

Islamic Education in Indonesia in a Global Context: Perspectives on Moderation and Digital Transformation of Artificial Intelligence

Khafifatul Fian¹, Moh. Roqib²

^{1,2}UIN Prof. KH. Saifuddin Zuhri Purwokerto

ABSTRACT: Advances in information technology have changed the way Muslims access and understand religious teachings. However, the increase in the use of the internet for religious purposes poses challenges to the validity of information and religious authority. This paper aims to critically analyze the development of Islamic education in Indonesia, the role of Indonesian Islamic education in international diplomacy, analyze related to Islamic moderation as a model of global Islamic education, how the opportunities and challenges of digitizing Islamic education, and the implications of artificial intelligence on Islamic education in the global context. This type of writing is a literature study, data collected through previous books and articles that are in accordance with the topic of discussion. After the data is collected, data selection is carried out, then the data is analyzed descriptively and continued with content analysis. After the data is analyzed, the next step is to draw conclusions. The results of the study show that Indonesia through Islamic boarding schools, madrasas, and universities plays an important role in disseminating these values to the international world, both through educational diplomacy, scholarships, and academic collaboration. Overall, Islamic education in Indonesia has shown significant progress in responding to the challenges of the times through a moderate approach and the adoption of digital technology and artificial intelligence. By maximizing opportunities and overcoming existing challenges, Indonesian Islamic education has great potential to become a global model in creating an inclusive, digitally savvy, and spiritually moderate generation of Muslims.

KEYWORDS: Islamic education; Indonesia, moderation; digital transformation; Artificial intelligence.

I. INTRODUCTION

Islamic education in Indonesia is currently at the crossroads between traditional Islamic values and the challenges of the global era driven by technological advances, especially artificial intelligence. In the social context, globalization and digitalization have changed the face of education, including Islamic education, both in terms of curriculum, learning methods, and the religious paradigm of students. Based on a report by the Ministry of Communication and Informatics, internet penetration in Indonesia will reach more than 77% of the population in 2023, which will have a direct impact on the way teachers, students, and academics access and transform Islamic science (Ministry of Communication and Informatics, 2023).

The phenomenon mentioned above shows that Islamic education can no longer be separated from technological developments, especially artificial intelligence which is now used in adaptive learning, da'wah chatbots, and big data analysis in understanding religious trends. However, the biggest challenge is to maintain the substance of Islamic values so that they are not degraded in the process of digitalization. This is where religious moderation becomes relevant as an ideological approach to answer the challenges of the times, namely how to maintain the principle of wasathiyah (balance) in Islam in the midst of the onslaught of transnational ideology and digital radicalism (Ministry of Religion of the Republic of Indonesia, 2021).

Previous literature has discussed a lot of Islamic education from the aspects of curriculum, learning methodology, and the role of institutions such as Islamic boarding schools and madrasas. For example, Azra's (2005) research reviewed the transformation of Islamic intellectuals in Indonesia in the context of history and educational reform (Azra, 2005). Meanwhile, Nurcholish Madjid and Harun Nasution put forward the importance of reforming Islamic thinking in the education system to be relevant to the development of the times (Madjid & Nasution, 1990). However, most previous research has not discussed in depth the relationship between artificial intelligence-based digital transformation and the spirit of religious moderation in contemporary Islamic education. In fact, both are now important domains in national education policy and global religious discourse.

Compared to previous research that tends to be descriptive-historical or normative-theological, this paper seeks to combine an interdisciplinary perspective, namely integrating the discourse of religious moderation with digital transformation, especially in the context of the use of artificial intelligence in Islamic educational institutions in Indonesia. This approach is the main

Islamic Education in Indonesia in a Global Context: Perspectives on Moderation and Digital Transformation of Artificial Intelligence

differentiator, as well as enriching the discourse of Islamic education with a new perspective that is more contextual and relevant to the challenges of the industrial revolution 4.0 and Society 5.0 (Nugroho, 2020).

The purpose of this research is to critically analyze how the development of Islamic education in Indonesia, the role of Indonesian Islamic education in international diplomacy, analyze related to Islamic moderation as a model of global Islamic education, how the opportunities and challenges of digitizing Islamic education, and the implications of artificial intelligence on Islamic education in the global context.

II. METHOD

This research is a literature study on Islamic education in Indonesia in the global context of moderation and digital artificial intelligence transformation. Data was collected through previous books and articles that were in accordance with the topic of discussion. After the data is collected, data selection is carried out, then the data is analyzed descriptively and continued with content analysis. After the data is analyzed, the next step is to draw conclusions.

III. RESULT AND DISCUSSION

A. Development of Islamic Education in Indonesia

1) Islamic Education During the Dutch Colonial Period

The conquest of Western nations over the Eastern world began with trade routes which were then carried out with military power (Mwema & Birhane, 2024). During the Dutch colonization, the process of westernization of Indonesia took place in tandem with technological advances (Nurdiyanto et al., 2024). However, the main purpose is to increase the revenue of its colonies, not for the prosperity of the colonized nation (Baheretibeb & Whitehead, 2024). Including in the field of education, the Netherlands introduced various new methods and systems, but to produce workers who could help its interests and provide low wages. At the time, most of the Dutch adhered to Machievelli's thought which stated (Vavouras & Theodosiadis, 2024):

1. Religion was indispensable for the colonial government
2. Religion is used to conquer the people
3. Any religious sect that is considered false, by the adherents of the religion concerned should be brought to divide
4. Promises to the people do not need to be fulfilled when it is detrimental
5. Goals can be legalized in various ways.

When classified based on the form and type of institution, Islamic education during the Dutch colonial period in the early and mid-20th century can be divided into several types (Rosmawati et al., 2024):

1. Islamic boarding school educational institutions that still adhere intact to the culture and traditions of Islamic boarding schools are teaching classical books
2. Islamic school educational institutions at the same time teach general sciences as subject matter
3. Madrasah educational institutions that try to adopt the pesantren and school system.

2) Education During the Japanese Colonial Period

Education in the Japanese era known as "Hakko Ichiu" has the meaning of inviting the Indonesian people to work together in order to achieve prosperity with Greater Asia (Silva, 2024). Activities held by schools during the Japanese colonial period include (Shofwan & Farantika, 2022):

- a. Collecting rocks and sand for the sake of war
- b. Cleaning military workshops and dormitories
- c. Planting tubers and vegetables in the school grounds for food preparation
- d. Planting castor trees for lubricating materials.

During the Japanese colonial period, the purpose of Islamic education was to instill a true sense of Islam for the benefit of the world and the hereafter, defending the nation and homeland to gain the independence of the nation itself and independence humanely (Badawi, 2023). Thus, there are several policies on Islamic education during the Japanese colonial period (Badawi, 2023):

- a. Changing the *Kantoor Voor Islamistische Zaken* during the Dutch period led by orientalist into *Sumubi* led by an Islamic figure himself, namely K.H. Hasyim Asy'ari.
- b. Islamic boarding schools often receive visits and assistance from the Japanese government;
- c. Allow the formation of *Hezbollah* ranks that teach basic military art training for Muslim youth under the leadership of K.H. Zainal Arifin.
- d. Allowed the establishment of an Islamic College in Jakarta under the care of K.H. Wahid Hasyim, Kahar Muzakkir and Hatta.

Islamic Education in Indonesia in a Global Context: Perspectives on Moderation and Digital Transformation of Artificial Intelligence

- e. He allowed nationalist clerics and leaders to form the ranks of the Defenders of the Fatherland (PETA) which later became the forerunner of the TNI in the independence era
- f. It allowed the Indonesian A'la Islamic Council (MIAI) to continue operating, even though it was later dissolved and replaced with the Indonesian Muslim Shuro Council (Masyumi) which included two large Islamic organizations, Muhammadiyah and NU Apart from the original purpose of Japan to facilitate various activities of Muslims at that time, in fact this helped the development of Islam and the condition of its people after the achievement of independence.

3) Islamic Education During Independence (Old Order)

The implementation of Islamic education during Indonesia's independence has serious attention in both public and private schools (Asmanto et al., 2023). It can be seen by the various assistance recommended by the Workers' Body of the Central National Committee on December 27, 1945. This arises because there is a deep awareness among Muslims that during the Dutch colonization, the entrance to education for Muslims was very narrow. After independence, Islamic education gained a very important position in the national education system (Muslim et al., 2023). In Sumatra, Mahmud Yunus as a religious inspector at the teaching office proposed to the head of teaching that religious education in government schools be officially established and teachers are paid like general teachers (Usa et al., 2025).

In 1958 the government was encouraged to establish a State Madrasah with the provision of a curriculum of 30% religious lessons and 70% general lessons. The implementation system is the same as public schools with levels such as (Asmanto et al., 2023):

1. Madrasah Ibtidaiyah Negeri (MIN) at the elementary school level for six years
2. Madrasah Tsanawiyah Negeri (MTsN) at the junior high school level for three years of study
3. Madrasah Aliyah Negeri (MAN) at the high school level has been studying for three years.

The level of education in the madrasah system consists of three levels. First, Madrasah Ibtidaiyah with a duration of 6 years. Second, the First Tsanawiyah Madrasah for 4 years. Third, Madrasah Tsanawiyah Atas for 4 years (Syar'i & Akrim, 2020).

The curriculum consists of one-third of religious lessons and the rest general lessons. Such a curriculum formulation aims to respond to the public opinion that madrassas do not teach religion enough and to answer the negative impression attached to madrassas, namely that general madrassas will not reach the same level when compared to public and public schools (Zuhdi, 2018). The development of madrassas that was quite important during the Old Order period was the establishment of the Religious Teacher Education (PGA) and State Islamic Judge Education (PHIN) madrassas. The purpose of its establishment is to produce professionals who are ready to develop madrassas as well as professional religious experts (Hasanah et al., 2023).

4) Islamic Education During the New Order

The government views that religion has an important position and role. The main role of religion as a spiritual, moral and ethical foundation in national development, religion is also influential in purifying the human soul and the prosperity of the people. Through the long process of drafting Law number 2 of 1989 from 1945-1989, as an effort to integrate Islamic and general education (Fadlan et al., 2023). To develop Islamic education, it must have an educational institution, so that it becomes a "fertile ground" for a new generation of nurseries. Integration is the mixing of something so that it becomes a unit, while educational integration is the process of adjustment between different elements so that achieving a harmony of functions in education and the integrity of education requires curriculum integrity or specifically requires the integrity of lessons (Ogunleye et al., 2024).

The final goal of education (religion) is to create humans who can integrate themselves, are able to use their faith in answering life's challenges and are able to humanize others with various prosperous lives that Allah has bestowed on humans (Sha'bani, 2024). In other words, education is intended to advance human beings in active, creative and critical participation. To carry out something better than the past, religious lessons and general subjects are determined by teachers who have adequate scientific integrity in education (Uyuni & Mohammad, 2024). So that you can find a way to be able to connect parts of a field of study, one subject with another.

5) Islamic Education During the Reformation

Islamic education during the reform period usually talks about Islamic boarding schools and madrassas (Badrun, 2024). According to Islamic education experts, an indigenous form of education is a pesantren that has lived and been in Indonesian culture since prehistoric times which was then continued during the Hindu-Buddhist period and continued during the Islamic cultural period (Mutammam et al., 2024). Madrasah is a form of classical education that entered Indonesia in line with the current of Islamic modernization. Pesantren that has an archaic meaning also has a social connotation (Kurniawan et al., 2024), even an economic and possibly political unity other than an educational society with religious nuances. The management of Islamic education during the reform period has four priority areas (Jumaidi et al., 2024):

1. Quality improvement
2. Development of intuition and creativity

Islamic Education in Indonesia in a Global Context: Perspectives on Moderation and Digital Transformation of Artificial Intelligence

3. Building a network of cooperation (*networking*)
4. Implementation of regional autonomy.

B. *The Role of Indonesian Islamic Education in International Diplomacy*

Islamic education in Indonesia plays a very important role in international diplomacy, especially in building a positive image of Islam and Indonesia in the eyes of the world (Mazahir et.al, 2023). As a country with the largest Muslim population in the world (Juliansyah et al., 2021), Indonesia has a moral and strategic responsibility to present a peaceful, tolerant, and moderate face of Islam. From this, Islamic education functions as a soft power instrument (Maréchal, 2022) that is able to bridge relations between countries through cultural, value, and scientific approaches.

One form of Islamic education's contribution to international diplomacy is through the dissemination of moderate Islamic values taught in Islamic educational institutions such as Islamic boarding schools, madrasas, and Islamic universities. These institutions not only teach Islamic science in depth, but also equip students and students with national insights, multiculturalism, and the ability to dialogue with various differences. This is an important capital in building harmonious and mutually respectful international relations (Riaz et.al, 2023).

Indonesia actively promotes a moderate Islamic approach or "wasathiyah" (Inayatillah et al., 2022) in various international forums, both through the role of the government and religious leaders and academics. Islamic education plays an important role in introducing the concept of moderation more broadly (Ibrahim et al., 2024). For example, the Indonesian government through the Ministry of Religious Affairs and the Ministry of Foreign Affairs work together to provide scholarships for foreign students from various countries to study at Indonesian Islamic educational institutions, such as the State Islamic University (UIN) or the State Islamic Institute (IAIN). The program not only strengthens bilateral relations, but also serves as a means of cultural exchange and cross-border understanding.

In addition, many alumni of Indonesian Islamic educational institutions then played an active role in their home countries as ambassadors of Indonesian culture (Ihsanulhaq & Muttaqin, 2024). So that many alumni act as agents to spread the peaceful Islamic values learned in Indonesia. Relations between educational institutions are also strengthened through research cooperation, international seminars, lecturer exchanges, and joint scientific journal publishing (Hedges et al., 2021). These activities created a global intellectual network that strengthened Indonesia's position as a center for progressive Islamic studies.

Indonesian Islamic education figures are often speakers in international forums, such as peace conferences, interfaith dialogue, and global academic seminars by sharing experiences on how Islamic education in Indonesia is able to coexist with the democratic system and national values (Madum, 2025). This is a special attraction for the international world in looking for an Islamic model that can synergize with modern life without losing its religious essence.

C. *Moderasi Islam Sebagai Model Pendidikan Islam Global*

Islamic moderation is a religious approach that prioritizes balance (*tawazun*), tolerance (*tasamuh*), justice (*'adl*), and benefit (*maslahah*) (Rahmadi & Hamdan, 2023). This concept is important in the context of global Islamic education, considering that the world is currently facing the challenges of extremism, polarization, and intercultural and interreligious conflicts. In such situations, Islamic moderation can be a model of education that is not only theologically relevant, but also socially contextual. Islamic education based on the principle of moderation is able to form Muslim individuals who are not only spiritually obedient, but also capable of interacting peacefully in the midst of a pluralistic global society (Mala & Hunaida, 2023).

As an educational model, Islamic moderation emphasizes the integration of Islamic values with openness to science, culture, and the progress of the times (Huda, 2024). A curriculum built in the spirit of moderation will avoid rigid and exclusive doctrinal approaches. On the contrary, moderate Islamic education encourages dialogue, critical thinking, and respect for differences. This is in line with the Islamic principle of *rahmatan lil 'alamin* (which brings grace to all nature) (Naufalia & Suharyat, 2023). Thus, individuals not only understand Islam in terms of rituals and laws, but also in terms of ethics, civilization, and its social contribution to humanity.

In the global context, a moderate Islamic education model is a necessity (Sahin, 2018). The international world is increasingly aware of the importance of an inclusive religious approach (National Academies of Sciences, Engineering, and Medicine, 2022), which can be a bridge between differences. Indonesia, as a country with the largest Muslim population and a strong moderate Islamic tradition through organizations such as Nahdlatul Ulama, Muhammadiyah, and several other organizations is strategically positioned to promote Islamic moderation globally. Islamic boarding schools, madrasas, and institutions of higher education in Indonesia have shown how the values of moderation are applied in the learning process (Nasir & Rijal, 2021), shaping a generation of Muslims who are rooted in tradition, but remain open to reform.

The application of Islamic moderation as a global education model requires strengthening the role of educators and educators as agents of change. Educators are not only transmitters of knowledge, but also role models in applying moderation

Islamic Education in Indonesia in a Global Context: Perspectives on Moderation and Digital Transformation of Artificial Intelligence

values in daily life. In addition, Islamic educational institutions need to build international networks to expand the influence of Islamic moderation to various parts of the world, both through student exchanges, international seminars, and academic publications. This is because the view of Islamic moderation is considered an important strategy such as in the United States, the United Kingdom, France, and Germany (Nasution et al., 2024).

The country above views that with Islamic moderation, it is able to form a peaceful understanding of Islam, tolerance, and openness to cultural differences and beliefs. Moderate Islamic education is considered to be able to become a fortress against radicalism by instilling human values, tolerance, and respect for diversity from an early age. On the other hand, several Muslim-majority countries such as Malaysia, Morocco, Egypt, and the United Arab Emirates began to look at the Islamic moderation model that developed in Indonesia, such as the Nahdlatul Ulama and Muhammadiyah organizations. In addition to these countries, international institutions such as UNESCO, UNDP, and ISESCO support the implementation of Islamic moderation, because it is in line with global goals such as education for peace and sustainable development (SDGs). Islamic moderation is seen as compatible with universal values such as justice, gender equality, and humanity (Arifinsyah et al., 2025).

D. Opportunities and Challenges of Digitizing Islamic Education

Regarding the opportunities for digitalization in Islamic education, the following authors present the interpretation that can be seen in table 1:

Tabel 1. Peluang digitalisasi dalam pendidikan Islam

Source	Interpretasi
Fakhrudin, 2024	Akses pengetahuan tanpa batas
Ciptadi & Khozin, 2025	Jangkauan global untuk pembelajaran
Restalia & Khasanah, 2024	Aplikasi dan <i>platform</i> Islami
Taufik & Rusdi, 2024	Pengembangan kompetensi pendidik

From table 1, it can be interpreted that digitalization provides several opportunities, including first, related to unlimited access to knowledge. In Fakhrudin, he explained that with digital technology, individuals from various parts of the world can access high-quality Islamic education resources easily and quickly. One can now access a wide range of high-quality Islamic materials such as Qur'anic commentary, hadith, classics, and other religious literature without being hindered by geographical location. This means that even Muslims in remote areas have the same opportunity to acquire knowledge from different places. Digitalization eliminates physical barriers in the process of religious learning. Digital technology facilitates the spread of religious knowledge to all corners of the world, which in turn strengthens cross-cultural understanding and tolerance among Muslims (Fakhrudin, 2024).

Secondly, with regard to the global reach in learning, digitalization provides a great opportunity to expand access to Islamic education, which was previously limited to a specific geographical area, to become more global. This allows Islamic religious education to be reached by every human being in various parts of the world, without being limited by distance and time. Global reach is able to encourage knowledge exchange between cultures and countries. Students from different countries can share perspectives on Islamic teachings, developing a broader understanding of Islamic traditions and practices in different parts of the world. So that the learning system is not only able to enrich the learning experience, but also strengthen the global solidarity of Muslims, which then forms an inclusive learning environment (Ciptadi & Khozin, 2025).

The third is related to digital applications and platforms where digitalization allows individuals to access teaching materials such as the Qur'an, Hadith, and other materials online through Learning Management Systems (LMS), Qur'anic learning applications, as well as videos and Islamic discussion forums on the internet. In addition, digitalization can be used to create more interactive and interesting learning content, such as interactive tajweed applications, Islamic educational games, to the use of Augmented Reality (AR) and Virtual Reality (VR) that allow individuals to explore Islamic historical sites virtually. In addition to expanding access, digital learning processes of Islamic education can provide a more lively learning experience (Restalia & Khasanah, 2024).

Fourth, it is related to the development of educator competencies, where in the midst of the challenges of low digital literacy and the limitations of technological infrastructure, educators still have the spirit to learn and adapt to the times. The development of educator competencies in the digital era can be carried out through various initiatives, such as professional development, collective learning between educators (peer learning), and participation in the digital learning community. These training programs aim to improve the ability of educators to use technology as part of the learning process, especially in the context of Islamic education that requires a special approach. The development of teacher competencies is an important step in the process of digitizing education that not only modernizes teaching methods, but also strengthens the quality of Islamic education in the digital era (Taufik & Rusdi, 2024).

Islamic Education in Indonesia in a Global Context: Perspectives on Moderation and Digital Transformation of Artificial Intelligence

Next, the relationship with the challenges of digitalization in education can be seen in the following table 2:

Table 2. The challenges of digitalization in Islamic education

Source	Interpretasi
Taufik & Rusdi, 2024	Keterbatasan literasi digital
Sahri et al., 2023	Keamanan data dan privasi
Aprilia & Wahab, 2025	Tantangan pembinaan karakter
Qadri et.al, 2024	Kesenjangan generasi

From table 2 above, several challenges of digitizing Islamic education can be interpreted, including first, the limitations of digital literacy. In Taufik & Rusdi, it was explained that there are still many educators who find it difficult to keep up with the rapid development of technology, because their educational background is still oriented towards traditional learning methods. The lack of relevant training and lack of access to digital devices further exacerbates this condition. Even when educators have a desire to utilize technology in the teaching and learning process, they often do not know how to operate digital tools properly. This is a serious obstacle in integrating technology into learning based on Islamic values. In addition, the training available is considered too general and not in accordance with the specific needs of Islamic education. As a result, the use of technology is slow and uneven (Taufik & Rusdi, 2024).

The second relates to data security and privacy. In Sahri et.al explained, digitalization as a learning process causes data exchange and storage to become highly dependent on technology, thus opening up the potential risk of data leaks and cyber attacks. Therefore, educational institutions need to prepare a mature strategy to protect important data and information. The first step that must be taken is to increase the awareness of all parties, both educators, staff, and individual students about the importance of data security and cyber threats that may occur. Education and training that are carried out on an ongoing basis are needed so that all parties understand how to avoid potential risks, such as the use of unsecured devices, digital identity theft, and misuse of personal data (Sahri et al., 2023).

Furthermore, educational institutions need to have clear and documented policies and procedures in managing student data and other important information. The policy includes measures to prevent, detect, and handle security breaches or data leaks. In this case, protection is not only technical, but also administrative and educational. In addition, the systems and networks used for online learning and student data management must be ensured to have adequate protections. This can be done through the use of security technologies such as antivirus software, firewall systems, and multi-authentication mechanisms to avoid illegal access (Sahri et al., 2023).

The third is related to character development. In Aprilia and Wahab, it was explained that one of the main challenges in digitizing Islamic education is character development, especially religious character. In the context of the digital era, Generation Z grew up in a highly digitally connected environment, so it is easy to be exposed to negative content, foreign cultures, and lifestyles that can erode moral and religious values. The importance of character education based on religious values as a moral fortress that can protect individuals from the bad influence of digitalization. Islamic education is seen as having an important role in forming a strong character through the internalization of religious values, such as honesty (shiddiq), responsibility (amanah), openness (tabligh), and intelligence (fathanah). Thus, the challenge of character development in the digital era can be overcome through innovative and adaptive Islamic education approaches, so that religious values remain relevant and integrated in daily life (Aprilia & Wahab, 2025).

Fourth, related to the generation gap, in Qadri et.al explained that the younger generation, especially generation Z, grew up in an environment that was very familiar with digital technology, social media, and fast-paced information. Meanwhile, many educators or religious leaders from previous generations have not fully mastered digital technology and tend to still use traditional teaching methods. These gaps cause differences in the way of thinking, learning, and communicating, thereby hindering the effectiveness of the learning process of Islamic values (Qadri et.al, 2024). As a result, individual learners often feel less interested or disconnected from conventionally delivered religious materials, and prefer to seek information from digital media that are not necessarily credible. Not only does this risk lowering interest in religious education, but it can also lead to misunderstandings if they obtain information from the wrong source. Thus, it is necessary to improve digital literacy for educators, update teaching methods that are relevant to the digital world, and an approach that is able to combine Islamic values with technology creatively and communicatively.

E. Implications of Artificial Intelligence on Islamic Education in a Global Context

Regarding the implications of artificial intelligence on Islamic education, the following authors present an interpretation that can be seen in table 3:

Islamic Education in Indonesia in a Global Context: Perspectives on Moderation and Digital Transformation of Artificial Intelligence

Table 3. Implications of artificial intelligence on Islamic education

Source	Interpretasi
Baharuddin et.al, 2025	Akses pendidikan Islam yang lebih luas dan merata
Shodikun, 2024	Kesempatan integrasi kurikulum
Masuroh & Mardani, 2025	Kolaborasi global dalam pendidikan Islam
Huda & Suwahyu, 2024	Personalisasi pembelajaran

Based on table 3, it can be reinterpreted that the existence of artificial intelligence provides several implications for Islamic education in a global context. As such, the first is the provision of wider and more equitable access to Islamic education. In Baharuddin et.al., he explained that artificial intelligence offers great potential to revolutionize Islamic education, especially in providing easier, more efficient, and inclusive access to learning. It allows learners from various social, cultural, and geographical backgrounds to access high-quality education without being limited by distance or time. In addition, the learning process can be personalized according to individual needs, providing individuals with a learning experience that is relevant to the abilities and speed of each individual learner (Baharuddin et.al, 2025).

The second is related to the opportunity for curriculum integration in the era of artificial intelligence. In Shodikun, it was explained that the integration of the curriculum in the era of artificial intelligence aims to increase the effectiveness, efficiency, and accessibility of Islamic education while maintaining noble Islamic values. The integration process is carried out through several important stages, starting from a needs analysis, which highlights classic problems such as the limited number of teachers and the diversity of student learning styles. Artificial intelligence is expected to be able to provide solutions through personalized learning, analysis of individual needs, and providing real-time feedback. The next stage is curriculum mapping, which is reviewing the content of the curriculum to find parts that can be improved with the help of artificial intelligence technology, such as the use of translator applications, mapping Qur'an concepts with NLP (Natural Language Processing), and Islamic history simulations with augmented reality or virtual reality (Shodikun, 2024).

The selection of the right artificial intelligence technology is an important point, where educational institutions need to adjust the type of artificial intelligence to the needs, infrastructure, and available human resources. Technologies such as machine learning, chatbots, sentiment analysis, and recommendation systems are examples of potential tools to be applied. After that, the development of artificial intelligence-based teaching materials is carried out to create a more interactive, adaptive, and fun learning experience. Applications such as educational games, artificial intelligence tutors, and automated evaluation tools are a means to increase student engagement and understanding (Shodikun, 2024).

Third, it is related to global collaboration in Islamic education in the era of artificial intelligence. In the article by Masuroh and Dede, it is stated that the era of artificial intelligence in Islamic education requires pentahelix collaboration. Pentahelix collaboration or pentahelix collaboration, which is a collaboration between the government, academia, industry, society, and the media. The government (through the Ministry of Religion and the Ministry of Education and Culture) needs to make Islamic development policies, including content certification, digital curriculum standardization, and teacher training. Academics and Islamic research institutions can play a role in developing artificial intelligence models based on Islamic epistemology, not just adaptations from the West. The technology industry is encouraged to develop open source artificial intelligence for Islamic education that is transparent and theologically and pedagogically auditable (Masuroh & Mardani, 2025).

The fourth is related to learning personalization, where artificial intelligence allows the presentation of learning materials that are tailored to the needs, abilities, and learning styles of each student. This makes learning more effective, relevant, and engaging, thereby significantly increasing student motivation and engagement. In the context of Islamic education, this allows the delivery of Islamic educational materials that are in accordance with students' learning styles. For example, students who are more responsive to visuals can be provided interactive multimedia content, while those who prefer text can be focused on classical literature. Artificial intelligence can also recommend advanced material based on students' understanding, as well as provide automated feedback that helps strengthen Islamic concepts in a sustainable manner. Thus, personalization supported by artificial intelligence has the potential to improve the quality of understanding and appreciation of Islamic teachings among individual students (Huda & Suwahyu, 2024)

IV. CONCLUSION

In today's global context, Islamic moderation is a very relevant educational model. This approach prioritizes the value of balance, tolerance, and openness to global science and culture. Islamic moderation has proven to be able to ward off radicalism and extremism, as well as encourage the creation of a peaceful and inclusive Muslim society. Indonesia through Islamic boarding schools, madrasas, and universities plays an important role in disseminating these values to the international world, both through educational diplomacy, scholarships, and academic collaboration.

Islamic Education in Indonesia in a Global Context: Perspectives on Moderation and Digital Transformation of Artificial Intelligence

Overall, Islamic education in Indonesia has shown significant progress in responding to the challenges of the times through a moderate approach and the adoption of digital technology and artificial intelligence. By maximizing opportunities and overcoming existing challenges, Indonesian Islamic education has great potential to become a global model in creating an inclusive, digitally savvy, and spiritually moderate generation of Muslims

REFERENCES

- 1) Aprilia, N. D., & Wahab. (2025). Character-Based Education Religious Values with Challenges in the Digital Age. *Jurnal Pengabdian Nusantara*, 3(2), 52–56.
- 2) Arifinsyah, Dalimunthe, M. A., & Riza, F. (2025). Islamic Theological Perspectives on Human Rights: Bridging the Gap between Faith and Universal Principles. *Pharos Journal of Theology*, 106(2), 1–20. <https://doi.org/10.46222/pharosjot.106.207>
- 3) Asmanto, B., et.al. (2023). The Evolution of Islamic Educational Institutions in Indonesia. *JMKSP (Jurnal Manajemen, Kepemimpinan, dan Supervisi Pendidikan)*, 8(1), 262–272. <https://doi.org/10.31851/jmksp.v8i1.11117>
- 4) Azra, A. (2005). *Islam in the Indonesian World: An Account of Institutional Formation*. Mizan.
- 5) Badawi, H. (2023). Learning from Japan: Advancing Education in the Arab and Islamic World through Creative Approaches. *Nazhruna: Jurnal Pendidikan Islam*, 6(2), 290–305. <https://doi.org/10.31538/nzh.v6i2.3516>
- 6) Badrun, B. (2024). Enhancing Islamic Education: The Role of Madrasah-Based Management in Islamic Boarding Schools. *AL-ISHLAH: Jurnal Pendidikan*, 16(2), 2772–2780. <https://doi.org/10.35445/alishlah.v16i2.5153>
- 7) Baharuddin, et.al. (2025). Pendidikan Islam dalam Era Kecerdasan Buatan: Membangun Peradaban Berbasis Etika dan Teknologi di Indonesia. *JIIP (Jurnal Ilmiah Ilmu Pendidikan)*, 8(4), 3782–3791.
- 8) Baheretibeb, Y., & Whitehead, C. (2024). “It takes a village to raise a child,” university teachers’ views on traditional education, modern education, and future I integration in Ethiopia. *Frontiers in Education*, 9, 1348377. <https://doi.org/10.3389/educ.2024.1348377>
- 9) Ciptadi, T. & Khozin. (2025). The Challenges and Opportunities of Digitalization in Islamic Religious Education Institutions. *IJGIE (International Journal of Graduate of Islamic Education)*, 6(1), 1–10. <https://doi.org/10.37567/ijgie.v6i1.3357>
- 10) Fadlan, A., et.al. (2023). Policy Problematic Islamic Educational Institutional In Increasing The Quality of Education. *International Journal of Education and Teaching Zone*, 2(1), 170–178. <https://doi.org/10.57092/ijetz.v2i1.123>
- 11) Fakhrudin, F. (2024). Islamic Education in the Digital Era: Challenges and Opportunities in the 21st Century. *Proceeding of International Conference on Islamic and Interdisciplinary Studies*, 3, 93–98.
- 12) Hasanah, U., et.al. (2023). Islamic Education in the Society 5.0 Era: Lesson to Learn. *IJECA (International Journal of Education and Curriculum Application)*, 6(1), 21–32. <https://doi.org/10.31764/ijeca.v6i1.12151>
- 13) Hedges, J. R., et.al. (2021). Strengthening and Sustaining Inter-Institutional Research Collaborations and Partnerships. *International Journal of Environmental Research and Public Health*, 18(5), 2727. <https://doi.org/10.3390/ijerph18052727>
- 14) Huda, M. (2024). Strengthening Religious Moderation Through the Core Values of Islamic Boarding School Education. *Al-Hayat: Journal of Islamic Education*, 8(1), 59–71. <https://doi.org/10.35723/ajie.v8i1.458>
- 15) Huda, M., & Suwahyu, I. (2024). Peran Artificial Intelligence (Ai) Dalam Pembelajaran Pendidikan Agama Islam. *Referensi Islamika: Jurnal Studi Islam*, 2(2), 53–61. <https://doi.org/10.61220/ri.v2i2.005>
- 16) Ibrahim, M., et.al. (2024). Addressing contemporary ethical and moral issues through islamic education. *Journal on Islamic Studies*, 1(1), 36–51. <https://doi.org/10.35335/kbbzar83>
- 17) Ihsanulhaq, P. A., & Muttaqin, M. I. (2024). Al-Azhar University’s Indonesian Student Alumni Strategic Role Analysis In Influencing The Politics Of Indonesia-Egypt Foreign Policy. *Journal Of World Science*, 3(10), 1351–1361.
- 18) Inayatillah, I., et.al. (2022). The History of Moderate Islam in Indonesia and Its Influence on the Content of National Education. *Journal of Al-Tamaddun*, 17(2), 213–226. <https://doi.org/10.22452/JAT.vol17no2.17>
- 19) Juliansyah, A. F., et.al. (2021). Global Muslim Response to Bandung Halal Tourism Branding. *International Journal of Applied Sciences in Tourism and Events*, 5(2), 197–206. <https://doi.org/10.31940/ijaste.v5i2.197-206>
- 20) Jumaidi, A., et.al. (2024). Political Study Analyses of Education Policy to Improve Education Quality. *Emerging Science Journal*, 8(4), 1420–1439. <https://doi.org/10.28991/ESJ-2024-08-04-011>
- 21) Kementerian Agama Republik Indonesia. (2021). *Buku Moderasi Beragama*. Balitbang dan Diklat.
- 22) Kementerian Komunikasi dan Informatika. (2023). *Laporan Survei Nasional Literasi Digital Indonesia*.
- 23) Kurniawan, S., et.al. (2024). Pesantren and World Peace: Considering the Functional Role of Pesantren in Creating Moderate Santri Pioneers. *Nadwa: Jurnal Pendidikan Islam*, 18(1), 2502–8057.
- 24) Madjid, N., & Nasution, H. (1990). *Islam dan Modernisasi Pendidikan di Indonesia*. UI Press.

- 25) Madum, M. (2025). Inclusive Islamic Education Model Based On Community Organizations: A Study On The Dian Interfidei Community In Yogyakarta. *Almubin: Islamic Scientific Journal*, 8(1), 1–13.
- 26) Mala, A., & Hunaida, W. L. (2023). Exploring the Role of Religious Moderation in Islamic Education: A Comprehensive Analysis of Its Unifying Potential and Practical Applications. *Jurnal Pendidikan Agama Islam (Journal of Islamic Education Studies)*, 11(2), 173–196. <https://doi.org/10.15642/jpai.2023.11.2.173-196>
- 27) Maréchal, É. (2022). The Islamic Republic of Iran’s Soft Power An Analysis of the Islamic Culture and Relations Organization’s Activities. *University of Bologna*, 1–16.
- 28) Masuroh, I. S., & Mardani, D. A. (2025). Artificial Intelligence dan Pendidikan Pendidikan Islam: Pendekatan Etis Implementatif. *Integratif: Jurnal Magister Pendidikan Agama Islam*, 6(1), 85–101.
- 29) Mazahir, I., et.al. (2023). Exploring the Image of Indonesia in International News Media through a Comparative Analysis of Leading News Websites from the World. *International Journal of Media and Information Literacy*, 8(1), 145–167. <https://doi.org/10.13187/ijmil.2023.1.145>
- 30) Muslim, Mukti, A., & Arsyad, J. (2023). Reformation Of Islamic Educational Institutions in Aceh (Study Of Madrasahs in 1915-1946). *Edukasi Islami: Jurnal Pendidikan Islam*, 12(4), 387–402.
- 31) Mutammam, Anggraeni, D., et.al. (2024). Adaptation and Transformation of Pesantren Education in Facing The Era of Muslim Society 5.0. *Nazhruna: Jurnal Pendidikan Islam*, 7(3), 705–726. <https://doi.org/10.31538/nzh.v7i3.114>
- 32) Mwema, E., & Birhane, A. (2024). Undersea cables in Africa: The new frontiers of digital colonialism. *First Monday*, 29(4). <https://doi.org/10.5210/fm.v29i4.13637>
- 33) Nasir, M., & Rijal, M. K. (2021). Keeping the middle path: Mainstreaming religious moderation through Islamic higher education institutions in Indonesia. *Indonesian Journal of Islam and Muslim Societies*, 11(2), 213–241. <https://doi.org/10.18326/ijims.v11i2.213-241>
- 34) Nasution, S., Asari, H., & Al-Rasyid, H. (2024). Kitab Kuning and Religious Moderation: A Study on State Islamic Universities in Indonesia. *Journal of Al-Tamaddun*, 19(2), 73–88. <https://doi.org/10.22452/JAT.vol19no2.5>
- 35) National Academies of Sciences, Engineering, and Medicine. (2022). *Physics of Life* (p. 26403). National Academies Press. <https://doi.org/10.17226/26403>
- 36) Naufalia, D. N. S., & Suharyat, Y. (2023). Rahmatan Lil’alamin’s Leadership in Islamic Education. *International Journal of Global Sustainable Research*, 1(4), 569–576. <https://doi.org/10.59890/ijgsr.v1i4.853>
- 37) Nugroho, H. A. (2020). Artificial Intelligence dan Tantangan Pendidikan Islam. *Jurnal Pendidikan Islam*, 6(2), 123–137.
- 38) Nurdianto, N., et.al. (2024). History of Islamic Education in Indonesia and its Relevance to the Modern Era. *Edunesia : Jurnal Ilmiah Pendidikan*, 5(2), 848–867. <https://doi.org/10.51276/edu.v5i2.886>
- 39) Ogunleye, B., et.al. (2024). A Systematic Review of Generative AI for Teaching and Learning Practice. *Education Sciences*, 14(6), 636. <https://doi.org/10.3390/educsci14060636>
- 40) Qadri, S. S., et.al. (2024). Countering extremism through islamic education: Curriculum and pedagogical approaches. *Journal on Islamic Studies*, 1(1), 74–89.
- 41) Rahmadi, R., & Hamdan, H. (2023). Religious Moderation in The Context Of Islamic Education: A Multidisciplinary Perspective and its Application in Islamic Educational Institutions in Indonesia. *Khazanah: Jurnal Studi Islam Dan Humaniora*, 21(1), 59–82. <https://doi.org/10.18592/khazanah.v21i1.8487>
- 42) Restalia, W., & Khasanah, N. (2024). Transformation of Islamic education in the digital age: Challenges and opportunities. *Tadibia Islamika*, 4(2), 85–92. <https://doi.org/10.28918/tadibia.v4i2.8964>
- 43) Riaz, M., & et.al. (2023). The Role of Islamic Education in Promoting Peace and Tolerance. *Al-Qantara*, 9(4), 307–327.
- 44) Rosmawati, R., et.al. (2024). The Dynamics of the Islamic Association (Persis) Educational Institutions, 1923-1962. *Yupa: Historical Studies Journal*, 8(1), 108–123. <https://doi.org/10.30872/yupa.v8i1.3142>
- 45) Sahin, A. (2018). Critical Issues in Islamic Education Studies: Rethinking Islamic and Western Liberal Secular Values of Education. *Religions*, 9(11), 335. <https://doi.org/10.3390/rel9110335>
- 46) Sahri, S., et.al. (2023). The Strategy Of Islamic Education Institutions in Improving The Quality Of Learning in The Digital Era. *Paramurobi: Jurnal Pendidikan Agama Islam*, 6(2), 1–13. <https://doi.org/10.32699/paramurobi.v6i2.4638>
- 47) Shodikun. (2024). Integrating Artificial Intelligence (AI) into the Islamic Education Curriculum. *The 7 Th International Conference on Islamic Studies*, 64–81.
- 48) Shofwan, A. M., & Farantika, D. (2022). Study On The Hidden Policy Behind The Japanese Control In Indonesia. *JURNAL SINDA*, 2(2), 1–10.
- 49) Silva, G. J. P. da. (2024). Legacy of War, Pillars of Peace: German WWII Bunkers and Fortifications as Touristic Assets in Northern France, Belgium, and Poland. *Instituto Superior De Contabilidade E Administração Do Porto Politécnico Do Porto*.

Islamic Education in Indonesia in a Global Context: Perspectives on Moderation and Digital Transformation of Artificial Intelligence

- 50) Sya'bani, M. A. Y. (2024). Contextualizing islamic religious education in the 21st century in Indonesia. *Al-Misbah (Jurnal Islamic Studies)*, 12(1), 47–61. <https://doi.org/10.26555/almisbah.v12i1.10167>
- 51) Syar'i, A., & Akrim, A. (2020). The Development of Madrasa Education in Indonesia. *Revista Argentina de Clinica Psicológica*, XXIX(4), 513–523.
- 52) Taufik, H., & Rusdi, M. (2024). Teachers Challenges and Strategies in Facing the Digitalization Era in Islamic Education in Madrasahs in West Java Region. *West Science Islamic Studies*, 2(4), 184–190. <https://doi.org/10.58812/wsiss.v2i04.1348>
- 53) Usa, A., Rama, B., & Syamsuddin. (2025). History of the Development of Islamic Education in Sumatra (A Study of Figures and Institutions). *Agency Journal Of Management And Business*, 5(1), 34–43.
- 54) Uyuni, B., & Mohammad, A. (2024). Philosophical Foundations in Training Traditional Religious Educators: Bridging Past and Present. *Futurity Philosophy*, 3(2), 40–65. <https://doi.org/10.57125/FP.2024.06.30.03>
- 55) Vavouras, E., & Theodosiadis, M. (2024). The Concept of Religion in Machiavelli: Political Methodology, Propaganda and Ideological Enlightenment. *Religions*, 15(10), 1203. <https://doi.org/10.3390/rel15101203>
- 56) Zuhdi, M. (2018). Challenging Moderate Muslims: Indonesia's Muslim Schools in the Midst of Religious Conservatism. *Religions*, 9(10), 310. <https://doi.org/10.3390/rel9100>



There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non Commercial 4.0 International (CC BY-NC 4.0) (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.