, decontextualized, and unaccountable.

Savic Ali emphasized that AI also has bias because it is shaped by the sources it learns from. Some people may assume that AI is more neutral because it is not affiliated with NU, Muhammadiyah, or other groups. In fact, AI is still influenced by the data, sources, and training patterns that shape its answers. Therefore, in the religious context, AI must still be criticized, trained, calibrated, and tested (Ali, S., 2026, personal interview). This view is consistent with AI ethics literature that emphasizes transparency, fairness, accountability, and human control over AI systems (Jobin, Ienca and Vayena, 2019; Floridi and Cowls, 2019; Mittelstadt et al., 2016; Stahl and Wright, 2018).

The next ethical limit is the distinction between informative questions and religious decisions that require authority. For simple questions, such as introducing terms, providing general explanations, summarizing history, or locating initial references, AI can help. However, for issues related to fatwas, family conflicts, inheritance law, marriage, divorce, complex worship practices, or serious moral decisions, AI is not sufficient. Such problems require ulama, social context, consideration of legal schools, and ethical responsibility.

This is where the principle of human-in-the-loop becomes important. In the NU context, this principle can be translated as the requirement that knowledgeable humans remain within the decision-making circle. AI may collect data, provide summaries, display alternatives, or assist simulations, but ulama, kiai, Islamic editors, or authorized institutions must still conduct verification. This principle is consistent with Savic's analogy that AI may help like VAR, but the decision remains with humans (Ali, S., 2026, personal interview).

This principle is also relevant to NU's character, which places *bahtsul masail* as a collective mechanism for answering religious problems. *Bahtsul masail* does not only produce answers; it also shows process: reading books, debating arguments, tracing evidence, and considering context. AI can help provide initial materials, but it cannot replace this

collective process. In bahtsul masail, what matters is not only the final answer, but also method, adab, and scholarly accountability.

Thus, the ethics of AI use in NU can be formulated into several basic principles. First, AI must be positioned as a wasilah, not as a final source of authority. Second, AI answers must be verified through tabayyun and clear scholarly references. Third, religious data used by AI need to be curated so that unreliable sources are not mixed into religious answers. Fourth, AI use must preserve sanad, learning ethics, and the position of ulama. Fifth, AI needs to be directed toward strengthening literacy, not weakening the critical capacity of the community.

Toward AI Literacy Based on NU Tradition

The findings of this article show that NU's greatest challenge in the AI era is not merely how to use AI, but how to build AI literacy based on the NU scholarly tradition. AI literacy in this context cannot be understood only as the skill of using applications, making commands or prompts, and generating content. AI literacy must include the ability to understand technological limits, recognize the risk of bias, check sources, preserve learning ethics, and know when a problem must be returned to ulama.

AI literacy based on NU tradition can be built on four foundations. First, the foundation of sanad, namely the awareness that religious knowledge must have sources, teachers, methods, and accountability. Second, the foundation of tabayyun, namely the habit of checking information before accepting, sharing, or practicing it. Third, the foundation of maslahah, namely the orientation that technology should be used for the benefit of the community, not merely for technical efficiency. Fourth, the foundation of adab, namely the awareness that learning religion is not merely seeking answers, but also forming attitude, humility, and moral responsibility. At this point, Elmahjub's (2023) argument on the importance of Islamic ethics in AI can be connected to NU tradition, which emphasizes sanad, tabayyun, and benefit.

In the pesantren context, AI literacy can be directed so that students do not become passive users of technology. Students need to be taught that AI can assist information retrieval, but it does not replace books, teachers, and the learning process. AI can be used to summarize, translate, or search for initial topics, but understanding must still be tested through book reading and teacher guidance. In this way, AI does not weaken the pesantren tradition, but may expand students' access to learning materials, as long as it is used critically.

In organizational settings, AI literacy needs to be directed toward strengthening governance. NU administrators need to understand that AI can assist administration, correspondence, data management, program formulation, and member services. However, organizational decisions must still be made through deliberation, ethical consideration, and institutional accountability. In this context, Digdaya AI-NU can serve as an early example of AI being positioned as an organizational work assistant, not a substitute for humans (Digdaya NU, 2026).

In Islamic media environments, AI literacy needs to be directed toward strengthening curation. NU media can use AI to support research, draft preparation, archive processing, and content distribution. However, Islamic editors must still check accuracy, references, language, and conformity with NU's scholarly perspective. This is important because AI can

accelerate content production, but it can also accelerate the spread of errors if not curated. In this context, Islamic media must not only pursue speed, but must also maintain credibility.

A model of AI as a wasilah of NU digital khidmah

Based on the preceding discussion, NU's response to AI can be read as a form of adaptation that is selective, ethical, and rooted in scholarly tradition. NU does not reject AI as technology, but it also does not surrender religious authority to it. This position differs from the way parts of digital society treat AI as an instant answer machine. From the NU perspective, AI is better placed as a wasilah, namely an aid to expand the benefits of da'wah, literacy, administration, and community service.

This model is important because AI brings two sides at once. On one side, AI can strengthen digital khidmah through faster access to information, content production, archive processing, Islamic media development, and organizational service. On the other side, AI brings epistemic risks such as hallucination, data bias, source ambiguity, and the possible disconnection of religious knowledge from sanad. Therefore, the model of AI as a wasilah of NU digital khidmah needs to be built on a basic principle: AI may help, but it must not replace ulama; AI may accelerate searching, but it must not become the final reference; AI may support da'wah production, but it must still be curated by knowledgeable humans; AI may enter organizational governance, but decisions remain with institutional authority.

Table 1.

A model of AI as a wasilah of NU Digital Khidmah

Dimension	AI function	Main risk	NU ethical principle	Form of implementation
Digital da'wah	Helps draft da'wah materials, summarize issues, and adjust da'wah language for younger generations.	Da'wah becomes instant, shallow, and poorly referenced.	AI as wasilah, not as the final source of truth.	Preachers use AI for initial research, then verify it with books, teachers, and official references.
Religious literacy	Helps society understand terms, basic issues, and initial religious questions.	AI answers are treated as fatwas.	Tabayyun and verification with ulama.	AI is used as an entry point to learning, not as a substitute for kiai, pesantren, or religious gatherings.
NU da'wah media	Helps content research, archive processing,	Content is fast but inaccurate.	Editorial curation and scholarly	Editors check accuracy, sources, language, and

	manuscript drafting, and information distribution.		responsibility .	conformity with NU tradition.
Pesantren and students	Helps translate, summarize, and search for initial learning materials.	Students become dependent on instant answers and weaken talaqqi.	Preserving sanad, adab, and learning discipline.	AI is used as a learning aid, but understanding is tested through teachers and books.
Bahtsul masail	Helps search data, compare opinions, and document discussion results.	The istinbat process is reduced to machine answers.	Collective authority of ulama remains central.	AI helps prepare materials, but decisions remain in ulama forums.
Organizational governance	Helps administration, document preparation, archive search, and services for administrators	Organizational decisions become too dependent on systems.	Deliberation, accountability, and human control.	AI becomes an organizational work assistant, as in the idea of Digdaya AI-NU.

The table shows that AI in the NU context cannot be positioned in a single way. It is not merely a technical tool, but also touches questions of da'wah, literacy, pesantren, media, organization, and scholarly authority. Therefore, NU's response to AI must move in two directions at once: technological adaptation and the safeguarding of religious epistemology. Adaptation is necessary so that NU does not fall behind in digital social change, while epistemological safeguarding is necessary so that religious knowledge does not become anonymous information without sanad, adab, and responsibility.

This model also demonstrates how this article differs from previous studies. Studies on digital religion have widely explained that digital technology transforms religious practice and authority (Campbell, 2012; Campbell and Evolvi, 2020; Cheong, 2017). Studies on digital Islam in Indonesia have highlighted social media, religious populism, and authority fragmentation (Akmaliah, 2020; Akmaliah, 2022; Hannan and Mursyidi, 2023; Solahudin and Fakhruroji, 2020). This article continues that discussion by focusing specifically on AI, a technology that does not merely distribute messages but also automatically produces religious answers.

Thus, the novelty of this article does not lie in claiming that NU already has a fully mature religious AI system, but in reading that AI needs to be positioned within a sanad-based framework of digital khidmah. This framework offers a middle way between

technological optimism and traditional caution. Technological optimism is needed because AI can help NU expand da'wah, strengthen literacy, and improve organizational services. However, traditional caution remains necessary because religious knowledge cannot be sufficiently answered through language prediction; it requires teachers, books, methods, context, and moral accountability

Conclusion

This article shows that the presence of Artificial Intelligence in the digital religious sphere cannot be understood merely as a technological development, but also as a question of authority, literacy, and scholarly ethics. In the context of Nahdlatul Ulama, AI offers opportunities to expand da'wah, accelerate access to information, support content production, strengthen organizational services, and improve public religious literacy. However, these opportunities cannot be separated from epistemic risks, especially because AI can produce answers that appear convincing but are not necessarily true, contextual, or scholarly accountable. The responses of NU actors to AI show both adaptation and caution. AI is not rejected as technology, but it is also not accepted as a substitute for ulama, kiai, pesantren, or bahtsul masail forums. In NU tradition, religious knowledge is not determined only by the speed of answers, but also by sanad, teachers, books, adab, method, and moral accountability. Therefore, AI is better positioned as a wasilah of digital khidmah, namely an aid that can strengthen da'wah, literacy, and community service as long as it remains under the control of knowledgeable humans and legitimate institutional mechanisms. This article argues that the model of AI as a wasilah of digital khidmah offers a middle way between technological optimism and traditional caution. NU needs to use AI so that it does not fall behind in the transformation of digital society, but such use must be guarded by the principles of tabayyun, sanad, maslahah, adab, and the collective authority of ulama. AI therefore must not become the final source of religious authority, but rather a supporting device that helps humans manage information, broaden da'wah, and improve socio-religious services.

The contribution of this article lies in its proposal of an AI reading based on NU tradition. Unlike studies on digital Islam that mostly discuss social media, online da'wah authority, and contestation of religious discourse, this article positions AI as a new phase in the transformation of digital da'wah. AI is not only a medium for disseminating messages, but also a system capable of producing answers and simulating authority. Therefore, the future of NU da'wah in the AI era requires not only technological capacity, but also the strengthening of pesantren-based AI literacy, curation of Islamic media, digitization of scholarly sources, and mechanisms of religious verification rooted in the sanad tradition.

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