



Islamic Education and The Society Era 5.0 (Opportunities and Challenges for Islamic Education Institutions)

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Abstract

This study examines how Islamic education institutions respond to the socio-educational transformation of the Society 5.0 era, marked by the growing use of artificial intelligence, digital platforms, learning management systems, and online religious resources. While these technologies expand access to learning and support pedagogical innovation, they also raise concerns about digital literacy gaps, source validity, academic integrity, spiritual depth, and ethical governance. Using a qualitative interpretive case study design, this study explores the opportunities and challenges of Society 5.0 in Islamic education institutions. Data were collected through in-depth interviews, limited observation, and document analysis involving institutional leaders, Islamic Religious Education teachers, students, administrative staff, and technology or curriculum managers. The data were analyzed using reflexive thematic analysis. The findings identify four interconnected themes: digital learning expansion as pedagogical transformation, negotiation between technological convenience and spiritual formation, institutional readiness as the foundation of digital transformation, and digital adab as an ethical framework for human-centered AI. These themes show that Society 5.0 does not merely change learning tools, but reshapes teacher-student relations, knowledge authority, curriculum adaptation, institutional governance, and the ethical meaning of digital practice. The study contributes by proposing human-centered Islamic digital education as a conceptual perspective that places technology within the framework of Islamic values, academic honesty, moral responsibility, spirituality, and public benefit. Practically, the study recommends strengthening AI ethics guidelines, teacher digital competence, student critical literacy, equitable access, and value-based institutional governance to ensure that digital transformation supports both educational innovation and spiritual formation in contemporary Islamic education contexts.

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INTRODUCTION

The development of Society 5.0 has changed the direction of educational transformation from technology-centered modernization to human-centered digital integration. In this era, artificial intelligence, big data, digital platforms, learning management systems, and communication technologies are no longer external tools, but have become part of how educational institutions organize learning, manage information, and shape student identity. For Islamic education institutions, this transformation carries a distinctive responsibility because education is not only directed toward knowledge acquisition and digital competence, but also toward the formation of tawhid, morality, spirituality, adab, and social responsibility. The presence of digital technology therefore requires Islamic education to respond creatively without losing its value-based orientation.

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Recent studies on AI in education show that digital technologies can expand learning access, support personalization, improve feedback, and strengthen institutional services, but they also require ethical governance and pedagogical clarity (Alfaleh, 2026; Damarched, 2025; Li & Zhang, 2025). Thus, Society 5.0 should be understood not merely as a technological era, but as a socio-educational transformation that requires Islamic education institutions to negotiate innovation, ethics, and spiritual depth.

Empirically, many Islamic education institutions have begun to integrate digital platforms, online learning resources, AI-based tools, learning videos, and administrative technologies into their daily practices. Islamic Religious Education teachers increasingly use digital media to deliver religious materials, while students are accustomed to searching for religious explanations through websites, social media, chatbots, and other online sources. This condition creates new opportunities for flexible learning, pedagogical innovation, broader access to Islamic knowledge, and more efficient institutional communication. However, it also produces serious challenges related to the validity of digital religious sources, unequal digital literacy, infrastructure gaps, AI-assisted plagiarism, data privacy, and the risk of reducing religious learning to instant information. These challenges are especially important because Islamic education depends on knowledge authority, teacher guidance, spiritual reflection, and ethical discipline. Without clear institutional direction, digital transformation may improve technical access but weaken the moral and reflective dimensions of Islamic learning.

The urgency of this study lies in the fact that Islamic education institutions occupy both a strategic and vulnerable position in the Society 5.0 era. They are strategic because they can prepare students to become digitally competent Muslims who are able to think critically, act ethically, and contribute to society. At the same time, they are vulnerable because not all institutions have sufficient infrastructure, teacher competence, curriculum readiness, or ethical guidelines for using AI and digital platforms. The use of generative AI in education has intensified debates about academic integrity, authorship, authenticity of learning, and students' dependence on automated answers (Kofinas et al., 2025; Peterson, 2025; Sevnarayan & Potter, 2024). These debates are highly relevant to Islamic education because academic honesty, trustworthiness, responsibility, and adab are central to the Islamic view of knowledge. Therefore, the integration of technology in Islamic education must be examined not only as a matter of efficiency, but also as a matter of value negotiation and institutional responsibility.

The importance of this topic is further strengthened by the changing relationship between teachers, students, and sources of religious knowledge. In traditional Islamic education, teachers play a central role as transmitters, interpreters, and moral guides in the learning process. In digital learning environments, however, students may access religious content directly from search engines, social media influencers, or AI-generated responses without always being able to assess their validity. This shift does not necessarily eliminate the teacher's role, but it requires teachers to become curators of knowledge, facilitators of critical digital literacy, and guardians of ethical learning. Studies on large language models in education indicate that AI can support learning when used critically, but it may also generate misinformation, shallow understanding, and overreliance if users lack sufficient guidance (Abd-alrazaq et al., 2023; Zhui et al., 2024). For this reason, Islamic education institutions need a framework that connects digital pedagogy with Islamic ethics, knowledge authority, and digital adab.

Previous studies have discussed Islamic education and Society 5.0 from several perspectives, including curriculum transformation, digital learning, AI integration, teacher readiness, and institutional challenges. Mutammam et al., (2024) emphasized opportunities for improving human resources, institutional marketing, modern Islamic paradigms, and funding in the Society 5.0 era. Nasution et al., (2025) showed that Society 5.0 provides opportunities for prospective Islamic Religious Education teachers to develop character-based competence, while Broo & Schooling, (2023) highlighted challenges related to facilities, technology access, digital skills, and infrastructure. Adnan, (2022) argued that Islamic education curricula need to integrate technology, AI, blended learning, and character formation, whereas Hinostroza et al., (2024) discussed curriculum transformation through digital tools, technological ethics, and inquiry-based learning. Gligorea et al., (2023); Hariyanto et al., (2025); Strielkowski et al., (2025); Suryanarayana et al., (2024) also showed that AI and digitalization can support adaptive learning, personalization, data management,

flexibility, and accessibility. These studies demonstrate that the topic has received growing scholarly attention, but the discussion is still dominated by general mapping of opportunities and challenges.

Despite these contributions, several limitations remain. First, many previous studies are conceptual, literature-based, or descriptive, so they do not sufficiently capture the lived experiences of educational actors in institutional settings. Second, studies that discuss AI in Islamic education often focus on its benefits for learning personalization and efficiency, but pay less attention to its implications for teacher-student relationships, knowledge authority, spiritual depth, and academic integrity. Third, the concept of digital adab has not been sufficiently developed as an analytical category for understanding ethical digital behavior in Islamic education. Fourth, existing studies rarely explain how institutional leaders, teachers, students, administrative staff, and technology managers negotiate differences in infrastructure, digital literacy, curriculum readiness, and Islamic values. This gap is significant because the success of Society 5.0 in Islamic education does not depend only on technological availability, but also on how institutions build ethical, pedagogical, and spiritual responses to digital change.

Based on these gaps, this study aims to explore the opportunities and challenges faced by Islamic education institutions in the Society 5.0 era, particularly in relation to digital pedagogy, AI use, institutional readiness, human resource capacity, knowledge authority, and Islamic ethics. More specifically, this study seeks to understand how educational actors interpret digital transformation and how they negotiate technological convenience with spiritual depth, academic honesty, and digital adab. Theoretically, this study contributes to contemporary Islamic education discourse by strengthening the idea of human-centered Islamic digital education, namely an approach that places human dignity, Islamic values, adab, morality, and public benefit at the center of technological transformation. Practically, this study offers insights for policymakers, institutional leaders, teachers, and technology managers in developing ethical digitalization strategies for Islamic education institutions. By positioning Society 5.0 as a field of institutional and value negotiation, this study argues that Islamic education should not merely adopt technology, but transform it into a medium for strengthening knowledge, ethics, spirituality, and social responsibility.

METHOD

Research Design

This study employed a qualitative approach with an interpretive case study design. This design was selected because the study aimed to understand how Islamic education institutions interpret, experience, and negotiate the opportunities and challenges of Society 5.0 in institutional practice. The focus of the study was not to measure statistical relationships among variables, but to explore meanings, experiences, institutional readiness, ethical concerns, and value negotiations related to digital pedagogy, artificial intelligence, and digital adab. A case study design was appropriate because the phenomenon of Society 5.0 is closely connected with the real context of Islamic education institutions, including learning practices, curriculum adaptation, institutional management, technological infrastructure, and teacher-student interaction (Abedi, 2024; Ong & Quek, 2023; Zainuddin et al., 2025). Through this design, the study examined digital transformation as a socio-educational process rather than merely as the adoption of technological tools.

Research Setting and Participants

The research was situated in Islamic education institutions that had begun to integrate digital technology into learning activities and institutional management. The institutional context included Islamic educational settings such as madrasahs, integrated Islamic schools, modern pesantren, or Islamic higher education institutions that used digital platforms, online learning resources, learning management systems, communication technologies, or AI-assisted tools. These institutions were relevant because they represented educational environments in which the opportunities and challenges of Society 5.0 could be observed directly.

Participants were selected using purposive sampling. The participant groups consisted of institutional leaders, Islamic Religious Education teachers or teachers of Islamic subject clusters, students, administrative staff, and technology or curriculum managers. These groups were chosen because they represented different perspectives on digital transformation: policy direction, classroom practice, student learning experience, administrative service, and technological

management. The number of participants ranged from 15 to 25 people, depending on data depth and the achievement of meaning saturation. The inclusion criteria were direct involvement in Islamic education institutions, experience with digital learning or digital institutional services, and willingness to participate voluntarily. Participants who were not directly involved in learning, administration, curriculum, or technology-related activities were not included.

Table 1. Participant Groups and Their Relevance to the Study

Participant group	Role in the study	Relevance
Institutional leaders	Provided information on institutional policy and digital transformation strategy	Explained institutional readiness, governance, and ethical direction
Islamic Religious Education teachers	Shared classroom experiences in using digital tools and AI-assisted resources	Explained digital pedagogy, source validation, and teacher-student interaction
Students	Described learning experiences in digital Islamic education	Explained access, digital learning habits, AI use, and challenges in understanding religious content
Administrative staff	Provided information on digital academic services	Explained institutional efficiency, communication systems, and administrative challenges
Technology or curriculum managers	Explained platform management and curriculum adaptation	Clarified technological support, curriculum integration, and institutional constraints

Table 1 shows that the study involved participants who were directly connected to the process of digital transformation in Islamic education institutions. The use of multiple participant groups was intended to provide a broader understanding of Society 5.0 from different institutional positions.

Research Instruments

Data were collected using semi-structured interview guidelines, observation sheets, and document analysis protocols. The interview guideline was designed to explore participants' understanding of Society 5.0, experiences in using digital technology, perceived opportunities, institutional challenges, AI use in learning, teacher readiness, student digital habits, validity of digital religious sources, academic integrity, and the meaning of digital adab. The observation sheet was used to record learning practices, digital media use, classroom interaction, technological facilities, and institutional support for digital learning. Document analysis focused on curriculum documents, learning materials, institutional guidelines, digital learning policies, and other relevant records related to technology use. These instruments were developed based on the research objectives, the conceptual framework of human-centered Islamic digital education, and prior studies on digital pedagogy, AI ethics, and Islamic education in Society 5.0.

Instrument Validation and Trustworthiness

The quality of the instruments was ensured through content validation and expert review. The interview guideline, observation sheet, and document analysis protocol were reviewed by experts in Islamic education, educational technology, and qualitative research. The purpose of this review was to ensure that the instruments were relevant to the research focus, clear in wording, and appropriate for the institutional context of Islamic education. Revisions were made to avoid leading questions, overly broad items, and unclear methodological indicators.

Trustworthiness was maintained through credibility, transferability, dependability, and confirmability, as suggested in qualitative research standards (Adler, 2022; Enworo, 2023; Janis, 2022). Credibility was strengthened through triangulation of interviews, observations, and documents, as well as confirmation of key information with selected participants. Transferability was supported by providing contextual descriptions of the institutional setting, participant groups, and digital learning practices. Dependability was maintained by documenting the stages of data collection, coding, categorization, and theme construction. Confirmability was supported through reflexive notes and an audit trail to ensure that interpretations were grounded in the data rather than in the researcher's assumptions.

Data Collection Procedure

Data collection was conducted in several stages. First, the researcher identified Islamic education institutions that had implemented digital technology in learning or institutional management. Second, institutional permission was obtained, and potential participants were informed about the aims, procedures, and ethical principles of the study. Third, semi-structured interviews were conducted with institutional leaders, teachers, students, administrative staff, and technology or curriculum managers. The interviews explored participants' experiences of digital transformation, the use of AI and digital platforms, opportunities for learning innovation, institutional constraints, ethical concerns, and the role of Islamic values in digital spaces.

Fourth, observations were conducted to examine how digital technology was used in learning activities, institutional communication, and academic services. Observation focused on the use of digital media, learning platforms, student engagement, teacher facilitation, and the availability of technological support. Fifth, relevant institutional documents were collected and analyzed to strengthen the interpretation of interview and observation data. All data were organized systematically through interview transcripts, observation notes, and document summaries. Participant identities and institutional names were anonymized before the analysis process.

Data Analysis

Data were analyzed using reflexive thematic analysis. This technique was selected because it enables researchers to identify, interpret, and develop patterns of meaning from qualitative data while remaining sensitive to participants' experiences and institutional contexts (Alhazmi & Kaufmann, 2022; Lim, 2025). The analysis followed six stages: data familiarization, initial coding, category development, theme construction, theme review, and analytical narrative writing. In the familiarization stage, interview transcripts, observation notes, and document excerpts were read repeatedly to understand the overall meaning of the data. Initial coding was then conducted by identifying meaningful units related to digital access, pedagogical innovation, AI use, teacher readiness, infrastructure, academic integrity, knowledge authority, spiritual depth, and digital adab.

The initial codes were grouped into categories and then developed into broader themes. Theme construction focused on the relationship between technological opportunities and ethical-spiritual challenges in Islamic education institutions. The emerging themes were reviewed by comparing them with interview data, observation notes, and document findings. The final interpretation was guided by the concept of human-centered Islamic digital education, which places human dignity, Islamic values, morality, academic honesty, institutional readiness, and public benefit at the center of digital transformation. This analytical process made it possible to explain Society 5.0 not only as a technological change, but also as a field of ethical, pedagogical, and institutional negotiation.

Conceptual Framework

The conceptual framework of this study positions Society 5.0 as a field of socio-educational transformation that enters Islamic education institutions through digital technology, artificial intelligence, digital platforms, curriculum change, institutional policy, and digital culture. These elements do not operate separately, but interact with institutional readiness, digital pedagogy, ethical awareness, Islamic values, and digital adab. Through this interaction, Society 5.0 becomes a context that reshapes learning practices, teacher-student relations, knowledge authority, and institutional governance. Therefore, the framework views digital transformation as a complex educational process rather than a simple technological shift.

This framework does not treat Society 5.0 as an independent variable that directly and linearly affects Islamic education. Instead, it understands Society 5.0 as a dynamic setting in which educational actors negotiate opportunities, challenges, values, and institutional capacities in daily practice. Leaders, teachers, students, administrative staff, and technology or curriculum managers are positioned as active actors who interpret and respond to digital change according to their roles and responsibilities. In this sense, the framework provides an analytical lens for explaining how human-centered Islamic digital education emerges from the interaction between technology, ethics, pedagogy, institutional readiness, and Islamic values.

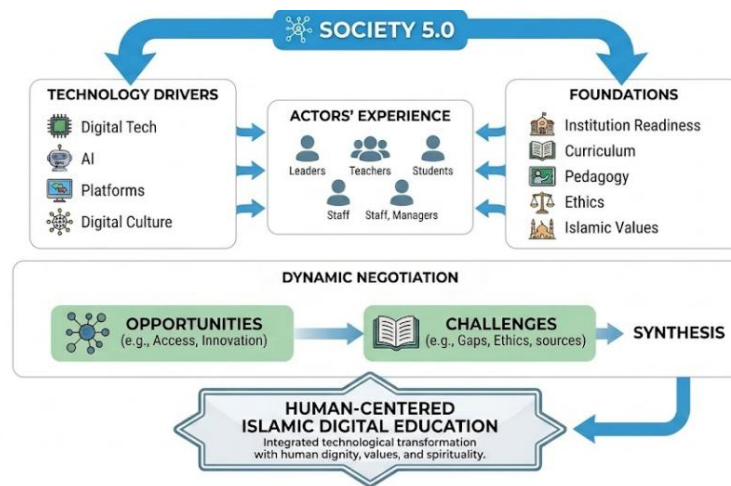


Figure 1. Conceptual Framework of Human-Centered Islamic Digital Education

Figure 1 is relevant to include in the method section because it clarifies the analytical logic used in the qualitative case study. However, the previous X-Y framework with H1–H13 should not be included because it implies a quantitative hypothesis-testing model. Since this study uses a qualitative interpretive case study design, the conceptual framework should function as an analytical lens, not as a statistical model.

Research Ethics

This study followed ethical principles in qualitative educational research. Participation was voluntary, and participants were informed about the purpose of the study, the data collection procedures, and their right to withdraw from the study. Informed consent was obtained before interviews and observations were conducted. Participant identities, institutional names, and sensitive information were anonymized to protect confidentiality. Data were stored securely and used only for academic purposes. The study also maintained academic integrity by presenting participants' views accurately, avoiding data manipulation, and ensuring that interpretations were supported by the collected data.

RESULTS AND DISCUSSION

Results

The thematic analysis indicates that the transformation of Islamic education institutions in the Society 5.0 era is not limited to the adoption of digital tools, online platforms, or artificial intelligence. The transformation appears as a multidimensional process involving pedagogical innovation, institutional adaptation, ethical governance, and spiritual formation. Four analytical themes were identified: digital learning expansion as pedagogical transformation, negotiation between technological convenience and spiritual formation, institutional readiness as the foundation of digital transformation, and digital adab as an ethical framework for human-centered AI. These themes are interconnected rather than separate findings. Together, they explain how Islamic education institutions respond to digital change while maintaining Islamic values, academic integrity, and the moral purpose of education.

Table 2. Development of Analytical Themes

Initial analytical focus	Analytical category	Final theme
Digital platforms, AI-assisted tools, online learning resources, and learning videos	Learning innovation	Digital Learning Expansion as Pedagogical Transformation
Fast access to information, AI-generated answers, and reduced reflection	Ethical-spiritual balance	Negotiating Technological Convenience and Spiritual Formation
Teacher competence, student literacy, infrastructure, curriculum, and policy	Institutional capacity	Institutional Readiness as the Foundation of Digital Transformation
AI ethics, source validation, academic honesty, privacy, and responsibility	Digital ethics	Digital Adab as an Ethical Framework for Human-Centered AI

Table 2 presents the development of the analytical themes. The table shows how the main findings were constructed from broader analytical focuses into more specific categories and final themes. This structure clarifies that the results do not stand as isolated descriptions, but as an integrated interpretation of digital transformation in Islamic education institutions. The themes also provide the foundation for the thematic model presented later in Figure 2.

The first theme, digital learning expansion as pedagogical transformation, shows that Society 5.0 broadens access to Islamic education through digital platforms, online learning resources, learning videos, and AI-assisted tools. These technologies allow Islamic learning materials to be accessed more flexibly and enable teachers to diversify instructional strategies. Students are no longer limited to classroom-based explanations because religious knowledge can also be encountered through digital media and online sources. This condition creates opportunities for Islamic education institutions to make learning more adaptive, interactive, and relevant to students' digital lives. However, digital access becomes educationally meaningful only when it is connected to clear pedagogical purposes. Technology therefore functions not merely as a delivery tool, but as a medium that must be directed toward understanding, reflection, and value formation.

Table 3. Dimensions of Digital Learning Expansion

Dimension	Educational implication
Digital learning platforms	Support flexible access to Islamic learning materials
AI-assisted tools	Help teachers and students search, organize, and develop learning resources
Learning videos	Provide varied media for explaining religious concepts
Online religious resources	Expand students' access to Islamic knowledge beyond the classroom
Digital communication channels	Strengthen interaction among teachers, students, parents, and institutional managers

Table 3 explains the main dimensions of digital learning expansion. The table shows that digital transformation is not represented by one single technology, but by several connected tools and practices. Each dimension contributes differently to the learning process, from flexible access to stronger institutional communication. Nevertheless, these dimensions require pedagogical control so that digital learning does not become merely information distribution.

The second theme concerns the negotiation between technological convenience and spiritual formation. Digital technology enables students to obtain explanations, summaries, and religious information quickly, but this convenience also creates potential risks. Easy access may reduce students' willingness to verify sources, compare interpretations, and engage in deeper reflection. In Islamic education, this issue is important because learning is not only about receiving information, but also about developing adab, moral discipline, spiritual awareness, and responsible understanding. The use of AI and digital platforms therefore needs to be guided so that efficiency does not weaken the formative character of Islamic learning. This theme shows that Society 5.0 creates a tension between speed and depth, between accessibility and verification, and between technological support and spiritual maturity.

Table 4. Educational Consequences of Digital Convenience

Positive consequences	Potential risks
Faster access to learning materials	Reduced reflection and verification
Flexible learning opportunities	Superficial understanding of religious concepts
AI-supported information retrieval	Dependence on automated answers
Wider exposure to religious content	Difficulty assessing the validity of sources
Efficient completion of academic tasks	Risk of plagiarism and weakened academic honesty

Table 4 illustrates the dual consequences of digital convenience. The table shows that the same technology can create both educational benefits and ethical risks. Faster access and flexible learning may support students' learning process, but they may also weaken reflection and academic integrity if not guided properly. For this reason, Islamic education institutions need to balance technological efficiency with spiritual depth and ethical learning discipline.

The third theme identifies institutional readiness as the foundation of digital transformation. The findings indicate that successful digital integration depends on teacher competence, student

digital literacy, infrastructure, curriculum adaptation, institutional policy, and technical support. Teachers need more than technical ability; they need digital pedagogical competence to select, adapt, and evaluate technology according to Islamic educational objectives. Students also need critical digital literacy so that they can assess religious content responsibly and avoid uncritical dependence on online sources or AI-generated answers. Infrastructure remains important, but it is not sufficient without institutional governance and curriculum alignment. This theme confirms that digital transformation is an institutional process, not merely an individual initiative by teachers or students.

Table 5. Institutional Readiness Dimensions

Dimension	Main concern	Institutional implication
Teacher competence	Unequal ability to use digital platforms and AI tools pedagogically	Continuous training in digital pedagogy and AI literacy
Student digital literacy	Difficulty verifying online religious sources	Strengthening critical literacy and source evaluation
Infrastructure	Unequal access to devices, internet, and platforms	Ensuring equitable and stable digital access
Curriculum adaptation	Technology use is not always integrated with learning outcomes	Aligning digital tools with Islamic values and curriculum goals
Institutional policy	Limited ethical guidelines for AI and digital platforms	Developing governance for ethical digitalization

Table 5 shows that institutional readiness consists of several interrelated dimensions. The table emphasizes that infrastructure alone cannot guarantee meaningful digital transformation. Teacher competence, student literacy, curriculum adaptation, and ethical policy are equally important. This means that Islamic education institutions need an integrated strategy that connects technology, pedagogy, ethics, and institutional management.

The fourth theme highlights digital adab as an ethical framework for human-centered AI. Digital adab refers to responsible behavior in digital spaces, including honesty in using AI, careful verification of religious sources, respectful communication, privacy protection, and awareness of moral accountability. This theme is central because Islamic education places knowledge within an ethical and spiritual framework. AI may help students and teachers access information, prepare materials, and support learning, but it can also create problems when used for plagiarism, unverified religious answers, or irresponsible communication. Digital adab therefore functions as a value-based mechanism that prevents technology from being used only for convenience. It helps ensure that digital transformation remains aligned with Islamic values, academic honesty, and public benefit.

Table 6. Components of Digital Adab

Component	Educational meaning
Honesty	Using AI and digital resources without plagiarism or manipulation
Source validation	Checking the credibility of online religious information
Respectful communication	Maintaining proper manners in digital interaction
Privacy protection	Safeguarding personal and institutional information
Responsibility	Using digital technology with moral awareness and accountability
Spiritual awareness	Ensuring that technology supports, rather than replaces, reflective Islamic learning

Table 6 presents the core components of digital adab. The table shows that ethical digital behavior in Islamic education is broader than avoiding plagiarism. It includes source credibility, communication ethics, privacy, responsibility, and spiritual awareness. These components position digital adab as an essential foundation for human-centered Islamic digital education.

The cross-theme analysis shows that the four themes are mutually connected. Digital learning expansion creates new educational opportunities, but these opportunities also generate risks related to superficial learning, weak verification, and academic dishonesty. Institutional readiness determines whether digital tools are used as meaningful pedagogical resources or merely as technical instruments. Digital adab then functions as the ethical foundation that connects technological innovation with Islamic values. In this sense, Society 5.0 is not only a technological shift, but also a test of institutional capacity, pedagogical wisdom, and ethical-spiritual orientation. The

findings therefore suggest that Islamic education institutions need an integrated model that balances access, readiness, ethics, and spirituality.

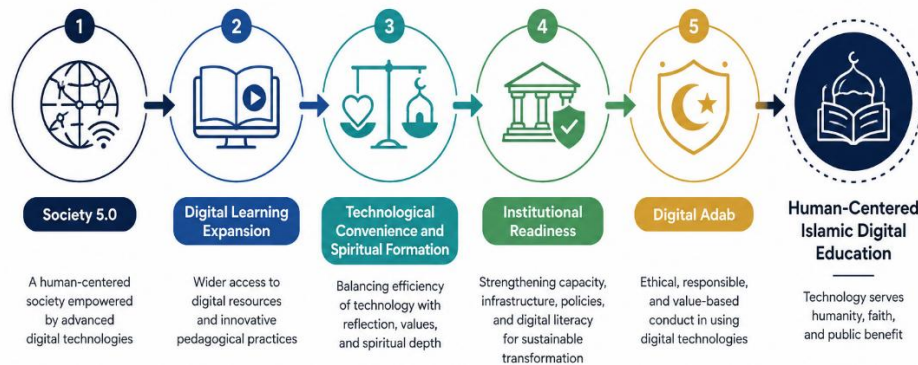


Figure 2. Thematic Model of the Results

Figure 2 presents the thematic model of the results. The model shows that Society 5.0 first creates opportunities for digital learning expansion, but this expansion also produces tensions between technological convenience and spiritual formation. Institutional readiness becomes the condition that determines whether digital transformation can be managed effectively. Digital adab then functions as the ethical foundation that directs the use of AI and digital platforms toward human-centered Islamic digital education.

Based on the synthesis of the four themes, this study proposes that the successful implementation of Society 5.0 in Islamic education does not depend primarily on technological sophistication. It depends on the institution's ability to integrate digital innovation with pedagogical quality, ethical governance, spiritual formation, and Islamic values. Human-centered Islamic digital education therefore emerges as a multidimensional institutional framework rather than merely a technological strategy. This framework positions technology as a means of strengthening learning, morality, academic integrity, and public benefit. The main analytical proposition of this study is that digital transformation in Islamic education becomes meaningful only when technological advancement is guided by institutional readiness and digital adab.

Discussion

The expansion of digital Islamic learning in the Society 5.0 era shows that technology has become an important medium for widening access, enriching learning resources, and connecting Islamic education with students' everyday digital environments. However, this finding should not be interpreted as evidence that technology automatically improves the quality of Islamic learning. Digital platforms, learning videos, and AI-assisted tools only become pedagogically meaningful when teachers are able to organize them into reflective, dialogical, and value-oriented learning experiences. This supports previous studies showing that AI and adaptive digital systems can strengthen personalization, flexibility, and learning support when they are embedded in sound pedagogical design (Gligorea et al., 2023; Hariyanto et al., 2025; Strielkowski et al., 2025). The present study extends those findings by showing that, in Islamic education, access to digital knowledge must be accompanied by epistemic responsibility, source verification, and teacher guidance. Therefore, the contribution of Society 5.0 is not merely the expansion of learning access, but the possibility of developing a more critical and ethically guided form of digital Islamic learning.

The tension between technological convenience and spiritual depth indicates that the use of AI, search engines, and online platforms produces both efficiency and pedagogical risk. On the one hand, students can obtain explanations, summaries, and religious information more quickly than before. On the other hand, this convenience may encourage dependence on instant answers, reduce critical verification, and weaken the reflective process that is central to Islamic education. This finding is consistent with studies on generative AI and academic integrity, which warn that AI use can affect authorship, authenticity of learning, and students' independent reasoning (Kofinas et al., 2025; Peterson, 2025; Sevnarayan & Potter, 2024). In the context of Islamic education, the issue is even more complex because learning is not only cognitive, but also moral and spiritual. Thus, this study expands the discussion of AI ethics by arguing that technological efficiency must be evaluated

through the deeper aims of Islamic learning, namely adab, honesty, responsibility, and spiritual formation.

Institutional readiness emerged as a decisive factor in determining whether digital transformation strengthens or weakens Islamic education institutions. The findings show that readiness cannot be reduced to the availability of devices, internet access, or digital platforms. It also includes teacher competence, student digital literacy, curriculum adaptation, institutional policy, technical support, and ethical governance. This finding is in line with studies emphasizing that technology integration depends on the alignment between teacher capacity, institutional support, and educational policy (Abedi, 2024; Li & Zhang, 2025; Ong & Quek, 2023). However, this study adds a more specific argument: in Islamic education, institutional readiness must also include the ability to protect academic integrity, preserve Islamic values, and guide students in assessing the validity of digital religious sources. Therefore, the success of Society 5.0 in Islamic education depends not only on technological modernization, but on the institution's capacity to build an integrated ecosystem of digital pedagogy, ethical regulation, and spiritual orientation.

The finding on digital adab provides the most distinctive contribution of this study. Digital adab refers to responsible conduct in digital spaces, including honesty in using AI, careful verification of online religious sources, respectful communication, privacy protection, and moral accountability in producing or using digital information. This concept strengthens existing discussions on AI ethics by grounding them in Islamic educational values. Previous studies have examined adaptive learning, academic integrity, digital transformation, and AI-supported education (Alfaleh, 2026; Gligorea et al., 2023; Suryanarayana et al., 2024), but they rarely explain digital ethics through the Islamic category of adab. By placing digital adab at the center of the analysis, this study offers a more context-sensitive framework for understanding how Islamic education institutions can respond to AI and digital platforms. Practically, this implies that Islamic education institutions need ethical digitalization guidelines that do not only regulate technology use, but also cultivate honesty, caution, humility, responsibility, and respect for knowledge.

The different meanings of Society 5.0 among institutional leaders, teachers, students, administrative staff, and technology or curriculum managers show that digital transformation is a multi-actor and negotiated process. Leaders tend to understand it as institutional adaptation and governance, teachers experience it as a pedagogical and moral challenge, students view it as access and learning support, while staff and technology managers relate it to service efficiency and platform management. This finding supports previous studies on Islamic education transformation that emphasize curriculum adaptation, digital literacy, and institutional strategy in responding to future competency demands (Adnan, 2022; Mutammam et al., 2024; Nasution et al., 2025; Zainuddin et al., 2025). Nevertheless, this study moves beyond general descriptions of opportunities and challenges by showing that Society 5.0 is not experienced uniformly within Islamic education institutions. Its meaning is shaped by institutional roles, levels of digital competence, access to resources, and ethical awareness. Therefore, human-centered Islamic digital education can be understood as a conceptual bridge that connects technological innovation, institutional readiness, digital adab, spiritual depth, and public benefit in the era of Society 5.0.

CONCLUSION

This study concludes that the transformation of Islamic education institutions in the Society 5.0 era is not merely a process of adopting digital technology, AI-assisted tools, or online learning platforms. Rather, it is a multidimensional educational transformation shaped by digital learning expansion, the negotiation between technological convenience and spiritual formation, institutional readiness, and digital adab. These findings indicate that technology can broaden access, support pedagogical innovation, and improve institutional efficiency, but its educational value depends on teacher mediation, ethical governance, curriculum alignment, and the preservation of Islamic values.

The main contribution of this study is the formulation of human-centered Islamic digital education as a conceptual perspective for understanding digital transformation in Islamic education institutions. This perspective positions technology as a means to strengthen knowledge, morality, spirituality, academic integrity, and public benefit, rather than as an educational goal in itself. Within this framework, digital adab serves as a key ethical foundation for ensuring that AI and digital

platforms are used responsibly, honestly, critically, and reflectively. Therefore, Islamic education institutions need to move beyond technical digitalization toward ethical digital transformation that integrates infrastructure, teacher digital competence, student digital literacy, curriculum adaptation, and value-based institutional governance.

Practically, this study suggests that Islamic education institutions should develop clear guidelines for AI use, strengthen teachers' digital pedagogical competence, improve students' critical digital literacy, and ensure equitable access to digital learning resources. Institutional leaders also need to establish policies that protect academic honesty, support the validation of digital religious sources, and maintain the spiritual depth of learning. Future research should examine this framework through comparative empirical studies across madrasahs, pesantren, Islamic schools, and Islamic higher education institutions to test its applicability, refine its dimensions, and strengthen its contribution to global debates on ethical and human-centered digital education.

AUTHOR CONTRIBUTIONS STATEMENT

Muhammad Mukhlis Nasrullah conceived and designed the study, developed the research framework, conducted the literature review, designed the methodology, collected and analyzed the data, interpreted the findings, developed the conceptual model, drafted the manuscript, critically revised its intellectual content, and approved the final version of the manuscript for publication. The author takes full responsibility for the integrity, accuracy, and originality of the research and confirms that all stages of the study were conducted in accordance with accepted academic and ethical standards.

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