MURAJA'AH : Journal of Islamic Studies
Journal Link: https://cabiskarya.com/murajaah/en
DOI: https://doi.org/10.67140/murajaah.v1i3.15
Volume 1, Issue 3 (2026)
ISSN : 3124-8594

Ulama Authority in the Algorithmic Era: Reconstructing Islamic Intellectual Traditions in the Production of Religious Knowledge in Madura

Mohammad Saro'i[1]*, Shumaila Majeed[2]

[1]Sekolah Tinggi Agama Islam Taswirul Afkar Surabaya, Indonesia
[2]Akhuwat College University Kasur, Pakistan

*Corresponding Author: *mohammad.saroi@gmail.com*

Submitted: September 25, 2026 Accepted: October 31, 2026 Published: October 31, 2026

A B S T R A C T

Digital transformation has reshaped how religious knowledge is produced, distributed, accessed, and validated, while simultaneously generating new challenges for ulama authority and the continuity of Islamic intellectual traditions. This study aims to analyze how ulama in Madura negotiate scholarly authority within algorithmic environments, how the production and validation of religious knowledge are being reconfigured, and how Islamic intellectual traditions respond to these changes. The study employs a qualitative approach with a multisite case study design conducted in Bangkalan, Sampang, Pamekasan, and Sumenep. Data were collected through in-depth interviews, observations, and analyses of relevant documents and digital traces, and were subsequently analyzed thematically through cross-case comparison. The findings indicate that digital technologies and artificial intelligence do not automatically replace ulama authority; rather, they transform the conditions under which such authority is produced, accessed, and recognized. Digital visibility, audience engagement, and algorithmic mediation interact with scholarly competence, sanad, institutional structures, and community recognition. The study identifies the emergence of hybrid epistemic legitimacy and demonstrates that the reconstruction of Islamic intellectual traditions occurs as a negotiated continuity rather than as the replacement of tradition by technology. These findings position algorithmic transformation as an epistemological issue in contemporary Islamic studies.

Keywords: ulama authority; islamic intellectual traditions; algorithmic mediation.

Copyright © The Author(s) 2026. Published by PT Cabis Karya Nusantara. This is an open access article licensed under the Creative Commons Attribution-ShareAlike 4.0 International License (CC BY-SA 4.0).

Introduction

The development of the digital ecosystem has transformed the ways in which religious knowledge is produced, distributed, accessed, and negotiated within Muslim societies. Whereas the transmission of Islamic knowledge has historically taken place through relationships among ulama, educational institutions, mosques,

pesantren, classical texts, scholarly gatherings, and transmission mechanisms that emphasize competence and continuity of scholarship, the development of digital media has created a much more open, rapid, and decentralized knowledge environment. Religious authority is undergoing significant transformation due to the presence of social media, new media, and increasingly fragmented religious discourse (Lohlker & Wahid, 2026). Religious knowledge is now acquired not only through established religious institutions and figures, but also through search engines, YouTube, TikTok, Instagram, da'wah platforms, and various artificial intelligence-based systems. This transformation does not merely expand access to Islamic knowledge but also changes the social and epistemic conditions that determine who becomes visible, trusted, heard, and recognized as having authority in explaining religious matters. Digital platforms and the emergence of social media influencers have empowered individuals and communities to renegotiate long-established understandings of religion and authority (Zaid, Fedtke, et al., 2022). These concerns appear well founded, given that internet use continues to expand and has become part of everyday life (Solahudin & Fakhruroji, 2020). Thus, digitalization presents new challenges for Islamic Studies concerning the relationship between authority, knowledge transmission, and religious legitimacy.

This issue becomes increasingly complex when the production of religious knowledge takes place within an environment that is not entirely controlled by religious actors but is instead mediated by algorithmic logic. Platform algorithms determine, in part, what appears within users' attention spaces based on search patterns, interactions, engagement, popularity, and content characteristics. When users access or watch content on social media, various aspects are recorded and analyzed by algorithms, including the types of content viewed, viewing duration, the number of interactions such as likes and comments, and the frequency of interaction with similar content (Cui et al., 2016). Consequently, the visibility of a religious narrative is not necessarily proportional to the depth of its scholarship or the traditional legitimacy of its source. Recent studies indicate that digital religious authority is increasingly shaped through a combination of religious knowledge, performativity, platform visibility, and audience engagement. Under these conditions, algorithms can function as a new form of gatekeeper that contributes to determining the circulation and reception of religious discourse.

This transformation is important for the study of Islamic intellectual traditions because authority in Islam has historically been associated not merely with the popularity of a particular figure but also with mastery of Islamic sources, scholarly competence, traditions of knowledge transmission, scholarly institutions, and community recognition. Within Islamic scholarly traditions, authority is closely connected to the processes of learning, transmission, interpretation, and validation of knowledge. The development of digital spaces subsequently brings these systems of authority into contact with new forms of legitimacy constructed

through visibility, popularity, digital interaction, and the ability to attract public attention. Thus, the issue is not simply whether ulama authority is declining, but how such authority is negotiated when traditional mechanisms of knowledge production interact with algorithmic logic. Digital religious figures need to be cautious in presenting themselves across various platforms, including in terms of appearance, language, and interactional cues, in order to maintain their credibility (Goffman, 2023). Recent literature even indicates the emergence of hybrid forms of religious authority, namely the intersection of knowledge-based authority, charismatic authority, and authority acquired through platform visibility.

In the Indonesian context, this issue is particularly significant because Indonesian Muslim society has a long history of ulama, pesantren, religious organizations, and intellectual networks that have played important roles in the production and transmission of Islamic knowledge. These transformations have also influenced how religious authority is formed and perceived, as well as how traditional religious institutions respond to them (Hannan & Mursyidi, 2023); (Baidawi, 2025). Digitalization does not necessarily replace these structures but creates new spaces in which established authorities and new actors interact, compete, and negotiate. Research on religious authority in Indonesia indicates that digital media have influenced the ways in which fatwas, da'wah, and Islamic knowledge are produced and validated. Authority that previously relied heavily on scholarly credentials and institutional structures can now acquire legitimacy through emotional appeal, audience engagement, and algorithmic visibility.

Previous research, through a literature review of 73 studies, has found that the development of digital platforms has transformed Islamic religious authority. Authority no longer originates solely from traditional religious institutions but also emerges through social media and digital platforms in the form of celebrity imams, cyber-muftis, and female ulama. Algorithms and digital platforms also influence the visibility and legitimacy of religious authority (Wahid & Abdulloh, 2026). In addition, religious authority among young Muslims is fragmented by the development of pengajian in various cities across Indonesia and the use of social media in the dissemination of da'wah (Saputra et al., 2021). Social media complement rather than replace traditional religious practices. Although formal ulama remain central to institutional authority, forms of authority mediated by algorithms and rooted in peer relationships increasingly influence everyday religious practices (Zaid, Ibahrine, et al., 2022). On the other hand, social media function not only as a medium for disseminating religious teachings but also as a discursive arena in which religious authority is negotiated and reconfigured through digital credibility, algorithmic visibility, and audience interactivity (Zairina et al., 2025). Other research has also identified a shift in the transmission of religious knowledge, from learning through direct engagement with ulama toward learning through digital platforms and interfaces (Abusharif, 2024). In

addition, the development of the internet has generated new forms of religious authority through Islamic organizational websites, ulama webpages, social media, and internet memes (Askar et al., 2025).

Nevertheless, these developments should not be understood simply as a linear shift from "ulama authority" to "digital authority." A number of studies have indeed demonstrated the fragmentation of religious authority, the emergence of religious influencers, the transformation of digital da'wah, and the increasing importance of algorithms in determining the visibility of Islamic discourse. Other studies have even discussed the shift from legitimacy systems based on sanad toward legitimacy increasingly influenced by digital algorithms. However, these research tendencies have largely focused on changes in the forms of authority, the characteristics of digital preachers, social media content, or mechanisms of legitimacy in digital spaces. These popular preachers possess attractive communication skills and are highly adept at utilizing information and communication technologies (Maulana & Anoraga, 2025). An analytical space that still needs to be strengthened concerns how ulama as bearers of Islamic scholarly traditions themselves understand, respond to, and negotiate these transformations in the practice of religious knowledge production.

In other words, the crucial issue is not merely how algorithms generate new religious actors, but how actors who previously possessed scholarly authority respond to the emergence of this new epistemic environment. Do ulama maintain their authority through traditional mechanisms? Do they adopt digital strategies to maintain their relevance? Do changes occur in the ways they determine the validity of religious knowledge? Or do hybrid forms emerge that combine Islamic scholarly traditions with digital communication mechanisms? These questions move the research beyond a mere study of "social media and religion" toward a more fundamental issue in Islamic Studies, namely how Islamic intellectual traditions adapt when the mechanisms of knowledge production and circulation undergo structural transformation.

This perspective becomes increasingly relevant as the development of artificial intelligence begins to enter the realm of religious knowledge production. If social media have previously accelerated the distribution of and expanded access to Islamic knowledge, AI-based systems have the potential to go further by generating answers, summarizing religious texts, providing recommendations, and mediating searches for Islamic information. Thus, even the religious domain can be considered to have undergone comprehensive digitalization (Evolvi, 2019). This condition creates new epistemological questions concerning who has the authority to explain religion, how religious truth is verified, and to what extent knowledge generated or mediated by technology can be situated in relation to Islamic scholarly traditions. Recent studies on digital religious authority indicate that the relationship between human actors, digital media, and algorithmic systems has

now become an important component in the formation and negotiation of Islamic authority.

Within this context, Madura represents an important empirical setting for investigation. Madura possesses a strong Islamic tradition characterized by networks of ulama, pesantren, Islamic educational institutions, and socio-religious relationships that have long constituted important components in the formation of religious authority. At the same time, Madurese society is not outside the process of digital transformation. The depth of religious knowledge and moral integrity that they possess constitute sources of their authority (Chairi, 2019). Ulama and religious institutions are now confronted with a society that obtains Islamic information through various digital platforms, while religious actors themselves are increasingly expected to be present in digital spaces (Siregar et al., 2025). The encounter between scholarly traditions rooted in ulama authority and a digital environment operating according to algorithmic logic makes Madura a context that enables research into how Islamic intellectual traditions are negotiated under changing social conditions.

Research on Madura within this context is important not because Madura is positioned as a region isolated from digital development, but because its socio-religious characteristics allow the relationship between continuity and transformation in Islamic authority to be observed more concretely. The central question is not whether Madurese ulama are being "replaced" by technology, but how they maintain, adapt, or redefine their scholarly authority as society increasingly acquires religious knowledge through digital mechanisms. From this perspective, Islamic intellectual traditions are not understood as static structures but as traditions that continually negotiate with social, technological, and knowledge-production changes.

Based on these issues, this study proceeds from the assumption that digital transformation does not automatically eliminate ulama authority but creates a new arena in which such authority must be negotiated. Religious authority in the algorithmic era is likely to be formed through the interaction of scholarly competence, traditional legitimacy, institutions, digital communication capabilities, audience responses, and platform-mediated visibility. Accordingly, the concept of the reconstruction of Islamic intellectual traditions in this study does not refer to the replacement of established traditions by technology, but rather to a process of negotiation and reconfiguration of how religious knowledge is produced, validated, transmitted, and legitimized within digital environments.

On this basis, this study aims to analyze how ulama in Madura negotiate religious authority amid the development of the algorithmic ecosystem and how these transformations affect the practices of religious knowledge production and validation. Specifically, the study explores how ulama understand the influence of algorithms on religious authority, how they maintain or adapt mechanisms of

scholarly legitimacy, and how Islamic intellectual traditions are negotiated in response to changing patterns of knowledge production. Accordingly, this study not only provides an account of the digitalization of religious life in Madura but also contributes to debates in Islamic Studies concerning the transformation of authority, the continuity of intellectual traditions, and changes in the epistemology of Islamic knowledge within increasingly digitalized societies.

Theoretically, this study is expected to extend scholarship on Islamic authority by viewing algorithms not merely as technical instruments for distributing information but as part of an epistemic environment that also shapes the visibility and legitimacy of religious knowledge. Empirically, this study provides a perspective from Madura that enables an analysis of how Islamic scholarly traditions interact with digital transformation within a local context. Conceptually, this study offers an understanding of the reconstruction of Islamic intellectual traditions as a process of negotiation between inherited sources of scholarly legitimacy within Islamic traditions and new mechanisms of legitimacy emerging from the algorithmic ecosystem. This position places the study at the intersection of Islamic thought, intellectual traditions, the sociology of religious knowledge, and digital religion studies, while maintaining Islamic Studies as the central analytical focus.

Research Method

Research Design

This study employs a qualitative approach with a multiple-case study design to analyze how ulama in Madura negotiate religious authority and reconstruct practices of religious knowledge production within an increasingly algorithm-mediated digital environment. A qualitative approach was selected because the study focuses on developing an in-depth understanding of the experiences, interpretations, strategies, and practices of ulama in responding to changes in the epistemic environment, rather than measuring relationships among variables. Yin notes that case study research requires a higher degree of rigor in its implementation (Yin., 2018). A multiple-case study enables the research to compare the experiences and practices of ulama across several religious contexts in Madura, thereby identifying similarities and differences in how scholarly authority is negotiated amid digital transformation. Case and participant selection was based on a set of predetermined criteria derived from the objectives of the study. These criteria subsequently served as guidelines for identifying "information-rich cases" that were appropriate for the research (Merriam., 2009)

In this study, the case is understood as the practices of religious authority and knowledge production undertaken by ulama who are connected to Islamic scholarly traditions while simultaneously interacting with social media, digital platforms, search engines, and artificial intelligence-based technologies. The four

main regions of Madura Bangkalan, Sampang, Pamekasan, and Sumenep were selected as research contexts to capture social and institutional variation in ulama practices. Cross-case comparison was employed to identify how pesantren backgrounds, scholarly networks, religious institutions, digital experiences, and community characteristics shape ulama responses to changing mechanisms of religious knowledge production and legitimacy.

Research Sites and Participants

The study was conducted in four regencies on Madura Island: Bangkalan, Sampang, Pamekasan, and Sumenep. The sites were purposively selected based on the presence of pesantren, Islamic educational institutions, ulama networks, and religious activities that enabled the researcher to examine the relationship between Islamic scholarly traditions and developments in digital technology. As Creswell (2007) notes, researchers select individuals and research sites purposively because they can provide information relevant to understanding the research problem and the central phenomenon under investigation (Creswell., 2007)

Participants were selected using purposive sampling based on the following criteria: (1) possessing religious authority or scholarly recognition within the local Muslim community; (2) having an educational background or experience in Islamic scholarly traditions, such as pesantren, madrasah, Islamic higher education institutions, or religious organizations; (3) being involved in teaching, pengajian, da'wah, religious consultation, or the production of Islamic knowledge; and (4) having experience interacting with digital environments, either as users, managers, or producers of religious content. To enrich the perspectives represented in the study, supporting informants may also include pesantren leaders, ustaz, Islamic studies academics, managers of da'wah media, as well as santri or members of religious communities who access religious knowledge through digital platforms.

The number of participants was not rigidly determined at the outset but was established based on the principles of information adequacy and data saturation. Data collection was concluded when additional interviews and observations no longer generated substantively new information related to the focus of the study.

Data Collection Techniques

Marshall and Rossman (2011) state that data collection in qualitative research is generally based on the researcher's engagement with the field through direct observation, in-depth interviews, and document analysis (Marshall & Rossman., 2011). Data were collected through in-depth interviews, observations, and analyses of documents and digital traces.

First, semi-structured interviews were conducted to understand ulama perspectives on changes in religious authority, the use of digital media, algorithms, artificial intelligence, and transformations in the processes of producing, validating, and transmitting Islamic knowledge. The interviews focused on several

main themes, including: (1) sources of ulama scholarly authority; (2) experiences of obtaining and communicating religious knowledge through digital media; (3) perceptions of algorithms and the visibility of religious content; (4) ways of determining the validity of religious information obtained from the internet and AI; (5) strategies for maintaining scholarly credibility and legitimacy; and (6) changes in the relationships among ulama, santri, religious communities, and the wider public in the transmission of knowledge.

Second, observations were conducted of religious practices and digital activities relevant to the study. Observations included pengajian, learning processes in pesantren, religious forums, da'wah activities, and the production and dissemination of religious content on digital platforms. Digital observations were conducted on religious accounts or channels directly associated with the informants, with attention to content forms, communication patterns, audience interactions, and the ways in which scholarly sources and authority were presented.

Third, documentation was conducted of books or teaching materials used in learning processes, pengajian materials, fatwas or religious responses, recorded sermons, articles, social media posts, videos, and other relevant digital materials. These documents were used to compare religious knowledge communicated through traditional mechanisms with knowledge produced or disseminated through digital media.

Analytical Focus

The analysis focused on three main dimensions. First, scholarly authority, referring to the sources of legitimacy through which ulama acquire and maintain religious authority, including scholarly competence, sanad, mastery of Islamic literature, educational experience, institutional affiliation, and community recognition.

Second, algorithmic mediation, referring to the ways in which digital platforms, recommendation mechanisms, search systems, audience engagement, content visibility, and technological characteristics influence the circulation and reception of religious knowledge. In this study, algorithms are not treated merely as technical devices but as part of an epistemic environment that can influence what becomes visible, discoverable, and capable of attracting attention.

Third, the reconstruction of Islamic intellectual traditions, referring to the processes through which ulama maintain, adapt, or reorganize the ways religious knowledge is produced, verified, transmitted, and legitimized when confronted with digital environments. Reconstruction is not assumed to represent the replacement of established traditions by technology but is analyzed as a process of negotiation between inherited mechanisms of scholarly legitimacy within Islamic traditions and the communication and visibility mechanisms emerging within the digital ecosystem.

Data Analysis Techniques

Data analysis was conducted iteratively throughout the data collection process. Interview data were transcribed, repeatedly read, and coded to identify themes emerging from participants' experiences and perspectives. The analysis employed thematic analysis involving the stages of data familiarization, initial coding, category development, theme identification, theme review, and interpretation of findings.

Initial coding focused on concepts such as scholarly authority, sanad, religious legitimacy, digital authority, algorithmic visibility, audience engagement, knowledge production, knowledge validation, digital mediation, AI-mediated knowledge, and intellectual tradition. However, the analysis remained open to new themes emerging from the field data.

Following the analysis of each case, within-case analysis was conducted to develop an in-depth understanding of the characteristics of each case. This was followed by cross-case analysis comparing Bangkalan, Sampang, Pamekasan, and Sumenep. The comparison was used to identify patterns of convergence and divergence in how ulama maintain, adapt, or reconstruct scholarly authority within an algorithmic environment.

The final interpretation connected the empirical findings with debates concerning religious authority, Islamic intellectual traditions, digital religion, and knowledge production. Thus, the analysis did not stop at describing ulama's use of technology but sought to explain changes in epistemic mechanisms that occur when Islamic scholarly traditions interact with algorithmic environments.

Data Trustworthiness

Data trustworthiness was established through source triangulation, methodological triangulation, member checking, and systematic documentation of the research process. Source triangulation was conducted by comparing information obtained from ulama, ustaz, pesantren leaders, academics, and santri or members of religious communities. Methodological triangulation was conducted by comparing findings from interviews, observations, and digital documentation.

Member checking was conducted by providing informants with opportunities to clarify or confirm the researcher's interpretations of the information they had provided. In addition, the researcher maintained an audit trail documenting the processes of participant selection, data collection, code development, theme construction, and analytical decision-making. The use of multiple sources and techniques was intended to enhance the credibility, dependability, and traceability of the study's interpretations.

Research Ethics

The study was conducted in accordance with the ethical principles of social and religious research. Prior to the interviews, participants were informed about the purpose of the study, the use of data, confidentiality, and their right to

participate voluntarily and withdraw from the study at any time. Informants' identities may be anonymized when the information provided is sensitive or when informants do not wish their identities to be disclosed. Digital data analyzed in the study were also limited to materials relevant to the research objectives and ethically accessible.

With this design, the study is expected to provide an in-depth account of how ulama in Madura maintain and negotiate scholarly authority when traditional mechanisms of Islamic knowledge production interact with digital media, algorithms, and artificial intelligence technologies.

Results and Discussion

Negotiating Ulama Scholarly Authority in an Algorithmic Environment

The findings indicate that the digitalization of religious knowledge does not necessarily replace ulama authority but rather transforms the social and epistemic context in which such authority is exercised, recognized, and negotiated. Across Bangkalan, Sampang, Pamekasan, and Sumenep, ulama authority remains associated with scholarly competence, mastery of Islamic sources, religious educational backgrounds, affiliation with Islamic institutions, and community recognition. These dimensions remain important foundations for distinguishing ulama scholarly authority from the authority of digital actors who primarily gain attention through visibility, popularity, and audience engagement.

One ulama explained that the ease of obtaining religious information through digital media does not automatically make such information academically or religiously legitimate. According to him, authority remains connected to the process of learning from teachers, mastery of Islamic sources, and the ability to verify religious matters:

> "Social media can serve as a means of disseminating knowledge and reaching a wider audience, but it does not replace the process of learning from and verifying information with those who genuinely possess scholarly competence." (Ulama-01)

A similar view was expressed by another ulama who regarded digital media as a means of disseminating knowledge rather than a replacement for scholarly authority. According to him, people should continue to consider the scholarly background and sources of knowledge when receiving religious information through digital media:

> "People can now more easily search for religious answers through the internet, but the ease of obtaining information does not mean that all information can be trusted immediately. We still need to consider who delivers it, where the source comes from, and how the explanation is presented." (Ulama-02)

However, the digital environment introduces new dimensions of legitimacy into the religious knowledge space. The ability to use digital media, communicate materials effectively, interact with audiences, and maintain a presence across various platforms increasingly influences how religious knowledge is discovered and received by the public. Consistent with Sulfikar and Yasmine, the digital ecosystem encourages the fragmentation and diversification of sources of authority, while scholarly depth and theological competence continue to possess significant legitimacy (Sulfikar & Yasmine, 2026). This condition reveals a distinction between scholarly legitimacy and digital visibility. An ulama may possess strong scholarly legitimacy without having a high level of digital visibility, while another actor may attract substantial public attention through digital platforms without possessing an equivalent scholarly foundation. Thus, digital popularity and scholarly authority constitute two mechanisms of recognition that do not necessarily operate in parallel.

This transformation indicates that the transformation of religious authority should not be understood as a linear shift from ulama authority toward digital authority. Instead, it involves an encounter between traditional sources of legitimacy and mechanisms of recognition emerging within the digital environment. Scholarly competence, sanad, mastery of Islamic literature, educational experience, institutional affiliation, and community recognition remain fundamental sources of religious legitimacy. Consistent with Al-Attas's argument, moral authority is closely related to scholarly lineage (Al-Attas., 1998); (Campbell., 2013). At the same time, digital media introduce new mechanisms involving visibility, interaction, popularity, audience engagement, and the ability to reach broader communities. Religious authority therefore operates within an increasingly complex space in which legitimacy is shaped not only through scholarly and social relationships but also through the conditions of digital communication.

These conditions create a space for negotiation among ulama. Some ulama may utilize digital media to expand the reach of their teaching and da'wah without altering the fundamental principles underlying their scholarly authority. Slama argues that the internet also plays a role in establishing relationships between preachers and followers through the construction of religious authority (Slama, 2017). Others may adapt their modes of knowledge communication to the characteristics of digital communication, such as using more concise language, visual presentations, short-form videos, or direct interaction with the public through digital platforms. Consistent with Campbell and Tsuria, digital authority operates through audience-driven authority, a model in which authority emerges when a figure's content receives extensive attention and is perceived as relevant within an online community (Campbell & Tsuria., 2021). However, such adaptations do not necessarily imply acceptance of all characteristics of digital

culture. In some contexts, the use of technology remains constrained by scholarly considerations, ethical principles, and the need to preserve teacher-based learning processes and reliance on authoritative sources.

Accordingly, an algorithmic environment should be understood not merely as a technical mechanism for distributing content but as an epistemic environment that influences how knowledge is discovered, attended to, and circulated. Digital mechanisms can increase the visibility of particular religious knowledge or figures, but such visibility is not synonymous with scholarly validity. This is where tension emerges between attention-based mechanisms of recognition and legitimacy mechanisms rooted in Islamic scholarly traditions. What receives the greatest attention in digital spaces is not necessarily the knowledge that possesses the greatest epistemic strength.

These findings reinforce previous studies demonstrating that the development of digital media has transformed the configuration of religious authority by opening spaces for new actors to attract attention and establish relationships with audiences. However, this study offers a different emphasis by positioning ulama as holders of scholarly authority who possessed social and intellectual legitimacy prior to the emergence of the digital environment. As Berger and Golan argue, text-based authority and religious expertise remain important sources of reference within online religious communities, particularly when ethical or doctrinal issues are debated (Berger & Golan, 2024). From this perspective, changes in authority are not primarily understood as the emergence of new actors who replace ulama, but as a process of negotiation between legitimacy inherited through scholarly traditions and new mechanisms of recognition developing through the digital ecosystem.

These findings demonstrate that ulama authority within an algorithmic environment is negotiative in nature. Authority neither remains entirely in its traditional form nor disappears with the emergence of digital media. Instead, it undergoes adjustments in the ways authority is communicated, presented, and accessed by the public. Thus, the most significant transformation lies not primarily in who possesses authority in absolute terms, but in the changing social and technological conditions through which such authority gains recognition.

Reconfiguration of Religious Knowledge Production and Validation

The second finding concerns changes in the ways religious knowledge is produced, acquired, disseminated, and validated. The digital environment has expanded the pathways through which people obtain Islamic information. Knowledge that was previously acquired largely through direct interaction with ulama, pesantren, madrasah, scholarly gatherings, classical texts, and pengajian forums can now be found through search engines, social media, video platforms, Islamic applications, websites, and artificial intelligence-based systems. Tuna et al. argue that when dealing with religious issues, Muslims may no longer rely

exclusively on conventional imams or ulama but instead seek religious knowledge through the internet, including Islamic web portals (Tuna et al., 2023); (Solahudin & Fakhruroji, 2020). Consistent with Rafiki, websites providing Islamic knowledge and social media have also continued to expand within online spaces (Rafiki, 2022). These changes have made the process of seeking religious knowledge more open but simultaneously more complex because people encounter an increasingly diverse range of sources.

This condition creates an important distinction between access to knowledge and the validity of knowledge. The ease of finding religious information does not automatically indicate that such information possesses scholarly legitimacy. Likewise, the frequency with which particular content appears, the number of viewers or followers, or the level of engagement cannot serve as a single measure for determining the epistemic quality of knowledge. As Lawther argues, such websites have a significant impact on how religion represents and transmits teachings to its followers (Arweck, 2016). Digitalization therefore expands access to information while simultaneously increasing the need for mechanisms of selection and verification.

Within this environment, the process of acquiring religious knowledge becomes increasingly fragmented. People may encounter a religious explanation through search results, videos, social media posts, platform recommendations, or conversations with AI systems. This information may subsequently be compared with other Islamic sources, consulted with ulama, examined through classical texts, or related to explanations provided by religious institutions considered legitimate. Consistent with Solahudin and Moch Fakhruroji, Islamic learning practices through religious consultation services involving communication with ulama online represent the potential struggle between traditional authority and emerging sources of authority (Solahudin & Fakhruroji, 2020). Ahmad and Ghafar further argue that this distinction becomes increasingly important when AI systems generate interpretations that resemble authoritative religious guidance (Ahmad & Ghafar, 2026). Thus, digitalization does not necessarily eliminate traditional validation mechanisms but instead places them within a longer knowledge-seeking process involving a greater number of sources.

This transformation becomes even more significant with the emergence of artificial intelligence. AI does not merely distribute existing information but can generate answers directly in response to user questions, summarize texts, organize information, and provide responses that appear convincing. In the context of religious knowledge, this capability creates a new epistemic condition because users can obtain answers to religious questions without first interacting with teachers or ulama. The issue, therefore, is no longer simply whether information can be obtained, but how to determine the sources, methodology, context, and authority underlying such answers.

The ability to generate answers, however, is not synonymous with scholarly authority. Within Islamic intellectual traditions, the validity of religious knowledge is determined not merely by the ability to organize information but also by the quality of sources, competence in understanding texts, interpretive methodology, contextual understanding, and processes of verification. Consistent with Askar et al., this phenomenon also contributes to the emergence of new forms of Islamic knowledge authority online (Askar et al., 2025). Therefore, a clear distinction must be maintained between information production and knowledge validation. Technology can accelerate the production and distribution of information, but it does not, in itself, determine whether such information possesses scholarly legitimacy.

Within this context, the role of ulama may undergo reconfiguration. Whereas ulama previously functioned primarily as key sources of knowledge transmission, within the digital environment they also function as interpreters, verifiers, contextualizers, and providers of epistemic judgments regarding information that has become increasingly accessible to the public. This role becomes particularly important when people encounter numerous sources with varying levels of quality and legitimacy. Thus, the presence of technology should not necessarily be understood as diminishing the role of ulama but rather as transforming how scholarly authority is exercised in the processes of knowledge production and validation.

The findings also indicate that digitalization does not automatically produce epistemic democratization. Although people gain greater opportunities to access diverse sources of knowledge, such openness simultaneously generates new challenges concerning the quality, credibility, and validity of information. It is therefore necessary to distinguish between the democratization of access and the democratization of scholarly authority. Access to information may become increasingly open without implying that all sources possess equal epistemic standing.

At this point, the relationship between Islamic scholarly traditions and the algorithmic environment becomes increasingly important. Digital platforms influence how knowledge is discovered and circulated, while scholarly traditions continue to provide frameworks for assessing the quality and validity of such knowledge. The digital environment therefore increasingly determines how knowledge is discovered, whereas scholarly mechanisms continue to play a role in determining whether such knowledge can be trusted and held accountable. This transformation demonstrates that digital change occurs not only at the level of communication media but also within the structure of the epistemic process.

Thus, the reconfiguration of religious knowledge production does not mean that technology takes over all functions of Islamic intellectual traditions. Rather, an increasingly clear distinction emerges between information production,

information distribution, and knowledge validation. Previously, these three processes tended to remain more closely connected to teachers, ulama, and religious institutions, whereas the digital environment allows them to occur through different actors, platforms, and mechanisms. This situation consequently requires new negotiations concerning who has the authority to determine whether particular religious knowledge can be accepted as legitimate knowledge.

Reconstructing Islamic Intellectual Traditions: Toward Hybrid Epistemic Legitimacy

The third finding demonstrates that the interaction between Islamic scholarly traditions and the digital environment cannot be understood simply in terms of continuity or change. What emerges instead is a process of selective adaptation, whereby traditional mechanisms of legitimacy interact with evolving modes of communication, distribution, visibility, and audience engagement within the digital environment. Ali et al. note that this shift in authority is accompanied by the weakening of traditional "gatekeepers" in the dissemination of Islamic knowledge (Ali et al., 2025). Tradition is not entirely abandoned; rather, the ways in which it operates within the production and circulation of knowledge undergo transformation. Salsabilla et al. argue that, at the level of social practice, this phenomenon reflects a shift in authority structures, whereby digital popularity replaces traditional scholarly authority (Salsabilla et al., 2025). Akhmetova et al. further state that digital participation operates alongside institutional continuity rather than replacing it (Akhmetova et al., 2026)

Within this configuration, traditional elements such as scholarly competence, sanad, mastery of Islamic sources, educational experience, institutional affiliation, and community recognition remain foundational to legitimacy. However, these elements interact with digital communication skills, platform access, visibility, audience interaction, and digital networks. This interaction produces a form of legitimacy that is neither entirely traditional nor reducible to digital popularity. This configuration is understood in this study as hybrid epistemic legitimacy.

Hybrid epistemic legitimacy does not mean that the number of followers, popularity, or digital visibility replaces scholarly competence. Rather, the digital dimension functions as a new environment in which scholarly legitimacy is communicated, recognized, and negotiated. An ulama may retain traditional sources of legitimacy while simultaneously adapting the ways in which knowledge is communicated to reach wider communities within digital spaces. Taqwa and Lubis argue that religious authority is no longer monopolized by traditional structures but is reproduced through algorithms and online interactions (Taqwa & Lubis, 2025). Under these conditions, digital competence becomes an additional dimension of authority practice rather than a substitute for scholarly competence. Consistent with Bognar, communicative connectivity enables translocal

communities to develop through sustained interaction, symbolic exchange, and shared interpretation within networked environments (Bognár, 2024)

In this context, the reconstruction of Islamic intellectual traditions should not be understood as the elimination of established traditions and their replacement by technology. Reconstruction is more appropriately understood as a reorganization of how these traditions operate as the conditions of knowledge production, distribution, access, and validation change. Consistent with Susanti et al., online media, digital applications, and interactive platforms now enable processes of religious preaching and education to reach broader audiences without being constrained by space and time (Susanti et al., 2025). The fundamental principles of scholarly legitimacy can therefore be maintained, while the ways in which knowledge is communicated, accessed, debated, and recognized undergo reconfiguration.

Cross-case comparisons in Bangkalan, Sampang, Pamekasan, and Sumenep also demonstrate the importance of social and institutional contexts in this process. Pesantren traditions, scholarly networks, institutional characteristics, digital experience, and community characteristics may shape how ulama respond to changes in the knowledge environment. Accordingly, digital transformation does not produce a single model of ulama authority. Responses to technology may take the form of acceptance, selective utilization, adaptation, or critical engagement, depending on how religious actors assess the relationship between technology, tradition, and community needs.

These contextual differences demonstrate that the reconstruction of Islamic intellectual traditions is contextual and negotiative. Ulama do not simply choose between accepting or rejecting technology; rather, they selectively assess technological features that are considered compatible with the objectives of education, religious preaching, and the preservation of scholarly authority. This process demonstrates that intellectual traditions possess the capacity to adapt without necessarily losing their fundamental epistemic characteristics. Hjarvard emphasizes that digital technology is not merely a means of communication but also reshapes ritual experiences and religious expressions (Hjarvard, 2015).

Based on the overall findings, changes in religious authority can be understood as a shift from a configuration of traditional scholarly authority toward hybrid epistemic legitimacy. In the traditional configuration, authority is primarily constructed through competence, sanad, knowledge transmission, institutional structures, and community recognition. Within an increasingly digitalized environment, all of these elements remain important but interact with digital visibility, communication skills, audience engagement, and technological mediation. Thus, religious legitimacy does not move entirely from ulama to technology or digital actors; rather, it is constituted through interactions among different sources of legitimacy.

This concept contributes to Islamic Studies by positioning digitalization not merely as an issue of communication technology but as an epistemological issue. The central question is not simply how ulama use social media or AI, but how changes in knowledge infrastructures affect the conditions under which particular forms of Islamic knowledge are regarded as valid, credible, and authoritative. This perspective makes it possible to understand digital transformation as a change in how religious authority operates, rather than merely as a change in the media through which religious messages are communicated.

Thus, the transformation of religious authority in Madura should not be understood as either the decline of ulama authority or the triumph of digital actors. The findings instead indicate a form of negotiated continuity, in which inherited scholarly legitimacy is maintained while the ways in which such authority is communicated, accessed, and recognized undergo reconfiguration. In this context, the algorithmic era does not eliminate Islamic intellectual traditions but encourages scholarly actors to renegotiate how these traditions operate within an epistemic environment that has fundamentally changed.

Conclusion

Digital transformation and the emergence of algorithmic environments have reshaped how religious knowledge is produced, distributed, accessed, and validated. These changes present new challenges to Islamic intellectual traditions, as communities no longer acquire religious knowledge solely through ulama, pesantren, scholarly gatherings, and Islamic literature, but also through social media, search engines, video platforms, and artificial intelligence. Against this backdrop, this study aimed to analyze how ulama in Madura negotiate scholarly authority, how the production and validation of religious knowledge are changing, and how Islamic intellectual traditions are reconstructed within an increasingly algorithmically mediated environment.

The findings demonstrate that digital transformation does not automatically replace ulama authority. In Bangkalan, Sampang, Pamekasan, and Sumenep, ulama authority continues to rest on scholarly competence, mastery of Islamic sources, sanad, educational experience, religious institutions, and community recognition. However, such authority now operates under different conditions, as digital visibility, online communication, audience engagement, and algorithmic mechanisms increasingly influence how religious knowledge is discovered and received. Accordingly, changes in religious authority are more appropriately understood as a process of reconfiguration and negotiation rather than as a transfer of authority from ulama to technology or digital actors.

The study also finds that digitalization has expanded access to religious knowledge while simultaneously creating a distinction between accessibility and epistemic validity. The ease of finding information through digital media and

artificial intelligence does not, in itself, guarantee the truth or scholarly authority of such information. Under these conditions, ulama retain an important role as interpreters, verifiers, contextualizers, and evaluators of religious knowledge circulating in digital spaces. The interaction between traditional scholarly legitimacy and digital mechanisms indicates the emergence of hybrid epistemic legitimacy, namely a configuration of authority that preserves the foundations of Islamic scholarship while negotiating with new conditions of visibility, access, interaction, and digital knowledge circulation.

Conceptually, this study demonstrates that the reconstruction of Islamic intellectual traditions does not entail eliminating established traditions and replacing them with technology. Rather, reconstruction is more appropriately understood as a reorganization of how intellectual traditions operate as the conditions of knowledge production, distribution, access, and validation change. In the context of Madura, this process demonstrates a form of negotiated continuity: the fundamental principles of scholarly legitimacy remain intact, while the ways in which knowledge is communicated, accessed, debated, and recognized undergo transformation. These findings extend Islamic Studies by positioning algorithmic transformation not merely as an issue of media and communication but also as an epistemological issue concerning how religious knowledge acquires legitimacy.

This study has several limitations. First, it focuses on the Madura context; therefore, the findings cannot be directly generalized to all Muslim communities in Indonesia, which have different social structures, scholarly traditions, and digital ecosystems. Second, the study employs a qualitative approach, and its findings primarily represent the experiences, interpretations, and practices of informants within the contexts examined. Third, the study analyzes the algorithmic environment based on user experiences, digital practices, and observable communication traces and therefore does not seek to explain the internal mechanisms of platform algorithms, which remain largely opaque. These limitations should be considered when interpreting the relationship between algorithms, digital visibility, and religious authority.

Based on these findings, future research should expand the geographical scope and involve Muslim communities from diverse social, institutional, and Islamic-tradition backgrounds to examine whether patterns of hybrid epistemic legitimacy and negotiated continuity also emerge beyond Madura. Future studies could also combine qualitative approaches with digital network analysis, content analysis, or quantitative methods to systematically examine the relationships among algorithmic visibility, audience engagement, and religious legitimacy. In addition, the continued development of artificial intelligence calls for further research into how ulama, Islamic educational institutions, pesantren, and Muslim communities develop mechanisms for verification and ethical AI use in the production of religious knowledge. Such efforts are essential to ensure that digital

transformation not only broadens access to Islamic knowledge but also preserves epistemic integrity, scholarly responsibility, and the continuity of Islamic intellectual traditions.

References

Abusharif, I. N. (2024). Religious knowledge production and digital affordances. *Journal of Islamic and Muslim Studies*, *9*(1), 108-114. https://doi.org/10.2979/jims.00030

Ahmad, H., & Ghafar, N. A. (2026). Who speaks when machines read scripture: Boundary-making and interpretive authority in AI-mediated religious knowledge. *AI Ethics*, *6*(463). https://doi.org/10.1007/s43681-026-01254-5

Akhmetova, A., Rakhimova, G., Onngar, Y., Issakhan, M., & Baitenova, N. (2026). Digital religion and hybrid religious authority in algorithmically mediated environments. *Front. Sociol.*, *11*, 1892383. https://doi.org/10.3389/fsoc.2026.1892383

Al-Attas., S. M. N. (1998). *Islam and secularism*. Suhail Academy.

Ali, M., Farih, A., Ayubi, S. Al, & Rosa, A. (2025). Transforming religious authority: Islamic epistemology in the digital age. *RUSYDIAH: Jurnal Pemikiran Islam*, *6*(1), 19–37. https://doi.org/10.35961/rsd.v6i1.2079

Arweck, E. (2016). *Exploring religion and the sacred in a media age*. Routledge.

Askar, Nurdin, N., Pettalongi, A., Pettalongi, S. S., & Basire, J. H. I. T. (2025). Online Islamic knowledge sources and their authority in Islamic learning: A case study of Indonesian Muslim universities. *Cogent Education, 12*(1). https://doi.org/10.1080/2331186X.2025.2504236

Baidawi. (2025). Shaping virtual religious authority: The power of digital media on micro-celebrity da'i. *Journal of Asian Wisdom and Islamic Behavior*, *3*(1), 39–53. https://doi.org/10.59371/jawab.v3i1.93

Berger, A., & Golan, O. (2024). Online religious learning: Digital epistemic authority and self-socialization in religious communities. *Learning, Media and Technology*, *49*(2), 274–289. https://doi.org/10.1080/17439884.2023.2169833

Bognár, B. (2024). Hybrid social spaces and the individualisation of religious experience in the Global North: Spatial aspects of religiosity in postmodern society. *Religions*, *15*(2), 241. https://doi.org/10.3390/rel15020241

Campbell., H. A. (2013). *Digital religion: Understanding religious practice in new media worlds.* Routledge.

Campbell, H. A., & Tsuria., R. (2021). *Digital religion: Understanding religious practice in digital media* (2nd ed.). Routledge.

Chairi, E. (2019). Ketiadaan otoritas terpusat dalam fenomena kontemporer di Indonesia. *Radikalisme, Kritik Teori Sosiologi Dan Wacana Politik Di Indonesia*, *2*(2), 197-215. https://doi.org/10.20414/sangkep.v2i2.666

Creswell., J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). Thousand Oaks, CA: Sage.

Cui, L., Dong, L., Fu, X., Wen, Z., Lu, N., & Zhang, G. (2016). A video recommendation algorithm based on the combination of video content and social network. *Concurrency and Computation: Practice and Experience*, *29*(14), 900. https://doi.org/10.1002/cpe.3900

Evolvi, G. (2019). *Blogging my religion: Secular, Muslim, and Catholic media spaces in Europe*. Routledge.

Goffman, E. (2023). *The presentation of self in everyday life. In Social theory re-wired* (3rd edn). Routledge.

Hannan, A., & Mursyidi, A. F. (2023). Social media and the fragmentation of religious authority among Muslims in contemporary Indonesia. *Digital Muslim Review*, *1*(2). https://doi.org/10.32678/dmr.v1i2.10

Hjarvard, S. (2015). Mediatization and the changing authority of religion. *Media, Culture & Society*, *38*(1), 8-17. https://doi.org/10.1177/0163443715615

Lohlker, R., & Wahid, S. H. (2026). The transformation of Islamic religious authority. *Religions*, *17*(4), 493. https://doi.org/10.3390/rel17040493

Marshall, C., & Rossman., G. B. (2011). *Designing qualitative research* (5th ed.). Sage.

Maulana, M. D., & Anoraga, B. (2025). Building algorithmic religious authority through different religious networks. *Jurnal Dakwah RISALAH*, *36*(2), 85-110. https://doi.org/10.24014/jdr.v36i2.36050

Merriam., S. B. (2009). *Qualitative research: A guide to design and implementation.* Jossey-Bass.

Rafiki, A. (2022). Application of knowledge management and digitalization in an Islamic view. In M. N. Almunawar, M. Z. Islam, & P. Ordóñez de Pablos (Eds.), *Digital transformation management: Challenges and futures in the Asian digital economy*. Routledge, 2022. https://doi.org/10.4324/9781003224532-6

Salsabilla, N. A., Ma'shumah, N. K., & Wijaya, A. R. (2025). Digital resistance in Indonesia: Critical discourse and sentiment analysis of Kawal Putusan MK on X. *Jurnal Gramatika: Jurnal Penelitian Pendidikan Bahasa Dan Sastra Indonesia*, *11*(1), 132–154. https://doi.org/10.22202/jg.v11i1.8985

Saputra, E., Triantoro, D. A., & Ardiansyah, A. (2021). Urban Muslim youth, pengajian communities and social media: Fragmentation of religious authorities in Indonesia. *Al-Qalam Jurnal Penelitian Agama Dan Sosial Budaya*, *27*(2), 335-345. https://doi.org/10.31969/alq.v27i2.1004

Siregar, K. T., Zhakypkazy, I., & Uyuni, B. (2025). Indonesian muballigh and religious authority: From sanad to algorithmic transformation of Islamic knowledge transmission in the digital era. *Jurnal Indo-Islamika*, *15*(2), 298–314. https://doi.org/10.15408/jii.v15i2.47052

Slama, M. (2017). A subtle economy of time: Social media and the transformation of Indonesia's Islamic preacher economy. *Econ Anthropol*, *4*(194-106.). https://doi.org/10.1002/sea2.12075

Solahudin, D., & Fakhruroji, M. (2020). Internet and Islamic learning practices in Indonesia: Social media, religious populism, and religious authority. *Religions*, *11*(1), 19. https://doi.org/10.3390/rel11010019

Sulfikar, A., & Yasmine, D. I. (2026). Platformized religious authority: Rethinking legitimacy in the age of social media influencers. *Epistemé: Jurnal Pengembangan Ilmu Keislaman*, *20*(02), 141–171. https://doi.org/10.21274/epis.2025.20.02.141-171

Susanti, R., Nurdiansyah, F., Charles, & Gucandra, Y. (2025). Digitalizing the Quran and Hadith: Epistemological reconstruction and challenges of religious authority in the digital age. *El-Rusyd*, *10*(2), 349–359. https://doi.org/10.58485/elrusyd.v10i2.485

Taqwa, R. H., & Lubis, A. A. A. M. R. (2025). Digital religion and hybrid practices: Negotiating ritual and authority within Jama'ah Tabligh in Indonesia. *Al-Tahrir Jurnal Pemikiran Islam*, *25*(2), 323-346. https://doi.org/10.21154/altahrir.v25i2.11599

Tuna, M. H., Kolb, J., & Sejdini, Z. (2023). Religious learning environments of Austrian Muslim youth: An empirical analysis of religious educational processes. *Religions*, *14*(8), 1002. https://doi.org/10.3390/rel14081002

Wahid, S. H., & Abdulloh, S. (2026). Digital Islamic authority: A revolutionary shift or mere hype? A systematic review. *SN Social Sciences*, *6*(62). https://doi.org/10.1007/s43545-026-01328-5

Yin., R. K. (2018). *Case study research and applications: Design and methods* (4th ed.). SAGE Publications.

Zaid, B., Fedtke, J., Shin, D. D., Kadoussi, A. El, & Ibahrine, M. (2022). Digital Islam and Muslim millennials: How social media influencers reimagine religious authority and Islamic practices. *Religions*, *13*(4), 335. https://doi.org/10.3390/rel13040335

Zaid, B., Ibahrine, M., & Moussa, M. Ben. (2022). Networked Islam and liquid authority: Everyday influencers and young Muslim practice. *Religions*, *13*(4), 1–15. https://doi.org/10.1177/14614448261436035

Zairina, W., Zamzami, M., Muktafi, M., Albaar, A., & Hegazy, W. (2025). Contesting infidelity and religious authority in digital Indonesia: The discursive contestation of the hadith al-Ḥamw al-Mawt on social media. *Journal of Contemporary Islam and Muslim Societies*, *9*(2). https://doi.org/10.30821/jcims.v9i2.26651