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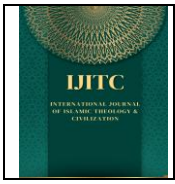

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ARTIFICIAL INTELLIGENCE AND THE CREATION OF FAKE HADITH TEXTS: CHALLENGES FOR ISLAMIC SCHOLARSHIP

***[1]Ramlan Mustapha & [2]Siti Norma Aisyah Malkan**

[1,2,] Universiti Teknologi MARA Pahang, Kampus Raub Malaysia

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ABSTRACT

The emergence of artificial intelligence (AI) technologies, particularly large language models and natural language generation systems, presents unprecedented challenges to Islamic scholarship in authenticating and preserving hadith literature. This paper examines the intersection of AI capabilities and hadith authentication, exploring how these technologies can both threaten and potentially strengthen traditional Islamic scholarly methods. The study analyzes the historical problem of fabricated hadiths, the technical capabilities of AI in generating convincing religious texts, and the multifaceted challenges facing contemporary Islamic scholars in maintaining the integrity of prophetic traditions. By synthesizing classical hadith sciences with modern technological understanding, this research proposes a framework for addressing AI-generated religious content while preserving the authenticity of Islamic knowledge transmission. The findings suggest that while AI poses significant risks to hadith authentication, it also offers opportunities for developing more sophisticated verification methodologies when combined with traditional Islamic scholarship.

Corresponding Author:

*Ramlan Mustapha,
Academy of Contemporary Islamic Study, Universiti Teknologi MARA Pahang, Raub Campus Malaysia
Email: ramlan@uitm.edu.my

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INTRODUCTION

The science of hadith authentication has been central to Islamic scholarship for over fourteen centuries, serving as the foundation for Islamic jurisprudence, theology, and spiritual practice. The hadith corpus, comprising the recorded sayings, actions, and tacit approvals of Prophet Muhammad (peace be upon him), represents the second most important source of Islamic guidance after the Quran (Brown, 2009). Throughout Islamic history, scholars have developed sophisticated methodologies for distinguishing authentic traditions from fabricated ones, establishing an elaborate system of chain narration verification (isnad) and textual criticism (matn) that represents one of the most rigorous forms of historical source criticism in pre-modern scholarship (Azami, 1977). This meticulous tradition emerged partly as a response to early attempts at hadith fabrication motivated by political, sectarian, and personal interests.

In the contemporary era, the advent of artificial intelligence and machine learning technologies has introduced an entirely new dimension to the age-old problem of hadith fabrication. Modern AI systems, particularly large language models, have demonstrated remarkable capabilities in generating human-like text across multiple languages, including Classical Arabic (Al-Thubaity, 2020). These technologies can analyze vast corpora of authentic hadith literature and produce new texts that mimic the linguistic patterns, structural conventions, and thematic content of genuine traditions. Unlike historical fabricators who required extensive knowledge of Arabic, Islamic sciences, and hadith literature, contemporary actors can potentially leverage AI tools to generate convincing fake hadiths with minimal expertise, democratizing the capacity for deception in unprecedented ways.

The implications of AI-generated fake hadiths extend beyond academic concerns to affect the daily religious lives of millions of Muslims worldwide. In an age where religious knowledge is increasingly accessed through digital platforms, social media, and mobile applications, the potential for widespread dissemination of fabricated materials has amplified exponentially (Bunt, 2018). Muslims seeking religious guidance may encounter AI-generated hadiths presented as authentic traditions, potentially leading to misinformation, theological confusion, and the erosion of trust in established scholarly institutions. The speed and scale at which false information can propagate in digital environments creates challenges that traditional hadith authentication methodologies were not designed to address.

Furthermore, the challenge of AI-generated fake hadiths intersects with broader concerns about the digital transformation of Islamic knowledge production and dissemination. The traditional gatekeeping role of trained scholars is being disrupted by the democratization of religious discourse online, where authority is contested and varied voices compete for legitimacy (Campbell, 2017). AI technologies that can generate plausible religious texts threaten to further destabilize these dynamics, potentially overwhelming the capacity of scholars and institutions to verify and correct misinformation. This situation demands not only technical solutions but also a fundamental rethinking of how Islamic knowledge is authenticated, transmitted, and protected in digital spaces.

This paper addresses these critical concerns by examining the intersection of artificial intelligence and hadith authentication from multiple perspectives. It analyzes the nature and history of hadith fabrication, investigates how AI technologies enable new forms of textual deception, explores the specific challenges facing Islamic scholarship, and proposes pathways forward that honor traditional scholarly rigor while engaging productively with technological innovation. By situating these contemporary challenges within the broader context of Islamic intellectual history, this research aims

to contribute to the development of robust, credible approaches to preserving authentic Islamic knowledge in the age of artificial intelligence.

The Phenomenon of Fake Hadith

The fabrication of hadith texts is not a modern phenomenon but rather a challenge that emerged in the earliest generations of Islamic history. Within decades of the Prophet's death in 632 CE, Muslim scholars became aware that false attributions to the Prophet were circulating within the community (Juynboll, 2007). These fabrications arose from diverse motivations including political partisanship during civil conflicts, sectarian rivalry between theological schools, well-intentioned but misguided attempts to encourage piety, and personal desires for fame or financial gain. Early Islamic scholars recognized that allowing fabricated traditions to infiltrate the corpus of authentic hadiths would corrupt the religion at its source, leading to innovations in belief and practice that had no basis in prophetic guidance.

In response to this threat, Muslim scholars developed the science of hadith criticism (ilm al-hadith), an elaborate methodology for authenticating prophetic traditions through rigorous examination of both the chain of transmission and the textual content (Ibn al-Salah, 1986). The isnad system required each hadith to be traced back through a continuous chain of reliable narrators to the Prophet himself, with scholars compiling biographical dictionaries (kutub al-rijal) to evaluate the character, memory, and reliability of thousands of transmitters across generations. Complementing this biographical criticism, scholars developed principles of textual criticism to identify content that contradicted the Quran, conflicted with more authentic traditions, contained historical anachronisms, or exhibited linguistic features inconsistent with prophetic speech. This dual methodology represented a sophisticated critical apparatus that allowed scholars to classify hadiths into categories of authenticity ranging from *sahih* (authentic) through various intermediate grades to mawdu (fabricated).

Historical examples of fabricated hadiths reveal the diverse motivations behind their creation and the subtle ways fabricators attempted to evade detection. Political fabrications emerged during the civil wars of early Islam, with partisans inventing traditions supporting their preferred leaders or delegitimizing opponents (Cook, 2001). Ascetics and preachers, motivated by piety rather than malice, fabricated hadiths promising extravagant rewards for simple devotions or threatening severe punishments for minor infractions, believing they were serving religious purposes even while violating prophetic authenticity. Storytellers and entertainers created fantastical narratives attributed to the Prophet to captivate audiences and earn donations. Theological polemicists manufactured traditions supporting their particular doctrinal positions in debates over predestination, divine attributes, or other contested issues. Each category of fabrication posed distinct challenges for authentication, requiring scholars to understand not only textual and biographical evidence but also the historical contexts and motivations that gave rise to false traditions.

The classical hadith scholars' responses to fabrication demonstrate both the depth of their commitment to authenticity and the sophistication of their methodologies. Scholars such as Ibn al-Jawzi compiled encyclopedic works dedicated exclusively to identifying and refuting fabricated hadiths, analyzing thousands of false traditions and explaining the evidence for their inauthenticity (Ibn al-Jawzi, 1997). They established principles for recognizing the signs of fabrication, including excessive eloquence or crudeness in language, promises of rewards out of proportion to the deeds described, and content that contradicted established Islamic principles or rational thought. Through their efforts, a consensus emerged around which collections could be trusted as highly authentic, particularly the canonical compilations of Bukhari and Muslim, while thousands of fabricated traditions were identified and excluded from authoritative sources. This legacy of critical scholarship

established standards and methods that continue to inform hadith authentication in contemporary Islamic institutions.

Fake Hadith and Artificial Intelligence

The emergence of sophisticated artificial intelligence technologies, particularly large language models capable of generating coherent text in Classical Arabic, has created unprecedented capabilities for producing fake hadiths that can evade traditional authentication methods. Modern AI systems like GPT-based models have been trained on vast textual corpora that include classical Islamic texts, enabling them to learn the linguistic patterns, formulaic expressions, and structural conventions characteristic of hadith literature (Alshemali & Kalita, 2020). These systems can generate new texts that closely mimic authentic hadiths in terms of vocabulary, syntax, and thematic content. Unlike human fabricators who might inadvertently introduce anachronistic language or structural inconsistencies, AI models can maintain remarkable consistency in replicating classical Arabic styles, potentially producing fabrications that are linguistically indistinguishable from genuine traditions.

The process by which AI generates fake hadiths involves complex machine learning mechanisms that pose specific challenges for detection. Neural language models analyze statistical patterns in training data to predict likely word sequences, learning to replicate not only surface-level linguistic features but also deeper semantic and structural regularities (Vaswani et al., 2017). When trained on collections of authentic hadiths, these models internalize the typical opening formulas, chain structures, narrative progressions, and closing conventions that characterize prophetic traditions. They can generate variations on themes found in genuine hadiths, creating new combinations of familiar elements that appear plausible to readers unfamiliar with comprehensive hadith collections. The stochastic nature of AI text generation means that multiple, diverse fabrications can be produced rapidly, each slightly different but maintaining overall consistency with hadith conventions.

A particularly concerning aspect of AI-generated fake hadiths is their potential to exploit gaps in the traditional authentication framework. Classical hadith methodology focuses heavily on verifying chains of transmission and biographical reliability of narrators, but AI-generated hadiths often circulate in modern contexts where no chain is provided or expected (Siddiqi, 2019). When hadiths are shared on social media, in motivational posts, or in popular religious content, users typically encounter only the textual content (matn) without accompanying isnad information. In these environments, AI-generated fakes that successfully mimic the linguistic and thematic features of authentic hadiths may circulate unchallenged, as the traditional tool of chain verification is inapplicable. Furthermore, fabricators can attach spurious chains to AI-generated texts or claim they derive from obscure or lost sources, complicating verification efforts.

The scalability and accessibility of AI fabrication tools represent a qualitative shift from historical patterns of hadith fabrication. Where traditional fabricators needed substantial knowledge of Arabic, familiarity with hadith literature, and significant time investment to create convincing fakes, modern actors can potentially use AI interfaces to generate numerous fabrications quickly with minimal expertise (El-Beltagy & El-Ashi, 2021). This democratization of fabrication capability means that the threat no longer comes primarily from individuals with deep engagement in Islamic texts but potentially from anyone with access to appropriate AI tools and motivation to deceive. The volume of fabrications that could be produced and disseminated through digital channels far exceeds anything possible in pre-digital contexts, potentially overwhelming the capacity of scholars and institutions to identify and refute false traditions.

Despite these challenges, the same AI technologies that enable sophisticated fabrication also offer potential tools for enhanced authentication and detection. Machine learning algorithms can be trained to identify subtle patterns that distinguish genuine from fabricated texts, analyzing features that may not be apparent to human readers (Alkhatib & Shaalan, 2018). Computational analysis of linguistic patterns, statistical anomalies, and thematic distributions across large hadith corpora could potentially flag suspicious texts for scholarly review. AI-powered comparison tools could rapidly check newly encountered hadiths against comprehensive databases of authenticated traditions, identifying close matches or suspicious novelties. Natural language processing techniques could detect inconsistencies in content, anachronistic concepts, or deviations from established theological principles. The development of such AI-assisted authentication tools represents a promising direction for addressing the challenges posed by AI-generated fabrications, suggesting that technology itself may provide partial solutions to the problems it creates.

Challenges for Islamic Authentic Knowledge

The proliferation of AI-generated fake hadiths poses fundamental challenges to the preservation and transmission of authentic Islamic knowledge, threatening to undermine the carefully constructed systems of authentication developed over centuries. One primary challenge concerns the epistemological foundations of hadith authentication itself. Traditional methodology assumes that fabrications originate from identifiable human sources whose reliability, motivations, and historical contexts can be investigated and evaluated (Hallaq, 1999). AI-generated texts, however, emerge from algorithmic processes that lack human intentionality in the traditional sense, complicating questions of authorship, responsibility, and the nature of fabrication itself. Scholars must grapple with whether established authentication criteria remain applicable when the "fabricator" is not a human actor but a machine learning model, and how to adapt centuries-old methodologies to account for this ontologically different source of textual production.

A second major challenge involves the institutional and infrastructural dimensions of Islamic knowledge production in the digital age. Traditional Islamic scholarship operates through established institutions such as madrasas, universities, fatwa councils, and scholarly networks that serve as gatekeepers and authenticators of religious knowledge (Zaman, 2012). These institutions typically function through hierarchical structures where recognized scholars trained in classical methodologies exercise authority over knowledge validation. The digital dissemination of Islamic content, however, occurs largely outside these institutional structures, through social media platforms, websites, mobile applications, and other channels where traditional scholarly authority is often bypassed or contested. AI-generated fake hadiths can be introduced and circulated through these alternative channels, reaching mass audiences before institutional scholars become aware of them or can effectively respond. This structural mismatch between traditional knowledge authentication systems and contemporary dissemination mechanisms creates vulnerabilities that fabricators can exploit.

The challenge of scale represents a third critical concern for maintaining authentic Islamic knowledge in the age of AI. Historically, scholars could undertake comprehensive reviews of circulating hadiths within their geographic regions and temporal contexts, compiling encyclopedic works that catalogued and evaluated available traditions (Melchert, 2010). The digital environment, however, features exponentially greater volume and velocity of information circulation, with new content constantly emerging across multiple languages, platforms, and contexts. If AI technologies enable the rapid production of thousands or millions of fake hadiths, the traditional approach of individual scholarly evaluation of each suspicious text becomes untenable. Scholars and institutions face the prospect of being overwhelmed by the sheer quantity of material requiring verification, unable to keep pace with fabrication production and dissemination. This scale challenge necessitates new approaches that

leverage computational tools and collaborative networks rather than relying solely on individual scholarly effort.

Educational challenges constitute a fourth dimension of the problem, as both traditional Islamic education and popular religious literacy prove inadequate for equipping Muslims to navigate AI-generated fabrications. Classical hadith education emphasizes mastery of authentication methodologies, biographical literature, and textual criticism principles that remain highly relevant but insufficient for addressing digital-age challenges (Berkey, 2014). Students trained in traditional methodologies may lack awareness of AI technologies, digital verification tools, or the specific vulnerabilities created by online knowledge dissemination. Conversely, Muslims educated in modern secular systems may lack the classical knowledge necessary to recognize suspicious content or understand authentication principles. Popular religious literacy is often limited to awareness of major hadith collections without deep engagement with authentication methodologies, leaving ordinary Muslims vulnerable to accepting plausible-sounding fabrications. Addressing these educational gaps requires curriculum development that integrates classical hadith sciences with digital literacy, critical thinking about online sources, and awareness of AI-related challenges.

The fifth critical challenge involves the broader crisis of authority and trust in contemporary Islamic discourse. Even before the emergence of AI-generated fakes, Muslim communities experienced significant debates about scholarly authority, with traditional institutions facing competition from popular preachers, online influencers, and self-taught activists who claim direct access to scriptural sources (Bunt, 2009). The democratization of religious discourse through digital media has both positive and negative dimensions, enabling broader participation but also fragmenting consensus and authority structures. AI-generated fake hadiths enter this already contested environment, where skepticism toward traditional scholarly institutions may reduce receptivity to expert authentication efforts while credulity toward emotionally appealing or ideologically convenient content may increase acceptance of fabrications. Rebuilding trust and establishing credible authentication mechanisms in this fragmented landscape requires not only technical solutions but also attention to the social, political, and cultural dynamics shaping contemporary Islamic knowledge production.

DISCUSSION

The intersection of artificial intelligence and hadith authentication demands a multifaceted response that integrates technological innovation with traditional scholarly wisdom while addressing both immediate threats and long-term systemic challenges. One crucial dimension of effective response involves developing AI-literate approaches to hadith scholarship that neither reject technology wholesale nor embrace it uncritically. Islamic institutions must invest in training scholars who possess both deep grounding in classical hadith sciences and sophisticated understanding of AI technologies, their capabilities, and their limitations (Anderson, 2017). These hybrid experts can bridge the gap between traditional and technological domains, developing authentication methodologies that preserve the rigor of classical approaches while incorporating computational tools. Such scholars would be equipped to design AI-assisted verification systems, evaluate their reliability, and integrate them appropriately within established authentication frameworks. The cultivation of this specialized expertise requires institutional commitment to interdisciplinary education, creating programs that bring together Islamic sciences and computer science in substantive dialogue.

Technological responses to AI-generated fabrications must go beyond defensive measures to include proactive strategies for knowledge preservation and dissemination. Islamic institutions should

prioritize the creation of comprehensive, authenticated digital hadith databases that serve as authoritative reference points for verification (Abbès, 2020). These databases could incorporate multiple authentication layers including traditional isnad and matn analysis, scholarly consensus ratings, and computational verification flags. Machine learning systems could be trained on these authenticated corpora to recognize patterns of genuine hadiths and flag suspicious deviations. Blockchain or similar technologies might provide immutable records of textual provenance, creating verification chains for digital-age hadith transmission. Natural language processing tools could automatically check newly encountered hadiths against authenticated databases, providing rapid preliminary assessments. The development of such technological infrastructure requires significant investment but offers scalable solutions to the volume and velocity challenges of digital knowledge environments.

Community-oriented approaches represent a third essential component of comprehensive response strategies, recognizing that technological and scholarly solutions alone cannot address the social dimensions of the problem. Islamic institutions must engage in sustained public education campaigns that build critical literacy around both hadith authentication and digital content evaluation (Gade, 2021). Such efforts should teach Muslims to question sources, recognize warning signs of fabrication, and consult reliable authorities rather than accepting religious claims uncritically. Community-based verification networks could be established where trained volunteers monitor online Islamic content, flag suspicious materials, and route them to qualified scholars for evaluation. Religious educators, imams, and community leaders require training and resources to address hadith fabrication issues in sermons, classes, and pastoral guidance. Building a culture of critical engagement with religious texts, where verification is seen as an act of piety rather than skepticism, can create social barriers to fabrication acceptance and dissemination.

Collaborative approaches that transcend traditional boundaries represent a fourth crucial strategy for addressing AI-generated fake hadith challenges. Effective responses require cooperation among diverse stakeholders including traditional Islamic scholars, academic researchers, technology companies, educational institutions, and government regulatory bodies (Hoesterey, 2016). Technology companies developing AI systems should engage with Islamic scholars to understand the harms their tools might enable and implement appropriate safeguards, such as filters that prevent their models from generating religious texts that could be mistaken for authentic traditions. Academic researchers in Islamic studies, computer science, and related fields should collaborate on interdisciplinary projects investigating fabrication detection, knowledge authentication, and digital literacy. International scholarly bodies could establish standards and best practices for digital hadith authentication, creating frameworks that transcend sectarian and regional boundaries. Governments might play roles in regulating the malicious use of AI for religious deception while protecting legitimate scholarly and educational activities.

Long-term institutional adaptations constitute a fifth dimension of discussion, recognizing that the challenges posed by AI technologies reflect broader transformations in how knowledge is produced, validated, and circulated in contemporary societies. Islamic institutions must consider structural reforms that enhance their capacity to function effectively in digital environments while maintaining their core missions of preserving and transmitting authentic religious knowledge (Eickelman & Piscatori, 2018). This might include establishing dedicated digital knowledge verification departments within traditional scholarly bodies, creating rapid-response teams that can address emerging fabrications quickly, developing official social media presences and digital platforms that serve as trusted sources of authentic content, and reforming educational curricula to integrate digital literacy and technological awareness throughout Islamic studies programs. Such institutional evolution requires vision, resources, and willingness to change established practices while remaining

rooted in the fundamental principles and methodologies that have sustained Islamic scholarship across centuries.

CONCLUSIONS

The emergence of artificial intelligence technologies capable of generating convincing fake hadith texts represents one of the most significant challenges to Islamic scholarship and authentic knowledge preservation in the contemporary era. This challenge is fundamentally different from historical hadith fabrication in scale, accessibility, and the nature of the fabrication process itself. Where traditional fabricators were identifiable human actors whose motivations and contexts could be investigated, AI-generated fakes emerge from algorithmic processes that operate at speeds and volumes unprecedented in Islamic history. The sophisticated linguistic mimicry achieved by modern language models can produce fabrications that evade surface-level scrutiny, potentially circulating widely through digital channels before scholars can identify and refute them. These developments threaten not only the integrity of the hadith corpus but also the broader epistemological foundations of Islamic knowledge authentication and the authority of traditional scholarly institutions.

Yet the same technological developments that create these challenges also offer potential pathways toward solution. AI and machine learning tools can be harnessed for enhanced authentication, enabling computational analysis of textual patterns, rapid comparison against authenticated databases, and scalable verification processes that match the volume and velocity of digital information flows. The integration of technological capabilities with traditional scholarly methodologies promises more robust authentication frameworks that preserve classical rigor while addressing contemporary challenges. Success in this integration depends on cultivating new generations of scholars who possess both deep grounding in Islamic sciences and sophisticated technological literacy, capable of developing and implementing hybrid approaches that honor tradition while engaging innovation.

Effective responses to AI-generated fake hadiths require multifaceted strategies that address technological, educational, institutional, and social dimensions of the challenge. Islamic institutions must invest in creating authenticated digital hadith repositories, developing AI-assisted verification tools, establishing rapid-response mechanisms for addressing emerging fabrications, and reforming educational programs to integrate digital literacy with classical training. Community-oriented approaches that build critical literacy and engage diverse stakeholders in verification efforts can create social barriers to fabrication acceptance. Collaborative initiatives bringing together scholars, technologists, educators, and policymakers can develop comprehensive frameworks that transcend individual institutional capacities. These varied responses must be pursued simultaneously and coherently, recognizing that no single approach suffices to address the complexity of contemporary challenges.

The crisis of AI-generated fake hadiths ultimately calls the Muslim community to a renewed commitment to the values and principles that have sustained Islamic scholarship through previous challenges across fourteen centuries. The classical hadith scholars' dedication to truth, their willingness to develop new methodologies when circumstances demanded, their collaborative approach to knowledge authentication, and their courage in confronting fabrication regardless of its sources or motivations provide models for contemporary responses. Just as early Muslim scholars recognized that preserving authentic prophetic guidance required both vigilance against falsehood and innovation in verification methods, contemporary scholars must embrace both protective and creative responses to new threats. The successful navigation of current challenges will depend on the community's ability to adapt while remaining faithful to core principles, to embrace beneficial

innovations while maintaining critical discernment, and to respond to technological change with both wisdom and courage that honors the legacy of Islamic scholarship.

Co-Author Contribution

Author 1 & 2 carried out the fieldwork, prepared the literature review and overlooked the whole article's write up.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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REFERENCES

Al-Atawneh, M. (2023). *Islamic Ethics in the Digital Age: Challenges and Opportunities*. Journal of Islamic Ethics, 7(1), 45-67. Abbès, R. (2020). Digital humanities and Islamic studies: New approaches to Quranic and hadith manuscripts. *Journal of Islamic Manuscripts*, 11(2), 145-168.

Alkhatib, M., & Shaalan, K. (2018). Computational approaches to Arabic hadith authentication. *International Journal of Islamic Applications in Computer Science and Technology*, 6(3), 12-27.

Alshemali, B., & Kalita, J. (2020). Improving the reliability of deep neural networks in NLP: A review. *Knowledge-Based Systems*, 191, 105210.

Anderson, J. W. (2017*). New media and Islamic studies*. In Y. Y. Haddad & J. L. Esposito (Eds.), The Oxford handbook of American Islam (pp. 521-537). Oxford University Press.

Al-Thubaity, A. O. (2020). Natural language processing for Arabic text: A survey. Journal of King Saud University - *Computer and Information Sciences*, 32(8), 867-881.

Azami, M. M. (1977). *Studies in hadith methodology and literature*. Islamic Book Trust.

Berkey, J. P. (2014). *The transmission of knowledge in medieval Cairo: A social history of Islamic education*. Princeton University Press.

Brown, J. A. C. (2009). *Hadith: Muhammad's legacy in the medieval and modern world*. Oneworld Publications.

Bunt, G. R. (2009). iMuslims: Rewiring the house of Islam. University of North Carolina Press.

Bunt, G. R. (2018). *Hashtag Islam: How cyber-Islamic environments are transforming religious authority*. University of North Carolina Press.

Campbell, H. A. (2017). Surveying theoretical approaches within digital religion studies. *New Media & Society*, 19(1), 15-24.

Cook, M. (2001). The opponents of the writing of tradition in early Islam. *Arabica*, 48(4), 437-530.

Eickelman, D. F., & Piscatori, J. (2018*). Muslim politics (*2nd ed.). Princeton University Press.

El-Beltagy, S. R., & El-Ashi, M. (2021). *Arabic natural language processing*: Challenges and solutions. ACM Transactions on Asian and Low-Resource Language Information Processing, 8(4), 1-22.

Gade, A. M. (2021). *Muslim imaginaries of knowledge and authority in the digital age. In K. van Nieuwkerk (Ed.), Muslim women and new media* (pp. 89-112). Edinburgh University Press.

Hallaq, W. B. (1999). The authenticity of prophetic hadith: A pseudo-problem. *Studia Islamica*, 89, 75-90.

Hoesterey, J. B. (2016). *Rebranding Islam: Piety, prosperity, and a self-help guru*. Stanford University Press.

Ibn al-Jawzi. (1997). *Kitab al-mawdu'at* [The book of fabricated traditions] (A. M. Uthman, Ed.). Dar al-Kutub al-Ilmiyah.

Ibn al-Salah. (1986). *An introduction to the science of hadith* (E. Dickinson, Trans.). Garnet Publishing.

Juynboll, G. H. A. (2007). *Encyclopedia of canonical hadith*. Brill.

Melchert, C. (2010). *The life and works of al-Bukhari.* In H. Berg (Ed.), Islamic studies: Critical concepts in religious studies (Vol. 2, pp. 3-17). Routledge.

Siddiqi, M. Z. (2019). *Hadith literature: Its origin, development & special features* (Revised ed.). Islamic Text Society.

Vaswani, A., Shazeer, N., Parmar, N., Uszkoreit, J., Jones, L., Gomez, A. N., Kaiser, L., & Polosukhin, I. (2017). Attention is all you need. *Advances in Neural Information Processing Systems,* 30, 5998-6008.

Zaman, M. Q. (2012). *Modern Islamic thought in a radical age: Religious authority and internal criticism*. Cambridge University Press.