

ROBBY HABIBA ABROR
RABIATUL ADAWIAH
NANUM SOFIA

AI THREAT AND DIGITAL DISRUPTION:
EXAMINING INDONESIAN ULEMA IN THE CONTEXT OF DIGITAL
CULTURE

Robby Habiba Abror

Universitas Islam Negeri Sunan Kalijaga, Yogyakarta, Indonesia
Email: robby.abror@uin-suka.ac.id

Rabiatul Adawiah

IA Scholar Foundation, Yogyakarta, Indonesia
Email: adawiahrobiatul028@gmail.com

Nanum Sofia

Universitas Islam Indonesia Yogyakarta, Indonesia
Email: nanumsofia@uii.ac.id

Abstract: Artificial Intelligence (AI) has transformed the perspectives and needs of the Islamic community in relation to the presence and roles of religious figures, particularly *ulema* or Islamic scholars. Concurrently, the acknowledgment of religious figures and their roles has emerged as a crucial axis for the Islamic community to anchor their religious needs and address pertinent issues. This study adopts a qualitative descriptive approach, incorporating online observations and evaluations of both formal and informal policies. It objectively delineates how the roles of scholars have evolved in response to the intricate challenges faced by the community due to AI. The emergence of Artificial Intelligence has enabled individual autonomy and liberty, establishing digital cultural terrors as an unavoidable reality. AI has repositioned users (the community) from passive followers within religious society to active participants engaging with AI to tackle various pressing religious concerns. Furthermore, this research discerns that the digital culture, encompassing both followers (the community) and religious figures, has depersonalized individuals in their autonomous and liberated thought processes. The Islamic community and religious figures must not dismiss the AI threat as a form of digital cultural terror that has seamlessly become ingrained in their lives. Consequently, they must demonstrate the ability to embrace an open and critical stance in their interactions with AI.

Key words: Digital Culture, Artificial Intelligence, Religious Figures

1. Introduction

The formerly dominant and monopolistic role of religious figures in the religious sphere has yielded to the pervasive influence of digital culture. Individuals' proclivity to rely on religious authorities for all matters of faith has shifted towards embracing digital technology. Presently, every individual is a digital entity, and each action symbolizes participation in digital culture (Kim, 2001). Individuals now possess the freedom to address their cognitive needs and engage with religious matters through Artificial Intelligence (AI) at any time and in any place (Hussain et al., 2020, Othman & Omar 2019). Consequently, depersonalization and reduced interaction between religious adherents and religious figures have emerged. AI, encompassing various forms such as ChatGPT, can directly cater to the queries raised by religious followers utilizing the gadgets or devices at their disposal (Corrêa & de Oliveira 2021, Saveliev & Zhurenkov 2021, Schüller 2022). Statistical data on ChatGPT users indicates that it currently boasts over 100 million users in just five days. ChatGPT has surpassed 1 million users and receives approximately 1 billion visits per month (Hojris 2023). The emergence of diverse AI applications is gradually reshaping the central role of religious figures in addressing religious concerns.

Thus far, studies on the threat of AI to the existence and roles of religious figures often neglect the individual perspective as digital entities with freedom and embedded in digital culture. Research on AI threats to religious figures is frequently framed within the media context (Guembe et al. 2022, Jussupow et al. 2022, Mirsky et al. 2023). However, digital cultural terror has unfolded in the midst of the religious lives of the community, unavoidable even by religious figures (Liang 2020, Wu 2021). Three discernible trends emerge from the literature examining the threat of AI: Firstly, as a digital horror and the presence of digital zombies haunting religious figures, an inevitability stemming from individual needs for rapid AI explanations (Reyes & Blake 2015, Macfarlane 2018). Secondly, digital well-being is contemplated by some researchers within the framework of media reality (Dennis 2021, Gui et al. 2017). Thirdly, digital threats are viewed as a moral panic in new media aimed at nullifying the role of religious figures, perceived as slow in responding to community issues and often conflicting with adopted values (Elliott et al. 2019, Galinec & Luić 2020). Despite these three trends, studies on the threat of Artificial Intelligence to the existence and roles of religious figures have not garnered sufficient attention in existing literature, even though individual independence and freedom are pivotal for a comprehensive understanding of the evolving AI.

The objective of this paper is to address the deficiencies of prior studies that overlooked the surge of digital culture in AI development, impacting the existence and roles of religious figures. Existing studies

tend to adopt a broader context, overlooking the decentralization and depersonalization experienced by religious figures. In alignment with this, three questions are addressed in this research: (1) how does AI pose a threat to the existence and roles of religious figures; (2) what factors contribute to the AI threat; and (3) how does the AI threat impact the relationship between the community and religious figures. Answers to these three questions not only offer a profound understanding of the digital cultural terror experienced by the community and religious figures but also facilitate the formulation of a more open and accommodating perspective toward the rapidly advancing AI.

This paper is grounded in the argument that the AI threat arises from the freedom and independence of the community, often diverging from the actualization and response of religious figures. AI users perceive that religious figures are frequently tardy in providing solutions to emerging religious issues. In contrast, religious figures consider themselves the most authoritative in issuing religious decrees. The explosion of information and modernity challenges on religious attitudes and decisions urgently necessitate prompt and satisfactory answers for the Islamic community. The utilization of AI in all its forms plays a pivotal role in addressing community religious problems and serves as a fundamental basis for the progress and freedom of thought of its users (the community). Consequently, the shift in authority and delegitimization of religious figures with the presence of AI cannot be separated from the differing perspectives between the community and religious figures.

2. Literature Review

2.1. Digital Culture

Digital culture represents a cultural phenomenon stemming from ideas, creativity, and artistic endeavors grounded in technology and the internet (Kaun 2021). The extensive process of digitization has exerted a profound influence on diverse facets of societal existence (Kirillova 2023). The global industrial landscape has undergone notable transformations during the digital transition, marked by the emergence of innovative technologies that have, in turn, influenced organizational processes. The widespread adoption of technology has triggered shifts in areas such as work, education, social interactions, dating, familial engagements, and religious practices, all of which are actively embracing novel technologies (Ha 2022). This shift has prompted discussions on the conceptualization of a simulated digital environment capable of enduring as a virtual realm, providing users with immersive experiences, and reshaping the conventional notions of space and time with implications for communication (Zhang 2023). This phenomenon aligns with the functional benefits, such as efficiency and effectiveness, that digital technology offers to society. Consequently, digital culture indirectly implies the

repercussions of capitalization resulting from the integration of technology and business into a decentralized system, leading to a change in societal infrastructure attitudes (Kraus et al. 2022).

Within the social context, digital culture is characterized by the transformation of communication methods, where direct communication has become mediated by technology (Unay-Gailhard & Brennen 2022). This shift in a technologically mediated society gives rise to a new human factor mentality, necessitating a reevaluation of the skills and capabilities possessed by individuals. As demonstrated by Coman et al. (2022), technology can eliminate tasks and optimize human work. In conjunction with this, Domil et al. (2022) and Awang et al. (2022) assert that dependence on technology constitutes a potential threat. This circumstance compels individuals to persistently engage with technology (Harari 2017), and severing ties with technology is perceived as a risk that could undermine not only the economic system but also the social fabric of society. Consequently, the integration of technology into human life facilitates the emergence of techno-sapiens (Delio 2022). This relationship underscores that humans and technology have reached a juncture of mass dependence, where the incorporation of technology into everyday life is inexorable (Harari 2017). Hence, digital culture indirectly induces shifts not only at the infrastructure level but also within the realms of experiential creation and socio-cultural dynamics (Huynh-The et al. 2023).

2.2. Artificial Intelligence

Artificial intelligence (AI) denotes the utilization of algorithms enabling machines to undertake tasks traditionally within the purview of human intelligence (Theodosiou & Read 2023). In 1955, McCarthy characterized AI as the scientific and engineering pursuit of fabricating intelligent machines designed to augment human labor (in Sabanovic 2012). The developmental trajectory of AI commenced with Artificial Narrow Intelligence, handling specific tasks like facial recognition. It progressed to Artificial General Intelligence, nearing human capabilities, and eventually reached Artificial Super Intelligence, surpassing human analytical and processing capacities (Saghiri et al. 2022). With technological progress, AI encompasses scientific and technological endeavors to execute functions linked to human activities (Helm et al. 2020). The perception is that AI shares analogous responsibilities with humans in decision-making, be it on an individual basis or as human assistants (Zhang 2023). Consequently, AI is viewed as a potential catalyst for the Fourth Industrial Revolution (Maxmen 1987, Fayed et al. 2023).

The advent of Industry 4.0 has directed the trajectory towards digitization and the progress of AI, characterized by factors such as polarization, populism, protectionism, post-truth, patriarchy, and an intricate interplay that combines secularization with a newfound visibility

of religion (Jackelén 2021). This transformative phase affects various domains, including religion. AI manifests in robotic bots capable of addressing inquiries about God and religion, exemplified by the Kannon Mindar robot in Japan, which performs Buddhist worship ceremonies (Kopf 2020). The introduction of robotic bots within the religious sphere initiates ambiguity and the desacralization of religious practices. Concurrently, discussions pertaining to religion and the concept of God in Islam are intrinsic to the creed, constituting a pivotal subject for scholars (Ardae 2020). Consequently, AI holds the potential to instigate adverse effects in the religious domain, revitalizing contemporary religions, fostering new religious movements, and engendering theological misunderstandings (Singler 2017).

2.3. Religious Figures

Religious figures are individuals recognized for their expertise within a specific domain of their practiced religion. In this context, they encompass individuals endowed with privileges and honors, such as religious leaders and authorities, capable of exerting significant influence on their respective groups (Zahrah & Damayanti 2023). The conceptualization of religious figures shapes their identity as religious authorities, fulfilling roles as preachers, advisors, guides, and educators (Olojo 2017, Ichwan 2011). This identity signifies an individual's position in the social structure, referring to their status category, implying that individuals often act in alignment with their more prominent identity. Consequently, religious figures occupy a central position in societal structures to legitimize, influence, and take actions for their religious communities. They perceive religion not merely as a professed belief but also as a guiding principle in communal life. Therefore, as religious figures who comprehend the values of their practiced religion, they also contribute to addressing the social issues of the community (Sirait 2020).

In the context of Islam, religious figures encompass individuals like scholars or *ulema*. Mutrofin and Madid (2021) illustrate that during the era of al-Ghazali, *ulema* could also be regarded as a social status acquired through privileges such as a chain of authority and knowledge of religion, establishing them as respected individuals in society. This positioning grants *ulema* a central role in society, particularly as opinion leaders (Sugiana et al. 2019). This role manifests in the *ulema's* function within rural communities, where they are perceived to provide information in harmony with Islamic creed. In the Indonesian context, Horikoshi-Roe's study (1979) conducted in West Java unveils that during the New Order era, the role of *ulema* garnered attention and focus due to their traditional responsibility of upholding the beliefs of the citizens. The role of *ulema* can be categorized into two: normative, where *ulema* have predefined roles in society, and ideal, where they are expected to possess high authority in

society (Sugiana et al. 2019). This is evident in the *ulema's* role in preventing the rise of radical movements in society and adjudicating legal matters (Wazis 2019). This aligns with the understanding that religious figures in society are considered exemplars in behavior, character, and actions.

3. Methodology

This qualitative investigation centered specifically on the perceived threat posed by Artificial Intelligence (AI) to the existence and functions of religious figures, particularly Islamic scholars (*ulema*). The choice of AI as the research subject stemmed from the sweeping technological progress, especially within the domain of social-religious life. In this regard, the AI under consideration encompassed the Fatwa Robot and various AI applications accessible on the internet and through app stores. The extensive array of AI applications employed in this study functioned as empirical evidence to elucidate the challenges faced by religious figures in sustaining their roles. A multitude of AI applications, numbering from dozens to hundreds, designed to meet the daily needs of internet users had surfaced. These applications included, among others: 1) Synthesis for video creation from text; 2) Midjourney for artistic expression through words; 3) Dreamstudio for text-to-image transformation; 4) Boomy for music creation; 5) Crypko for character or illustration generation; 6) Supreme.ai for meme creation, and so forth.

The primary data in this article were drawn from five AI applications engaging openly in dialogue and providing responses to diverse religious and existential inquiries. These AI applications played a pivotal role in addressing the curiosity and uncertainty within religious communities on a wide array of topics. Examples of such applications included: 1) ChatGPT; 2) Microsoft Bing; 3) Google Bard; 4) Perplexity; and 5) Tome. Secondary data consisted of articles or books published on AI and digital culture, with the selection guided by the extensive use of online media platforms for disseminating AI-related content. The proliferation of AI developments across various internet sources, including websites, YouTube, images, and memes, have become ubiquitous. The distribution of this information, accompanied by explanations, through diverse news portals or other social media platforms served as a primary source for comprehending the intricate landscape of digital culture. Various image posters and memes were carefully selected and categorized based on content and succinct statements pertaining to AI threats. Following categorization, the data from these visual representations were organized into a tabular format for clarity and ease of interpretation. The classified data, along with the table, underwent interpretative analysis, grounded in the concept of digital culture as the fundamental analytical framework.

4. Results

Despite the conveniences offered by AI, its existence simultaneously poses a threat to the authority and presence of religious figures. This threat manifests in three aspects:

4.1. Decentralization of the *Ulema’s* Position

The term "decentralization" here refers to AI's recognized ability to assist, expedite processes, facilitate religious propagation efforts, and be beneficial to the religious community. Paradoxically, the status of *ulema* as a knowledge source loses public recognition due to the presence of AI. In fact, the displacement of *ulema* by AI becomes inevitable. Table 1 below illustrates the forms of decentralization in the *ulema's* position. Equally important, Table 2 shows the image about using AI.

Table 1. Forms of Decentralization in the *Ulema’s* Position

| Content | Code | Source |
|--|----------------|--|
| AI assists hajj and umrah pilgrims | Independence | <i>Robot AI akan Bantu Jemaah Haji dan Umrah di Masjidil Haram</i> AI Robot will Assist Hajj and Umrah Pilgrims at Masjidil Haram https://www.inews.id/news/internasion al/robot-ai-akan-bantu-jemaah-haji-dan-umrah-di-masjidil-haram |
| AI accelerates halal certification | Acceleration | <i>Artificial Intelligence (AI) untuk Sertifikasi Halal</i> (Artificial Intelligence for Halal Certification) https://www.tribunnews.com/bisnis/2023/11/02/kemenag-manfaatkan-artificial-intelligence-untuk-registrasi-sertifikasi-halal |
| AI is crucial for Muhammadiyah's dawah | Transformation | <i>Muhammadiyah harus Manfaatkan AI untuk Kuatkan Dakwah</i> (Muhammadiyah Must Utilize AI to Strengthen Dawah) https://khazanah.republika.co.id/berita /rqcknd451/muhammadiyah-harus-manfaatkan-ai-untuk-kuatkan-dakwah |

Source: Compiled from various media reports (authors)

Table 1 above underscores the significance of AI in addressing religious concerns. Data 1 illustrates autonomy, exemplified by AI in the form of a robot provided to hajj and *umrah* (lesser hajj) pilgrims. For instance, the AI robot features a 21-inch touch screen offering a range of personalized services for visitors to Masjidil Haram, supporting 11 languages, including Arabic, English, French, Russian, and Chinese. Concurrently, data 2 emphasizes acceleration, highlighting the importance of expediting the halal certification process using AI in the

information and halal certification system. AI is anticipated to function as an intelligent engine capable of assisting or replacing various manual activities. Despite the end of 2022 recording less than 1.5 million halal-certified products in Indonesia, there are 64 million micro, small, and medium enterprises with millions of registered products requiring halal certification. Data 3 reflects transformation, where Muhammadiyah, one of the oldest Islamic organizations in Indonesia, can contribute to the application and advancement of AI for *dawah* (Islamic preaching) purposes. All of these data collectively depict the manifestation of the decentralization of the *ulema's* position.

Table 2. AI Robot and Metaverse

| | |
|---|--|
|  |  |
| Figure 1. AI robot deployed in holy mosques at Makkah and Madinah (#scenenowsaudi) | Figure 2. UAE appoints first-ever Minister for AI Source: https://tribune.com.pk/story/1536528/uae-appoints-first-ever-minister-artificial-intelligence |
|  |  |
| Figure 3. Saudi Arabia relies on AI and Robots to Serve Hajj Pilgrims (Doc. Sindonews) | Figure 4. A robot distributes copies of the Quran to pilgrims during their last hajj ritual before leaving Mecca (Source: SPA via Arab News) |
|  |  |
| Figure 5. Virtual Lecture Hall at the Muhammadiyah Cyber Campus (SIBERMU) | Figure 6. SIBERMU Campus Building in the Metaverse |
| Launch of SIBERMU https://www.youtube.com/watch?v=wT6ZsAsimak (47:23, 51:28) | |

The availability of AI technology for hajj and umrah pilgrims indicates that the centralized reliance on ulema and religious figures for addressing issues during the pilgrimage can be alleviated. Secondly, by employing AI, the issue of halal certification, which has been traditionally handled manually, can be resolved more efficiently. Thirdly, through AI, Muhammadiyah can contribute to solving various religious issues for the purpose of dawah. Fourthly, while NU believes AI is highly useful, it also maintains a critical stance. In this context, Muhammadiyah and NU as the larger community in Indonesia.

4.2. Contestation of Knowledge

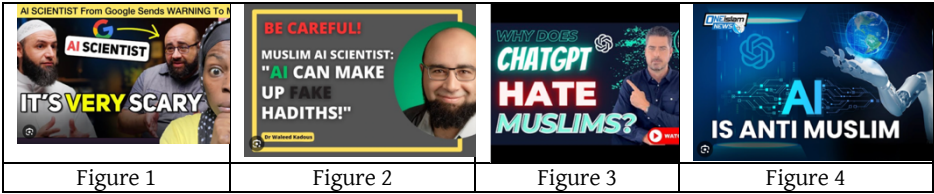
The advent of AI has resulted in a transformation of the prevailing dominance of knowledge maintained by religious figures. Within the intersection of AI and religious figures, there has arisen a contestation of knowledge, signaling a departure from the traditional dominance of religious figures in the realm of religious knowledge. This transformation is characterized by three distinct attitudes: compromise, opposition, and accommodation. Additionally, clashes in perspectives pose a risk of generating conflicts and differences in understanding. AI, albeit limited, can assist in providing solutions to religious issues.

Table 3. Forms of Knowledge Contestation

| No. | News Content | Code | Source |
|-----|---|------------|---|
| 1 | AI suggests mutual respect and tolerance | Compromise | Saran ChatGPT tentang Toleransi di Saat Hari Raya Nyepi dan Malam Pertama Ramadhan Bersamaan (Suggestion from ChatGPT on Tolerance During Nyepi and the First Night of Ramadan Coinciding) https://www.kompasiana.com/merzagamal8924/641ad87308a8b512f2650432/saran-chatgpt-tentang-toleransi-di-saat-hari-raya-nyepi-dan-malam-pertama-ramadhan-bersamaan?page=all |
| 2 | AI can pose threats, potentially used to instill values of apostasy, radicalization, and terrorism. | | Kiai Wahfiudin: Umat Islam Harus Antisipasi Kecerdasan Buatan (Kiai Wahfiudin: Muslims Must Anticipate Artificial Intelligence) https://mui.or.id/berita/29783/kiai-wahfiudin-umat-islam-harus-antisipasi-kecerdasan-buatan/ |

| | | | |
|---|--|---------------|---|
| 3 | AI is dangerous, often incorrect, and confusing | Opposition | <i>ChatGPT Berbahaya untuk Pertanyaan dan Fatwa Islam</i> (ChatGPT is Dangerous for Islamic Questions and Fatwas) https://theislamicinformation.com/id/berita/chatgpt-berbahaya-untuk-pertanyaan-fatwa-islam/ |
| 4 | AI rejected by Iranian clerics with threats to its users | | <i>Iran Issues Fatwa Against AI</i> https://hyperallergic.com/811493/iran-issues-fatwa-against-ai/ |
| 5 | AI remains limited | Accommodation | <i>AI tak bisa Gantikan Peran Ulama. Ini Penjelasan Dosen Informatika Umsida</i> (AI Cannot Replace the Role of Ulema. Explanation by Umsida Informatics Lecturer) https://umsida.ac.id/ai-tak-bisa-gantikan-peran-ulama-kata-dosen-umsida/ |

The table above elucidates three pivotal dimensions regarding the clash of knowledge between religious authorities and AI: compromise, opposition, and accommodation. In the first instance, as elucidated by data 1, the confluence of Nyepi Day and the initial night of Ramadan prompts ChatGPT to recommend mutual tolerance and respect between the two religions. This reflects a conciliatory approach. Furthermore, data 2 underscores the potential of AI as a mechanism for instilling values of apostasy, radicalization, and terrorism. Both data 1 and data 2 employ a strategy of compromise. Secondly, the stance of opposition is discernible in data 3 and 4. Data 3 posits that ChatGPT proves beneficial solely for professionals, while religious matters are more suitably entrusted to Muslim scholars or religious figures due to its tendency to provide inaccurate and confusing information. Data 4 outlines the Shiite-majority Iran's rejection of AI, with Supreme Leader Ali Khamenei issuing a fatwa against Artificial Intelligence, denoting it as "satanic." Iranian officials declare that anyone utilizing this swiftly progressing technology will face capital punishment. Lastly, accommodation is evident in data 5, elucidating that AI's limitations stem from its incapacity for problem-solving, underscoring its diminished intelligence compared to humans.



Source: Youtube

The images above depict various forms of concern and moral panic regarding the existence of AI. The first image shows the intimidating position of AI scientists for religious figures. The second image reminds believers that AI scientists can also create false verses or hadiths. The third image questions whether ChatGPT harbors animosity towards Islam. The fourth image suggests that AI truly poses a threat to religious figures as being anti-Islam.

4.3. Cooptation of Ulema

The incorporation of AI carries the potential to exert an impact on the religious knowledge held by scholars. The concept of the "co-optation of ulema" signifies the unequivocal emergence of AI, positively assessed for its role in Islamic preaching, acknowledged by various Muslim-majority nations, and recognized as highly advantageous in addressing communal concerns. Consequently, religious authorities and scholars have actively adopted its utilization, leading to instances where some have even forfeited their scholarly lineage. This demonstration of the co-optation of scholars is delineated in Table 4 below.

Table 4. Forms of the Co-optation of Ulema

| No. | News Content | Coding | Source |
|-----|---|--------------|--|
| 1. | AI is positively assessed for spreading Islamic preaching | Positive | MUI Kaji Strategi Kecerdasan Artifisial untuk Dakwah Islam (MUI Evaluates Artificial Intelligence Strategy for Islamic Preaching) https://mui.or.id/berita/29786/mui-kaji-strategi-kecerdasan-artifisial-untuk-dakwah-islam/ |
| 2. | AI is appreciated by the state for religious affairs | Contributive | Pertama Kali di Dunia, Dubai Luncurkan “Fatwa Maya” (World’s First, Dubai Launches “Virtual Ifta”) |

| | | | |
|----|---|-------------------|--|
| | | | https://hidayatullah.com/berita/internasional/2019/11/02/172937/pertama-kali-di-dunia-dubai-luncurkan-fatwa-maya.html |
| 3. | AI increasingly assists and facilitates in addressing religious issues | Solution-oriented | <i>Kini Pertanyaan Seputar Agama Bisa Dijawab Robot</i> (Religious Questions Can Now Be Answered by Robots) https://www.dream.co.id/lifestyle/dubai-sediakan-layanan-fatwa-berbasis-kecerdasan-artifisial-191031o.html |
| 4. | The <i>Bahtsul Masail Waqiiyah</i> Commission of the National Deliberations of NU prohibits Muslims from seeking fatwas from AI | Solution-oriented | <i>NU Haramkan Umat Islam Minta Fatwa kepada AI</i> (NU Prohibits Muslims from Seeking Fatwas from AI) https://www.republika.id/posts/45675/nu-haramkan-umat-islam-minta-fatwa-kepada-ai |
| 5. | If someone can learn the pillars and conditions of valid prayer with the help of AI, then it is considered permissible | Contributive | <i>Bolehkah Belajar Shalat dari AI tanpa Melalui Seorang Guru?</i> (Is It Permissible to Learn Prayer from AI without a Teacher?) https://nu.or.id/syariah/bolehkah-belajar-shalat-dari-ai-tanpa-melalui-seorang-guru-tMqNG |
| 6. | AI helps legal practitioners generate contracts as needed, provides legal advice for clients geographically distant, eliminating the need to meet with a lawyer. AI is also utilized to build Chatbot | Positive | <i>Pemanfaatan Kecerdasan Artifisial dalam Bidang Hukum Islam</i> (Utilization of Artificial Intelligence in the Field of Islamic Law) |

| | | | |
|--|---|--|---|
| | systems to generate legal opinions (fatwas) based on user issues. | | https://ilmusyariah.doktoral.uin-suka.ac.id/id/kolom/detail/558/pemanfaatan-kecerdasan-artifisial-dalam-bidang-hukum-islam |
|--|---|--|---|

The table above accentuates three crucial dimensions pertaining to the co-optation of scholars, depicting the inexorable influence of AI as a palpable threat to religious figures: positive, contributive, and solution-oriented. Firstly, data 1 asserts that the Indonesian Ulema Council (MUI) advocates for a positive appraisal of AI to harness its potential for Islamic preaching. Secondly, data 2 underscores the contributive significance, exemplifying that countries like the UAE are even introducing AI-based virtual fatwa chatbots. Thirdly, data 3 exemplifies the solution-oriented value, reinforcing the notion that AI robots can effectively address religious issues. Despite concerns voiced by NU scholars in data 4, prohibiting Muslims from seeking fatwas from AI, data 5 from NU's news portal sanctions AI usage provided it is comprehended accurately. Lastly, data 6 signifies that AI receives positive evaluation as it can generate fatwas, potentially supplanting scholars' roles in addressing community issues. Thus, the presence of AI is construed as positive, contributive, and solution-oriented, effectively co-opting religious figures in their roles of preaching and addressing community issues.

5. Discussion

This study, examining the implications of artificial intelligence (AI) on the existence and role of religious figures, especially Islamic religious scholars (*ulema*), reveals the intricate dynamics of independence emerging within society. In reality, the community expresses its diminished dependence on religious authorities due to the perceived facilitation provided by AI. Three forms of threats surfaced in the research. Firstly, there is the decentralization of the scholars' position, wherein their status as knowledge sources loses recognition, overtaken by AI. Secondly, a knowledge contestation unfolds between religious scholars and AI, diminishing the scholars' dominance in religious knowledge, leading to conflicts and potential doctrinal differences. Thirdly, there is the co-optation of scholars, where the presence of AI risks influencing religious knowledge, even leading scholars to adopt AI, thus compromising their scholarly lineage. From this portrayal, the advent of AI poses a significant challenge and threat to the existence and roles of religious scholars, giving

rise to various forms of complex independence.

The robust connection between religion and AI risks transforming the interaction between AI users and religious scholars, causing a shift in meaning. On one hand, AI offers substantial benefits to religious adherents (users) in obtaining quick answers to their religious inquiries and deepening their understanding of their faith. On the other hand, AI also poses various threats to the existence and role of religious scholars or intellectuals. Depersonalization occurs as users independently interact with digital technology, diminishing direct interactions with religious scholars (Singler 2017). Instantly acquired religious understanding may distort the intended interpretation of religious texts. Consequently, the inevitable polarization between the community and religious scholars arises due to massive interactions with diverse user preferences based on AI-generated answers, lacking the profound direct dialogue conducted with scholars (Geraci 2010). Despite AI's varied positions towards users (negotiation, opposition, and compromise) and nuanced receptions (positive, contributive, and solution-oriented), AI technology has proven its users' independent position, accelerating religious processes and decisions, transforming ideas, enriching intellectual discourse, and empowering the community.

AI has catalyzed a more extensive transformation of religious knowledge through various media technology platforms, placing AI users on par with religious scholars in terms of digital technology access (Sabillirasyad et al. 2018). Historically, religious scholars held authority over religious knowledge and were entitled to issue fatwas or make decisions on religious matters. However, AI's presence allows the community to obtain and even critically scrutinize answers deemed less convincing, surpassing the boundaries set by religious teachings. Consequently, Muslims gain space for freedom of expression and challenge the complex taboos surrounding religious issues rarely questioned before religious scholars (Du Toit 2019). AI will continue to evolve in various forms to address human needs, not only in religious affairs but also in non-religious dimensions such as accessing hajj and *umrah* services, expediting halal certification, building metaverse campuses, and more (Ahmed & La 2021). This fact will persist, filling human needs from religious problems to all aspects of life.

The AI development process has become a cultural digital terror, allowing individuals who were previously submissive to religious authority to freely express their concerns. Each user continually reproduces the meaning of their life by studying and understanding their religion. To this point, it is evident that digital cultural terror is no longer unavoidable. Imaginary dialogue between individuals and AI represents freedom of thought, freedom of choice, and moral rebellion against stagnation and delays in religious fatwas, often lagging behind the constantly challenging and complex issues of modernity (Ardae 2020).

Every AI technology user is a digital cultural actor, including religious scholars themselves. Digital culture has transformed communication patterns in society through technology mediation (Unay-Gailhard & Brennen 2022). AI can act as both enlightenment and rebellion against the dialectical deadlock between the Muslim community and religious scholars. Intensive community participation in various AI technologies has created an open dialogic bridge and accelerated information about religious understanding to meet users' needs.

This study emphasizes that the threat of AI is inevitable. Both Muslims and their *ulema* need to view the presence of AI openly and collaborate to address religious issues collectively. Existing studies have overlooked the dimension of digital culture in responding to the relationship between the community and religious scholars. In line with this, this study introduces a new area of study, placing AI technology as an undeniable reality that serves as both a threat and a blessing for society to interact virtually and continually develop religious understanding in response to contemporary challenges. AI technology contributes various actual breakthroughs that challenge and align human thinking with its curiosity and criticism in the face of evolving science and AI technology.

This research indicates that AI has brought significant changes, both positive and negative. One prominent impact of the threat of Artificial Intelligence (AI), as shown in this study, is the decentralization of the position of religious scholars. Responding to the inseparable influence and needs of every individual or religious community towards AI, religious scholars through various religious institutions eventually recognize the positive potential of AI for the benefit of *dawah*. The authority, influence, and centralization of the role of religious scholars in all its forms have undergone a shift from being highly needed to being overlooked. At the same time, the relationship between the religious community and religious scholars has weakened under the influence and threat of AI. Religious institutions or community organizations such as the Indonesian Ulema Council (MUI), Muhammadiyah, and Nahdlatul Ulama cannot detach themselves from the need for instrumentalization. This article recommends that religious communities and scholars dynamically respond to digital cultural terror, rather than limiting themselves to static and textual responses and interpretations.

6. Conclusion

Traditionally, the central role of religious authority has been pivotal within the religious community. However, a genuine paradigm shift and substantial alterations in religious values have transpired with the introduction of AI technology into religious communities. The extensive integration of AI technology across diverse applications indicates the

widespread infiltration of digital cultural practices into public spaces on an extensive scale. AI has demonstrated its capacity to confront every uncertainty, confusion, and religious concern encountered by the Islamic community. The threat presented by AI not only addresses the community's myriad issues but also provokes more discerning responses. The conscious implementation of digital culture in individuals' daily interactions with AI technology is evident. On one hand, the intensity of individual dialogues with AI technology will persist in generating thought-provoking responses. On the other hand, religious authorities neglecting the AI threat will fall behind in the swiftly evolving information landscape. Each user of AI technology becomes a digital entity. Sustained interaction with AI technology, as digital users, embodies an eruption of digital culture. Digital cultural terror does not blind; instead, it fosters stagnation, ignorance, and antiquated passivity due to indifference toward the swift evolution of AI technology.

This research's scholarly contribution corroborates various studies on AI, extending beyond the religious domain into diverse social, exact, medical, and scientific disciplines. It supplements previous inquiries into AI's potential for human life, offering critical analysis, retrospection, and introspection in the examination of digital culture to advocate for a more discerning use of AI technology. The research's limitation lies in the accelerating pace at which AI applications emerge to cater to the religious community's diverse needs in appealing formats. Consequently, further research is imperative to encompass a more extensive and specific sample, aiming to comprehensively grasp the nuances of each emerging AI technology.

References

- Ahmed, Habib., & La, Hung. Manh. 2021. Evaluating the Co-dependence and Co-existence between Religion and Robots: Past, Present and Insights on the Future. *International Journal of Social Robotics*, 13(2), 219–235.
<https://doi.org/10.1007/s12369-020-00636-x>
- Ardae, Masakaree. 2020. Peranan Ulama dalam Melestarikan Pendidikan Akidah Islamiyyah di Era Revolusi Industri 4.0. *Jurnal Al-Sirat*, 2(18), 1–11.
<https://ejournal.kuipsas.edu.my/index.php/qwefqwefq/article/view/9>
- Awang, Yunita, Shazalina Mohamed Shuhidan, Azuraidah Taib, Norfadzilah Rashid, and Mohd Sidki Hasan. 2022. Digitalization of Accounting Profession: An Opportunity or a Risk for Future Accountants? *Proceedings*, 82(1), 93.
<https://doi.org/10.3390/proceedings2022082093>
- Coman, Dan Marius, Constantin Aurelian Ionescu, Anișoara Duică, Mihaela Denisa Coman, Marilena Carmen Uzlau, Sorina Geanina Stanescu, and Violeta

State. 2022. Digitization of Accounting: The Premise of the Paradigm Shift of Role of the Professional Accountant. *Applied Sciences*, 12(7), 3359. <https://doi.org/10.3390/app12073359>

Corrêa, Nicholas Kluge, and Nythamar De Oliveira. 2021. Good AI for the Present of Humanity Democratizing AI Governance. *The AI Ethics Journal*, 2(2). <https://doi.org/10.47289/AIEJ20210716-2>

Delio, Ilia. 2022. The Hours of the Universe: Reflections on God, Science, and the Human Journey. *Perspectives on Science and Christian Faith*, 74(3), 184–185. <https://doi.org/10.56315/PSCF9-22Delio>

Dennis, Matthew J. 2021. Towards a Theory of Digital Well-Being: Reimagining Online Life After Lockdown. *Science and Engineering Ethics*, 27(3), 32. <https://doi.org/10.1007/s11948-021-00307-8>

Domil, Aura, Valentin Burca, and Oana Bogdan. 2022. Assessment of Economic Impact Generated by Industry 5.0, from a Readiness Index Approach Perspective. A Cross-Country Empirical Analysis. In R. J. Howlett, J. R. Littlewood, & L. C. Jain (Eds.), *Advances in Sustainability Science and Technology* (pp. 233–256). Springer. https://doi.org/10.1007/978-981-16-7365-8_9

Du Toit, Cornel W. 2019. Artificial Intelligence and the Question of Being. *HTS Teologiese Studies / Theological Studies*, 75(1), 1–10. <https://doi.org/10.4102/hts.v75i1.5311>

Elliott, Marianne, Dr Jess Berentson-Shaw, Dr Kathleen Kuehn, Dr Leon Salter, and Ella Brownli. 2019. Digital Threats to Democracy. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3752429>

Fayed, Aly M., Nacime Salomao Barbachan Mansur, Kepler Alencar de Carvalho, Andrew Behrens, Pieter D’Hooghe, and Cesar de Cesar Netto. 2023. Artificial Intelligence and ChatGPT in Orthopaedics and Sports Medicine. *Journal of Experimental Orthopaedics*, 10(74). <https://doi.org/10.1186/s40634-023-00642-8>

Galinec, Darko, and L. J. E. R. K. A. Luić. 2020. Design of Conceptual Model for Raising Awareness of Digital Threats. *WSEAS TRANSACTIONS on ENVIRONMENT and DEVELOPMENT*, 16, 493–504. <https://doi.org/10.37394/232015.2020.16.50>

Geraci, Robert M. 2010. *Apocalyptic AI: Visions of Heaven in Robotics, Artificial Intelligence, and Virtual Reality*. Oxford: Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780195393026.001.0001>

Guembe, Blessing, Ambrose Azeta, Sanjay Misra, Victor Chukwudi Osamor, Luis Fernandez-Sanz, and Vera Pospelova. 2022. The Emerging Threat of AI-

Driven Cyber Attacks: A Review. *Applied Artificial Intelligence*, 36(1), 2037254. <https://doi.org/10.1080/08839514.2022.2037254>

G ui, Marco, Marco Fasoli, and Roberto Carradore. 2017. "Digital Well-Being". Developing a New Theoretical Tool for Media Literacy Research. *Italian Journal of Sociology of Education*, 9(1), 155–173. <https://doi.org/10.14658/pupj-ijse-2017-1-8>

Ha, Le Thanh. 2022. Socioeconomic and Resource Efficiency Impacts of Digital Public Services. *Environmental Science and Pollution Research*, 29, 83839–83859. <https://doi.org/10.1007/s11356-022-21408-2>

Harari, Yuval Noah. 2017. *Homo Deus: A Brief History of Tomorrow*. New York: An Imprint of Harper Collins.

Helm, J. Matthew, Andrew M. Swiergosz, Heather S. Haeberle, Jaret M. Karnuta, Jonathan L. Schaffer, Viktor E. Krebs, Andrew I. Spitzer, and Prem N. Ramkumar. 2020. Machine Learning and Artificial Intelligence: Definitions, Applications, and Future Directions. *Current Reviews in Musculoskeletal Medicine*, 13, 69–76. <https://doi.org/10.1007/s12178-020-09600-8>

Horikoshi-Roe, Hiroko. 1979. *Mental Illness as a Cultural Phenomenon: Public Tolerance and Therapeutic Process among the Moslem Sundanese in West Java*. New York: Cornell University Press. <https://doi.org/10.2307/3350898>

Hojris, Daniel. 2023. ChatGPT User Statistics & Facts (100 million users reach in Januari 2023). <https://seo.ai/blog/chatgpt-user-statistics-facts>.

Hussain, Ashfaq, and Ghulam Shabir. 2020. Cognitive Needs and Use of Social Media: A Comparative Study of Gratifications Sought and Gratification Obtained. *Information Discovery and Delivery*, 48(2), 79–90. <https://doi.org/10.1108/IDD-11-2019-0081>

Iadekallu, Thippa Reddy, Weizheng Wang, Gokul Yenduri, Pasika Ranaweera, Quoc-Viet Pham, Daniel Benevides da Costa, and Madhusanka Liyanage. 2023. Blockchain for the Metaverse: A Review. *Future Generation Computer Systems*, 143, 401–419. <https://doi.org/10.1016/j.future.2023.02.008>

Ichwan, Moch Nur. 2011. Official Ulema and the Politics of Re-Islamization: The Majelis Permusyawaratan Ulama, Sharatization and Contested Authority in Post-New Order Aceh. *Journal of Islamic Studies*, 22(2), 183–214. <https://doi.org/10.1093/jis/etr026>

Jackelén, Antje. 2021. Technology, Theology, and Spirituality in the Digital Age. *Zygon*, 56(1), 6–18. <https://doi.org/10.1111/zygo.12682>

Jussupow, Ekaterina, Kai Spohrer, and Armin Heinzl. 2022. Identity Threats as a Reason for Resistance to Artificial Intelligence: Survey Study With Medical Students and Professionals. *JMIR Formative Research*, 6(3), e28750.
<https://doi.org/10.2196/28750>

Kaun, Anne. 2021. Ways of seeing digital disconnection: A Negative Sociology of Digital Culture. *Convergence*, 27(6), 1571–1583.
<https://doi.org/10.1177/13548565211045535>

Kim, Joohan. 2001. Phenomenology of Digital-Being. *Human Studies*, 24, 87–111.
<https://doi.org/10.1023/A:1010763028785>

Kirillova, N. B. 2023. Impact of Digital Culture on Shaping Young People's Creative Activity. *Perspektivy Nauki i Obrazovania – Perspective of Science and Education*, 62(2), 10–22. <https://doi.org/10.32744/pse.2023.2.1>

Kopf, Gereon. 2020. Does AI Have Buddha-Nature? Reflections on the Metaphysical, Soteriological, and Ethical Dimensions of Including Humanoid Robots in Religious Rituals from one Mahayana Buddhist Perspective. *Frontiers in Artificial Intelligence and Applications*, 335.
<https://doi.org/10.3233/FAIA200965>

Kraus, Sascha, Susanne Durst, João J. Ferreira, Pedro Veiga, Norbert Kailer, and Alexandra Weinmann. 2022. Digital Transformation in Business and Management Research: An Overview of the Current Status Quo. *International Journal of Information Management*, 63, 102466.
<https://doi.org/10.1016/j.ijinfomgt.2021.102466>

Liang, Ting-yu. 2020. Horror Image of AI Algorithm: Visual Culture Studies Perspective. *Taiwan Journal of East Asian Studies*, 17(2), 1–24.
[https://doi.org/10.6163/TJEAS.202012_17\(2\).0001](https://doi.org/10.6163/TJEAS.202012_17(2).0001)

Macfarlane, Karen. E. 2018. Zombies and the Viral Web. *Horror Studies*, 9(2), 231–247. https://doi.org/10.1386/host.9.2.231_1

Maxmen, Jerrold. S. 1987. Long-Term Trends in Health Care: The Post-Physician Era Reconsidered. In: Schwefel, D. (eds) *Indicators and Trends in Health and Health Care*. *Health Systems Research*. Springer.
https://doi.org/10.1007/978-3-642-71537-2_10

Mirsky, Yisroel, Ambra Demontis, Jaidip Kotak, Ram Shankar, Deng Gelei, Liu Yang, Xiangyu Zhang and Biggio, B. 2023. The Threat of Offensive AI to Organizations. *Computers & Security*, 124, 103006.
<https://doi.org/10.1016/j.cose.2022.103006>

Mutrofin, Mutrofin., & Madid, Izzul. 2021. Dikotomi Ulama menurut Perspektif Abu Hamid Al-Ghazali. *Substantia: Jurnal Ilmu-Ilmu Ushuluddin*, 23(2), 147–156. <https://doi.org/10.22373/substantia.v23i2.9243>

Olojo, Akonola. Ejodame. 2017. Resistance Through Islamic Clerics Against Boko Haram in Northern Nigeria. *African Security Review*, 26(3), 308–324. <https://doi.org/10.1080/10246029.2017.1294092>

Othman, Nur Ajeerah, and Faradillah Iqmar Omar. 2019. Cognitive Needs of ICT usage in Business Among Women Entrepreneurs. *International Journal of Innovative Technology and Exploring Engineering*, 8(7S2), 8–12.

Reyes, Xavier Aldana, and Linnie Blake. 2015. *Digital Horror: Haunted Technologies, Network Panic and the Found Footage Phenomenon*. London: I. B. Tauris.

Sabanovic, Selma, Stasa Milojevic, and Jasleen Kaur. 2012. John McCarthy [History]. *IEEE Robotics & Automation Magazine*, 19(4), 99–106.

Sabilirrasyad, Iqbal, Moh Zikky, and Rizky Yuniar Hakkun. 2018. Jamarat Ritual Simulation with Myo Armband for Precise Throws Speed. 2018 *International Electronics Symposium on Knowledge Creation and Intelligent Computing (IES-KCIC)*, 205–209. <https://doi.org/10.1109/KCIC.2018.8628557>

Saghiri, Ali Mohammad, S. Mehdi Vahidipour, Mohammad Reza Jabbarpour, Mehdi Sookhak, and Agostino Forestiero. 2022. A Survey of Artificial Intelligence Challenges: Analyzing the Definitions, Relationships, and Evolutions. *Applied Sciences*, 12(8), 4054. <https://doi.org/10.3390/app12084054>

Saveliev, Anton, and Denis Zhurenkov. 2021. Artificial Intelligence and Social Responsibility: The Case of the Artificial Intelligence Strategies in the United States, Russia, and China. *Kybernetes*, 50(3), 656–675. <https://doi.org/10.1108/K-01-2020-0060>

Schüller, Katharina. 2022. Data and AI Literacy for Everyone. *Statistical Journal of the IAOS*, 38(2), 477–490. <https://doi.org/10.3233/SJI-220941>

Singler, Beth. 2017. An Introduction to Artificial Intelligence and Religion for the Religious Studies Scholar. *Implicit Religion*, 20(3), 215–231. <https://doi.org/10.1558/imre.35901>

Sirait, Sangkot. 2020. Liberation Theology According to Abdurrahman Wahid and Gustavo Gutierrez. *Jurnal Theologia*, 31(1), 21–44. <https://doi.org/10.21580/teo.2020.31.1.5554>

Sugiana, D., Mirawati, I., & Trulline, P Sugiana, Dadang, Ira Mirawati, and Putri Trulline. 2019. Peran Ulama sebagai Opinion Leader di Pedesaan dalam

Menghadapi Informasi Hoaks. *Avant Garde: Jurnal Ilmu Komunikasi*, 7(1), 1–18.
<https://doi.org/10.36080/avg.v7i1.848>

Theodosiou, Anastasia A., and Robert C. Read. 2023. Artificial Intelligence, Machine Learning and Deep Learning: Potential Resources for the Infection Clinician. *Journal of Infection*, 87(4), 287–294.
<https://doi.org/10.1016/j.jinf.2023.07.006>

Unay-Gailhard, İlkay, and Mark A. Brennen. 2022. How Digital Communications Contribute to Shaping the Career Paths of Youth: A Review Study Focused On Farming as a Career Option. *Agriculture and Human Values*, 39, 1491–1508. <https://doi.org/10.1007/s10460-022-10335-0>

Wazis, Kun. 2019. Perlawanan Ahli Hadis terhadap Gerakan Radikalisme dalam Konstruksi Media Online. *Jurnal Al-Hikmah*, 17(2), 19–36.
<https://doi.org/10.35719/alhikmah.v17i1.12>

Wu, Chia-rong. 2021. Spectralizing the White Terror: Horror, Trauma, and the Ghost-Island Narrative in Detention. *Journal of Chinese Cinemas*, 15(1), 73–86.
<https://doi.org/10.1080/17508061.2021.1926156>

Zahrah, Siti Nuriyatus, and Nyoman Anita Damayanti. 2023. The Relationship between Religious Leaders and The Knowledge of Mothers in Reducing Stunting: A Literature Review. *Journal of Public Health in Africa*, 14(S2), 2622.
<https://doi.org/10.4081/jphia.2023.2622>

Zhang, Fusun. (2023). Virtual Space Created by a Digital Platform in the Post Epidemic Context: The Case of Greek Museums. *Heliyon*, 9(7), e18257.
<https://doi.org/10.1016/j.heliyon.2023.e18257>