

The AI Chatbot Phenomenon and Its Impact on Learning Fiqh

(A Study of the Ethical Dimensions of Artificial Intelligence in Learning Islamic Jurisprudence)

Abdul Rahman Ramadhan¹

¹ Program Studi Hukum Keluarga Islam, Sekolah Tinggi Dirasat Islamiyah Imam Syafi'i
Jl. MH Thamrin Gg. Kepodang No. 5 Sumpster, Jember Jawa Timur 68132.

Corresponding author

1abdulrahmanramadhan95@gmail.com

Abstract: The Artificial intelligence (AI) chatbot phenomenon not only dominates the world of business and communication, but also penetrates the world of education, especially the learning of Fiqh which is not spared from the impact caused by the presence of AI chatbots. In conventional Fiqh learning, teachers and scholars have a central role in providing explanations, answering questions, and providing guidance to students in understanding complex concepts of Islamic law directly. After the emergence of AI technology, the learning Fiqh faces significant changes especially with the presence of chatbot features that can interact with humans in the form of conversations. But, AI chatbots allegedly do not have the ability to replace the role of teachers and scholars in providing in-depth and complex interpretations of Islamic law. This research aims to understand the impact of using AI chatbots in learning Fiqh and to analyze the challenges and opportunities related to the ethical dimensions of using AI chatbot technology in Learning Fiqh. This research is qualitative research with data collection using observation and literature review. The results of this research show that AI chatbot has become an accepted technology among lecturers and students. The use of AI chatbot in fiqh learning has many effects such as increasing accessibility, engagement, and understanding of learners, as well as providing instant feedback. In the implementation of AI chatbot in fiqh learning, AI chatbot can provide opportunities to expand access to fiqh learning. However, the use of AI chatbots for fiqh learning faces a number of ethical challenges that need to be considered. The results of this research are expected to provide an understanding of the impact of using AI chatbots in learning fiqh and identify also elaborate the ethical challenges and opportunities of using AI chatbots in learning Fiqh.

Keywords: chatbot; artificial intelligence; fiqh; Islam; learning

Introduction

One of the various studies that are the scope of Islamic studies, both in the East and West, is the science of fiqh or Islamic jurisprudence (Ismail, 2020). Muslims view fiqh as an expression of the universal unity of Islamic law rather than as an expression of particularistic diversity. Fiqh has represented law in the form of ideals rather than as a response or reflection of realistically existing reality, fiqh also chooses stability over change (Nurhayati, 2018).

Fiqh helps muslim understand and follow the divine laws that Allah has revealed for our guidance and success in this world and the hereafter. Studying fiqh can learn how to worship Allah, how to interact with others, how to conduct our personal and social affairs, and how to fulfill our obligations and rights as Muslims. (Ramzy and Dastagir, 2018).

Fiqh also reflects the richness and diversity of the Islamic civilization. It encompasses various schools of thought, methodologies, applications, and interpretations that have developed over time and across different regions and cultures. Studying

Islamic jurisprudence can appreciate the intellectual and spiritual contributions of Muslim scholars and jurists, as well as the historical and contextual factors that shaped their views (Al-Rida'i, 2013).

Islamic jurisprudence is a dynamic and evolving science that responds to the changing needs and circumstances of the Muslim community. It allows us to derive new rulings and solutions from the primary sources of Islam, namely the Quran and the Sunnah, using rational and logical principles. By studying Islamic jurisprudence, can enhance our critical thinking and analytical skills, as well as our understanding of the objectives and values of the Shariah (Ramzy and Dastagir, 2018).

In recent years, rapid advances in the field of artificial intelligence (AI) have transformed many aspects of human life, including education. The phenomenon of AI chatbots, which are AI-based systems that can interact with humans in the form of conversations, has become an integral part of the modern learning experience. Especially in the context of religious learning such as fiqh (Islamic law), the utilization of AI chatbots offers exciting opportunities but also poses various ethical challenges.

Fiqh is a branch of Islamic science that discusses laws and regulations based on Islamic teachings. Learning fiqh requires a deep understanding of classical texts and their interpretation and application in modern situations. With the advent of AI chatbots, teaching and learning fiqh can become more interactive, accessible, and customizable to individual needs.

However, the advent of AI chatbots also presents ethical challenges that need to be considered. In the context of religious learning, there is a risk of reducing the depth of understanding and valuable human-to-human interaction in the learning process. In the teachings of Islam, when one is in need of knowledge about religious law, Allah commands a Muslim to ask an expert in religious affairs or what is referred to as a "scholar". This is based on Allah's command in the Surah This is based on Allah's command in Surah An-Nahl, verse 43. Allah *subhanahu wa ta'ala* says:

فَاسْأَلُوا أَهْلَ الذِّكْرِ إِنْ كُنْتُمْ لَا تَعْلَمُونَ

"so ask the people of the message if you do not know"

The effect of the presence of artificial intelligence chatbots on learning fiqh can provide several significant benefits. Chatbot is an artificial intelligence-based application that can simulate conversations between users and computers through natural language (Retno et al., 2023). In the context of learning fiqh, chatbot can be used as an interactive and responsive tool to assist students in understanding fiqh concepts.

The utilization of AI in the legal education environment has its pluses and minuses. However, in the context of Islamic law, the human element remains paramount (Fachri, 2023). One of the main benefits of a chatbot in learning fiqh is its ability to provide instant and accurate answers to students' questions. In a study conducted by Muhammad and Adila, they developed an English conversation chatbot using speech recognition technology and artificial intelligence with the Dialogflow platform as the artificial intelligence engine (Muhammad and Adila, 2021). The results of this study show that the chatbot can provide answers that are relevant and in accordance with the questions asked by users.

In addition, chatbots can also assist students in gaining a better understanding of fiqh concepts through interactive interactions. In a study conducted by Zulrahman and Syahputra, they used Artificial Intelligence Markup Language (AIML) and Latent Semantic Analysis (LSA) approaches in the development of an e-education chatbot containing basic Islamic knowledge education (Zulrahman and Syahputra, 2023). The results of this study show that chatbots can provide structured learning materials and can be accessed by students anytime and anywhere.

In addition, the use of chatbots in learning fiqh can also increase student involvement in the learning process. In research conducted by Muliyono and Sumijan, they identified chatbot as a form of application with Natural Language Processing (NLP) that can improve online services (Muliyono & Sumijan, 2021). With a chatbot, students can interact with the learning system actively and get immediate feedback, thus increasing student motivation and interest in learning.

However, keep in mind that the use of chatbots in learning fiqh also has several challenges. One of them is the need to develop a chatbot that is accurate and responsive to students' questions. In a study conducted by , they evaluated the chatbot data model in natural language processing using k-nearest neighbor (Retno et al., 2023). The results of this study show that the use of the k-nearest neighbor method can improve the accuracy and responsiveness of chatbots in providing answers that match student questions.

AI has also been utilized to build Chatbots systems that are able to generate legal opinions or fatwas from problems submitted by users, namely especially the Muslim community (Nurochman, 2022). Ethical questions arise, such as to what extent a chatbot can provide religious fatwas or guidance, and how this technology can affect the understanding of spiritual and moral values. Therefore, this study aims to analyze the impact of the AI chatbot phenomenon in fiqh learning, focusing on the challenges and opportunities that arise in ethical aspects. Taking into account the rapid growth of AI technology and the importance of ensuring accurate and in-depth religious learning, this research will explore ways in which this technology can be wisely integrated in fiqh learning, while considering its social, cultural and ethical impacts. As such, this research is expected to provide a more in-depth look at the implications of using AI chatbots in fiqh learning from an ethical perspective.

Materials and Methods

This research uses a qualitative method, which is a method with a research process based on the perception of a phenomenon with a data approach that produces descriptive analysis in the form of oral sentences from the object of research (Sahir, 2021). Qualitative research aims to gain a deep understanding of human and social problems, not just explain the surface aspects of reality (Fadli, 2021). Qualitative research is expected to find hypotheses and then these hypotheses will be tested in research using a quantitative approach (Sugiyono, 2011). Qualitative data focuses on

events or phenomena that occur in their original environment. Qualitative data represents what actually happened and does not experience the impact of data reduction into numbers, as does data from quantitative research (Sarosa, 2021). The data used in this study are primary data and secondary data.

Primary data is data collected and sought by researchers through observation guidelines, interview guidelines, questionnaires, or test items (Saat and Mania, 2020). The data collection technique used for primary data is observation, which is a data collection technique that involves direct observation of the behavior, events, or phenomena being studied with the aim of collecting numerical data on certain variables by observing and recording events that occur (Rohman et al., 2023). Observations were made of lecturers and students from three different universities, namely Imam Shafi'i Islamic Studies College of Jember, Indonesia; Safwa University, Egypt; and International Quran University, Gambia. Observation is done by distributing questionnaires. The questionnaire distributed is a closed questionnaire type, which is a type of questionnaire whose questions have provided answer choices (Abubakar, 2021).

As for secondary data, it is data that does not directly provide data to data collection, for example through other people or through documents (Widodo, 2018). The data collection technique used for secondary data is a literature review which is a review of theories, references and scientific literature related to culture, values and norms that develop in the social situation under study (Sugiyono, 2022). Literature review aim to solve problems through data collection and scientific papers sourced from related literature. This concept involves critical analysis of relevant library materials (Sanusi, 2016). Secondary data used in this study comes from reference books, scientific articles, official websites, which have information relevant to research topics such as artificial intelligence and learning fiqh.

Results and Discussion

Using AI Chatbot in Learning Fiqh

In the era of globalization and rapid technological advancement, significant changes are taking place in various aspects of human life. Artificial intelligence (AI) technology is one of the trends that are changing the landscape of the modern world. One of the prominent applications of this technology is the development of AI chatbots. The AI chatbot phenomenon not only dominates the world of business and communication, but also penetrates into the world of education with the hope of enriching the learning process. In this case, religious education, especially in the context of learning fiqh (Islamic law), is not exempt from the great influence brought about by the presence of AI chatbots. Based on the results of observations regarding the use of AI chatbots in learning fiqh, there are several findings that can be interpreted as follows:

1. *Use of AI Chatbot*

A total of 53% of the respondents overall have used an AI chatbot. This shows that AI chatbots are already quite popular in the academic environment, especially among students with 59% of them having used them. On the other hand, only 14% of lecturers have ever used an AI chatbot. This may indicate that students are more open to new technologies in learning compared to lecturers.

2. *Dominant Use of AI Chatbot*

From the data obtained, it can be seen that ChatGPT is the most dominant AI chatbot used by respondents, with 91% of AI chatbot users choosing it. This indicates that ChatGPT has gained significant popularity in the context of learning fiqh. However, it should not be overlooked that there are other variations of AI chatbot usage, such as Bing Chat, Google Bard, Perplexity, and Google Assistants.

3. *Purpose of Using AI Chatbot*

From the data obtained, there are various purposes that can be identified. Most respondents (78%) use AI chatbots to ask questions, indicating that it has become a common practice to use AI chatbots to get

information or answers. In addition, a number of respondents use AI chatbots for copywriting (32%), translation (32%), conversation (18%), research (50%), task work (21%), and task management (18%). This data reflects the flexibility of AI chatbots in answering various needs in the context of learning fiqh.

4. *Frequency of Use of AI Chatbot*

Of the AI chatbot users, most use it with a fairly high level of frequency. As many as 41% use the AI chatbot daily, indicating that this technology has become an important part of their learning.

5. *AI Chatbot Acceptance*

With 100% of AI chatbot user respondents believing that AI chatbots are beneficial to lecturers and students, this indicates a positive acceptance of this technology in the learning process.

6. *Jurisprudence Questions*

A total of 50% of AI chatbot user respondents have asked AI chatbots about fiqh issues. This indicates that AI chatbots are used in the context of learning fiqh.

7. *Answer Accuracy*

A total of 74% of AI chatbot user respondents stated that the fiqh-related answers provided by the AI chatbot were considered accurate. This is a positive indication that this technology can provide useful information in fiqh learning.

8. *Errors in Quranic Verses and Hadith*

Although the majority of respondents were satisfied with the AI chatbot's answers, 50% of them found errors in Quranic verses and hadith in the AI chatbot's answers. This shows that there are still challenges in using this technology to ensure the accuracy of religious information.

9. *Satisfaction and Support for AI Chatbot*

59% of AI chatbot users were satisfied with the answers provided by the AI chatbot on fiqh issues. More than half of them (55%) also agreed with the use of AI chatbots in learning fiqh, and 71% believed that AI chatbots have a positive impact on learning fiqh.

Overall, the results indicate that AI chatbots have been well received in the learning of fiqh, especially among university students. The data shows that AI chatbots, especially ChatGPT, have become a popular tool in learning jurisprudence. The use of AI chatbots for queries and research reflects that this technology can assist students and lecturers in obtaining information and designing their research.

Although there are some errors found in the AI chatbot's answers related to Quranic verses and hadith, the positive impact of using this technology in learning fiqh is quite strong, especially in improving the accuracy of answers and user convenience. In this regard, the utilization of AI chatbots can be a valuable addition to the fiqh learning process, but it needs to be continuously improved in order to provide more accurate information that is in line with religious teachings.

However, it should be noted that the diverse use of AI chatbots also illustrates the large number of purposes that this technology can fulfill in the context of learning fiqh. Thus, AI chatbots have made a positive contribution in facilitating the learning and research process of jurisprudence, as well as improving efficiency in answering questions and fulfilling academic needs.

Impact of AI Chatbot on Learning Fiqh

Fiqh is the Islamic jurisprudence that deals with the interpretation and application of Sharia law. Fiqh learning is an important aspect of Islamic education, as it helps Muslims to understand and follow the rules and principles of their faith. AI chatbots are computer programs that can simulate natural language conversations with humans. Its can be used for various purposes, such as providing information, guidance, feedback, or entertainment. AI chatbots can also be used for educational purposes, such as facilitating fiqh learning.

AI chatbots can make fiqh learning more accessible to learners who have limited access to human teachers or resources. For example, a chatbot can provide learners with relevant and reliable sources of fiqh knowledge from books and websites (Kuhail et al., 2023). A chatbot can also adapt to the learners' level, pace, and preferences,

and offer personalized learning paths edu (Mageira et al., 2022). AI chatbots can provide learners with instant feedback and answers to their fiqh questions. This can enhance learners' engagement, motivation, and satisfaction. For example, a chatbot can use natural language understanding and machine learning to analyze learners' questions and provide appropriate responses. A chatbot can also use natural language generation to create natural and human-like responses (Mageira et al., 2022).

AI chatbots can help learners to repeat and review the fiqh material they have learned. This can improve learners' retention and understanding of the fiqh concepts and rules. For example, a chatbot can use spaced repetition algorithms to schedule the optimal time for learners to revisit the material (Mageira et al., 2022). A chatbot can also use gamification techniques to make repetition more fun and rewarding (Li et al., 2021). AI chatbots also can facilitate interactive and collaborative fiqh learning among learners and teachers. This can foster learners' social and communication skills, as well as their critical thinking and problem-solving skills. For example, a chatbot can act as a peer or a mentor to support learners' learning process (Mageira et al., 2022). A chatbot can also act as a mediator or a facilitator to encourage learners' participation and discussion (Mageira et al., 2022).

AI chatbots can provide students with instant feedback and answers to their fiqh questions. This can enhance students' engagement, motivation, and satisfaction. For example, a chatbot can use natural language understanding and machine learning to analyze students' questions and provide appropriate responses (Adam et al., 2021). A chatbot can also use natural language generation to create natural and human-like responses.

AI chatbots can help students to repeat and review the material they have learned about Islamic law. This can improve their retention and understanding of the concepts and rules. AI chatbots can use spaced repetition algorithms to schedule the optimal time for students to revisit the material (Mageira et al., 2022). Spaced repetition is a learning technique that involves reviewing information at increasing intervals of time. This can

help students to consolidate their memory and avoid forgetting.

AI chatbots can use gamification techniques to make repetition more fun and rewarding (Kooli, 2023). Gamification is the application of game elements, such as points, badges, levels, or leaderboards, to non-game contexts, such as education. This can help students to increase their motivation, engagement, and enjoyment. AI chatbots can use natural language generation to create natural and human-like responses (Mageira et al., 2022). Natural language generation is the process of producing text or speech from data or information. This can help students to interact with the chatbot in a natural and conversational way, and to receive feedback and guidance.

Ethical Challenges in the Use of AI Chatbots in Learning Fiqh

One of the ethical challenges is the accuracy and reliability of the information that AI chatbots provide. Fiqh is the Islamic jurisprudence that deals with the interpretation and application of the Sharia law. It is a complex and diverse field that requires deep knowledge and understanding of the Quran, the Sunnah, and the opinions of various scholars and schools of thought. AI chatbots may not be able to capture all the nuances and subtleties of fiqh, especially when it comes to controversial or sensitive issues. They may also be influenced by the data that they are trained on, which may contain biases or errors. Therefore, AI chatbots may provide inaccurate or misleading information that could harm the users or cause confusion or conflict among them (Kooli, 2023; Sebastian, 2023).

Information inaccuracies in AI chatbots can have negative consequences, such as misleading or harming users, damaging the reputation of the chatbot or its provider, or violating ethical or legal standards. Therefore, it is important to address this risk and minimize the spread of false or inappropriate understandings. There are different ways to address the risk of information inaccuracies in AI chatbots, depending on the source and type of the inaccuracies.

One of the main sources of information inaccuracies in AI chatbots is the quality of the data that they use to learn and generate responses. This

can be done by using reliable sources of data, such as official websites, databases, or publications; by filtering out noisy or irrelevant data; by updating the data regularly; and by applying data quality checks and validations (Følstad and Brandtzaeg, 2020).

Another source of information inaccuracies in AI chatbots is the design of the model that they use to process and generate natural language. If the model is not well-trained, fine-tuned, or evaluated, it may produce errors, such as hallucinations or confabulations. Therefore, it is important to design the model carefully, using appropriate methods and techniques, such as natural language understanding, natural language generation, machine learning, reinforcement learning, and evaluation metrics (Yang et al., 2023).

Another way to address the risk of information inaccuracies in AI chatbots is to collect and use user feedback. User feedback can help to identify and correct the inaccuracies that the chatbot may produce, as well as to improve its performance and quality over time (Yang et al., 2023). User feedback can be collected through various methods, such as ratings, reviews, surveys, comments, or reports. User feedback can also be used to train or fine-tune the chatbot model using reinforcement learning or human-in-the-loop approaches (Yang et al., 2023).

Finally, another strategy to address the risk of information inaccuracies in AI chatbots is to ensure transparency and accountability. Transparency means that the chatbot should disclose its identity, purpose, capabilities, limitations, and sources of information to the users (Masnavi, 2023). This can help to build trust and credibility with the users, as well as to inform them about what they can expect from the chatbot. Accountability means that the chatbot should be responsible for its actions and outcomes, and that it should provide explanations or justifications for its responses when needed (Masnavi, 2023). This can help to prevent or resolve any disputes or complaints that may arise from the chatbot's inaccuracies.

Another ethical challenge is the transparency and accountability of the AI chatbots. Users may not be aware of how the AI chatbots generate their responses, what sources they use, or what assumptions they make. They may also not be able

to verify or challenge the information that they receive from the AI chatbots. Moreover, it may not be clear who is responsible for the quality and impact of the information that the AI chatbots provide. Is it the developers, the providers, the users, or the AI chatbots themselves? How can they be held accountable for any errors or harms that may result from their use? (Sebastian, 2023)

A third ethical challenge is the trust and respect that the AI chatbots have for the users and their beliefs. Fiqh is a matter of faith and practice for many Muslims around the world. It is not only a source of information, but also a guide for their moral and spiritual life. AI chatbots may not be able to understand or appreciate the values and emotions that are associated with fiqh. They may also not be able to respect the diversity and pluralism that exist within fiqh. They may impose their own views or preferences on the users, or disregard their questions or concerns. They may also lack empathy or compassion for the users who may face difficulties or dilemmas in applying fiqh to their lives (Kooli, 2023; Sundareswaran, 2021).

These are some of the ethical challenges that arise in the use of AI chatbots in delivering fiqh information that may contain complex or controversial nuances. They require careful consideration and evaluation from various stakeholders, such as scholars, developers, providers, regulators, and users. They also call for ethical principles and guidelines that can ensure that AI chatbots are used in a responsible and beneficial way for fiqh education and research.

Opportunities in Implementing AI Chatbot in Learning Fiqh

AI chatbots can provide opportunities to expand access to fiqh learning in several ways, such as:

1. Reaching more people who may not have access to traditional or formal sources of fiqh education, such as books, teachers, or institutions. AI chatbots can be accessed through various platforms, such as web, mobile, or social media, and can communicate in multiple languages and dialects (Kooli, 2023; Kuhail et al., 2023; Shamdi et al., 2022).
2. Adapting to the needs and preferences of different learners, such as their level of knowledge, learning style, pace, and goals. AI chatbots can use machine learning and natural language processing to analyze and personalize the fiqh information and guidance that they provide (Kooli, 2023).
3. Supporting the existing fiqh education and research systems, such as by providing supplementary or complementary information, resources, or feedback. AI chatbots can also collaborate with human teachers and mentors to enhance the learning experience and outcomes (Kooli, 2023; Kuhail et al., 2023; Shamdi et al., 2022).
4. Innovating the methods and modes of fiqh education and research, such as by creating interactive and engaging learning activities, scenarios, or games. AI chatbots can also generate new insights and perspectives on fiqh topics by using artificial intelligence and creativity (Kooli, 2023).

AI chatbots also can increase student engagement and provide a more personalized learning experience in several ways, such as:

1. Responding to student's questions and queries in real-time, using natural language processing and machine learning. AI chatbots can offer immediate and interactive feedback, guidance, or support to students, without the need for human intervention or waiting time (Chen et al., 2023; Seo et al., 2021).
2. Adapting to students' needs and preferences, using data analysis and recommendation systems. AI chatbots can tailor the learning content, pace, and style to each student's level of knowledge, learning goals, and interests (Capacity, 2023; Chen et al., 2023; Seo et al., 2021).
3. Engaging students in conversational and collaborative learning activities, using dialogue generation and gamification techniques. AI chatbots can create fun and immersive learning scenarios, games, or challenges that stimulate students' curiosity, motivation, and creativity (Arsim, 2023; Chen et al., 2023).
4. Personalizing the learning environment and resources, using user modeling and sentiment analysis. AI chatbots can understand and

empathize with students' emotions, moods, and attitudes, and provide appropriate emotional support, encouragement, or suggestions (Capacity, 2023; Chen et al., 2023).

Then, AI chatbots have the potential to address fiqh learning challenges that students may face in various ways, such as:

1. Providing access to fiqh information and guidance for students who may not have other sources or opportunities to learn about their faith. AI chatbots can be accessed through various platforms, such as web, mobile, or social media, and can communicate in multiple languages and dialects (Kuhail et al., 2023; Lo and Hew, 2023; Wollny et al., 2021).
2. Supporting human teachers and mentors by offering supplementary or personalized feedback, resources, and scaffolding for students. AI chatbots can use machine learning and natural language processing to analyze and personalize the fiqh information and guidance that they provide (Aleedy et al., 2022; Kuhail et al., 2023; Wollny et al., 2021).
3. Enhancing student engagement and motivation by creating interactive and immersive learning activities, scenarios, or games that stimulate students' curiosity, creativity, and critical thinking. AI chatbots can also generate new insights and perspectives on fiqh topics by using artificial intelligence and creativity (Aleedy et al., 2022; Kuhail et al., 2023).
4. Addressing the diversity and complexity of fiqh topics by providing different perspectives and opinions from various scholars and schools of thought. AI chatbots can also help students to understand and apply fiqh to their specific contexts and situations (Kuhail et al., 2023; Lo and Hew, 2023).

Finally, an AI chatbot can be used as a support tool to improve the effectiveness of the fiqh learning process in several ways, such as:

1. Providing access to fiqh information and guidance for learners who may not have other sources or opportunities to learn about their faith. AI chatbots can be accessed through various platforms, such as web, mobile, or

social media, and can communicate in multiple languages and dialects (Kooli, 2023)

2. Supporting human teachers and mentors by offering supplementary or personalized feedback, resources, and scaffolding for learners. AI chatbots can use machine learning and natural language processing to analyze and personalize the fiqh information and guidance that they provide (Chen et al., 2023).
3. Enhancing learner engagement and motivation by creating interactive and immersive learning activities, scenarios, or games that stimulate learners' curiosity, creativity, and critical thinking. AI chatbots can also generate new insights and perspectives on fiqh topics by using artificial intelligence and creativity (Chen et al., 2023).
4. Addressing the diversity and complexity of fiqh topics by providing different perspectives and opinions from various scholars and schools of thought. AI chatbots can also help learners to understand and apply fiqh to their specific contexts and situations (Kooli, 2023).

Conclusions

AI chatbots have become an accepted technology among lecturers and students. AI chatbots have been used for various purposes, including research and information retrieval related to fiqh issues. Despite occasional errors in answers relating to Quranic verses and hadith, AI chatbot users feel that this technology will have a positive impact in fiqh learning.

The use of AI chatbots in fiqh learning has many effects such as increasing accessibility, engagement and understanding of learners, and providing instant feedback. This can help overcome limited access to human teachers and resources. AI chatbot can also facilitate fiqh learning by providing effective information, feedback and repetition. AI chatbots help learners to understand and apply sharia law with ease. The use of AI chatbot allows learners to repeat the material effectively and makes learning more interesting.

The use of AI chatbots for fiqh learning faces a number of ethical challenges that need to be considered. One ethical challenge is the accuracy and reliability of the information provided by the AI chatbot. Another ethical challenge is the transparency and accountability of AI chatbots. Users may not be aware of how AI chatbots generate their responses, what sources they use, or what assumptions they make. The third ethical challenge is the trust and respect that AI chatbots have for users and their beliefs. Fiqh is a matter of faith and practice for many Muslims around the world.

In Implementing AI Chatbot in Learning Fiqh, AI chatbots can provide opportunities to expand access to fiqh learning. AI chatbots can increase student engagement and provide a more personalized learning experience. AI chatbots also have the potential to address fiqh learning challenges that students may face. An AI chatbot can be used as a support tool to improve the effectiveness of the fiqh learning process.

References

Al-Quran Al-Karim

- Abubakar, R., 2021. Pengantar Metode Penelitian. SUKA-Press UIN Sunan Kalijaga, Yogyakarta.
- Adam, M., Wessel, M., Benlian, A., 2021. AI-Based Chatbots in Customer Service and Their Effects on User Compliance. *Electron Markets* 31, 427–445. <https://doi.org/10.1007/s12525-020-00414-7>
- Aleedy, M., Atwell, E., Meshoul, S., 2022. Using AI Chatbots in Education: Recent Advances Challenges and Use Case, in: Pandit, M., Gaur, M.K., Rana, P.S., Tiwari, A. (Eds.), *Artificial Intelligence and Sustainable Computing, Algorithms for Intelligent Systems*. Springer Nature, Singapore, pp. 661–675. https://doi.org/10.1007/978-981-19-1653-3_50
- Al-Rida'i, H., 2013. The Importance of Jurisprudence [WWW Document]. URL <https://www.al-islam.org/sw/basics-islamic-jurisprudence-hassan-al-ridai/importance-jurisprudence> (accessed 10.21.23).
- Arsim, A., 2023. AI Chatbot for Higher Education on Student Engagement and Success in. URL <https://whatisfreelance.com/ai-chatbot-for-higher-education/> (accessed 10.23.23).
- Capacity, T., 2023. Higher Education Chatbots: Your Ultimate Guide to Enhanced Student and Faculty Services [WWW Document]. URL <https://capacity.com/learn/ai-chatbots/higher-education-chatbot/> (accessed 10.23.23).
- Chen, Y., Jensen, S., Albert, L.J., Gupta, S., Lee, T., 2023. Artificial Intelligence (AI) Student Assistants in the Classroom: Designing Chatbots to Support Student Success. *Inf Syst Front* 25, 161–182. <https://doi.org/10.1007/s10796-022-10291-4>
- Fachri, F.K., 2023. Dampak Artificial Intelligence Terhadap Pendidikan Hukum dan Hukum Islam [WWW Document]. hukumonline.com. URL <https://www.hukumonline.com/berita/a/dampak-artificial-intelligence-terhadap-pendidikan-hukum-dan-hukum-islam-lt6489a0067b28d/> (accessed 10.23.23).
- Fadli, M.R., 2021. Memahami Desain Metode Penelitian Kualitatif. *Humanika, Kajian Ilmiah Mata Kuliah Umum* 21, 33–54. <https://doi.org/10.21831/hum.v21i1.38075>
- Følstad, A., Brandtzaeg, P.B., 2020. Users' Experiences With Chatbots: Findings From A Questionnaire Study. *Qual User Exp* 5, 3. <https://doi.org/10.1007/s41233-020-00033-2>
- Ismail, F., 2020. Ilmu Fikih: Sejarah, Tokoh dan Mazhab Utama. *Bahsun Ilmy: Jurnal Pendidikan Islam* 1, 69–78.
- Kooli, C., 2023. Chatbots in Education and Research: A Critical Examination of Ethical Implications and Solutions. *Sustainability* 15, 5614. <https://doi.org/10.3390/su15075614>
- Kuhail, M.A., Alturki, N., Alramlawi, S., Alhejori, K., 2023. Interacting With Educational Chatbots: A Systematic Review. *Educ Inf Technol* 28, 973–1018. <https://doi.org/10.1007/s10639-022-11177-3>
- Li, Y.S., Lam, C.S.N., See, C., 2021. Using a Machine Learning Architecture to Create an AI-Powered Chatbot for Anatomy Education. *Med.Sci.Educ.* 31, 1729–1730. <https://doi.org/10.1007/s40670-021-01405-9>
- Lo, C.K., Hew, K.F., 2023. A Review of Integrating AI-Based Chatbots Into Flipped Learning: New Possibilities and Challenges. *Frontiers in Education* 8.
- Mageira, K., Pittou, D., Papasalouros, A., Kotis, K., Zangogianni, P., Daradoumis, A., 2022. Educational AI Chatbots for Content and Language Integrated Learning. *Applied Sciences* 12, 3239. <https://doi.org/10.3390/app12073239>
- Masnavi, S., 2023. Fact or Fiction: The Struggle with Accuracy in AI Chatbots ChatGPT and Bing Chat [WWW Document]. URL <https://www.cryptoglobe.com/latest/2023/04/fact-or-fiction-the-struggle-with-accuracy-in-ai-chatbots-chatgpt-and-bing-chat/> (accessed 10.23.23).
- Muhammad, A.F., Adila, F., 2021. Pengembangan Chatbot Percakapan Bahasa Inggris Menggunakan Dialogflow. *JUPI (Jurnal Ilmiah Penelitian dan Pembelajaran Informatika)* 6, 25–37. <https://doi.org/10.29100/jupi.v6i1.1821>
- Nurhayati, N., 2018. Memahami Konsep Syariah, Fikih, Hukum Dan Ushul Fikih. *Jurnal Hukum Ekonomi Syariah* 2, 124–134.

- Nurochman, 2022. Pemanfaatan Kecerdasan Artifisial dalam Bidang Hukum Islam. URL <https://ilmusyahdokteral.uin-suka.ac.id/id/kolom/detail/558/pemanfaatan-kecerdasan-artifisial-dalam-bidang-hukum-islam> (accessed 10.23.23).
- Ramzy, I., Dastagir, G., 2018. Fiqh, in: Kassam, Z.R., Greenberg, Y.K., Bagli, J. (Eds.), *Islam, Judaism, and Zoroastrianism*, Encyclopedia of Indian Religions. Springer Netherlands, Dordrecht, pp. 235–239. https://doi.org/10.1007/978-94-024-1267-3_2054
- Retno, S., Dinata, R.K., Hasdyna, N., 2023. Evaluasi model data chatbot dalam natural language processing menggunakan k-nearest neighbor. *Jurnal CoSciTech (Computer Science and Information Technology)* 4, 146–153. <https://doi.org/10.37859/coscitech.v4i1.4690>
- Rohman, M., Sinaga, J., Asmara, A., Sari, T.P., Ramadhan, A.R., Agit, A., Hidayati, N., Dewi, N.P.S., Sukandi, P., Saputri, P.S., 2023. Metodologi Penelitian Kualitatif dan Kuantitatif. Pena Muda Media, Yogyakarta.
- Saat, S., Mania, S., 2020. Pengantar Metodologi Penelitian Panduan Bagi Pemula. Pustaka Almada, Gowa.
- Sahir, S.H., 2021. Metodologi Penelitian. KBM Indonesia, Bantul.
- Sanusi, A., 2016. Metodologi Penelitian Bisnis. Salemba Empat, Jakarta.
- Sarosa, S., 2021. Analisis Data Penelitian Kualitatif. Kanisius.
- Sebastian, G., 2023. Exploring Ethical Implications of ChatGPT and Other AI Chatbots and Regulation of Disinformation Propagation. <https://doi.org/10.2139/ssrn.4461801>
- Seo, K., Tang, J., Roll, I., Fels, S., Yoon, D., 2021. The Impact of Artificial Intelligence on Learner–Instructor Interaction in Online Learning. *International Journal of Educational Technology in Higher Education* 18, 54. <https://doi.org/10.1186/s41239-021-00292-9>
- Shamdi, W., Lai, D., Aziz, A.A., Anshari, M., 2022. Artificial Intelligence Development In Islamic System of Governance: A Literature Review. *Cont Islam* 16, 321–334. <https://doi.org/10.1007/s11562-022-00504-7>
- Sugiyono, 2022. Memahami Penelitian Kualitatif. Alfabeta, Bandung.
- Sugiyono, 2011. Metodologi Penelitian Kombinasi (Mixed Metodologi). Alfabeta, Bandung.
- Sundareswaran, V., 2021. Chatbots Are on The Rise. This Approach Accounts for Their Risks [WWW Document]. World Economic Forum. URL <https://www.weforum.org/agenda/2021/06/chatbots-are-on-the-rise-this-approach-accounts-for-their-risks/> (accessed 10.21.23).
- Widodo, A.P.A., 2018. Penulisan Karya Tulis Ilmiah. Nizamia Learning Center, Sidoarjo.
- Wollny, S., Schneider, J., Di Mitri, D., Weidlich, J., Rittberger, M., Drachsler, H., 2021. Are We There Yet? - A Systematic Literature Review on Chatbots in Education. *Frontiers in Artificial Intelligence* 4.
- Yang, J., Chen, Y.-L., Por, L.Y., Ku, C.S., 2023. A Systematic Literature Review of Information Security in Chatbots. *Applied Sciences* 13, 6355. <https://doi.org/10.3390/app13116355>
- Zulrahman, M.F., Syahputra, H., 2023. Pemanfaatan Artificial Intelligence Markup Language (AIML) dan Latent Semantic Analysis (LSA) dalam Pengembangan Chatbot E-Education. *INTECOMS: Journal of Information Technology and Computer Science* 6, 36–43. <https://doi.org/10.31539/intecom.v6i1.5459>