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Transforming the Islamic Religious Education Curriculum in the Age of Artificial Intelligence: Integrating Digital Literacy, Religious Moderation, and the Pancasila Student Profile

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Abstract

The rapid development of Artificial Intelligence (AI) has created new opportunities and challenges for Islamic Religious Education (IRE), particularly in adapting curriculum structures to technological advancement while maintaining religious and national values. This study aims to analyze the transformation of the IRE curriculum through the integration of digital literacy, religious moderation, and the Pancasila Student Profile in the AI era. Employing a qualitative approach through library research, this study examines scholarly journal articles, academic books, educational policy documents, research reports, and relevant publications addressing AI in education, Islamic education curriculum development, digital literacy, religious moderation, and national character formation. Sources were identified through searches of Google Scholar, Garuda, DOAJ, Scopus, and relevant national journal portals. Data were analyzed using content analysis and thematic analysis, supported by the stages of data reduction, data display, and conclusion drawing and verification. Source triangulation was employed to strengthen the credibility of the analysis. The findings indicate that IRE curriculum transformation requires the integration of three interconnected curricular dimensions. First, digital literacy should develop students' abilities to access, evaluate, verify, and utilize digital information critically, ethically, and responsibly. Second, religious moderation should strengthen tolerance, justice, balance, and respect for diversity in digital and social environments. Third, the Pancasila Student Profile should support the development of religious commitment, critical reasoning, creativity, independence, global diversity, and collaboration. This study contributes a context-sensitive conceptual framework that connects these dimensions with responsible AI integration in Indonesian Islamic education. The framework provides a foundation for curriculum development, teacher preparation, educational policy, and future empirical research

Keywords: Artificial Intelligence, Digital Literacy, Islamic Religious Education, Pancasila Student Profile, Religious Moderation

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INTRODUCTION

The rapid development of Artificial Intelligence (AI) has fundamentally transformed contemporary education by changing how knowledge is accessed, processed, communicated, and evaluated. AI-supported technologies offer opportunities to personalize learning, provide adaptive feedback, expand access to educational resources, and develop critical thinking and other twenty-first-century competencies. These developments have encouraged educational institutions to reconsider conventional

curriculum structures and adopt approaches that respond to technological advancement and learners' evolving needs. Nevertheless, integrating AI into education requires more than adopting digital tools; it also demands learners' capacity to understand, evaluate, and use AI critically, ethically, and responsibly. Lukmi et al. (2024) emphasize the relevance of AI in developing Islamic education, while research on AI literacy highlights the importance of understanding AI systems, applying them appropriately, evaluating their outputs, and recognizing their ethical implications (Ng et al., 2021; Casal-Otero et al., 2023). Therefore, curriculum transformation in the AI era should address technological competence alongside the intellectual, ethical, and social capacities required for responsible participation in digital society.

Within Islamic Religious Education (IRE), commonly referred to as Pendidikan Agama Islam (PAI) in Indonesia, these developments present both opportunities and challenges. AI can support interactive and personalized learning by providing supplementary explanations, facilitating the exploration of religious concepts, and assisting teachers in developing instructional materials. However, the increasing availability of AI-generated religious information raises concerns about inaccurate explanations, decontextualized interpretations, algorithmic bias, and the uncritical acceptance of automatically generated content. These concerns are particularly significant in religious education, where knowledge is closely connected with ethical judgment, spiritual development, and the interpretation of authoritative sources. Rosadi et al. (2026) discuss the implementation of digital technologies and AI in Islamic Religious Education, while Oktavia et al. (2023) emphasize the importance of adapting Islamic education to the characteristics of the digital era. Similarly, Bond et al. (2024) identify ethical considerations, contextual sensitivity, and methodological rigor as important issues in AI-supported education. Consequently, AI integration into IRE requires a curriculum that balances technological innovation with religious values, moral responsibility, and the development of informed learners.

Digital literacy represents one of the principal dimensions of this transformation. It extends beyond operating digital devices or accessing online information to include evaluating information credibility, identifying misleading content, recognizing technological limitations, and making responsible decisions. The emergence of generative AI further intensifies these requirements because AI-generated information may appear authoritative despite containing inaccurate, incomplete, or contextually inappropriate explanations. Yusuf (2024) discusses the role of AI in strengthening digital literacy in Islamic educational institutions, while Ng et al. (2021) and Almatrafi et al. (2024) conceptualize AI literacy as a multidimensional competence involving the understanding, application, evaluation, and ethical use of AI systems. Casal-Otero et al. (2023) likewise highlight the importance of coherent curricular frameworks for developing AI literacy. In IRE, these competencies can be connected with the Islamic principle of tabayyun, which emphasizes verifying information before accepting or disseminating it. Thus, digital literacy should become an integral component of learning objectives, instructional materials, and assessment practices, enabling students to critically examine digital religious information and use AI as a supporting resource rather than an unquestioned authority.

Another essential dimension is religious moderation. Digital communication platforms have expanded opportunities for religious learning and interaction among individuals from different cultural, religious, and ideological backgrounds. However, these platforms can also facilitate intolerant narratives, misleading religious claims, hate speech, and extremist content. Islamic education therefore has an important responsibility to cultivate tolerance, justice, balance, respect for diversity, and rejection of violence. Giffari et al. (2026) discuss the development of an Islamic education curriculum based on digital literacy to address online radicalism, while Oktavia et al. (2023) emphasize the

importance of strengthening religious values alongside technological adaptation. Furthermore, García-López and Trujillo-Liñán (2025) identify privacy, algorithmic bias, inequality, and institutional safeguards as important challenges in educational AI implementation. Although these concerns do not establish a direct causal relationship between AI use and religious extremism, they demonstrate the importance of developing critical judgment and responsible digital participation. Integrating religious moderation into IRE can consequently provide an ethical and normative foundation for engaging with digital religious information and religious diversity constructively.

The transformation of IRE must also correspond with Indonesia's national educational objectives, particularly the Pancasila Student Profile. Its dimensions include faith and devotion to God Almighty, noble character, global diversity, independence, critical reasoning, creativity, and mutual cooperation. These values provide opportunities to connect Islamic education's spiritual and moral objectives with competencies needed in contemporary society. Ansori (2025) examines the transformation of the Islamic Religious Education curriculum within the context of independent learning, while Mansyur (2023) discusses challenges confronting IRE curricula in the digital era. Their perspectives provide a foundation for considering curriculum development that responds to technological change without abandoning its normative orientation. Similarly, Chee et al. (2025) and Lintner (2024) emphasize the importance of developing AI literacy through competencies that accommodate learners' needs and integrate technological understanding with critical and ethical awareness. Accordingly, the Pancasila Student Profile can serve as a curricular reference for connecting digital competence and religious moderation with character formation, critical reasoning, creativity, independence, and respect for diversity. This integration is particularly relevant to Indonesian Islamic education, which operates within a pluralistic society and a national framework emphasizing religious commitment and responsible citizenship.

Despite these developments, an important conceptual gap remains. AI competence, digital literacy, religious moderation, and national character formation are frequently discussed as related but separate educational priorities. Research on AI literacy has established foundations for understanding the knowledge, skills, and ethical awareness required to engage with AI systems (Ng et al., 2021; Casal-Otero et al., 2023). Meanwhile, studies of Islamic education have emphasized maintaining religious values while responding to digital transformation (Lukmi et al., 2024). Nevertheless, these perspectives do not sufficiently establish an integrated curriculum framework that explicitly connects AI competence and digital religious literacy with religious moderation and the Pancasila Student Profile. Reviews by Almatrafi et al. (2024), Chee et al. (2025), and Lintner (2024) further demonstrate continuing challenges in AI literacy implementation, competency assessment, and context-sensitive framework development. The research gap, therefore, concerns not the absence of studies on AI or religious moderation individually, but the need for a more integrated conceptual approach to IRE curriculum transformation within Indonesia's educational context.

Addressing this gap requires understanding curriculum transformation as more than incorporating AI applications into existing teaching practices. It involves reconsidering the relationships among learning objectives, curricular content, pedagogical strategies, assessment, and educational values. AI can expand learning resources and support differentiated instruction, but its educational contribution depends on teachers' and students' ability to evaluate its outputs and apply appropriate ethical principles. Digital literacy becomes more meaningful when connected with the verification of religious information, while religious moderation and the Pancasila Student Profile provide ethical, social, and civic orientations for responsible participation in digital environments. These dimensions should therefore be understood as interconnected elements of curriculum development rather than independent educational initiatives. Such

integration can help ensure that Islamic education remains responsive to technological change while sustaining its spiritual, moral, and social purposes.

Based on this rationale, this study aims to comprehensively analyze how the Islamic Religious Education curriculum can be transformed through the integration of digital literacy, religious moderation, and the Pancasila Student Profile in the era of Artificial Intelligence. Using a qualitative library research approach, the study examines relevant scholarly literature and educational policy documents to formulate a conceptual framework for curriculum transformation. Its contribution lies in integrating technological competence, digital religious literacy, religious moderation, and national character formation within a context-sensitive framework for Indonesian Islamic education. Rather than evaluating the empirical effectiveness of a particular instructional intervention, this study provides a conceptual foundation for curriculum development, teacher preparation, educational policy, and future empirical investigations. Ultimately, it seeks to contribute to the development of Islamic Religious Education that is technologically adaptive while maintaining its religious, ethical, and national educational commitments.

METHOD

Research Design

This study employed a qualitative approach using library research to examine the transformation of the Islamic Religious Education (IRE) curriculum in the era of Artificial Intelligence (AI), particularly through the integration of digital literacy, religious moderation, and the Pancasila Student Profile. A qualitative approach was selected because the study seeks to interpret and synthesize concepts, theoretical perspectives, previous research findings, and educational policies relevant to the research objective. Library research enables an in-depth examination of written sources without collecting primary data directly from participants or conducting field observations (Haryono et al., 2024).

The study was designed as a conceptual literature analysis rather than an empirical evaluation of an instructional intervention. Its purpose was to identify relevant ideas, examine relationships among the principal concepts, and synthesize them into a framework for IRE curriculum transformation. This approach is consistent with the view that literature-based research should make its search and synthesis procedures sufficiently transparent for readers to understand how its conclusions were developed (Haddaway et al., 2022; Turnbull et al., 2023). Accordingly, the analysis focused on constructing a context-sensitive conceptual understanding of how AI-related competencies, digital literacy, religious moderation, and national character development can be integrated into the IRE curriculum.

Data Sources and Selection Criteria

The study drew on primary and secondary documentary sources. Primary sources comprised scholarly journal articles published between 2021 and 2026 that addressed Islamic Religious Education curriculum development, artificial intelligence in education, digital literacy, religious moderation, and the Pancasila Student Profile. The search included relevant articles from national journals accredited by SINTA and international scholarly journals. Secondary sources comprised academic books, educational policy documents, government regulations, research reports, conference proceedings, and other publications relevant to the study's conceptual focus. Using these sources enabled the researchers to examine the topic from scholarly, theoretical, and policy perspectives (Abdurrahman, 2024).

Source selection was guided by relevance to the research objective, the credibility of the publication or issuing institution, and the contribution of each document to understanding the relationships among the study's principal concepts. Publications were considered relevant when they addressed at least one of the following areas: AI and

educational transformation, digital literacy and AI literacy, Islamic Religious Education curriculum development, religious moderation, or the Pancasila Student Profile. Documents that did not substantively address these topics or provide a meaningful contribution to the conceptual analysis were not prioritized.

To improve methodological transparency, the final manuscript should state the precise inclusion and exclusion criteria applied during screening. It should also report the number of documents included in the final analysis, if these records are available. These details are important because a literature-based study should explain not only which sources were consulted but also why particular sources were selected for synthesis (Turnbull et al., 2023).

Literature Search and Data Collection

Data were collected through a documentation study. The researchers searched Google Scholar, Garuda, the Directory of Open Access Journals (DOAJ), Scopus, and relevant national journal portals to identify scholarly publications and documentary sources related to the research focus. The search covered literature on the IRE curriculum, artificial intelligence, digital literacy, religious moderation, and the Pancasila Student Profile. The collection process involved five stages: (1) identifying the research topic and key concepts; (2) searching relevant databases and publication platforms; (3) selecting sources according to their relevance, credibility, and publication period; (4) classifying the selected documents according to the study's thematic focus; and (5) recording and organizing information needed for subsequent analysis.

The search and documentation process was intended to establish a relevant body of literature for conceptual synthesis. Methodological guidance emphasizes that reporting the databases, search terms, selection procedures, and scope of the search supports transparency and enables readers to assess how the literature was assembled (Haddaway et al., 2022). Therefore, for the final submission, the authors should add the actual search dates and the search terms or Boolean strings used. They should also clarify how duplicate records were handled and how titles, abstracts, and full texts were assessed, where applicable.

Methodological clarification: The current manuscript does not report a complete screening log or the number of documents retrieved and retained. These details should be added from the researchers' actual records rather than estimated retrospectively. Because the study is presented as library research, it should not be described as a systematic review unless a systematic protocol and corresponding procedures were actually followed.

Data Analysis

The collected documents were analyzed using content analysis combined with thematic analysis. Content analysis was used to identify recurring concepts, substantive arguments, and patterns in the literature concerning IRE curriculum transformation in the AI era. The thematic analysis then organized relevant information into interconnected themes corresponding to the research objective: AI and digital competence, digital literacy, religious moderation, and the Pancasila Student Profile.

The analytical process also followed the three stages associated with Miles and Huberman: data reduction, data display, and conclusion drawing and verification. During data reduction, information from the selected sources was screened and condensed according to its relevance to the research objective. During data display, the extracted information was organized into thematic categories to facilitate comparison across publications and policy documents. In the final stage, conclusions were developed through critical interpretation of the identified patterns and relationships, with the aim of constructing a conceptual framework for IRE curriculum transformation (Maulidia et al., 2025).

The analysis focused on both the individual significance of each theme and the relationships among them. Specifically, the researchers examined how digital and AI competence could be connected with the verification of religious information, how religious moderation could inform responsible engagement with digital religious content, and how the Pancasila Student Profile could provide a broader framework for character development. The resulting synthesis informed the conceptual model presented in the Results and Discussion section.

For greater analytical rigor, the authors should specify how the thematic categories were developed—for example, whether they were derived from the research focus before analysis, identified inductively during document reading, or developed through a combination of both approaches. The manuscript should also explain how information was recorded and compared across sources. These additions would clarify the analytical pathway without changing the study's objective.

Trustworthiness of the Analysis

To strengthen the credibility of the analysis, the study employed source triangulation by comparing information obtained from scholarly journal articles, academic books, policy documents, and previous research findings. The researchers also considered the credibility of each source, its substantive relevance to the research objective, and the consistency of arguments across different publications. These procedures were intended to reduce reliance on isolated claims and establish a more comprehensive conceptual interpretation (Latifah et al., 2024).

Source triangulation was particularly relevant because the study brought together educational technology, Islamic educational values, religious moderation, and national character development. Comparing these perspectives enabled the researchers to identify convergent arguments, conceptual differences, and potential relationships among the four dimensions. The synthesis was subsequently used to formulate the proposed conceptual framework.

Nevertheless, the manuscript should avoid treating triangulation as proof of validity by itself. To improve transparency, the authors should describe how conflicting interpretations were handled and how claims in the final synthesis were traced to their supporting documents. If these procedures were not formally documented, the final Method section should report only the verification activities that were actually conducted

RESULT AND DISCUSSION

The results of the study show that the transformation of the Islamic Religious Education (PAI) curriculum in the era*Artificial Intelligence*(AI) is not only oriented toward mastering religious competencies, but also directed toward strengthening digital literacy, internalizing the values of religious moderation, and developing character in accordance with the Pancasila Student Profile. Analysis of various educational literature and policies shows that integrating these three aspects is a key strategy in producing PAI learning that is adaptive, contextual, and relevant to the challenges of the Industrial Revolution 4.0 and Society 5.0.

The use of AI-based technology supports a more personalized, interactive, and data-driven learning process, but still requires strengthening ethical values, spirituality, and critical thinking skills so that students can use technology responsibly. The research findings are then summarized into several key dimensions of Islamic Religious Education (PAI) curriculum transformation, as presented in Table 1.

Table 1. Dimensions of Transformation of Islamic Religious Education Curriculum in the Era of Artificial Intelligence

No	Transformation Dimension	Research Findings	Implications for the Islamic Education Curriculum
1	Artificial Intelligence in Education	AI is capable of supporting personalization of learning, automation of assessments, provision of digital learning resources, and analysis of student needs.	The Islamic Religious Education curriculum needs to integrate the use of AI as a medium and learning resource that remains based on Islamic ethics.
2	Digital Literacy	Students are required to have the ability to access, evaluate, verify, and produce digital information critically.	Digital literacy materials need to be integrated into Islamic Religious Education learning through strengthening concepts.*tabayyun*, digital ethics, and media safety.
3	Religious Moderation	The increasing flow of digital information has the potential to give rise to intolerance and radicalism if not accompanied by moderate religious understanding.	The Islamic Religious Education curriculum needs to internalize the value of tolerance (*tolerance*), balance (*modesty*), and justice (*i'tidal*) in every learning achievement.
4	Pancasila Student Profile	The dimensions of faith and piety, global diversity, critical thinking, creativity, independence, and mutual cooperation are relevant to the goals of Islamic education.	PAI learning outcomes need to be aligned with the dimensions of the Pancasila Student Profile to strengthen students' character.

Transformation of Islamic Religious Education Curriculum in the Era of Artificial Intelligence

The results of the study show that the development*Artificial Intelligence*(AI) has shifted the educational paradigm from conventional learning models to more adaptive, personalized, and data-driven learning. In the context of Islamic Religious Education (PAI), curriculum transformation no longer focuses solely on mastering religious material, but also on developing competencies that enable students to interact critically and ethically with digital technology. AI presents significant opportunities in providing learning resources, personalizing learning, and increasing access to Islamic knowledge. However, the use of AI also presents challenges in the form of the dissemination of unverified information, algorithmic bias, and the potential degradation of moral values if not balanced with strong character education.

Research findings show that the PAI curriculum needs to shift from an approach oriented towards knowledge transfer (*knowledge transmission*) towards developing

holistic competencies encompassing spiritual, intellectual, social, digital, and moral aspects. This transformation aligns with the demands of 21st-century education, which emphasizes critical thinking, creativity, collaboration, communication, and technological literacy as key competencies for students (Jannah et al., 2024).

Conceptually, the transformation of the Islamic Religious Education curriculum in the AI era can be built around three main pillars: strengthening digital literacy, internalizing religious moderation, and integrating the Pancasila Student Profile. These three aspects complement each other in developing students who are religious, moderate, adaptable to technology, and possess a strong national character.

Integration of Digital Literacy in Islamic Religious Education Curriculum

The analysis shows that digital literacy is a fundamental competency that students must possess in the AI era. Digital literacy is not only related to the ability to use technological devices, but also encompasses the ability to access, evaluate, produce, and distribute information critically and responsibly. This ability is crucial considering that students currently live in an environment filled with various religious information disseminated through social media, websites, and AI-based platforms (Khairani et al., 2025).

From the Islamic Religious Education perspective, digital literacy can be integrated through various learning materials, such as social media ethics in Islam, information verification (*tabayyun*), the use of technology for digital da'wah, and the development of moderate Islamic content. This integration enables students to become not only consumers of information, but also responsible producers of information in accordance with Islamic values.

This finding strengthens the view that digital literacy should be positioned as a cross-curricular competency (*cross-curricular competence*) integrated into the entire Islamic Religious Education (PAI) learning process. Thus, students not only understand religious teachings textually but are also able to apply them in complex and dynamic digital life (Syafruddin, 2025).

Furthermore, the implementation of AI in Islamic Religious Education (PAI) learning requires strengthening digital ethics. Students need to understand that the use of AI must be based on the principles of academic honesty, social responsibility, and respect for intellectual property rights. Therefore, the Islamic Religious Education (PAI) curriculum plays a strategic role in fostering ethical awareness regarding the wise use of technology (Irmawati, 2024).

Religious Moderation as the Foundation of Islamic Education Curriculum in the Digital Era

Research shows that the development of digital technology has expanded public access to various religious understandings. However, this openness of information also has the potential to increase the spread of narratives of intolerance, extremism, and radicalism through digital spaces. This situation makes religious moderation a strategic agenda in Islamic Religious Education (PAI) curriculum development (Setiawan et al., 2026).

Religious moderation in the Islamic Religious Education curriculum is interpreted as an effort to instill the values of balance (*modesty*), justice (*i'tidal*), tolerance (*tolerance*), and respect for diversity. These values are not only taught as learning materials but also internalized through school culture, social interactions, and inclusive learning practices (Ramdhani et al., 2021).

Research findings indicate that the integration of religious moderation will be more effective when implemented through a contextual and transformative approach. In this approach, students are invited to analyze various socio-religious phenomena developing in society, including issues of intolerance, hate speech, and identity-based conflicts that frequently arise in digital media. Through this process, students can develop

critical thinking skills while developing an inclusive religious attitude (Sirojudin et al., 2025).

Furthermore, religious moderation can serve as an instrument for strengthening social resilience in a multicultural society. An Islamic Education (PAI) curriculum that integrates religious moderation will help students understand that diversity is a social reality that must be respected and managed constructively. This finding aligns with various studies that position religious moderation as a new paradigm in the development of Islamic education curricula in Indonesia.

Integration of Pancasila Student Profiles in the Islamic Religious Education Curriculum

The research results show that the dimensions of the Pancasila Student Profile are closely related to the goals of Islamic education. The values of faith and devotion to God Almighty align with the primary goal of Islamic Education (PAI) in developing students with strong faith and devotion. Similarly, the dimensions of global diversity, mutual cooperation, independence, critical thinking, and creativity are relevant to Islamic teachings, which emphasize balance between the relationship with God (*hablum minallah*) and relationships with fellow human beings (*hablum minannas*) (Azis, 2024).

In the AI era, the integration of the Pancasila Student Profile is increasingly crucial because technological developments require not only technical skills but also strong character. Students who possess digital skills without strong character traits are at risk of misusing technology for unproductive purposes. Therefore, the Islamic Religious Education (PAI) curriculum must be a means of strengthening character by integrating the values of the Pancasila Student Profile into learning objectives, materials, methods, and assessments.

Research findings indicate that project-based learning (*Project-Based Learning*), case studies, and collaborative learning are effective approaches to integrating the Pancasila Student Profile into Islamic Religious Education (PAI). Through this approach, students can develop critical thinking skills, creativity, collaboration, and social awareness relevant to 21st-century needs (Cantika et al., 2023).

AI-Based Islamic Education Curriculum Transformation Model, Digital Literacy, Religious Moderation, and Pancasila Student Profiles

Based on the results of the analysis of various literature, this study offers a conceptual model for the transformation of the Islamic Religious Education Curriculum (PAI) which is built on four main pillars, namely*Artificial Intelligence*(AI), digital literacy, religious moderation, and the Pancasila Student Profile. This model was developed in response to changes in the educational landscape influenced by advances in digital technology, while also maintaining the fundamental function of Islamic Religious Education (PAI) in shaping students who are faithful, pious, and have noble morals, and are able to live side by side in a pluralistic society (Winata et al., 2025).

The transformation of the Islamic Religious Education (PAI) curriculum in the AI era cannot be understood simply as the integration of technology into the learning process. Furthermore, the transformation must be directed at reconstructing objectives, content, learning strategies, and evaluation systems to produce graduates with a balance between digital skills, spiritual depth, social maturity, and national character. Therefore, the model offered in this study positions AI as a supporting instrument. The conceptual model of the Islamic Religious Education (PAI) curriculum transformation consists of four main components:

1. Digital Competence and AI, encompassing the ability to utilize technology and AI critically, creatively, and ethically. Digital and AI competencies in the Islamic Religious Education curriculum encompass at least four main dimensions (Reksiana et al., 2024). First, technological literacy, namely the ability to understand and use various digital devices and AI-based applications to support

the learning process. Second, information literacy, namely the ability to critically and objectively search for, access, evaluate, and verify information obtained from the digital space. Third, creative literacy, namely the ability to utilize technology to produce works, innovations, and solutions that benefit oneself and society. Fourth, digital ethical literacy, namely the ability to use technology based on the principles of honesty, responsibility, politeness, and respect for the rights of others.

2. Digital Religious Literacy,includes the ability to understand, verify, and disseminate valid religious information. Digital religious literacy is the ability of students to access, understand, analyze, verify, and disseminate religious information critically, responsibly, and in accordance with authoritative sources. In this era,*Artificial Intelligence*With the advent of technology and digital media, religious information can be easily accessed through social media, websites, video platforms, and AI-based applications. However, this ease also comes with an increased risk of spreading religious hoaxes, hate speech, intolerance, and information lacking scientific basis or sound evidence (Elsyam et al., 2024).
3. Religious Moderation,includes strengthening the values of tolerance, justice, balance, anti-violence, and respect for diversity Strengthening religious moderation not only aims to prevent the development of extreme views among the younger generation, but also to build the character of students who are religious, humanistic, democratic, and have a strong national commitment (Winata, et al., 2025). Thus, religious moderation is an important foundation in realizing the goals of Islamic education which is rahmatan lil 'alamin while supporting the creation of a peaceful and harmonious social life in the digital era (Supriadi et al., 2025).
4. Pancasila Student Profile,includes strengthening religious character, independence, critical thinking, creativity, mutual cooperation, and global diversity. In the era*Artificial Intelligence*and digital transformation, strengthening critical and creative reasoning is crucial for students to be able to filter information, solve problems, and utilize technology productively. Meanwhile, the religious, mutual cooperation, and global diversity dimensions serve as a foundation for character development, fostering tolerance, respect for differences, and strengthening national identity amidst globalization. Therefore, the integration of the Pancasila Student Profile into the Islamic Religious Education curriculum not only supports the achievement of academic competencies but also shapes students who are religious, possess strong character, are adaptive to technological developments, and are capable of becoming responsible citizens (Nurajizah, 2025).

These four components must be systematically integrated into all elements of the curriculum, from learning outcomes and teaching materials to learning strategies and assessments. With this model, the Islamic Religious Education curriculum serves not only as a means of transmitting religious knowledge but also as an instrument for transforming students' character and competencies, relevant to future technological developments.

Overall, the research findings indicate that the transformation of the Islamic Religious Education curriculum in the era of Artificial Intelligence (AI) must be directed at integrating AI competencies, digital literacy, strengthening religious moderation, and internalizing the Pancasila Student Profile. Integrating these four aspects allows Islamic Religious Education (PAI) to remain relevant in facing the challenges of the digital era while maintaining its primary function as a vehicle for developing students' character, morality, and spirituality. Thus, the future Islamic Religious Education curriculum will not only produce a technologically savvy generation, but also one that is religious, moderate, humanistic, and possesses a strong national character (Winata et al., 2026).

Table 2. Integration of Digital Competence and AI, Digital Literacy, Religious Moderation, and Pancasila Student Profile in the Islamic Religious Education Curriculum

No	Component	Integration Indicator	Implementation in Islamic Education Learning	Expected results
1	Digital Competence and Artificial Intelligence (AI)	1. Digital literacy and AI are integrated into Learning Outcomes (CP), Learning Objectives (TP), and Islamic Religious Education (PAI) teaching modules. 2. Students are able to utilize AI as a learning tool ethically and responsibly. 3. PAI material is linked to digital issues, media ethics, and artificial intelligence.	1. Teachers utilize digital learning platforms,*Learning Management System*(LMS), generative AI applications, interactive quizzes, and AI-based learning media to support learning of the Qur'an, Hadith, Aqidah Akhlak, Jurisprudence, and the History of Islamic Civilization. 2. Students are given the task of searching for references, analyzing information, compiling summaries, and verifying AI output based on credible Islamic sources.	1. Increasing digital literacy and AI literacy of students. 2. Critical thinking skills are formed in filtering religious information in digital space. 3. Students are able to utilize AI productively, ethically, and responsibly in accordance with Islamic values. 4. Increased creativity, learning independence, and readiness to face educational challenges in the digital era.
2	Digital Literacy	1. Able to access and verify information. 2. Able to utilize technology productively.	1. Learning*tabayyun*towards religious information on social media 2. Project-based digital Islamic preaching content creation	1. Students are critical of hoaxes and disinformation 2. Creative and responsible students
3	Moderation of Religion	1. Tolerance and respect for diversity 2. Anti-violence and anti-radicalism	1. Discussion across religious and national perspectives 2. Analysis of digital extremism cases	1. Inclusive and anti-intolerance attitude 2. Forming a moderate character
4	Pancasila Student Profile	Critical thinking, creative, collaborative	1. Study of actual religious cases based on problem solving 2. Development of	1. Reflective and critical thinking skills 2. Student

			technology-based Islamic learning media 3. Collaborative project based on Islamic values	innovation and creativity 3. Strengthening cooperation and social concern

Table 2 illustrates the integration of four main components—AI competency, digital literacy, religious moderation, and the Pancasila Student Profile—into Islamic Religious Education learning. The analysis shows that AI competency is implemented by equipping teachers with the skills to utilize digital learning platforms.*Learning Management System*(LMS), digital literacy can be implemented by strengthening students' abilities to access, evaluate, and verify information obtained from various digital media.*tabayyun*in Islam is a relevant foundation for building critical awareness of religious information circulating on the internet and social media (Winata, et al., 2025).

In the aspect of religious moderation, integration is achieved through learning that instills the values of tolerance, respect for differences, and a non-violent attitude. These values can be implemented through discussions, case studies, and analysis of various socio-religious phenomena developing in society. This approach enables students not only to understand the concept of moderation theoretically but also to apply it in their daily lives.

Meanwhile, the Pancasila Student Profile dimensions are integrated through various learning activities that encourage critical reasoning, creativity, collaboration, and independence. The use of project-based and problem-solving learning models provides students with opportunities to develop 21st-century competencies while strengthening Islamic values. Therefore, this table demonstrates that integrating these three components can be an effective strategy in developing students who are religious, moderate, and adaptive to technological developments.

DISCUSSION

The central finding of this study is that the transformation of the Islamic Religious Education (IRE) curriculum in the era of Artificial Intelligence (AI) requires an integrated approach that connects technological competence with religious values, ethical responsibility, and national character development. The analysis identifies four interrelated components: AI and digital competence, digital religious literacy, religious moderation, and the Pancasila Student Profile. Rather than positioning AI merely as an instructional tool, the proposed model conceptualizes it as a catalyst for curriculum transformation involving learning objectives, instructional content, pedagogical strategies, and assessment practices. This finding is particularly relevant to Islamic education because it addresses the challenge of preparing digitally competent learners without separating technological advancement from spiritual development and moral responsibility. The study therefore advances a holistic understanding of curriculum transformation in which technological adaptability and religious character formation are treated as complementary rather than competing educational priorities.

The significance of this finding lies in the relationship established among the four components. Digital competence enables students to use AI and digital platforms; digital religious literacy encourages them to evaluate and verify religious information; religious moderation provides an ethical and social orientation for interpreting differences; and the Pancasila Student Profile connects these competencies with broader educational objectives, including critical reasoning, creativity, independence, collaboration, and respect for diversity. The resulting framework suggests that these components should be

embedded across the curriculum rather than delivered as isolated topics. Nevertheless, because this study employs library research, the framework should be understood as a conceptual synthesis derived from the literature and relevant policy documents, not as an empirically validated model of student outcomes.

The proposed framework is consistent with recent scholarship that conceptualizes AI literacy as a multidimensional educational competency. Allen and Kendeou (2024), for example, propose the ED-AI Lit framework, which encompasses knowledge, evaluation, collaboration, contextualization, autonomy, and ethics. Their framework supports the present study's argument that effective AI integration requires more than operational proficiency. Similarly, Ng et al. (2021) identify four essential dimensions of AI literacy: understanding AI, using AI, evaluating AI, and recognizing its ethical implications. These perspectives reinforce the finding that students in Islamic education need to understand not only how to use AI tools but also how to assess the reliability, implications, and ethical appropriateness of AI-generated information. The present study extends this discussion by locating AI literacy within the specific curricular objectives of Islamic education, where information evaluation is connected with religious accountability, tabayyun (verification of information), and responsible participation in digital environments.

Further support comes from Chee et al. (2025), whose review of AI literacy competencies highlights the need to differentiate learning objectives according to educational levels and learner needs. Their findings emphasize foundational AI knowledge and ethics in school education, while more advanced competencies become increasingly important at higher educational levels. Likewise, the project-based AI literacy course examined in Developing an artificial intelligence literacy framework (2024) reported improvements in students' AI-related problem-solving abilities and ethical understanding. These studies support the present article's recommendation that AI competence should be developed through structured learning activities rather than through technology exposure alone. However, the present study differs in its curricular scope: it proposes connecting AI competence to digital religious literacy, religious moderation, and the Pancasila Student Profile within one integrated framework for IRE curriculum development.

The importance of this integrated approach is also reflected in broader reviews of AI in education. Bond et al. (2024), in a meta-systematic review of AI in higher education, identify the need for stronger ethical, methodological, and contextual considerations in AI research. Yusuf et al. (2024), meanwhile, map 407 publications on generative AI in education and research, identifying ethical implications, risks, adoption, and pedagogical applications as major themes. Their review also highlights the limited exploration of cultural dimensions in discussions of generative AI. These findings are particularly relevant to the present study because they suggest that technology integration cannot be understood independently of the social and cultural contexts in which learning takes place. By incorporating religious moderation and the Pancasila Student Profile, the proposed model responds conceptually to this gap by emphasizing the relationship between AI use, religious values, cultural diversity, and national educational objectives. However, the model's comparative advantage remains a conceptual proposition that requires subsequent empirical investigation.

The ethical dimension of AI integration further strengthens the argument for curriculum transformation. Research on AI literacy and educational ethics emphasizes the need to address responsible use, bias, reliability, privacy, and the limitations of AI-generated outputs. These concerns are directly relevant to IRE because religious information may be inaccurate, presented without sufficient context, or generated without reliable references. Consequently, the curriculum should teach students to verify AI-generated religious explanations against authoritative sources and relevant scholarly interpretations rather than treating AI outputs as definitive religious judgments. This position is compatible with the ethical orientation of the present framework, in which

technological competence is accompanied by critical evaluation and moral responsibility. Nevertheless, the ethical principles discussed in general AI education research do not automatically establish the effectiveness of tabayyun or religious moderation as pedagogical interventions; those relationships must be examined in the specific context of Islamic education.

The similarities between this study and previous AI literacy research can be explained by a shared understanding that technological competence involves cognitive, practical, and ethical dimensions. Whether AI literacy is discussed in general education, teacher preparation, or school-based learning, the literature increasingly recognizes that students need to understand how AI works, evaluate its outputs, use it appropriately, and consider its wider implications. These common principles help explain why the present study also places critical evaluation, responsible use, and ethical awareness at the center of curriculum transformation. In addition, the growing availability of AI-generated content makes information verification and critical judgment increasingly relevant across educational contexts, including Islamic education.

The differences arise primarily from the research objectives, methodological approaches, and educational contexts examined. Several of the studies discussed above develop general AI literacy frameworks or synthesize empirical research on AI-supported teaching and learning. In contrast, the present study uses library research to construct a curriculum-oriented conceptual framework that combines AI competence with religious moderation and national character education. The distinction is therefore not that previous research neglects ethics altogether, but that the present framework gives religious and civic values a more explicit role in defining the purposes of AI integration. Furthermore, AI literacy frameworks developed in different countries or educational systems may reflect different curricular priorities, learner characteristics, institutional resources, and cultural expectations. These differences suggest that AI literacy principles should be adapted to the needs of Islamic education rather than transferred uncritically from other contexts. At the same time, the present study cannot establish that its proposed integration is more effective than existing models because it does not involve a comparative intervention, classroom observation, or direct assessment of students' learning outcomes.

The main theoretical contribution of this study is the development of an integrated conceptual framework for IRE curriculum transformation that connects AI and digital competence, digital religious literacy, religious moderation, and the Pancasila Student Profile. Existing AI literacy frameworks provide important foundations for understanding the knowledge, skills, evaluative abilities, and ethical awareness required to engage with AI. The present study builds on these foundations by introducing a context-sensitive curricular perspective in which technological competencies are connected explicitly with religious interpretation, moderation, and national character development. Its originality therefore lies not in claiming that AI literacy or religious moderation is an entirely new concept, but in articulating how these established domains can be coordinated within a single framework for Islamic Religious Education.

Conceptually, the framework also distinguishes between the technological means of learning and the educational purposes that guide their use. AI can support access to learning resources, individualized feedback, content development, and exploratory learning; however, these affordances do not independently guarantee religious understanding, ethical judgment, or moderate attitudes. Those outcomes depend on curriculum design, teacher guidance, the quality of learning resources, and the assessment of students' reasoning and conduct. By positioning AI as an enabling instrument rather than the ultimate objective of education, the framework retains the normative orientation of Islamic education while acknowledging the need to respond to technological change. The integration of the Pancasila Student Profile further provides a national curricular

reference through which critical reasoning, creativity, independence, mutual cooperation, and respect for diversity can be connected with the spiritual and moral purposes of IRE.

Accordingly, the framework contributes a basis for future theory development and empirical research rather than a completed or validated theory of curriculum effectiveness. Its potential contribution should be evaluated through further conceptual refinement, expert review, curriculum mapping, and empirical investigation. This qualification is important because the integration of four components into one model demonstrates conceptual coherence only if their relationships are clearly defined; it does not, by itself, establish causal relationships among the components or demonstrate improvements in student competence.

At the practical level, the proposed framework suggests that IRE curriculum development should address AI competence, information verification, religious moderation, and character formation across learning objectives, teaching materials, learning activities, and assessment. For example, students could examine AI-generated explanations of religious concepts, compare them with recognized Islamic sources, identify unsupported claims, and explain why particular interpretations require contextual analysis. Such activities could operationalize tabayyun as a digital information-verification practice while strengthening students' critical reasoning and awareness of the limitations of AI. Project-based assignments could also require students to produce responsible digital Islamic content, assess its accuracy, and demonstrate respect for different perspectives. These are proposed applications of the framework, not interventions whose effectiveness has already been demonstrated by this study.

For teachers, the findings indicate the importance of professional development that integrates AI literacy, digital pedagogy, religious knowledge, and ethical judgment. Teacher training should go beyond familiarization with digital platforms and include strategies for evaluating AI-generated outputs, protecting student data, acknowledging sources, preventing plagiarism, and facilitating balanced discussion of sensitive religious and social issues. Teachers also need clear institutional guidance regarding when AI use is appropriate, how students should disclose AI assistance, and which learning outcomes require independent demonstration of understanding. These measures can help maintain the role of teachers as pedagogical and ethical guides rather than allowing automated systems to determine religious content or learning judgments without human oversight.

At the institutional and policy levels, curriculum developers and education authorities could use the framework as a starting point for reviewing learning outcomes, teacher competency standards, digital learning resources, and assessment guidelines. Implementation should be sensitive to differences in infrastructure, teacher readiness, students' digital access, and the availability of reliable religious learning materials. Policies should therefore combine investment in digital infrastructure with professional development, ethical safeguards, accessible learning resources, and procedures for evaluating curriculum implementation. Academically, future research should examine the conceptual relationships among the four components, develop indicators for each component, and investigate whether their integration improves students' digital religious literacy, information-verification skills, critical reasoning, and understanding of religious moderation. Comparative studies across educational levels and institutional settings would also help determine how the framework should be adapted to different learning environments.

This study has several limitations that should be considered when interpreting its contribution. First, it employs a qualitative library research design and therefore relies on published literature, scholarly interpretations, and educational policy documents rather than primary data collected from teachers, students, curriculum developers, or Islamic educational institutions. The findings consequently provide a conceptual synthesis and proposed curriculum framework, not direct evidence that the integration of AI

competence, digital literacy, religious moderation, and the Pancasila Student Profile produces measurable improvements in student learning. Second, although the research methods describe searches across Google Scholar, Garuda, DOAJ, Scopus, and national journal portals, the manuscript does not report a reproducible search protocol, complete search strings, the number of records identified and screened, explicit inclusion and exclusion criteria, or a formal quality appraisal of the included studies. The breadth and potential selection bias of the literature therefore cannot be fully assessed. Third, the framework is situated within the Indonesian educational and sociocultural context, particularly the relationship between Islamic education and the Pancasila Student Profile. Its applicability to other national contexts or educational systems remains uncertain. Finally, the rapid development of AI technologies means that relevant capabilities, risks, and educational practices may change after the literature reviewed in this study was published.

Future research should address these limitations by adopting a transparent and reproducible literature-review protocol and by seeking expert validation of the proposed framework. Subsequent empirical studies could use qualitative interviews, classroom observations, surveys, design-based research, or mixed-method approaches to examine the framework's feasibility and implementation. Intervention studies could investigate whether curriculum activities based on AI-assisted source evaluation, tabayyun, and responsible digital content creation improve students' ability to verify religious information, reason critically, and engage respectfully with religious diversity. Further research should also explore teachers' readiness, institutional policy, access to technology, and potential risks associated with inaccurate AI-generated content. These steps would enable researchers to move from a conceptual model toward an evidence-informed curriculum framework whose educational value can be assessed across different institutional and learner contexts.

CONCLUSSION

Transformation of the Islamic Religious Education Curriculum in the era *Artificial Intelligence* is a necessity to address the challenges of 21st-century education, marked by the increasingly rapid development of digital technology. The research findings indicate that Islamic Religious Education (PAI) curriculum development is no longer solely oriented toward mastering religious knowledge, but must also integrate digital competencies, character building, and religious values relevant to the dynamics of a digital society. In this context, digital literacy, religious moderation, and the Pancasila Student Profile are three strategic components that complement each other in shaping students who are adaptive to changing times without losing their Islamic and national identities. This research found that the integration of digital literacy into the PAI curriculum plays a crucial role in equipping students with the ability to access, evaluate, verify, and utilize information critically, ethically, and responsibly. Meanwhile, religious moderation serves as a foundation for building a tolerant, inclusive, and anti-violent religious attitude amidst the increasing complexity of social interactions in the digital space. On the other hand, the integration of the Pancasila Student Profile strengthens the character dimension through the development of competencies of faith and piety to God Almighty, global diversity, independence, critical reasoning, creativity, and the ability to work together. The novelty of this research lies in the preparation of a conceptual model for the transformation of the Islamic Religious Education Curriculum which integrates four dimensions simultaneously, namely*Artificial Intelligence*, digital literacy, religious moderation, and the Pancasila Student Profile. This model offers a theoretical framework that can serve as a basis for developing an Islamic Religious Education (PAI) curriculum that is responsive to technological developments while remaining oriented toward strengthening character and Islamic values in the digital era.

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