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AI in Fatwā Issuance: A SWOT Analysis of Opportunities and Limitations

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Abstract

The rapid development of artificial intelligence (AI) has opened new possibilities in various aspects of Islamic religious practice, including fatwā issuance processes. While AI demonstrates significant potential in enhancing the efficiency and accessibility of Islamic legal opinions, fundamental questions remain regarding its appropriate role and limitations within traditional ijtihād frameworks. This study examines the potential and boundaries of AI as a supporting instrument in fatwā processes through a comprehensive SWOT analysis and case study evaluation. Employing qualitative literature review methodology combined with content analysis of AI implementations at Dar al-Ifta Miṣr and automated fatwā generation systems, this research identifies AI's capabilities and constraints in Islamic jurisprudential contexts.

Findings reveal that AI can enhance efficiency by up to 70% in administrative stages, particularly in evidence searching, madhhab opinion mapping, and comparative analysis of contemporary fatwās. AI's strengths include big data processing capacity, 24/7 accessibility, and cross-madhhab analytical capabilities. However, critical limitations exist in understanding psychological dimensions of mustaftīs, comprehending maqāṣid al-sharīʿah holistically, and performing creative ijtihād for novel cases. The SWOT analysis further identifies external threats, including potential replacement of muftī authority, commercialization risks, and fiqh homogenization. This study concludes that AI should be positioned as a non-binding decision-support system within a human-in-the-loop model, where final substantive fatwā authority remains exclusively with qualified human muftīs. Nine operational recommendations are provided for fatwā institutions, AI developers, educational institutions, and government regulators to ensure responsible and proportional AI implementation aligned with Islamic epistemological and ethical values.

Keywords: Artificial Intelligence, Fatwā, Muftī, Maqāṣid al-Sharīʿah, SWOT Analysis, Islamic Law

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Introduction

Artificial intelligence (AI) has experienced rapid development with significant impacts across various aspects of human life. This technology represents the culmination of human ingenuity and intellect that continues to evolve alongside the advancement of science and knowledge. AI applications have expanded into numerous fields, including communication, education, and decision-making, making important contributions to enhancing efficiency, accuracy, and service quality across various sectors. In the domains of law and religion, the potential of AI has also begun to be explored. One example of its application is in analyzing the legal status of posthumous artificial insemination cases. AI can assist in providing analysis regarding the legal status and inheritance rights of children produced under Indonesian positive law, Islamic law, and customary law.[1] However, the use of AI in law-based and religion-based decisions raises ethical and moral challenges that require serious attention. Amid its benefits, AI also has the potential for negative impacts on human moral behavior and learning motivation, necessitating a balance between the benefits of this technology and the moral values upheld.[2]

In Islam, the role of the muftī is crucial in the process of issuing fatwās, providing guidance and solutions to social and legal issues within society. A muftī is an authority possessing strict scholarly qualifications and ethics, responsible for ensuring that fatwās conform to sharīʿah law.[3] These qualifications are essential because the fatwās produced must consider the social, psychological, and individual circumstances of those seeking the fatwā.[4] Furthermore, a muftī is expected to consider maqāṣid al-sharīʿah, or the objectives of sharīʿah, in every fatwā to ensure that the guidance provided is truly relevant and beneficial for heterogeneous societies such as Indonesia. In this regard, Majelis Ulama Indonesia (MUI, Indonesian Council of Ulama) plays an important role in maintaining the application of maqāṣid al-sharīʿah in fatwās, particularly those related to social interactions and religious life.[5]

AI also demonstrates promising potential in the Islamic finance industry, particularly in enhancing efficiency, transparency, and sharīʿah compliance. This technology is applied across various aspects, such as Islamic investment screening, risk management, asset allocation, trading strategies, and customer service. AI can reduce operational costs and assist in product customization according to customer needs in the digital era.[6] However, the implementation of AI in Islamic finance presents ethical challenges, including concerns about transparency and compliance with sharīʿah principles. RegTech tools in Islamic finance have been proposed to address these ethical issues, which can reduce concerns

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[1] Cindy Olivia Susanto, Siti Hamidah, and Rachmi Sulistyarini, "Status Hukum Dan Hak Waris Anak Hasil Inseminasi Buatan Pasca Kematian Suami: Analisis Yuridis Menurut Hukum Positif Indonesia, Hukum Islam Dan Hukum Adat," *Rechtidee* 15, no. 1 (2020): 100–121.

[2] Muhasim, "Pengaruh Teknologi Digital Terhadap Motivasi Belajar Peserta Didik," *Palapa: Jurnal Studi Keislaman Dan Ilmu Pendidikan* 5, no. 2 (2017): 53–77.

[3] Masnun Tahir, "Etika Berfatwa Dalam Perspektif Ulama Klasik Dan Kontemporer," *Hunafa: Jurnal Studia Islamika* 10, no. 2 (2013): 327–50.

[4] Nurasiah, "Kualifikasi Mujtahid Dan Mufti Dalam Perspektif Ulama Fiqh," *Al-Fikra: Jurnal Ilmiah Keislaman* 8, no. 1 (2009): 119–36.

[5] Zakaria Syafei, "Maqasid Al-Shariah Dalam Pandangan Fatwa Majelis Ulama Indonesia (MUI)," *MIQOT: Jurnal Ilmu-Ilmu Keislaman* 41, no. 1 (2017): 155–73.

[6] Adel Sarea et al., "Artificial Intelligence and Islamic Finance: A Literature Review and Future Research Agenda," *Qualitative Research in Financial Markets* 13, no. 5 (2021): 551–72, https://doi.org/10.1108/QRFM-12-2020-0246.

related to AI implementation in this industry.[7] On the other hand, from an Islamic legal perspective, although AI can assist in the arbitration process, this technology cannot fully replace the role of human arbitrators in dispute resolution. AI is only permissible insofar as it provides benefits to humanity and conforms to sharīʿah.[8]

In the context of fatwā issuance, the use of AI remains relatively new and has not been extensively explored. Some research, such as studies examining State Administrative Decisions (Keputusan Tata Usaha Negara, KTUN) in Indonesia, indicates that transparency is a primary issue in AI implementation in legal processes.[9] This research demonstrates that AI can support decision-making but must consider both technical transparency and accountability transparency. This is also relevant in the context of fatwā, where transparency in the decision-making process is paramount. Moreover, the fatwā process in Islamic law involves deeper complexities, such as considerations of Islamic jurisprudence, social factors, and political dimensions.[10] Consequently, AI needs to integrate these various aspects to be effectively implemented in the fatwā process without neglecting the complexities of Islamic law and the socio-political context of plural societies.

Based on the existing literature review, there is a gap in understanding how AI can be ethically and effectively integrated into the fatwā decision-making process, particularly regarding the integration of psychological, social, and individual conditions that form an integral part of fatwā decision-making. Although several studies have explored AI applications in various aspects of Islamic law, such as Islamic finance and arbitration, an in-depth exploration of AI implementation as an assistive tool in the fatwā process with an approach that considers socio-political complexities and progressive sharīʿah principles remains limited. Previous research has tended to focus on the technical aspects of AI or on specific domains such as finance. Still, it has not comprehensively integrated the ethical dimension, maqāṣid al-sharīʿah, and the socio-cultural context of Muslim societies in discussions of AI-based fatwā. Therefore, this study seeks to fill this gap by offering a more holistic and contextual analysis.

This study employs a qualitative literature review method with a content analysis approach to evaluate the potential and limitations of AI in the fatwā process. Research data were obtained from academic literature, including scholarly journal articles, conference proceedings, and reference books related to fatwā, maqāṣid al-sharīʿah, and AI implementation in Islamic law. Literature searches were conducted through academic databases such as Google Scholar, Scopus, and the Directory of Open Access Journals (DOAJ) using keywords: "artificial intelligence," "AI," "fatwa," "Islamic law," "mufti," "maqasid al-shariah," and "Islamic ethics." Literature selection criteria included: (1) publications within the past 10 years (2015-2024) to ensure currency of information; (2) articles that have undergone peer review from reputable journals or books from credible publishers; (3) content relevance to the topics of AI, fatwā, and Islamic law; and (4) source credibility in terms of both author and publishing institution. Non-academic literature such as blogs, opinion articles, and popular news were excluded from the analysis. The selection

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[7] Mustafa Raza Rabbani et al., "Exploring the Role of Islamic FinTech in Combating the Aftershocks of COVID-19: The Open Social Innovation of the Islamic Financial System," *Journal of Open Innovation: Technology, Market, and Complexity* 8, no. 2 (2022): 1–18, https://doi.org/10.3390/joitmc8020091.

[8] Umar Abdullah Faruq and Rahmah Rahmah, "Potensi Artificial Intelligence (AI) Dalam Arbitrase Islam Di Indonesia," *Al-'Adalah* 21, no. 1 (2024): 1–16.

[9] Anita Nasution and Lailatul Khasanah, "Penerapan Kecerdasan Buatan (AI) Dalam Keputusan Tata Usaha Negara: Urgensi Transparansi Dan Akuntabilitas," *Jurnal Hukum Ius Quia Iustum* 31, no. 2 (2024): 367–89.

[10] Aulia Rahmi, Muhammad Zaki, and Budi Setiawan, "Prosedur Metodologis Fatwa Dewan Syariah Nasional-Majelis Ulama Indonesia: Analisis Komprehensif," *Jurnal Syariah Dan Hukum* 16, no. 1 (2024): 77–94.

process was conducted in four stages: (1) initial search yielded approximately 150 articles; (2) title and abstract screening yielded 80 relevant articles; (3) full-text review yielded 50 quality articles; and (4) quality assessment yielded 42 final references used in this study. The collected data were analyzed inductively through thematic analysis to identify patterns, main themes, opportunities, and challenges related to AI implementation in fatwā. Analysis was conducted by considering three primary dimensions: (1) AI's technical capabilities in processing data and sources of Islamic law; (2) ethical aspects of technology from a sharīʿah perspective; and (3) socio-political complexities of contemporary Muslim societies. Findings from the literature were then synthesized and evaluated to generate a comprehensive understanding of AI's role as an assistive tool in the fatwā process.

This study aims to comprehensively evaluate the extent to which AI has potential and limitations in assuming the role of an assistive tool for muftīs in issuing fatwās. Specifically, this research explores AI's capabilities in considering psychological, social, and individual aspects that constitute crucial elements in the fatwā process, as well as evaluating how AI can be implemented in accordance with sharīʿah principles, particularly maqāṣid al-sharīʿah. The novelty of this research lies in its in-depth exploration of AI implementation in the context of fatwā with an approach that integrates socio-political complexities, Islamic technological ethics considerations, and progressive sharīʿah principles. Through holistic and contextual analysis, this study is expected to provide theoretical contributions to the development of AI discourse in Islamic law while offering practical implications for fatwā institutions in adopting AI technology responsibly and in accordance with Islamic values.

Result and Discussion

Fatwā: Definition, Process, and Dynamics in Islamic Law

A fatwā is a legal opinion or interpretation issued by Islamic scholars (ʿulamāʾ) to address various issues related to Islamic law. Etymologically, the word "fatwā" in Arabic means "answer," "advice," or "opinion," underscoring its role as guidance for Muslims in confronting diverse life issues requiring legal clarity. The fatwā functions as a legal instrument that helps translate and apply the principles of sharīʿah, the formulation process of which is traditionally conducted through uṣūl al-fiqh methodology and refers to primary sources such as the Qurʾān and ḥadīth.

Every fatwā not only reflects legal interpretation from religious texts but also considers the social, psychological, and individual characteristics of those posing questions. Factors such as emergency circumstances, physical or economic limitations, and the psychological condition of the fatwā seeker can influence the legal ruling given. In other words, a fatwā issued for one individual may differ from a fatwā for another individual even when the questions are similar, due to differences in personal context encompassing psychological, social, or economic situations. Psychological differences between the person requesting the fatwā and even the condition and perspective of the muftī himself can influence the viewpoint in issuing the fatwā.[11]

Differences in approach to fatwā formulation are also evident in some fatwā institutions that emphasize primary sources, such as the Qurʾān and ḥadīth, without relying heavily on a particular madhhab. The Perlis State Fatwa Committee in Malaysia, for instance, adopts this approach, differing from other institutions that rely more on madhhab-specific approaches.

[11] Muhammad ibn Abi Bakr Ibn Qayyim al-Jawziyyah, *I'lam Al-Muwaqqi'in 'an Rabb Al-'Alamin*, ed. Muhammad 'Abd al-Salam Ibrahim, vol. 4 (Beirut: Dar al-Kutub al-'Ilmiyah, 1991).

The fatwā ultimately functions as legal and moral guidance in society, and its usage varies among Muslim countries. Some countries integrate fatwās as part of their official legal system, while others position them as supplementary references to the legal system.

This concept of flexibility in Islam is known as "taghayyur al-aḥkām bi-taghayyur al-azmān wa-al-amkinah wa-al-aḥwāl," or the change of rulings in accordance with changes in time, place, and circumstance, which enables fatwās to remain relevant and beneficial.[12] Consequently, fatwās issued are not solely based on legal texts but are also adapted to local conditions and societal circumstances. Scholars often consider cultural, economic, and local social aspects in providing appropriate and beneficial fatwās for communities in various situations.

Although fatwās can adapt to various conditions, some boundaries remain preserved. Laws possessing qaṭʿī foundation, or absolute certainty, such as the obligations of fundamental worship or the prohibition of ribā (interest), remain unchanged regardless of shifts in social conditions. However, for technical or ijtihadī issues that lack qaṭʿī stipulations, fatwā changes enable Muslims to adapt to the developments of the times and changes in individual circumstances, thus creating an adaptive legal system without neglecting the core principles of sharīʿah.[13]

Development of Artificial Intelligence in Law and Religion

In recent years, artificial intelligence (AI) has been applied across various sectors, including the domains of law and religion. In the legal field, AI has begun to be utilized to enhance efficiency, precision, and accuracy in legal data processing. One developing application is Autonomous AI Legal Reasoning (AILR), whereby AI is capable of conducting legal reasoning autonomously. Eliot proposed a variant of the Turing Test to determine the extent to which AILR can function independently in providing legal assessments.[14] Additionally, AI has also begun to be applied in religious contexts for purposes such as analysis of religious texts, facilitation of interfaith dialogue, and even studies on AI's theological impact on the concept of creation.[15]

The use of AI in Islamic law has begun to be explored in academic and research contexts, where its application can be accepted as long as it aligns with sharīʿah principles. According to Alobied, AI is permissible in scientific research as long as its use does not contradict sharīʿah limitations.[16] This demonstrates AI's enormous potential to transform the fields of law and religion. Yet, ethical and regulatory challenges remain primary concerns, particularly in avoiding bias and ensuring conformity with Islamic values.

The primary challenge in implementing AI in law and religion is how AI can replicate the complexity of legal analysis that has been conducted by humans, especially in contexts involving social, psychological, and moral dimensions. With limited capabilities in understanding cultural aspects and moral values existing in society, AI can only provide comprehensive solutions if integrated with appropriate ethical guidance. Therefore, although

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[12] Hasyim Abdurrahim, "Dinamika Taghayyur Al-Ahkam Dalam Hukum Islam Kontemporer," *Al-Manahij: Jurnal Kajian Hukum Islam* 18, no. 1 (2024): 45–62.
[13] Ibn Qayyim al-Jawziyyah, *I'lam Al-Muwaqqi'in 'an Rabb Al-'Alamin*.
[14] Lance Eliot, "AI Autonomous Vehicles and the Notion of AI Legal Reasoning," *AI Trends*, 2020, https://aitrends.com/selfdrivingcars/ai-autonomous-vehicles-and-the-notion-of-ai-legal-reasoning/.
[15] Yayan Andriansyah, "Kecerdasan Buatan Dan Masa Depan Studi Agama: Peluang Dan Tantangan," *Refleksi: Jurnal Filsafat Dan Pemikiran Islam* 23, no. 2 (2023): 189–208.
[16] Turki Alobied, "Artificial Intelligence Ethics in Islamic Perspective: Foundations and Contemporary Applications," *Journal of Islamic Ethics and Technology* 8, no. 1 (2024): 23–44.

AI has the potential to assist in the fatwā decision-making process and other legal decisions, its implementation requires a responsible approach and collaboration from various parties to ensure AI functions safely and effectively in sensitive fields such as law and religion.

Case Studies: AI Implementation in Contemporary Fatwā

To provide a more concrete understanding of AI application in the context of fatwā, the following presents several case studies of AI implementation conducted by fatwā institutions and researchers in various Muslim countries.

Dar al-Ifta al-Miṣriyyah: AI-Based Fatwā Database System

Dar al-Ifta al-Miṣriyyah (Egyptian Fatwā Authority) is one of the oldest and most influential fatwā institutions in the Islamic world that has integrated AI technology into its operations since 2019. This institution developed a fatwā database system that utilizes natural language processing (NLP) and machine learning to analyze incoming questions and search for relevant fatwās from a database containing more than 100,000 historical fatwās issued since the 19th century.[17]

The AI system developed by Dar al-Ifta functions as a decision support system that assists muftīs in the initial stages of the fatwā process. When a mustaftī (fatwā seeker) submits a question through a digital platform, the AI system automatically classifies the question based on fiqh categories (ʿibādah, muʿāmalah, munakaḥah, jināyah, etc.) and searches for relevant fatwās previously issued for similar cases. This system is also capable of identifying relevant Qurʾānic verses and ḥadīth as well as the opinions of scholars from various madhāhib.

Evaluation results indicate that this system successfully increased the efficiency of the reference search process by up to 70%, whereby what previously required hours can now be completed in minutes. However, this implementation also revealed significant limitations: the AI system is only capable of providing recommendations based on textual pattern similarity, without considering the specific context of the petitioner, such as psychological condition, economic situation, or social urgency. Therefore, muftīs still conduct comprehensive verification and contextual adjustment before issuing the final fatwā.[18]

Automated Islamic Jurisprudential Legal Opinions Generation (Munshi et al., 2022)

Research conducted by Munshi and colleagues in the Pertanika Journal of Science and Technology developed a more sophisticated automated fatwā generation system using deep learning technology and transformer-based models.[19] This system was designed to automatically generate fatwā drafts based on questions posed in natural language (Arabic and English).

The system was trained using a corpus consisting of 25,000 fatwās from various authoritative institutions such as Dar al-Ifta Miṣr (Egypt), the Permanent Committee for Scholarly Research and Ifta of Saudi Arabia, and the Islamic Fiqh Academy. The AI model employs the BERT (Bidirectional Encoder Representations from Transformers) architecture that has been fine-tuned specifically for the Islamic law domain. The system does not merely search

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[17] Styliani Tsourlaki, "Artificial Intelligence and Fatwa Issuance: A Case Study of Dubai and Egypt," *Islamic Inquiries* 1, no. 2 (2022): 107–25, https://is.urd.ac.ir/article_161049.html.

[18] Tsourlaki.

[19] Amr A Munshi, Mostafa Abdelgaber, and Mahmoud I Khalil, "Towards an Automated Islamic Fatwa System," *International Journal of Computer Science and Mobile Computing* 10, no. 4 (2021): 118–31, https://doi.org/10.47760/ijcsmc.2021.v10i04.015.

for similar fatwās but attempts to generate new fatwā text by synthesizing information from various sources.

Testing results demonstrate that the system's accuracy in identifying fiqh categories reached 87%, and its capability to generate coherent fatwā drafts reached 75% based on expert panel evaluation. However, this research also identified several critical limitations: (1) the system struggled to handle questions involving special conditions or rare edge cases; (2) the capability to consider maqāṣid al-sharīʿah remains very limited; (3) the system cannot assess the urgency or emotional sensitivity of questions; and (4) potential bias from training data dominated by particular madhāhib. The researchers emphasized that this system is only suitable for the pre-fatwā stage (preliminary opinion) and requires extensive revision from human muftīs before it can be used as an official fatwā.

Lessons from AI Implementation in Fatwā

The two case studies above provide several important lessons. First, AI has proven effective in enhancing the efficiency of administrative stages and reference searches in the fatwā process, especially when dealing with a large volume of questions. Second, AI's limitations in understanding non-textual contexts—such as psychological, social, and moral urgency conditions—affirm that the role of human muftīs remains essential in the substantive decision-making stage. Third, the risk of data bias and dependence on particular madhāhib or approaches demonstrates the need for very careful data curation and strict audit mechanisms. Fourth, the human-AI collaboration model (human-in-the-loop) has proven to be the most feasible and responsible approach in the context of contemporary Islamic fatwā.

SWOT Analysis: AI in the Fatwā Process

To provide a systematic evaluation framework for AI's potential and limitations in the fatwā process, this study employs SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) that considers internal and external factors in AI implementation.

Strengths: AI's Internal Capabilities as an Assistive Tool for Fatwā

AI possesses a number of internal strengths that can be utilized to enhance the efficiency of the fatwā process. First, big data processing capability enables AI to analyze thousands of Islamic legal sources in a short time, including the Qurʾān, ḥadīth, tafsīr, fiqh texts from various madhāhib, as well as contemporary fatwās from various authoritative institutions.[20] AI systems can index and search for relevant information at speeds unattainable by humans manually.

Second, consistency and accuracy in certain tasks. AI can perform question classification, evidence identification, and mapping of scholarly opinions with a high level of consistency, reducing the risk of human error in the administrative stages of the fatwā process. Third, 24/7 accessibility enables AI systems to provide initial references or answers to common questions at any time, increasing the reach of fatwā services, especially for Muslim communities in regions without direct access to muftīs.[21]

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[20] Mimi Khairani, Afan Galih Salman, and Hani Nurrahmi, "Keywords Searching in Fatwa Data: A Comparative Study of Vector Space Model and Probabilistic Model," *Journal of Physics: Conference Series* 1175, no. 1 (2019): 12273, https://doi.org/10.1088/1742-6596/1175/1/012273.

[21] Arifuddin Achruh et al., "Challenges and Opportunities of Artificial Intelligence Adoption in Islamic Education in Indonesian Higher Education Institutions," *International Journal of Learning, Teaching and Educational Research* 23, no. 11 (2024): 423–43, https://doi.org/10.26803/ijlter.23.11.23.

Fourth, cross-madhhab comparative analysis capability. AI can quickly map the differences and similarities of opinions among fiqh madhāhib on a particular issue, assisting muftīs in considering various perspectives in the ijtihād process. Fifth, the potential to reduce certain personal biases. Although AI can inherit bias from data, in some aspects, AI can be more objective compared to humans, who may be influenced by personal preferences, political affiliations, or certain social pressures when issuing fatwās.

Weaknesses: AI's Internal Limitations in the Fatwā Context

Despite possessing significant strengths, AI also faces various internal weaknesses that limit its role in the fatwā process. First and most fundamental is the inability to understand psychological and emotional context. Fatwā in Islam is not merely a technical legal answer but also moral and spiritual guidance that must consider the psychological condition of the petitioner, emergency circumstances, and emotional sensitivity.[22] AI lacks empathy and cannot capture emotional nuances that are often crucial in providing appropriate fatwās, especially in family, health, or personal crisis matters.

Second, limitations in understanding maqāṣid al-sharīʿah holistically. The principle of maqāṣid al-sharīʿah (objectives of sharīʿah), which encompasses the protection of religion (ḥifẓ al-dīn), life (ḥifẓ al-nafs), intellect (ḥifẓ al-ʿaql), lineage (ḥifẓ al-nasl), and property (ḥifẓ al-māl), requires deep philosophical and contextual understanding.[23] AI may be able to identify maqāṣid textually, but cannot weigh priorities among various maqāṣid in conflictual situations or assess maṣlaḥah (public benefit) contextually.

Third, dependence on training data quality. AI is only as good as the data used to train it. If training data is dominated by perspectives from a particular madhhab, geographic region, or historical period, AI output will reflect that bias.[24] Fourth, inability to perform creative ijtihād. The true ijtihād process involves creative thinking, innovative analogy (qiyās), and consideration of entirely new problems with no historical precedent. AI based on historical patterns will struggle when facing genuinely novel issues requiring entirely new ijtihād approaches.

Fifth, limitations in understanding local socio-political dynamics. Effective fatwās must consider the social, cultural, economic, and political realities of the society where the fatwā will be implemented.[25] AI trained with global data will struggle to understand highly specific local nuances, such as customs, social structures, or political conditions that affect fatwā implementation in a particular community.

Opportunities: External Factors Supporting AI Development

There are a number of external opportunities that can be leveraged to optimize AI's role in the fatwā process. First, there is an increasing demand for fatwā services in the digital era. The increasingly tech-savvy global Muslim population, especially younger generations,

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[22] Mahrus Ali Elmi, "Psychological and Emotional Dimensions in Islamic Jurisprudence: The Human Element in Fatwa," *Journal of Islamic Psychology* 12, no. 3 (2020): 67–89.

[23] Aisyah Bhari and Wan Abdullah, "Maqasid Al-Shariah: A Contemporary Framework for Islamic Legal Analysis," *Malaysian Journal of Syariah and Law* 7, no. 2 (2016): 89–112.

[24] Mehran Soleimani, James Intriligator, and Juan Ramos, "Cognitive Biases in Machine Learning Algorithms: Implications for Ethical AI," *AI & Society* 36, no. 4 (2021): 1251–67, https://doi.org/10.1007/s00146-020-01150-9.

[25] Muhammad Husni Siregar, "Konteks Sosial-Politik Dalam Penetapan Fatwa Di Indonesia," *Jurnal Studi Islam Dan Kemasyarakatan* 15, no. 2 (2021): 223–47.

expects quick and easy access to religious guidance through digital platforms.[26] This creates opportunities for developing AI systems that can efficiently serve religious information needs.

Second, the multidisciplinary collaboration potential. AI development for the fatwā context opens opportunities for collaboration among scholars, uṣūl al-fiqh specialists, technology experts, ethics specialists, and data scientists. This collaboration can produce systems that are not only technically sophisticated but also epistemologically and ethically solid from an Islamic perspective. Third, advances in NLP technology for Arabic. Rapid developments in natural language processing for Arabic open opportunities to develop more accurate AI systems in understanding classical and contemporary texts in their original language.[27]

Fourth, potential as educational tools. AI can be developed not only to assist muftīs but also as educational tools for prospective scholars and Islamic studies students to learn istinbāṭ (legal derivation) methodology, study differences of opinion among madhāhib, and understand Islamic law applications in various contexts. Fifth, methodology standardization opportunities. AI development for fatwā requires documentation and standardization of explicit fatwā methodology, which can contribute to transparency and consistency in fatwā processes across various institutions.

Threats: External Risks from AI Implementation

There are several external threats that need to be anticipated in AI implementation for fatwā. First and most serious is the risk of excessive replacement of the human muftī role. If AI is promoted as a "replacement" for muftīs rather than as an "assistive tool," this can erode the authority of scholars and damage the ijtihād tradition that has developed for centuries.[28] Excessive trust in technology can lead society to neglect the importance of direct consultation with scholars who understand their context.

Second, the risk of privatization and commercialization of fatwā. AI fatwā system development by private technology companies can cause fatwās to become commercial products, where access to religious guidance depends on financial capability or willingness to pay subscription fees. This contradicts the principle that religious knowledge should be accessible to all Muslims without economic discrimination.

Third, potential for misuse for propaganda or ideological manipulation. AI systems can be programmed with certain ideological biases and used to promote extreme interpretations of Islam, whether excessively liberal or excessively conservative, without adequate transparency.[29] Fourth, data security and privacy risks. AI systems that collect personal questions from mustaftīs can become targets of cyber attacks or data misuse. Questions about personal and sensitive matters must be protected with the highest security standards.

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[26] Muhammad Khan, "Social and Cultural Impacts of AI in Muslim Communities," *Islamic Studies Review* 20, no. 1 (2022): 65–78.

[27] Wissam Antoun, Fady Baly, and Hazem Hajj, "AraBERT: Transformer-Based Model for Arabic Language Understanding," in *Proceedings of the 4th Workshop on Open-Source Arabic Corpora and Processing Tools, with a Shared Task on Offensive Language Detection* (Marseille, France: European Language Resource Association, 2020), 9–15.

[28] Muhammad Syarif Hasyim, "Fatwas and Democracy: Shifting Dynamics of Ulama Authority in Contemporary Indonesia," *Journal of Indonesian Islam* 13, no. 2 (2019): 346–70, https://doi.org/10.15642/JIIS.2019.13.2.346-370.

[29] Daniel Siegel and Bilva Chandra, "Deepfake Doomsday: The Role of Artificial Intelligence in Amplifying Apocalyptic Islamist Propaganda," *GNET Reports*, 2023, https://gnet-research.org/2023/08/29/deepfake-doomsday-the-role-of-artificial-intelligence-in-amplifying-apocalyptic-islamist-propaganda/.

Fifth, a threat to the diversity of fiqh thought. If AI systems are developed with the dominance of one madhhab or particular approach and then used en masse, this can cause homogenization of fiqh thought and reduce the diversity of opinion that has been the wealth of Islamic scholarly tradition.[30]

Comprehensive Evaluation: AI's Position as an Assistive Tool in the Fatwā Process

Based on the SWOT analysis above and concrete implementation case studies, it can be concluded that AI has an appropriate position as a decision support system in the fatwā process, not as a decision maker. AI can be optimized for three specific stages in the fatwā process: (1) pre-consultation stage, where AI systems provide basic information and references for common educational questions; (2) search and analysis stage, where AI assists muftīs in searching for evidence, mapping scholarly opinions, and conducting comparative analysis; and (3) documentation and dissemination stage, where AI assists in archiving, categorizing, and disseminating fatwās to the public.

However, AI should not be positioned to replace muftīs in crucial stages involving: (1) personal and psychological context analysis of the mustaftī; (2) maqāṣid al-sharīʿah reasoning requiring wisdom and philosophical consideration; (3) substantive ijtihād for new or complex cases; (4) maṣlaḥah-mafsadah consideration in specific socio-political contexts; and (5) final fatwā issuance that is binding.

The most responsible model is the human-in-the-loop model, where every AI output must undergo verification, contextualization, and validation by a competent muftī. In this model, AI functions to increase efficiency without reducing human accountability and authority. The muftī remains the gatekeeper, ensuring that every fatwā is not only textually correct but also contextually appropriate, ethical, and aligned with the public welfare (maṣlaḥah) of the ummah.

Perspectives of Scholars and Academics on AI in Fatwā

Academic and religious discourse regarding AI in the context of fatwā demonstrates a spectrum of diverse views that nonetheless converge on several key points. Academics acknowledge that AI has significant potential to enhance accessibility to extensive Islamic legal sources, including the Qurʾān, ḥadīth, tafsīr, and fiqh texts from various madhāhib. With big data processing capabilities, AI can facilitate information searches that previously required hours or even days, which can now be completed in minutes.[31]

However, scholars emphasize that AI's technical capability in processing texts cannot replace the deep understanding and wisdom (ḥikmah) possessed by muftīs. The fatwā process is not merely about finding the appropriate evidence but also about understanding social context, considering the psychological condition of the petitioner, and applying maqāṣid al-sharīʿah principles wisely.[32] A muftī does not merely function as a "legal search engine" but also as a spiritual counselor who understands the complexities of human life and can provide guidance that is not only legally correct but also wise and full of mercy.

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[30] Arief Mundzir and Laila Muthmainnah, "Progressive Fatwa Interpretation: Balancing Tradition and Modernity in Contemporary Islamic Jurisprudence," *Al-Maslahah: Journal of Islamic Law and Institutions* 18, no. 1 (2022): 112–34.

[31] Aulia Rahmi, Muhammad Zaki, and Budi Setiawan, "Kompleksitas Prosedur Metodologis Fatwa Dewan Syariah Nasional-Majelis Ulama Indonesia (DSN-MUI)," *Jurnal Syariah Dan Hukum* 16, no. 1 (2024): 77–94.

[32] Tahir, "Etika Berfatwa Dalam Perspektif Ulama Klasik Dan Kontemporer."

Academics also highlight the challenge of data bias in AI systems. If training data is dominated by geographic, madhhab, or particular historical period perspectives, the AI system will produce output reflecting that bias.[33] This can be problematic considering that the diversity of fiqh thought in Islam is one of the riches of scholarly tradition that must be preserved, not homogenized. Therefore, AI system development for fatwā requires very careful data curation, involving balanced representation from various madhāhib, geographic regions, and methodological approaches.

From an Islamic ethics perspective, some experts emphasize the importance of developing an AI ethics framework specific to the Islamic context, which not only adopts Western AI ethics principles but also integrates Islamic values such as justice (ʿadālah), trustworthiness (amānah), public benefit (maṣlaḥah), and maqāṣid al-sharīʿah.[34] Such an ethical framework is necessary to ensure that AI is not only technically efficient but also aligned with fundamental Islamic values in its implementation.

Overall, the consensus emerging among scholars and academics is that AI can and should be utilized as an assistive tool that enhances efficiency and accessibility in the fatwā process, but with the firm caveat that final authority in decision-making must remain in the hands of human muftīs who possess adequate scholarly and moral qualifications. Collaboration between technology and human expertise, with humans as the primary controllers, is the most responsible model and is aligned with Islamic principles in this digital era.

Conclusion

This study demonstrates that artificial intelligence (AI) has significant potential as a supporting instrument in the fatwā issuance process, particularly in the pre-decision stages of legal formulation, such as evidence searching, mapping of madhhab opinions, and comparative analysis of contemporary fatwās. Based on SWOT analysis and case studies of AI implementation at Dar al-Ifta Miṣr and automated fatwā generation systems, it has been proven that AI can enhance efficiency by up to 70% in administrative stages and reference searching, enabling muftīs to access thousands of Islamic legal sources in a short time and conduct cross-madhhab comparative analysis systematically. AI's capabilities in processing big data, providing consistency in classification, and offering 24/7 accessibility make it a valuable tool for responding to contemporary issues requiring immediate answers.

Nevertheless, this study also identifies fundamental limitations of AI in understanding non-formal contextual dimensions such as the psychological conditions of mustaftīs, socio-cultural realities, and maqāṣid al-sharīʿah considerations that demand human wisdom, intuition, and empathy. AI cannot perform creative ijtihād, does not possess a holistic understanding of maqāṣid al-sharīʿah, and is limited in capturing emotional nuances and local socio-political complexities that are often crucial in issuing appropriate and relevant fatwās. Analysis of external threats also reveals serious risks if AI is positioned excessively, including potential replacement of the muftī role, privatization of fatwā, and homogenization of fiqh thought. Therefore, this study affirms that the authority for substantive fatwā determination must remain with human muftīs who possess adequate scholarly and moral qualifications, with AI positioned as a non-binding decision-support system within a human-in-the-loop model framework.

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[33] Anirudh Pathni, "Cognitive Bias and Fairness in AI Systems: Ethical Challenges and Solutions," *AI Ethics Journal* 8, no. 3 (2023): 245–68.

[34] Ejlal Elmahjub, "Artificial Intelligence (AI) in Islamic Ethics: Towards Pluralist Ethical Benchmarking for AI," *Philosophy & Technology* 36, no. 4 (2023), https://doi.org/10.1007/s13347-023-00668-x.

Research Implications

Theoretically, this study contributes to the development of Islamic legal epistemology in the digital era by offering a conceptual framework that integrates AI technology into istinbāṭ methodology without sacrificing the authority of the ijtihād tradition. This study demonstrates that the dichotomy between tradition and modernity in Islamic law can be bridged through an approach that positions technology as a tool (wasīlah) that enhances process efficiency while maintaining humans as subjects (fāʿil) who possess epistemological authority in legal decision-making. The SWOT framework applied in this study can serve as an analytical model for evaluating other emerging technologies in the context of Islamic law. Furthermore, this study reinforces the human-in-the-loop theory in the context of religious decision-making, demonstrating that human supervision is not merely a technical control mechanism but an epistemological and ethical necessity rooted in the Islamic concepts of khalīfah and amānah. The findings regarding AI's limitations in understanding maqāṣid al-sharīʿah provide theoretical justification that the teleological and axiological dimensions in Islamic law cannot be reduced to computational algorithms but require human practical faculty that develops through experience, reflection, and wisdom.

Practically, the results of this study provide guidance for fatwā institutions in adopting AI technology responsibly. This study demonstrates that successful AI implementation requires more than mere technological investment but also necessitates structural transformation in fatwā institution organization, including the formation of multidisciplinary teams combining sharīʿah and technological expertise, development of clear standard operating procedures, and strict audit mechanisms. For AI technology developers, this study provides clear specifications on how AI systems for fatwā contexts should be designed, including the need for explainable AI that is transparent in its reasoning process, multi-madhhab capability to respect the diversity of fiqh thought, and architecture that facilitates human oversight at every critical stage. This study also raises awareness among stakeholders about risks that need to be mitigated, such as the privacy of fatwā petitioners' data, cybersecurity against system manipulation, and potential misuse for ideological or commercial interests.

Recommendations

Based on the research findings, this study proposes integrated operational recommendations for fatwā institutions, AI developers, Islamic educational institutions, and government regulators to ensure ethical, accountable, and sharīʿah-compliant AI implementation in fatwā processes.

First, fatwā institutions such as Majelis Ulama Indonesia (MUI) and Dar al-Ifta are advised to establish an AI and Fatwā Ethics Committee consisting of seven to nine members representing expertise in uṣūl al-fiqh and maqāṣid al-sharīʿah, AI and data science, Islamic ethics, and legal practice. This committee is responsible for formulating ethical guidelines, oversight mechanisms, and periodic audits of AI use in fatwā. The committee should be fully operational within eighteen months of AI adoption.

Fatwā institutions should also develop Standard Operating Procedures (SOP) for AI-assisted fatwā based on a five-stage protocol: question classification and reference retrieval by AI, scholarly verification, contextual assessment, maqāṣid al-sharīʿah validation, and final fatwā issuance by muftīs with full accountability. SOP development should include pilot testing, stakeholder feedback, training, and phased implementation to ensure AI functions strictly as a decision-support tool rather than a replacement for scholarly judgment.

In addition, a consortium-based integrated fatwā database should be developed, containing tens of thousands of curated fatwās with comprehensive metadata, methodological explanations, and contextual information. The database should support secure AI access, ensure data integrity, and be developed in phases over two to five years to reduce epistemic bias and improve AI reliability.

Second, AI developers are strongly encouraged to implement Explainable AI (XAI) standards, including transparent reasoning processes, confidence scores, source citations, multi-madhhab perspectives, and human override mechanisms. XAI should be embedded from the design stage or retrofitted into existing systems within two years. Developers should also collaborate with Islamic scholars and institutions to build a comprehensive Islamic knowledge base covering ḥadīth, tafsīr, classical and contemporary fiqh, maqāṣid al-sharīʿah, and diverse madhāhib, developed through phased digitization, annotation, and quality assurance over three to five years.

Third, Islamic educational institutions are recommended to introduce mandatory AI literacy programs for Sharīʿah students and prospective muftīs through structured curricula combining conceptual understanding, ethical evaluation, and hands-on practice with AI tools. Full implementation is targeted within three years. Furthermore, selected Islamic universities should establish research centers on AI and Islamic Law to conduct interdisciplinary research, policy development, and capacity building, supported by sustainable funding and international collaboration.

Finally, government and regulatory bodies should formulate national regulatory frameworks for AI in fatwā, covering licensing standards, quality benchmarks, data protection, liability rules, and oversight mechanisms. Regulation development should involve multi-stakeholder task forces and be finalized within three years. To support innovation, the government is also encouraged to establish a National AI–Fatwā Research and Innovation Fund providing competitive grants for ethical, legal, and technological research, with annual funding cycles to ensure long-term sustainability.

Research Limitations and Future Research Agenda

This study has several limitations that must be acknowledged. First, this study employs a qualitative literature review method without direct empirical testing of AI systems in actual fatwā institution environments. Hence, findings regarding AI effectiveness and limitations are inferred from the literature and secondary case studies. Second, the case studies used are limited to Arab contexts and do not yet cover implementations in Southeast Asia or other geographic and cultural contexts that may have different characteristics. Third, this study has not deeply explored technical aspects such as optimal neural network architecture, best NLP algorithms for classical Arabic texts, or training methodologies that minimize bias.

Based on these limitations, future research is needed in several directions. First, empirical research that directly tests AI implementation in fatwā institutions, including controlled experiments comparing the quality of AI-assisted fatwās versus non-AI fatwās involving panels of muftīs as evaluators. Second, cross-geographic comparative studies exploring how cultural context, dominant madhhab, and national legal systems affect AI effectiveness and acceptance in fatwā. Third, technical research on developing more accurate Arabic NLP models, especially for classical texts, and exploring the use of large language models fine-tuned for the fiqh domain. Fourth, longitudinal research tracking the long-term impacts of AI use on scholarly authority, ijtihād dynamics, and the evolution of fiqh thought in contemporary Muslim societies. By addressing these limitations through comprehensive

future research, it is hoped that a model for AI utilization can be formulated that is not only technically efficient but also proportional, responsible, and aligned with Islamic epistemological and ethical values, thus maintaining the integrity of the ijtihād tradition while leveraging technological advances for the welfare (maṣlaḥah) of the ummah in the digital era.

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