

LIVING HADITH IN THE AGE OF ARTIFICIAL
INTELLIGENCE: A PHENOMENOLOGICAL STUDY OF THE
USE OF CHATGPT AS A SOURCE FOR STUDYING HADITH
AMONG COLLEGE STUDENTS

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Abstract

Although artificial intelligence (AI) has increasingly shaped the academic lives of Muslim students, the use of ChatGPT as a source for studying hadith remains insufficiently examined. This study aims to analyze the patterns and motivations underlying students' use of ChatGPT in hadith learning, the shift in scholarly authority resulting from AI-mediated access to hadith knowledge, and the implications of this phenomenon for the concept of living hadith in digital culture. Employing a qualitative phenomenological design, the study collected data through documentation, digital observation, and in-depth interviews with 18 students from Hadith Studies programs at two Islamic universities selected through purposive sampling. Data were analyzed using the Miles, Huberman, and Saldaña model, supported by technique and source triangulation. The findings indicate that students use ChatGPT as an initial access point for hadith learning because of its speed and ease of use; however, perceptions of its accuracy vary among critical believers, naive believers, and pragmatic skeptics. The findings further show a shift in scholarly authority from the teacher–*sanad* tradition to an impersonal algorithmic system, thereby

weakening the traditions of *talaqqi* and *balaqah*. In addition, the use of ChatGPT represents a new form of digital living hadith, characterized by the technology-mediated internalization of hadith values. The novelty of this study lies in its integration of living hadith, digital religion, and digital scholarly authority into a single empirical analysis. This study contributes to modern hadith studies by clarifying how AI reshapes religious learning practices, epistemic authority, and the transmission of hadith knowledge, while also offering implications for artificial intelligence literacy policies in Islamic educational institutions.

Keywords: Living Hadith; ChatGPT; Scholarly Authority; Digital Religion; Hadith Epistemology

INTRODUCTION

The transformation of Islamic education in the age of artificial intelligence is not merely a matter of adopting new technology, but touches upon the epistemological foundations of Islamic scholarship itself. As students in Hadith studies programs begin using ChatGPT, the large language model developed by OpenAI, to inquire about the quality of hadiths, trace chains of transmission (*sanad*), and request interpretations of the text (*matan*), fundamental questions regarding who and what is entitled to serve as scholarly authority in Islam have become increasingly relevant and urgent (Campbell, 2021). This phenomenon cannot be interpreted merely as a pragmatic technical adaptation; it represents a symptom of epistemic transformation that influences how Muslims, particularly the educated generation understand, produce, and distribute religious knowledge (Bunt, 2021).

Empirical data shows that the adoption of generative AI in higher education is outpacing institutions' ability to respond to it pedagogically. ChatGPT reached 100 million active users in just two months after its launch in November 2022, making it the fastest-growing application in the history of digital platforms (Bunt, 2021). In Indonesia, this penetration is no exception in the realm of Islamic education: a survey conducted by the Research and Development Center of the Indonesian Ministry of Religious Affairs (2023) () indicates that more than 58% of students at State Islamic Higher Education Institutions (PTKIN) have utilized generative AI for academic purposes, including for religious and Islamic matters. This figure positions the phenomenon of AI use in Islamic education not

merely as a marginal trend, but as a mainstream phenomenon demanding systematic academic study (Rohman et al., 2026).

In the scholarly tradition of hadith, the authority of knowledge is always based on the isnad and transmission (Sari et al., 2025). A hadith scholar derives his authority not only from mastery of the text (matan), but from an unbroken chain of transmission linking him from teacher to teacher all the way back to the Prophet Muhammad (peace be upon him) a system known as isnad that has formed the epistemological foundation of hadith for over fourteen centuries (Lucas, 2004). This system is not merely a technical verification mechanism; it embodies the idea that religious knowledge is a living chain of trust among people who share a commitment to truth. The presence of ChatGPT radically disrupts this logic: it has no teacher, does not undergo the process of talaqqi, and lacks an isnad, yet it can produce texts of hadith quality with impressive speed and textual accuracy, though it potentially contains what is referred to in AI literature as “hallucination,” namely the generation of text that sounds authoritative but is factually incorrect (Bender & Mcmillan-major, 2021, Ji et al., 2022).

This issue is directly linked to the concept of the “living hadith”, an analytical framework used by contemporary hadith scholars to understand how hadith is alive and practiced in the real-life contexts of Muslim communities, transcending the categories of sahih and da’if within the formal discipline of hadith studies (Suryadilaga, 2012). “Living hadith” encompasses not only ritualistic practices but also the medium through which hadith are communicated, internalized, and negotiated. From this perspective, the use of ChatGPT as a source for hadith study can be understood as a new form of “living hadith” operating within a digital ecosystem, a proposition that has not yet been empirically tested in the existing literature. Studies on digital religion, as developed by Campbell (2021) and Tsuria (2021), provide a complementary lens: that religion and digital technology are in a co-constitutive relationship, mutually shaping one another, such that a change in medium implies a change in the substance of religious practice itself (Pahrudin, 2022).

Several previous studies have laid the groundwork for this research, albeit with different focuses and approaches. Suryadilaga (2012) has mapped “living hadith” in various cultural practices of Indonesian Muslims, but has not specifically addressed the dimension of generative AI. Saputra (2025) examined hadith literacy on social media and found that the erosion of scholars’ authority has been underway since the pre-AI era AI has merely

deepened this process. Amalia & Hasanah (2026), in his study on digital Islam, highlights how the internet has revolutionized access to Islamic knowledge, yet without analyzing the implications of generative AI, which is epistemologically distinct from conventional search engines. From an Islamic education perspective, Nisa & M Sulaiman, (2025) surveyed 312 Muslim students in Malaysia and found that the majority used ChatGPT for religious purposes without further verification; while Zaid Khrisat, (2025) identified very limited awareness among students regarding potential errors in AI-generated isnads. In Indonesia, Muhamad Sharul Bin Abd Latib (2025) examined the digitization of hadith learning at UIN Syarif Hidayatullah, though their study was limited to conventional e-learning platforms; Muksin et al., (2026) analyzed the transformation of hadith literacy in the social media era, but their work has not yet addressed the dimension of generative AI.

From this literature review, at least three research gaps can be identified. First, no study has specifically examined the use of ChatGPT in hadith learning within the theoretical framework of the “living hadith”; the majority of studies employ quantitative surveys that fail to capture the phenomenological complexity of students’ practices . Second, studies on the shift in scholarly authority regarding hadith in the AI era remain very limited; existing research focuses on social media, not generative AI, which is epistemologically distinct due to its ability to generate assertive text without verified references. Third, the integration of three theoretical frameworksnamely, living hadith, digital religion, and digital scholarly authorityinto a single cohesive empirical study has never been conducted, even though all three reinforce one another in explaining this multidimensional phenomenon.

Based on the identification of these gaps, this study formulates three research questions: (1) What are the patterns and motivations for using ChatGPT as a source for learning hadith among students in the Hadith Studies Program?; (2) How does the use of ChatGPT shift the scholarly authority of hadith in students’ academic practices?; and (3) How can the phenomenon of using ChatGPT in hadith learning be interpreted within the conceptual framework of digital living hadith? These three questions are analytically interrelated and will be systematically addressed through the study’s findings and discussion.

METHODS

This study employs a qualitative approach with a phenomenological design, chosen based on the consideration that the use of ChatGPT in hadith learning constitutes a lived experience that is complex, contextual, and cannot be reduced to numerical data. The phenomenological approach, as developed by Moustakas and adapted in educational research by Creswell & Poth Creswell, (2018), aims to uncover the essential structure of the subject's experience through the processes of epoché and phenomenological reduction; in this context, it is combined with the perspective of digital ethnography (Hine, 2015) to address the online dimensions of the practice under investigation. The study was conducted at Maulana Malik Ibrahim State Islamic University in Malang and included several informants from Al-Azhar University in Cairo, Egypt. These universities were selected through purposive sampling because all three have Hadith Studies programs accredited as “excellent,” with a diverse student population and a high level of technology adoption. Eighteen informants were selected using purposive sampling with criterion sampling (Creswell, 2018): active students in the Hadith Studies Program who were currently taking or had taken Hadith-based courses, had owned and used a ChatGPT account for at least the past three months, and were willing to participate voluntarily. Diversity in gender (16 males, 4 females), semester (3–7), and pesantren/non-pesantren background was considered to ensure the representation of perspectives.

Data collection was conducted through the triangulation of three techniques: (1) semi-structured in-depth interviews and pilot interviews; (2) digital observation, screen recording of ChatGPT use for learning hadith, analysis of social media posts related to hadith and AI, and documentation of ChatGPT conversations voluntarily shared by informants, following the digital ethnography ethics protocol by Eickelman, D. F., & Anderson, (2003); and (3) documentation, including screenshots of ChatGPT conversations, hadith course modules, and institutional policies regarding AI. The primary instrument was the researcher themselves as a human instrument, supplemented by interview guidelines, structured digital observation sheets, documentation forms, and a field note journal. Data analysis utilized the interactive model by Miles, Huberman, & Saldaña (2014) through four stages: data condensation (open coding and axial coding), data presentation (thematic matrix), and drawing conclusions. Data validity was ensured through triangulation of sources and techniques, and member checking with 6 key informants.

RESULTS

Patterns and Motivations for Using ChatGPT as a Source for Studying Hadith

All eighteen informants confirmed using ChatGPT for the purpose of studying hadith, with a frequency ranging from 3 to 15 times per week and an average duration of 23 minutes per session. Thematic analysis identified three dominant, mutually reinforcing motivations: unlimited accessibility, response speeds far surpassing manual search processes, and ChatGPT's ability to explain technical hadith terminology in easily understandable Indonesian, aspects not always available in Arabic-language sources.

"If I wanted to trace the chain of transmission for a hadith for an assignment, I used to have to consult Mu'jam al-Mufahras or Maktabah Syamilah, and it could take up to two hours for a single hadith. Now, with ChatGPT, I can get an explanation of the isnad, matn, and the narrators' reliability in just five minutes. I still double-check the information, but ChatGPT is like a first assistant that helps me figure out where to start. (Informant 4, 5th semester)"

The most dominant usage patterns are: first, submitting hadith texts to request information on their isnad and quality (42% of all prompts in the digital observation); second, requesting explanations of technical terms in hadith studies such as mursals, mu'allals, or muzhtaribs (28%); third, requesting translations and contextualization of hadiths in relation to contemporary issues (30%). This third aspect is analytically significant: students do not merely use ChatGPT as a dictionary or search engine, but rather as an active interpretive partner, what some informants referred to as a 'digital mufasssir.'

"I once asked ChatGPT how the hadith prohibiting usury could be applied in the context of the digital economy and cryptocurrency. The answer was very detailed, citing the opinions of both classical and contemporary scholars. I realize that some of it might not be entirely accurate, but as a starting point for reflection, it was very helpful. (Informant 11, 6th semester)"

Further analysis of the digital observations revealed a typology of accuracy perceptions consisting of three categories: critical believers (11 out of 18 informants) who use ChatGPT but perform partial verification for important matters; naive believers (4 informants) who accept ChatGPT's output without additional verification; and pragmatic skeptics (3 informants) who use ChatGPT with high caution and always double-check the information. Most concerning is the finding regarding 'text-based trust': students tend to

trust responses presented in an academic style, using Arabic terminology, and including the names of narrators, even when they cannot verify their accuracy, indicating that perceptions of accuracy are built on textual appearance rather than substantive evaluation.

"I've tested ChatGPT several times with hadiths that I know for certain are da'if, and it turns out that ChatGPT sometimes labels them as sahih or vice versa. So I know it's not perfect. But for general information, I still trust it about 70%. The rest needs to be verified. Because sometimes the source isn't clear, or the hadith isn't even listed at all (Informant 2, 5th semester, 'critical believer' category)"

The digital search results shown by Informant 3 in **Figure 1**, which tracked a search for hadiths regarding grave visits, revealed that the results provided by ChatGPT were not entirely accurate regarding the authenticity of the hadiths; moreover, when the source of that information was checked, it turned out that the text of the hadith was not present at all.

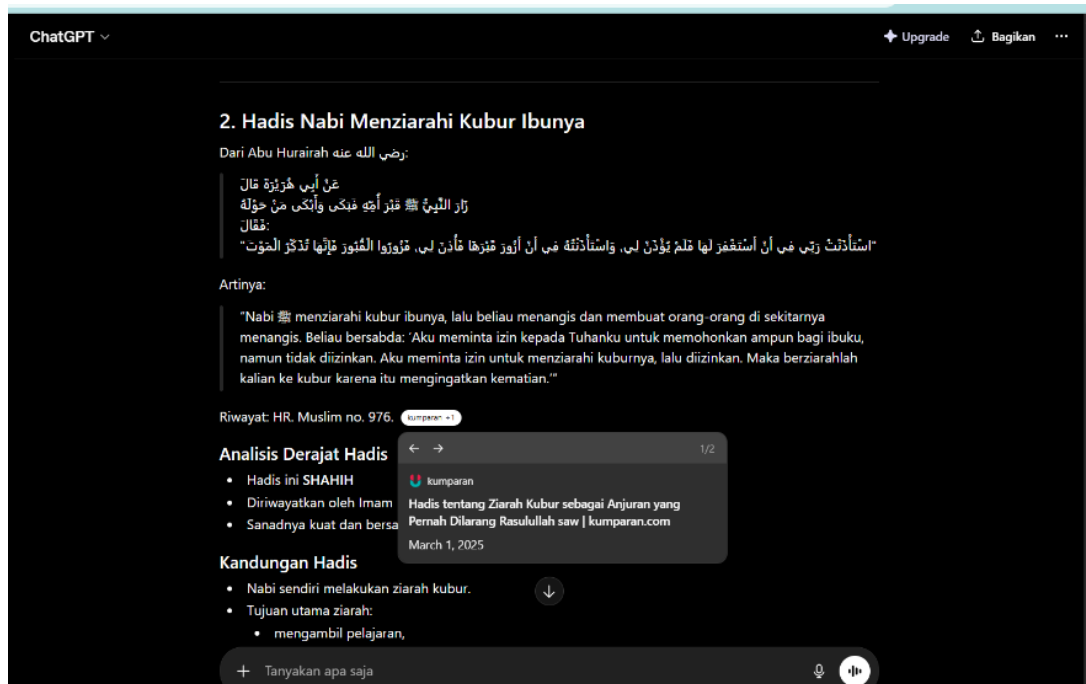


Figure 1: Results of a Hadith Search Using ChatGPT

The Shift in Scholarly Authority in Hadith Due to AI Mediation

The second analytically significant theme is the shift in scholarly authority in hadith, which can be empirically observed through student narratives and digital observations. This shift occurs in two distinct yet interrelated modes: the mode of substitution, in which

ChatGPT de facto replaces the functions previously performed by teachers or reference books; and the mode of complementation, in which ChatGPT is positioned as an additional authority that complements, yet gradually displaces, the central position of human authority.

“If my professor is hard to reach or busy, I turn to ChatGPT. The answers are quick, thorough, and non-judgmental, even if I ask something I should already know. Sometimes I feel like ChatGPT is more patient than people. (Informant 9, 5th semester)”

This shift has had a tangible impact on the tradition of hadith study, which has long been a hallmark of Islamic scholarship. Six out of eighteen informants admitted that they now rarely open Maktabah Syamilah for their daily study needs. More significantly, two informants with a pesantren background expressed concern over the weakening of the dimension of *adab al-'ilm*, the ethics of seeking knowledge, which is an integral component of the hadith learning process within the Islamic scholarly tradition.

“At the Islamic boarding school, we were taught that when studying hadith, there is a proper etiquette: first perform wudu, sit properly, and only then open the book. With ChatGPT, I sometimes ask questions while lying down or while eating. I feel like something is missing from that process, even though the information might be the same or even more extensive. (Informant 13, from an Islamic boarding school background, 5th semester)”

Digital observations reveal an even more concerning practice: some students post ChatGPT's responses regarding hadiths to their study WhatsApp groups without attributing them to ChatGPT, as if the information came from their own personal knowledge. This practice of reappropriating AI-generated knowledge reflects complex dynamics in which the boundary between self-generated knowledge and algorithm-produced knowledge is becoming increasingly blurred. One of the most striking accounts of this shift in authority comes from Informant 17, who witnessed a classmate debating a professor using arguments sourced from ChatGPT, and the professor was unable to immediately refute them because they did not know which sources the AI was referencing.

One of my friends had a debate with their professor using arguments from ChatGPT. And the professor didn't immediately refute them because they didn't know which sources ChatGPT was referencing. It was a strange moment the AI ended up being more 'convincing' than the professor in the debate. (Informant 17, 7th semester)”

Digital Living Hadith as a New Manifestation of Hadith Internalization

The third theme integrates the previous findings into a single interpretive framework: the use of ChatGPT in hadith study as a new manifestation of living hadith, which, in a digital context, can be conceptualized as digital living hadith. This concept does not imply that students are passive in the face of technology, but rather that the values, mechanisms, and practices of hadith transmission are undergoing reconfiguration within an algorithm-mediated digital ecosystem.

Three empirical sub-themes that reinforce this conceptualization are: first, hadith as digital content, students increasingly understand hadith through text fragments extracted, translated, and contextualized by AI, rather than as complete texts within the manuscript tradition; second, algorithmic transmission, the process of hadith knowledge transmission, which was originally teacher-student based, now operates through probabilistic models devoid of relational dimensions; and third, the formation of virtual hadith communities where ChatGPT serves as the primary mediator of knowledge exchange. The practice of sharing screenshots of ChatGPT conversations about hadith in social media groups, as observed in digital monitoring, is the most concrete example of the “living digital hadith”: hadith that “lives” and circulates through the medium of AI.

“I think the scholars of the past also adapted to their times. Just as scholars in the past wrote dictionaries of rijal to make hadiths easier to study, perhaps AI is the modern version of that. The difference is that dictionaries of rijal were written by people who understood isnad; ChatGPT doesn’t understand isnad, but it understands language patterns. (Informant 6, 7th semester, most reflective narrative)”

Informant 6’s narrative is particularly significant because it demonstrates a relatively high level of epistemic reflexivity, showing an understanding of, and ability to distinguish between, the potential and limitations of AI in hadith scholarship. This narrative serves as an indicator that critical education regarding AI in hadith studies can yield a more nuanced understanding, and suggests that the concept of “living digital hadith” need not signify an erosion of scholarly rigor; rather, it can be channeled into responsible pedagogical innovation when supported by an adequate AI literacy framework within Islamic educational institutions.

DISCUSSION

Patterns of ChatGPT Use and Hadith Epistemology in the Probabilistic Era

Findings regarding the intensity and typology of ChatGPT use in hadith studies both confirm and deepen the analysis by Nisa & M Sulaiman, (2025) and Sofa, (2024), who found similar patterns in Malaysia, but with one crucial analytical difference: this study was able to identify ‘text-based trust’ as the psychological mechanism explaining why students, even those who know that AI can be wrong continue to use ChatGPT’s output without substantive verification (Fuad et al., 2025). This phenomenon is not merely a matter of digital literacy but reflects a fundamental epistemological conflict between two structurally incompatible traditions of knowledge production.

Classical hadith epistemology is built on the principle of *isnad*, a human chain of transmission that can be verified one by one, with strict criteria in *‘ilm al-rijal* (Lucas, 2004). It is an epistemology based on a trust network that is historically and relationally distributed (Mokhammad A’lan Tabaika et al., 2025). In contrast, the epistemology of generative AI is based on probability distributions where outputs are generated from statistical patterns of a trained data corpus, without the ability to access or verify the historical chain of transmission (Bender & Mcmillan-major, 2021; Ji et al., 2022). This conflict cannot be resolved with the slogan “use AI wisely” without a clear operational framework. In the context of hadith studies, “AI hallucinations” that is, the generation of text that sounds authoritative yet is factually incorrect poses a twofold risk: not merely spreading misinformation, but disseminating hadiths of questionable validity packaged in a convincing textual form (Rachman et al., 2025). This demands an institutional response in the form of an AI literacy curriculum integrated into Hadith Studies programs, which explicitly trains students to distinguish between the epistemology of the *sanad* and probabilistic epistemology..

The finding of this usage pattern as a “digital exegete” also has broader implications: it indicates that ChatGPT is not merely used as an information-searching tool, but as an active interpretive partner. Within the framework of hadith hermeneutics, this interpretive function has traditionally been performed only by individuals possessing scholarly competence recognized by the community a scholar who has undergone a lengthy process of scholarly training. When this function is transferred to an AI system, what occurs is not merely pedagogical efficiency, but a shift in the structure of interpretive

authority that carries theological-academic consequences that have not yet been fully mapped out.

The Crisis of Scholarly Authority: From Sanad to Algorithms

The shift in scholarly authority identified by this study represents a local manifestation of a global phenomenon that Selby & Sayeed, (2023) have identified as the democratization and disintermediation of religious knowledge in the digital age. However, the emergence of generative AI introduces a new dimension far more complex than the mere rise of “self-taught internet scholars”: ChatGPT is not an individual who can be held accountable within religious logic, not an entity with moral-theological commitments, and not a member of a scholarly community bound by shared epistemic norms.

Vygotsky, (1978) analytical framework, scholarly authority constitutes symbolic capital acquired through the accumulation of cultural capital within the academic-religious field. A hadith scholar gains their authority through years of studying hadith with authentic chains of transmission, studying under recognized scholars, and producing works evaluated by the scholarly community (Khofifah et al., 2025). ChatGPT appears to possess ‘authority based on access to information’ it has trained itself on a corpus of billions of texts, yet without undergoing the legitimate process of accumulating cultural capital within the scholarly field of hadith. What occurs is a ‘short-circuit of symbolic capital’: authority is borrowed from textual appearance, not from a legitimate scholarly process (Abdulrahman, 2024). Students in the “naively trusting” category are the most vulnerable to this short-circuit, as they lack sufficient scholarly capital to detect the gap between appearance and substance (Nordin et al., 2025).

Findings regarding the weakening of the talaqqi and halaqah traditions also strongly resonate with Bunt (2021) analysis of the fragmentation of Islamic scholarly communities in the digital age. The halaqah tradition is not merely a learning method; it is a space for the formation of scholarly social capital, where students not only learn hadith content but also learn to become part of a scholarly community that shares common epistemic standards. When halaqah is replaced by individual sessions with ChatGPT, what is lost is not merely the intensity of discussion, but the process of epistemic socialization that has long served as an unwritten transmission mechanism in hadith education (Addzaky et al., 2024). The appropriate institutional response is not to ban the use of AI, but rather to actively strengthen halaqah practices as a counterbalance to algorithmic individualization of

learning, a recommendation supported by comparative findings from Farid et al., (2025) that institutions with strong traditions of group discussion exhibit more critical patterns of AI usage.

Digital Living Hadith: Theoretical Reconfiguration and Pedagogical Implications

The most significant theoretical contribution of this study is the conceptualization of digital living hadith as a new analytical framework that is epistemologically more appropriate for understanding the transformation of hadith practices in the AI era. The classical formulation of the “living hadith,” as developed by Suryadilaga (Suryadilaga, 2012) defines the “living hadith” as the phenomenon of the hadith’s vitality within Muslim socio-religious practices; however, it has not yet accommodated the technological dimension as a medium that actively shapes how the hadith is understood and internalized (Rohman et al., 2026). This study demonstrates that the medium is not merely passive and distributive but substantively alters the structure of knowledge: the way ChatGPT processes hadith texts (statistical pattern recognition) is fundamentally different from the way hadith scholars process the same texts (judgment based on isnad and the context of transmission), so that the “hadith” produced by each possesses a qualitatively different epistemic status.

Nordin et al., (2025) and Tsuria (2021) framework of “digital religion” reinforces this argument: religion and digital technology are in a co-constitutive relationship, meaning that the use of ChatGPT in hadith studies does not merely change learning methods, but has the potential to transform how students understand what hadith is, how its authority is established, and who is entitled to speak on its behalf (Suryanto, 2026). Within this framework, the “living digital hadith” is an arena where negotiations between the scholarly tradition of hadith and algorithmic logic unfold dynamically, an arena that demands critical awareness from all involved actors: students, faculty, and Islamic educational institutions (Rachman et al., 2025).

The pedagogical implications of these findings are constructive, not prohibitive. As implied in Informant 6’s narrative comparing ChatGPT to a digital rijal dictionary, there is real potential to position AI as digital scaffolding within Vygotsky (1978) framework: providing a zone of proximal development that helps students access complex concepts in hadith studies before delving deeper under the guidance of a human instructor. However, realizing this potential requires: (1) the development of an “AI-augmented hadith studies” curriculum that integrates the use of ChatGPT with traditional sanad verification methods;

(2) the development of a specialized AI platform for hadith studies built upon a verified corpus, not a general internet corpus; and (3) the establishment of clear institutional guidelines at PTKIN regarding the use of AI in religious education, guidelines that, based on comparative findings by Fauziyah et al., (2025) in Malaysia, have been shown to significantly enhance more critical and responsible patterns of AI use. The greatest remaining challenge is ensuring that digital living hadith does not result in the erosion of the sanad tradition, but rather becomes a space for pedagogical innovation that enriches, rather than replaces, the epistemological richness of Islamic hadith scholarship.

CONCLUSION

This study has answered the three research questions posed. First, the patterns of ChatGPT use in hadith study among students in the Hadith Studies Program are intensive and multifunctional, encompassing rapid takhrij, explanations of technical terms, and the contextualization of hadith with contemporary issues, driven by motivations of accessibility, speed, and readability, with a diverse typology of accuracy perceptions ranging from critical belief, naive belief, and pragmatic skepticism. The phenomenon of ‘text-based trust’ is an original finding indicating that perceptions of accuracy are built upon textual appearance, not substantive scholarly evaluation of the hadith. Second, the use of ChatGPT has tangibly shifted the scholarly authority of hadith, from the teacher-transmission chain system toward impersonal algorithmic authority, which weakens the traditions of talaqqi and halaqah, gives rise to the practice of reappropriating AI knowledge as personal knowledge, and in extreme cases positions AI as a more ‘authoritative’ party than the instructor in academic discussions. Third, this phenomenon as a whole is a manifestation of the digital living hadith, a new form of technology-mediated internalization of hadith values, which demands a theoretical reconfiguration of the concept of the classical living hadith so that it can accommodate the technological dimension as a co-constitutive medium, not merely a means of distribution.

The theoretical contribution of this study lies in the development of the concept of “digital living hadith” as a new analytical framework that integrates the theories of living hadith, digital religion, and digital scholarly authority, a synthesis that is being empirically tested for the first time. Practically, this study recommends: the development of an AI literacy curriculum in hadith study programs at PTKIN; the creation of institutional

guidelines for the use of AI in religious education; and the strengthening of the halaqah tradition as a counterbalance to the individualization of algorithmic learning. The limitations of this study include its scope being restricted to PTKIN students, so the findings cannot yet be generalized to the context of Islamic boarding schools or Muslim communities at PTKIN. Further research should examine the perspectives of faculty and religious scholars on this phenomenon, test the findings in the pesantren context, and empirically develop a structured AI-literacy hadith pedagogical model as an institutional response to the ongoing transformation.

REFERENCES

- Abd Latib, M. S. B. (2025). Digital transformation in Hadith studies: A comparative analysis of Hadith databases and classical transmission methods. *TAMMAT Journal of Critical Hadith Studies*, 3(1). <https://ejournal.uinsgd.ac.id/index.php/tammat/article/view/1847>
- Abdulrahman, M. A. (2024). The future of Hadith studies in the digital age: Opportunities and challenges. *Journal of Ecobumanism*, 3(8), 2792–2800. <https://doi.org/10.62754/joe.v3i8.4927>
- Addzaky, K. U., Hasanah, U., & Zain, Z. F. S. (2024). Developing Wasathiyah epistemology: A literature-based study of moderate Islamic knowledge in the post-truth era. *Heutagoga: Journal of Islamic Education*, 4(2), 199–217. <https://doi.org/10.14421/hjie.2024.42-05>
- Amalia, M., & Hasanah, R. A. (2026). The challenges of Islamic education in the digital age: Moral crisis, digital literacy, and religious authority. *Global Education Journal*, 4(1), 213–220. <https://doi.org/10.59525/gej.1387>
- Azwar, A., Usman, A. H., Abdullah, M. F. R., Khareng, M., & Shamsu, L. S. (2025). The integration of artificial intelligence in Hadith scholarship: A bibliometric perspective on emerging research directions. *NUKHBATUL 'ULUM: Jurnal Bidang Kajian Islam*, 11(1), 111–139. <https://doi.org/10.36701/nukhbah.v11i1.2251>
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice Hall.
- Bender, E. M., Gebru, T., McMillan-Major, A., & Shmitchell, S. (2021). On the dangers of stochastic parrots: Can language models be too big? In *Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency* (pp. 610–623). Association for Computing Machinery. <https://doi.org/10.1145/3442188.3445922>
- Bunt, G. R. (2018). *Hashtag Islam: How cyber-Islamic environments are transforming religious authority*. University of North Carolina Press. <https://uncpress.org/9781469643168/hashtag-islam/>
- Campbell, H. A., & Tsuria, R. (Eds.). (2021). *Digital religion: Understanding religious practice in digital media* (2nd ed.). Routledge. <https://doi.org/10.4324/9780429295683>
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.

- Eickelman, D. F., & Anderson, J. W. (Eds.). (2003). *New media in the Muslim world: The emerging public sphere* (2nd ed.). Indiana University Press.
- Fauziyah, F., Lutfi, M., & Zamzami, M. (2025). Integrating Hadith and science in the digital sphere: A Haughtian analysis of virtual religious content. *Ulul Albab: Jurnal Studi Islam*, 26(2), 305–330. <https://doi.org/10.18860/ua.v26i2.33214>
- Fuad, H., Sahara, Y., Utomo, S., & Nadir, M. (2025). Transformasi Otoritas Periwiyatan Hadis di Era Digital Tren Validasi Otomatis dan Implikasinya terhadap Studi Hadis. *Journal of Innovative and Creativity*, 5(2), 10345–10354. <https://doi.org/10.31004/joecy.v5i2.1609>
- Hine, C. (2015). *Ethnography for the internet: Embedded, embodied and everyday*. Bloomsbury Academic.
- Ji, Z., Lee, N., Frieske, R., Yu, T., Su, D., Xu, Y., Ishii, E., Bang, Y. J., Madotto, A., & Fung, P. (2023). Survey of hallucination in natural language generation. *ACM Computing Surveys*, 55(12), Article 248. <https://doi.org/10.1145/3571730>
- Khofifah, I. U., Khanifah, R. N., & Romadhon, R. I. (2025). An interdisciplinary epistemology of digital ethics for shaping Generation Z morality in Islamic education. *Edukasi Islami: Jurnal Pendidikan Islam*, 14(001), 461–478. <https://doi.org/10.30868/ei.v14i001.9440>
- Khrisat, Z. (2025). *The impact of generative AI on academic integrity and student engagement in higher education: A mixed-methods study*. Research Square. <https://doi.org/10.21203/rs.3.rs-7205885/v1>
- Lucas, S. C. (2004). *Constructive critics, Hadith literature, and the articulation of Sunni Islam: The legacy of the generation of Ibn Sa'd, Ibn Ma'in, and Ibn Hanbal*. Brill.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). SAGE Publications.
- Muksin, Musli, Yusra, D. A., & Afandi. (2026). Integration of artificial intelligence (AI) in Islamic religious learning. *Berkala Ilmiah Pendidikan*, 6(1), 53–63. <https://doi.org/10.51214/bip.v6i1.1797>
- Nisa, W., & Sulaiman, M. (2025). User experience analysis: ChatGPT-based AI in Islamic religious education learning. *Studies in Learning and Teaching*, 6(1), 186–196. <https://doi.org/10.46627/silet.v6i1.612>
- Nordin, M. K. N. C., Othman, N. A., Mohd Azhar, M. H., Syed Abdul Rahman, S. M. H., & Mohd Azhar, A. H. (2025). The use of artificial intelligence in Islamic studies: An analysis of students' perceptions and the need for guidance based on Islamic values. *Jurnal Usuluddin*, 53(2), 109–148. <https://doi.org/10.22452/usuluddin.vol53no2.5>
- Pahrudin, A. (2022). Tipologi Studi Hadis Kontemporer di Indonesia: Studi terhadap Artikel Jurnal Terindeks Moraref Tahun 2017–2021. *AL QUUDS: Jurnal Studi Alquran dan Hadis*, 6(2), 593–624. <https://doi.org/10.29240/alquds.v6i2.4087>
- Pusat Penelitian dan Pengembangan Kemenag RI. (2023). *Survei Penggunaan Kecerdasan Artifisial di Kalangan Mahasiswa PTKIN Indonesia*.
- Rachman, A., Saumantri, T., & Hidayatulloh, T. (2025). Transformation of religious authority in the digital era: A post-normal times analysis by Ziauddin Sardar on the phenomenon of social media da'wah. *Jurnal Ilmu Dakwah*, 45(1), 107–122. <https://doi.org/10.21580/jid.v45.1.25644>

- Rohman, M., Saputra, D., & Hayeemaming, M. (2026). Digital moral disruption in Islamic religious education: Challenges and strategies in the AI era at Blitar Regency high schools. *Edukasi Islami: Jurnal Pendidikan Islam*, 15(2), 683–700. <https://doi.org/10.30868/ei.v15i02.10161>
- Saputra, I. H., & Fadily, A. F. F. (2025). Epistemological challenges of Hadith authentication in the digital era: A philosophy of science perspective. *Jurnal Ulunnuha*, 14(2), 190–201. <https://doi.org/10.15548/ju.v14i2.11555>
- Sari, M., Husnilawati, Gani, A., Akmansyah, M., & Abas, E. (2025). Role of educational Hadiths in building Islamic educational ethics in the digital era. *Pendas: Jurnal Ilmiah Pendidikan Dasar*, 10(2), 230–239. <https://doi.org/10.23969/jp.v10i02.26624>
- Selby, J. A., & Sayeed, R. (2023). Religious authorities in the digital age: The case of Muslims in Canada. *Contemporary Islam*, 17(3), 467–488. <https://doi.org/10.1007/s11562-023-00536-7>
- Sofa, N. A., Kunaepi, A., & Nasikhin. (2024). The use of ChatGPT in improving the critical thinking skills of Islamic education graduates in Islamic universities. *Edukasi: Jurnal Pendidikan dan Pengajaran*, 11(2), 135–149. <https://doi.org/10.19109/6cdck053>
- Suryadilaga, M. A. (2012). Model-model living hadis. In M. Mansyur et al. (Eds.), *Metodologi Penelitian Living Qur'an dan Hadis*. TH-Press.
- Suryanto, H. (2026). Integrating generative artificial intelligence into Islamic character education: Practices and challenges in Indonesian Islamic school. *EDUKASIA: Jurnal Pendidikan dan Pembelajaran*, 7(1), 317–332. <https://doi.org/10.62775/edukasia.v7i1.2034>
- Tabaika, M. A., Barizi, A., & Arif, Y. M. (2025). Digital da'wah and the reconstruction of Islamic authority. *Al-Balagh: Jurnal Dakwah dan Komunikasi*, 10(2), 371–410. <https://doi.org/10.22515/albalagh.v10i2.12116>
- Tsuria, R., & Campbell, H. A. (2022). Introduction to the study of digital religion. In H. A. Campbell & R. Tsuria (Eds.), *Digital religion: Understanding religious practice in digital media* (2nd ed., pp. 1–21). Routledge. <https://doi.org/10.4324/9780429295683-1>
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.