



ISLAMIC RELIGIOUS EDUCATION IN THE AGE OF AI: A LITERATURE-BASED ANALYSIS OF CHALLENGES AND OPPORTUNITIES IN SHAPING STUDENTS' ISLAMIC CHARACTER IN THE DIGITAL ERA

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ABSTRAK

This study analyzes relevant literature to examine the challenges and opportunities arising from the development of Artificial Intelligence (AI) regarding the formation of students' Islamic character in the digital age. Through a systematic literature review, this article explores how AI influences students' understanding of Islamic concepts, religious practices, and moral and ethical values. This study employs a qualitative approach by collecting and analyzing scientific articles, journals, and related publications. The results of the analysis indicate that AI offers broader access to religious information but also poses the risk of misinformation. The use of technology in religious practices opens new opportunities but also challenges spiritual devotion. Additionally, AI influences students' social interactions, giving rise to challenges such as cyberbullying. This article emphasizes the importance of digital literacy and strong character education to equip students to navigate the AI era. The conclusions of this study provide practical implications for Islamic Education teachers and policymakers in designing effective learning strategies that are relevant to the changing times..

Keywords: Islamic Religious Education, Artificial Intelligence, Islamic Character, Digital Age, Digital Literacy.

INTRODUCTION

Islamic character education, as the primary foundation for shaping the nation's future generation, plays a crucial role in fostering individuals who are not only intellectually outstanding but also possess noble character, integrity, and a commitment to the noble values of Islam (Fandra et al., 2025; Johan et al., 2025; Luthfiyyah et al., 2025; Maidugu & Isah, 2024). In the context of education, character is not merely an accessory but the core that guides behavior, shapes a strong personality, and directs individuals to live lives in harmony with religious teachings. Furthermore, Islamic character fosters a Muslim who is kaffah—whole and balanced—in all aspects of life, both worldly and spiritual. Islamic character education aims to internalize fundamental values such as deep faith (belief in Allah SWT and the other pillars of faith), piety manifested in obedience to His commands

and avoidance of His prohibitions, honesty in words and deeds, discipline in managing time and tasks, responsibility toward oneself, family, society, and the environment; and a high level of social and environmental concern (Anggreni et al., 2025; Risnawati & Kurahman, 2025; Saputra, 2025). These values, which are rooted in the Qur'an and the Sunnah, serve as a vital moral compass in facing the increasingly complex challenges of the modern era, including the overwhelming flow of information and the potential negative impacts of rapid technological advancements. For example, honesty instilled from an early age will shield students from engaging in corruption in the future, while social responsibility will encourage them to make positive contributions to the progress of the nation and the country.

The rapid development of Artificial Intelligence (AI) has fundamentally transformed the landscape of human life,

ushering in a new era full of opportunities and challenges. AI now permeates nearly every aspect of life, ranging from education (e.g., personalized learning, smart tutoring systems), healthcare (AI-based disease diagnosis, drug development), business (process automation, customer data analysis), to social interaction (social media, chatbots). AI's ability to process information at high speeds, analyze large-scale data (Big Data) with exceptional accuracy, and provide intelligent recommendations (e.g., recommendations for movies, books, or products) has opened up a wide range of new opportunities that were previously unimaginable. Complex AI algorithms can identify patterns, predict trends, and even create innovative solutions to various problems. However, on the other hand, the development of AI also presents significant challenges that must be carefully monitored and comprehensively addressed, particularly regarding ethics (algorithmic bias, discrimination), privacy (collection and use of personal data), social impact (unemployment due to automation), and security (cyber threats, use of AI for malicious purposes) (Hasbullah, 2025; Judijanto & Harsya, 2025; Kamila & Jasrotia, 2025; Li, 2023). For example, widely used facial recognition algorithms can violate individual privacy and even be used for discriminatory purposes.

The impact of AI on students' character development is a major concern in the context of education, particularly Islamic character education. AI technology, with all its potential and risks, can significantly influence how students understand religious teachings, interact with others, internalize moral values, and even shape their sense of self (Gozali, 2025; Iskandar, 2025; Nurrohmah et al., 2025; Nursiah, 2024). For example, students may prefer to seek answers to religious questions through an AI chatbot rather than asking a teacher or reading sacred texts. This can diminish a deep and contextual understanding of religious teachings. Furthermore, exposure to content that does not align with Islamic values on AI-powered digital platforms can erode students'

morality and ethics. Therefore, it is crucial to understand how AI influences students' thought processes, behavior, and beliefs, as well as how Islamic character education can adapt to address these challenges.

The digital age, driven on a massive scale by advancements in AI, introduces new complexities to the educational landscape. Students today have extremely easy and rapid access to a wide variety of information sources through the internet, social media, and various other digital platforms. On the one hand, this accessibility to information can enrich their knowledge, broaden their horizons, and facilitate more interactive and personalized learning (Li, 2023). However, on the other hand, this ease of access also opens the door to exposure to disinformation (hoaxes, fake news), radical propaganda, hate speech, pornographic content, and various other negative influences that can undermine students' morals and character. For example, social media algorithms can trap students in an echo chamber, where they are exposed only to information that confirms their own beliefs, thereby reinforcing polarization and intolerance. Therefore, Islamic character education must be able to adapt to the dynamics of the digital age and leverage the opportunities offered by AI to improve the quality of learning and strengthen students' moral values, while still protecting them from the potential risks it poses (Nurhabibi et al., 2025). This requires a holistic and integrative approach, involving teachers, parents, the community, and policymakers. The role of teachers as facilitators, motivators, and moral guides has become more important than ever in guiding students to develop critical thinking skills, digital literacy, and an awareness of Islamic values.

Constructivism, which emphasizes students' active role in constructing their own knowledge and understanding, is highly relevant in this context (Azzahra et al., 2025; Luthfiyani et al., 2025). AI can be used as a tool to support constructivist learning, for example through simulations, game-based learning, and collaborative platforms. However, it is important to ensure that the

use of AI is directed toward reinforcing Islamic values and encouraging students to think critically about the information they receive. Additionally, Kohlberg's Theory of Moral Development is relevant, as AI can influence students' moral development in both positive and negative ways (Hanafiah, 2024). Islamic character education must strive to help students reach higher stages of moral development, where they are able to make decisions based on universal moral principles and Islamic values.

Based on the background outlined above, the research question in this study focuses on the role and influence of Artificial Intelligence (AI) in Islamic Religious Education on the development of students' understanding and character. Specifically, this study examines how AI influences students' understanding of fundamental concepts in Islam, such as tawhid, worship, akhlak, and muamalah. Additionally, this study also examines the influence of AI on students' religious practices and rituals, in terms of frequency, quality, and motivation in performing them. Furthermore, this study seeks to identify how the use of AI influences the process of internalizing Islamic moral and ethical values among students, including the values of honesty, justice, responsibility, and social concern in their daily lives. Thus, this research question is designed to provide a comprehensive understanding of the impact of AI use in Islamic Religious Education, covering students' cognitive, affective, and behavioral aspects.

The primary objective of this literature review is to provide a comprehensive understanding of the role and impact of Artificial Intelligence (AI) in Islamic Religious Education, particularly in the development of students' character and religious understanding. This study aims to thoroughly analyze how AI influences students' understanding of fundamental Islamic concepts, such as tawhid, worship, ethics, and social interactions. In addition, this study focuses on an in-depth analysis of the impact of AI on students' practices of worship and religious rituals, including changes in the frequency, quality, and motivation behind their performance.

Furthermore, this study critically examines how AI influences the process of internalizing Islamic moral and ethical values, such as honesty, justice, responsibility, and social concern. Moreover, this research aims to identify various opportunities and challenges that arise in efforts to foster students' Islamic character in a digital age increasingly dominated by AI technology. Ultimately, this study is expected to formulate relevant and practical strategic recommendations to enhance the effectiveness of Islamic character education in the face of the dynamic technological developments of the digital age.

This literature review is expected to make a significant contribution in several key aspects:

1. For Islamic Religious Education (PAI) Teachers: To provide in-depth and comprehensive insights into how AI influences students' understanding, practices, and Islamic values, as well as to offer practical recommendations for developing learning strategies that are more effective, relevant, and adaptable to the dynamics of the digital age.
 2. For Education Policy Makers: To provide the information and data needed to formulate education policies that support the development of students' Islamic character in the digital age, including curriculum development, teacher training, and the provision of adequate resources.
 3. For Researchers in the Field of Education: To serve as a theoretical and empirical foundation for further research on the impact of AI on character education, as well as to identify areas of research that still need to be explored.
 4. For Students: To raise awareness of the importance of digital literacy, critical thinking skills, and Islamic values in addressing challenges and capitalizing on opportunities in the digital age.
- For Parents: To provide a better understanding of how AI can affect their children and offer guidance on how to support their children's Islamic character development in the digital age.

METHOD

This study employs a systematic literature review (SLR) approach to collect, analyze, and synthesize information relevant to the impact of Artificial Intelligence (AI) on Islamic character education in the digital age. The SLR approach was chosen because it allows for the systematic identification, evaluation, and interpretation of all available evidence regarding the research topic (Kurniawan & Surtiningtyas, 2024; Maelasari & Lusiana, 2025). Thus, this study aims to provide a comprehensive and in-depth overview of the challenges and opportunities presented by AI in Islamic character education, rather than merely a narrative summary of the existing literature.

As the foundation for this systematic literature review, various data sources were comprehensively utilized to ensure a broad and in-depth coverage of the research topic. The primary data sources include leading scientific journal databases such as Google Scholar, Scopus, and Web of Science, which were used to identify relevant scientific articles. Google Scholar was chosen for its broad coverage across various disciplines and other online sources, while Scopus and Web of Science provide more structured indexing and bibliometric analysis features that help identify research trends and influential journals. The search process was conducted in stages by refining keywords based on initial results to obtain more optimal data. Additionally, SINTA-accredited journals in education and Islamic studies were used as important sources to capture research perspectives within the Indonesian context. SINTA-accredited journals were selected because they meet specific quality standards, ensuring that the articles used possess a high level of credibility. The journal identification process was conducted through the official SINTA website of the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek) and followed by a manual search on each journal's website using relevant keywords. In addition to journals, textbooks, monographs, and various other scientific publications were also used as

references to provide a deeper theoretical foundation and historical perspectives regarding the development of the research topic. Book searches were conducted through the university library catalog and online book platforms. Furthermore, articles from conference proceedings and scientific seminars were utilized to identify the latest research and emerging trends, as proceedings often contain research findings that have not yet been published in scientific journals. The search for proceedings was conducted through various conference databases as well as the official websites of conferences relevant to the field of study.

The literature search strategy in this study was systematically designed using a combination of relevant keywords to obtain a comprehensive range of sources aligned with the research topic. Some of the main keywords used include "Islamic Religious Education" AND "Artificial Intelligence," aimed at identifying studies that directly address the integration of artificial intelligence technology within the context of Islamic religious education, where Islamic Religious Education is understood as the process of internalizing Islamic values in students and AI as a technology with the potential to support that learning process. In addition, the keyword combination "Islamic Character" AND "Digital Age" was used to explore how Islamic character values—such as honesty, responsibility, tolerance, and compassion—can be preserved and developed amid the advancement of digital technology. The keyword combination "AI" AND "Impact on Education" was also used to identify studies discussing the influence of artificial intelligence on the world of education in general—both positive and negative aspects—such as changes in teaching methods, curriculum, and assessment, as well as its ethical and social implications. Furthermore, the combination "Digital Literacy" AND "Character Education" was used to explore the relationship between the ability to use digital technology effectively and responsibly and efforts to instill moral and ethical values in

students. Finally, the keywords “Challenges and Opportunities in Islamic Religious Education” AND “AI” were used to identify studies that specifically address the various challenges and opportunities arising from the use of AI technology in Islamic religious education, including challenges such as disinformation and online radicalism, as well as opportunities such as more personalized learning, access to a wider range of learning resources, and the development of 21st-century skills.

This combination of keywords uses the Boolean operator “AND” to narrow the search results and ensure that the identified articles are relevant to the research topic. This search strategy is designed to capture various perspectives and issues related to the impact of AI on Islamic character education.

In this study, inclusion and exclusion criteria were clearly defined to ensure that the analyzed articles possess sound scientific quality and are relevant to the research topic. Inclusion criteria include articles that explicitly discuss Islamic character education—whether in terms of concepts, values, or educational practices from an Islamic perspective—including discussions on the development of *akhlak*, *adab*, and Islamic moral values. Additionally, articles discussing the impact of Artificial Intelligence (AI) on education were included in the inclusion criteria, whether highlighting positive or negative effects, such as the use of AI in the learning process, assessment, educational management, and other aspects of education. Selected articles must also be published in scientific journals or reputable publications, such as journals indexed in leading academic databases, proceedings from reputable conferences, or books published by credible academic publishers, ensuring they have undergone an adequate peer-review process. Additionally, articles must be written in Indonesian or English to ensure they can be fully understood and analyzed by researchers. Meanwhile, exclusion criteria are used to filter out articles that do not align with the research focus. Articles irrelevant to the topic of Islamic character education or the impact of AI on education will be excluded from the analysis. Similarly, articles

that do not meet scientific quality standards—such as opinion pieces not supported by empirical evidence or articles published in predatory journals—are also excluded. Duplicate articles will be eliminated through checks of the title, abstract, and content, and articles that only discuss the technical aspects of AI without relating them to an educational context are also not included in this study.

The article selection process in this study was conducted systematically and transparently through four main stages adapted from the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. The first stage is identification, which involves an initial search for articles using predetermined keywords across various data sources. The search results were then downloaded and managed using reference management software such as Mendeley or Zotero, and the number of articles found was recorded to ensure transparency. The second stage was screening, in which article titles and abstracts were reviewed to assess their relevance to the research topic based on inclusion and exclusion criteria. At this stage, irrelevant articles are immediately eliminated, and the assessment process is conducted independently by two researchers, with any disagreements resolved through discussion. The third stage is eligibility, which involves a more in-depth assessment of the full text of articles that passed the previous stage to ensure that they fully meet all inclusion criteria and do not violate any exclusion criteria. This assessment is also conducted independently by two researchers, and any discrepancies are resolved through discussion or by involving a third researcher. The final stage is inclusion, which involves selecting articles that have met all criteria for further analysis. A detailed list of all included and excluded articles, along with the reasons for exclusion, is documented to ensure transparency and facilitate the research audit process. This article selection process ensures that only relevant, high-quality articles are analyzed in this study. A PRISMA flow diagram will be included in the research report to visualize the article selection

process and ensure methodological transparency.

Data extracted from the included articles will be analyzed using thematic analysis. Thematic analysis involves the identification, organization, and interpretation of patterns of meaning (themes) within the data (Hendry & Manongga, 2024; Rahman, 2025). The thematic analysis process will be conducted iteratively, involving repeated reading and re-reading of the included articles to identify themes relevant to the impact of AI on Islamic character education. These themes will be grouped and organized to produce a comprehensive and in-depth overview of the research topic. This study will also employ narrative synthesis to integrate findings from the various included articles. Narrative synthesis involves using text to synthesize findings from multiple studies, with a focus on explaining how and why these findings vary (AM, 2025; Harahap & Pane, 2025). This method was chosen because it allows the researcher to combine findings from studies that use different research methods and to identify gaps in the existing literature.

RESULTS AND DISCUSSION

The Impact of AI on Students' Understanding of Islamic Concepts

AI-Facilitated Access to Religious Information

Advances in AI have transformed the way students access information, including religious information. Search engines like Google, virtual assistants such as Siri and Google Assistant, and social media platforms provide easy and quick access to various sources of information about Islam (Sarinda et al., 2023). Students can easily look up definitions of Islamic concepts, read Quranic exegeses, listen to religious lectures, and participate in online discussions about religious issues. This ease of access opens up significant opportunities to enhance students' understanding of Islam and broaden their horizons (Moslimany et al., 2024; Shofiyyah et al., 2023; Sugiati et al., 2025). Students can learn independently, adjust their learning

pace, and choose information sources that best suit their needs. However, this ease of access also poses challenges regarding the validity and reliability of the information obtained.

AI is also used in the development of interactive and engaging Islamic educational apps. These apps can provide learning materials tailored to students' comprehension levels, using diverse learning methods such as quizzes, games, and simulations. For example, apps can help students learn Arabic, memorize the Quran, or understand Islamic history. The use of this technology can make religious education more enjoyable and effective, especially for students with visual or auditory learning styles (Muharrani & Murhayati, 2025; Romdana et al., 2024; Sijabat, 2025; Wulandari & Wardhani, 2024). Thus, AI can serve as a powerful tool to enhance students' interest in and understanding of Islamic concepts.

Potential for Misinformation and Misconceptions

Although AI offers many benefits, it is important to be aware of the potential for misinformation and misconceptions that may arise. In the digital age, false or inaccurate information can easily spread through the internet and social media (Alamsyah et al., 2024; Rusdiyanti et al., 2023). Misleading content, propaganda, and hate speech can influence students' perceptions of Islam and lead to misunderstandings about religious teachings. AI algorithms, which are used to present content to users, are often based on user preferences and behavior. This can lead to a "filter bubble" or "echo chamber," where students are exposed only to information that aligns with their own views, thereby reinforcing biases and reducing their ability to think critically (Eko Wahyunto, 2025; Purboyo et al., 2024).

Additionally, AI can be used to generate content that appears convincing but is actually inaccurate. For example, bots or automated programs can create articles, comments, or even videos that spread false information about Islam. Students who lack

adequate digital literacy skills may struggle to distinguish between true and false information, making them vulnerable to negative influences. It is important for teachers and parents to equip students with the skills needed to critically evaluate information, verify sources, and identify potential biases.

The Importance of Digital Literacy in Understanding Religious Content

To address the challenges of disinformation and misconceptions, digital literacy is essential. Digital literacy encompasses the ability to access, analyze, evaluate, and create information using digital technology (Rany et al., 2025; Waroh & Putri, 2025). Students with strong digital literacy will be able to distinguish between accurate and inaccurate information, identify credible sources, and understand various perspectives on religious issues. They will also be able to protect themselves from the negative influence of false information and propaganda.

Islamic Religious Education (PAI) must integrate digital literacy into its curriculum. PAI teachers need to teach students how to search for relevant and accurate information online, evaluate information sources, and identify potential biases. Students also need to be trained to think critically, analyze arguments, and understand various perspectives on religious issues. Additionally, schools can collaborate with parents and the community to create an environment that supports digital literacy. As a result, students will be better prepared to face the challenges of the digital age and take advantage of the opportunities offered by AI.

The Impact of AI on Students' Worship Practices and Religious Rituals

The Use of Apps and Digital Platforms for Worship

AI has transformed the way students practice their faith. Apps and digital platforms provide a variety of tools to facilitate religious practices. For example, apps that remind users of prayer times, qibla direction finders, digital Qur'ans with translations and commentaries, and platforms for listening to religious sermons and participating in online study sessions

(Febriani et al., 2024; Kholifah et al., 2025; Muntazor, 2024). Easy access to these tools allows students to worship anywhere and anytime, increasing the regularity of their worship and deepening their understanding of religious teachings. The use of this technology can also help students with physical or geographical limitations to stay connected to their religious communities.

Social media also plays a significant role in students' religious practices (Khumairoh et al., 2026; Mahbubi & Aini, 2024). Students can use platforms such as Instagram, YouTube, and TikTok to share religious content, follow accounts of religious scholars and preachers, and participate in online discussions about religious issues. This can foster a sense of community, strengthen social networks, and motivate students to deepen their religious practice. However, social media use also carries the potential for negative impacts, such as distraction, addiction, and exposure to inappropriate content.

Changes in Religious Behavior Due to the Influence of Social Media

Social media use can influence students' religious behavior in various ways. On the positive side, social media can raise awareness of religious issues and motivate students to do good deeds. Students can be inspired by positive content, such as videos about charity, inspirational stories, or wise quotes from religious figures. Social media can also serve as a platform for spreading religious teachings and encouraging others to do good deeds (Khumairoh et al., 2026). However, social media can also lead to less positive changes in religious behavior. Students may become more focused on their appearance and self-image on social media than on the quality of their worship. They may feel the need to post photos of their worship, such as while praying or reading the Quran, to gain recognition from others. This can lead to *riya'* (showing off) and diminish their devotion during worship. Additionally, social media can create social pressure to follow certain religious trends, which may cause students to feel uncomfortable or guilty if they do not conform to existing norms.

The Challenge of Maintaining Devotion and Spirituality

One of the main challenges in religious practice in the digital age is maintaining devotion and spirituality. App notifications, incoming messages, and the temptation of entertainment content can disrupt students' concentration during worship. Students may struggle to focus on prayer, reading the Quran, or reflecting on the meaning of religious teachings. Addiction to electronic devices and social media can also reduce the time students spend on worship and reflection (Hidayah et al., 2025).

To address these challenges, it is important for students to develop strong self-management skills. They need to learn to limit their use of electronic devices and social media, create a quiet environment for worship, and focus on the meaning of their worship. Islamic Education teachers can assist students by providing training on mindfulness, relaxation techniques, and strategies to enhance spiritual focus. Parents also play a crucial role in guiding their children and creating a home environment that supports religious practices (Arianto, 2024; Nurdiana, 2023). Additionally, schools can provide dedicated spaces for worship free from technological distractions, such as mosques or prayer rooms.

The Impact of AI on Students' Islamic Moral and Ethical Values

The Impact of AI on Social Interaction and Interpersonal Relationships

AI has a significant impact on students' social interactions and interpersonal relationships. Social media and digital communication platforms allow students to connect with others from around the world, share ideas, and build online communities (Priyanto, 2020). These interactions can broaden students' horizons, enhance their understanding of cultural differences, and strengthen a sense of unity. However, online interactions can also reduce face-to-face interactions, which are essential for developing social and emotional skills (Khaira et al., 2024; Puspita et al., 2024).

Excessive use of devices and social media can cause students to become less sensitive to others' feelings, less able to communicate effectively, and more likely to isolate themselves. Students may prefer to interact with their friends online rather than in person, which can diminish the quality of their relationships. This can also affect students' ability to collaborate in teams, resolve conflicts, and build healthy relationships. Therefore, it is important for students to learn to balance online and offline interactions, as well as to develop strong social and emotional skills.

The Potential for Cyberbullying and Hate Speech

Another negative impact of AI on Islamic moral and ethical values is the potential for cyberbullying and hate speech. Social media and digital communication platforms can become venues for online bullying, where students are targeted with harassment, intimidation, and insults (Khumairoh et al., 2026). Cyberbullying can lead to serious psychological effects, such as depression, anxiety, and even suicidal thoughts. Furthermore, social media can serve as a platform for the spread of hate speech, where students are targeted with discrimination, slander, and provocation based on religion, race, ethnicity, or other identities. This contradicts Islamic values that emphasize brotherhood, tolerance, and compassion.

To address the issues of cyberbullying and hate speech, schools need to develop clear policies regarding acceptable and unacceptable online behavior. Students need to be taught about the negative impacts of cyberbullying and hate speech, as well as how to report such incidents. Islamic Education (PAI) teachers can use their lessons to discuss relevant Islamic values, such as honesty, justice, and compassion. Schools can also collaborate with parents and the community to create a safe and supportive online environment (Pakiding et al., 2025; Rahim & Suyitno, 2024). Additionally, it is important to develop students' digital literacy skills so they can

effectively identify and respond to cyberbullying and hate speech.

The Need for Character Education Emphasizing Noble Islamic Values

In facing the challenges of the digital age, character education that emphasizes noble Islamic values becomes crucial. Character education must focus on developing values such as faith, piety, honesty, discipline, responsibility, compassion, tolerance, and social awareness. These values will equip students with a strong moral foundation to face the temptations and challenges posed by AI and digital technology (Putri, 2025). Character education must be integrated into all aspects of the curriculum and school activities, including Islamic Education (PAI) classes, extracurricular activities, and daily interactions at school.

Islamic Education (PAI) teachers play a crucial role in character education. They must serve as role models for students, demonstrate behavior consistent with Islamic values, and create a learning environment conducive to character development. PAI teachers can use various teaching methods—such as lectures, discussions, case studies, role-playing, and project-based activities—to instill character values in students. Additionally, schools need to involve parents and the community in character education. Parents can support character education at home, while the community can provide an environment that fosters students' character development. Through effective collaboration between schools, parents, and the community, students will be well-equipped to become individuals of noble character who contribute positively to society.

Research Gaps

Although there is a wealth of research on character education and the impact of AI across various fields, several research gaps remain to be addressed. First, there is a lack of research specifically examining the impact of AI on the development of students' Islamic character. Most existing studies only discuss the general impact of AI or focus on other aspects of education, such as learning or school management (Wijati et al., 2024). More in-

depth research is needed to understand how AI influences students' understanding of Islamic concepts, religious practices, and moral and ethical values.

Second, there remains a lack of research exploring effective Islamic Education (PAI) learning strategies and models to address the challenges and capitalize on the opportunities offered by AI. Most existing studies only provide general recommendations, without offering clear practical guidance for PAI teachers. More comprehensive research is needed to develop curricula, teaching methods, and assessment tools appropriate for the digital age. Third, there is still a lack of research that directly involves students in studies on the impact of AI on the development of Islamic character. Most existing research relies solely on secondary data or the opinions of teachers and education experts. Research involving students—using methods such as interviews, surveys, and observations—will provide a deeper understanding of their experiences and perspectives.

Fourth, there remains a lack of research addressing the role of families and communities in supporting the development of students' Islamic character in the digital age. Most existing research focuses solely on the roles of schools and Islamic Education (PAI) teachers. More comprehensive research is needed to understand how families and the community can collaborate with schools to create an environment that supports students' character development. Fifth, there remains a lack of research addressing AI ethics in the context of Islamic education. This research is crucial to ensure that the use of AI in education aligns with Islamic values and does not have negative impacts on students. By addressing these research gaps, we can develop a more comprehensive understanding of the impact of AI on Islamic character education and devise more effective strategies to equip students to navigate the digital age.

Directions for Future Research

Based on the identified research gaps, there are several relevant and urgent directions for future research that need to be explored. Further research should focus on

the specific effects of various types of Artificial Intelligence (AI)—such as chatbots, content recommendation systems, and social media—on students' understanding, practice, and Islamic values. Additionally, there is a need to develop innovative learning models that effectively integrate AI into Islamic Religious Education (IRE), for example through the use of interactive applications, simulations, and adaptive learning platforms. Longitudinal studies are also important to track the long-term development of students' Islamic character while considering the influence of digital technology. Participatory research that actively involves students—such as through interviews, group discussions, or participation in the development of educational programs—is also a promising approach. In addition, the development of ethical guidelines for the use of AI in Islamic education is essential to ensure that the use of technology remains aligned with Islamic values and the principle of justice. Furthermore, in terms of curriculum development and PAI learning strategies, digital literacy must be integrated so that students are able to search for, evaluate, and utilize information wisely in accordance with Islamic teachings. Strengthening critical thinking skills is also important so that students can analyze information objectively and understand various religious perspectives. The use of technology in learning must be carried out creatively and effectively, supported by the development of social and emotional skills such as communication, cooperation, and conflict resolution. Finally, the involvement of parents and the community is also a key factor in supporting character education through various activities such as seminars, workshops, and mentoring programs.

CONCLUSION

The development of Artificial Intelligence (AI) presents both significant challenges and opportunities for Islamic character education in the digital age. On the one hand, AI provides easy access to religious information and opens up opportunities for

innovation in learning and worship practices; on the other hand, it also poses risks such as disinformation, misconceptions, a decline in the quality of spirituality, and negative impacts on social interactions, such as cyberbullying and hate speech. Therefore, strengthening digital literacy and character education is crucial to equipping students to navigate these dynamics. Islamic Religious Education teachers must integrate digital literacy into their lessons, foster critical thinking skills, and utilize technology creatively and wisely. Furthermore, synergy among schools, parents, and the community is also necessary to create an environment conducive to students' character development. Through an adaptive and innovative approach, Islamic character education is expected to produce a generation that is not only capable of navigating technological advancements but also possesses noble moral character and is able to make positive contributions to society.

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