

Islamic Education Institutional Reform: An Analysis of Challenges and Opportunities in the Digitalization Era

Maftuhah¹, Khoeron², Umi Rosidah³, Richway⁴, Mira Rahmayanti⁵, Tobroni⁶, Faridi⁷

¹ Universitas Muhammadiyah Malang, Indonesia; kireina1704@gmail.com

² Institute of Islamic Studies Muhammadiyah Pacitan, Indonesia; abuhalim271@gmail.com

³ Al Quran Al Ittifaqiah Islamic Religious Institute, Indonesia; umirosidah1234@gmail.com

⁴ STIT YPI Lahat, Indonesia; richway@stitypilahat.ac.id

⁵ Universitas Muhammadiyah Tapanuli Selatan, Indonesia; mira.rahmayanti@um-tapsel.ac.id

⁶ Universitas Muhammadiyah Malang, Indonesia; tobroni_umm.ac.id

⁷ Universitas Muhammadiyah Malang, Indonesia; faridi_umm.ac.id

ARTICLE INFO

Keywords:

Islamic education;
institutional reform;
digitalization;
educational transformation;
digital literacy

Riwayat article:

Receive 2024-12-18

Revised 2025-03-28

Accepted 2025-08-28

ABSTRACT

The rapid advancement of digital technology has significantly transformed the education sector, including Islamic educational institutions. These institutions are urged to adapt through institutional reform to remain relevant in the digital era. This study employed a qualitative approach using literature review and participatory observation. Data were collected from relevant academic publications (2019–2024), institutional reports, and observations at selected Islamic educational institutions. The findings reveal that Islamic educational institutions face several challenges in the digitalization process, including the digital divide, resistance to change, limited infrastructure, and insufficient digital competencies among teachers. However, the digital era also presents substantial opportunities, such as broader access to learning resources, flexible learning environments, improved institutional management, and global collaboration. Institutional reform in Islamic education requires strategic efforts such as infrastructure development, human resource digital literacy enhancement, curriculum integration with digital competencies, and the use of digital platforms for da'wah and religious moderation. These efforts are essential to maximize the potential of digital transformation while maintaining Islamic values.

This is an open access article under [a CC BY-NC-SA license](https://creativecommons.org/licenses/by-nc-sa/4.0/).



Correspondence Author:

Maftuhah

Universitas Muhammadiyah Malang, Indonesia; kireina1704@gmail.com

1. INTRODUCTION

The rapid advancement of digital technology in the 21st century has ushered in a new era that has profoundly transformed various aspects of human life, including the education sector. This transformation, commonly referred to as the digital era, has redefined educational delivery, management

systems, and pedagogical paradigms. Public and religious-based educational institutions alike, including Islamic educational institutions, are increasingly compelled to adapt their organizational structures and instructional models to remain relevant and competitive in the face of these technological shifts (Susyanto, 2022). The integration of digital technologies in education is no longer a complementary option but a fundamental requirement for institutional sustainability and relevance.

In the Indonesian context, Islamic education holds a strategic role in shaping the moral and ethical character of the younger generation. Institutions such as madrasas and pesantren have historically contributed to religious and civic formation, serving as cultural and intellectual centers for Muslim communities (Asror, Bakar, & Fuad, 2023). However, the increasing pace of globalization and technological innovation necessitates significant institutional reform within these institutions. Without adapting to digital advancements, Islamic education risks falling behind, particularly in delivering relevant and high-quality education to contemporary learners.

Digitalization has dramatically altered the landscape of human interaction and knowledge exchange. Education, as a knowledge-intensive sector, is especially vulnerable to this shift. The proliferation of e-learning platforms, open educational resources (OER), cloud-based academic management systems, and mobile learning applications have transformed not only the medium of education but also the competencies required of educators and learners (Saraswati et al., 2022). Consequently, Islamic educational institutions are expected to integrate digital infrastructures while preserving their foundational values rooted in Islamic epistemology and pedagogy.

The dual nature of the digital era presents both opportunities and challenges. On the one hand, digitalization offers a range of advantages, such as wider access to global knowledge, time-space flexibility, rapid dissemination of information, cost efficiency, and the ability to engage with diverse scholarly networks across the globe (Yusof, 2020). Furthermore, digital tools can aid in the visualization of abstract Islamic concepts, promote interactive learning, and support institutional management systems. These affordances open avenues for innovation within traditional Islamic education.

On the other hand, the process of digital transformation is fraught with several structural and cultural barriers. Among the most prominent challenges are unequal access to technology (digital divide), limited digital literacy among educators and students, cultural resistance to change, and the high cost of infrastructure development (Tsani, Efendi, & Sufirmansyah, 2020). In addition, discrepancies in regulatory frameworks between central and local governments further complicate the implementation of digital initiatives. Such challenges often impede the ability of Islamic institutions—particularly those in rural or underdeveloped regions—to fully embrace and benefit from the digital transition.

Moreover, Islamic education has traditionally maintained a conservative pedagogical model that prioritizes classical texts and in-person transmission of knowledge (*ta'lim wa ta'allum*). The sudden shift to digital platforms raises concerns about the preservation of religious values, the authenticity of knowledge transmission, and the ethical use of technology (Mahlani, Ilyas, Pilo, & Mahmud, 2020). Therefore, institutional reforms must be designed not only to facilitate technical adaptation but also to ensure alignment with the theological, moral, and philosophical underpinnings of Islamic education.

In addition to digitalization, globalization has exerted a significant influence on Islamic education. While globalization introduces exposure to diverse ideas and intercultural engagement, it also poses a risk of eroding local and religious identities if not critically navigated. According to Dacholfany (2015), Islamic education can either resist or embrace globalization, depending on how its actors interpret and respond to global influences. Scholars such as Ismael and Supratman (2023) argue that globalization can be harnessed positively when Islamic institutions critically engage with it to foster inclusive, tolerant, and globally competent Muslim communities.

The convergence of globalization and digitalization thus creates a complex environment for Islamic educational institutions. Reform is no longer optional but imperative, particularly in efforts to align Islamic education with global standards of educational quality without compromising its core identity. As Ummah (2019) emphasizes, the objective of Islamic education in this era must extend beyond rote

learning and religiosity to producing intellectually capable, morally upright, and technologically literate individuals who can contribute meaningfully to society.

In light of these transformations, this study explores the institutional reform of Islamic education in the digital age by examining the key challenges and opportunities that arise in the process. Using a qualitative method that combines literature analysis with participatory observation, the research seeks to map out the strategic responses required for Islamic educational institutions to remain relevant and impactful in a digitally-driven world. It is imperative for scholars and practitioners to understand not only how to integrate digital tools into Islamic education but also how to reconcile technological advancements with the preservation of Islamic values and pedagogical authenticity.

2. METHOD

This study employed a qualitative research design, which is appropriate for exploring complex social phenomena in depth, particularly those related to institutional adaptation and reform within Islamic education in the digital era. The research combined library research (literature review) and participatory observation to gather both conceptual insights and contextual field data.

2.1. Research Approach and Design

The qualitative approach was chosen to provide a comprehensive and interpretative understanding of the reform dynamics in Islamic educational institutions facing the challenges of digital transformation. This design allows researchers to explore social meanings, institutional behaviors, and stakeholder perspectives that are not easily quantifiable but are essential in understanding systemic reform processes.

2.2. Data Collection Techniques

The research utilized two primary methods of data collection:

2.2.1 Literature Study

The literature review involved analyzing scholarly publications, including peer-reviewed journal articles, academic books, policy documents, and institutional reports relevant to the topic. The sources were selected based on relevance to Islamic education and digital transformation, with a publication range limited to 2019–2024 to ensure contemporary relevance. This review helped establish the theoretical and conceptual framework of the study, including current discourses on institutional reform, digital pedagogy, and education management in Islamic contexts.

2.2.2 Participatory Observation and Informant Interviews

Field observation was conducted through participatory involvement in selected Islamic educational institutions in Lamongan Regency, East Java, where digital adaptation processes are actively unfolding. The researcher observed institutional activities, stakeholder interactions, and policy implementations related to digitalization.

In addition, semi-structured interviews were conducted with five informants representing various roles within Islamic educational institutions (e.g., school principals, IT staff, curriculum developers, and teachers). The informants were selected through purposive sampling to represent diverse perspectives on the opportunities and challenges of digital reform in their respective institutions (Nasri & Rahmatullah, 2023).

2.3. Data Analysis Procedure

The collected data were analyzed using a descriptive-qualitative approach. Data from literature and field observations were coded thematically and categorized into two main domains: (1) institutional challenges in digital transformation, and (2) strategic opportunities for innovation and reform. The data were then interpreted to map the patterns of adaptation strategies employed by the institutions, and to identify best practices as well as barriers (Susyanto, 2022).

2.4. Research Context and Validity

The study focused specifically on Islamic educational institutions in rural and semi-urban areas, where the digital divide and institutional readiness pose unique challenges. Field observations revealed that many institutions are still in the early stages of digital transformation and require systematic socialization and capacity building to prepare their human resources for technological integration.

To enhance the credibility and trustworthiness of the findings, triangulation was applied by comparing literature findings, field observations, and informant testimonies. In addition, reflective field notes and documented policy practices from the schools were used to support the analysis and interpretation.

3. FINDINGS AND DISCUSSION

3.1. Challenges of Islamic Education Institutional Reform in the Digitalization Era

Islamic education has historically played a pivotal role in shaping the ethical, moral, and spiritual character of Muslim youth. However, the emergence of the digital era has brought about structural shifts in educational delivery, communication models, and institutional governance. These transformations challenge Islamic educational institutions—especially those with traditional and conservative pedagogical frameworks—to undergo institutional reform to remain relevant and competitive in a digitally connected world (Susyanto, 2022).

Digitalization in education is broadly understood as the integration of digital technologies—such as e-learning platforms, mobile devices, online media, and virtual classrooms—into the teaching and learning ecosystem. In the context of Islamic education, this transformation has the potential to support wider dissemination of religious knowledge, facilitate interactive learning, and expand access to educational resources across geographic boundaries (Johan et al., 2024). Nonetheless, the implementation of digitalization within Islamic institutions is fraught with several complex and interrelated challenges.

3.1.1 The Digital Divide

One of the foremost obstacles in Islamic education reform is the digital divide—the unequal access to digital infrastructure and resources between urban and rural institutions. Many Islamic schools and pesantren located in remote or underdeveloped areas lack adequate internet connectivity, digital devices, and IT support systems. This inequality exacerbates the educational gap, limiting access to quality learning opportunities and hindering digital transformation (Firdaus, Asrori, Hakim, & Anggraini, 2024; Hasanah & Sukri, 2023).

Geographical constraints, such as those experienced in Indonesia's 3T areas (frontier, outermost, and disadvantaged regions), further complicate infrastructure development due to poor road access and limited electricity networks (Sholeh & Efendi, 2023). Without substantial government intervention and affordable internet access, achieving the goals of Indonesia's Digital Vision 2045 will remain elusive for Islamic education institutions in peripheral regions (Syafiq, Davina, Butar, et al., 2024).

3.1.2 Curriculum Adaptation

The integration of digital literacy and 21st-century competencies into Islamic education curricula presents another major challenge. Many traditional Islamic institutions still rely on classical learning models (turāth), which prioritize rote memorization and teacher-centered instruction. While these models serve important epistemological functions, they often lack compatibility with contemporary educational paradigms that emphasize critical thinking, collaboration, and digital fluency (Zulkarnaen & Permana, 2022).

Curriculum reform must strike a balance between preserving Islamic tradition and embracing technological innovation. However, this is difficult to achieve without adequate resources, teacher training, and regulatory support. As Hermawan, Hadi, Rizkia, and colleagues (2023) note, digital

transformation in education also requires significant investments in policy innovation, stakeholder engagement, and technical infrastructure.

3.1.3 Teacher Competency in Digital Pedagogy

A critical barrier to successful reform is the limited digital competence of educators. Many teachers in Islamic institutions are not adequately trained to use digital technologies for instructional purposes. This lack of preparedness stems from limited exposure, low digital literacy, and a disconnect between technological tools and traditional teaching methods (Hajri, 2023; Rizfani, Mauladi, & Wardana, 2024).

Moreover, the challenge is not merely technical but pedagogical. Effective digital integration requires a shift in mindset and the development of blended learning strategies that are both pedagogically sound and aligned with Islamic values. Teacher professional development programs that focus on educational technology, online content development, and virtual classroom management are essential for sustainable reform (Bassar, Ruswandi, et al., 2021).

3.1.4 Institutional Resistance to Change

Resistance to change remains a prevalent issue, particularly in pesantren and other traditional Islamic institutions. These institutions often prioritize the preservation of established religious pedagogies and view technological innovation with skepticism. The influence of senior religious leaders (kyai) and entrenched institutional norms can lead to resistance against adopting modern educational reforms (Ma'arif & Nursikin, 2024).

Such resistance is not unfounded, as concerns often center around maintaining the authenticity of Islamic teachings and protecting students from digital content that may conflict with Islamic values. However, this conservative stance can hinder innovation if not addressed through participatory leadership, inclusive policy design, and gradual implementation models that respect traditional structures while fostering change (Syifa & Ridwan, 2024).

3.1.5 Digital Ethics and Cybersecurity

The digitalization of Islamic education also introduces concerns regarding digital ethics, security, and moral integrity. Given that Islamic education places a strong emphasis on akhlaq (morality) and adab (etiquette), the exposure of students to online environments must be accompanied by proper guidance on ethical internet use, content filtering, and responsible digital citizenship (Irfan, Aaron, & Latif, 2023).

Cybersecurity risks—such as data breaches, misinformation, and exposure to inappropriate content—pose real threats to students and institutional integrity. As such, Islamic education reform must incorporate modules on digital ethics, information validation, and media literacy into its curriculum. Training programs must also equip educators and administrators with strategies to manage digital platforms in ways that align with Islamic ethical principles (Mustopa & Iswantir, 2023; Suwahyu, 2024).

These five challenges—technological inequality, curriculum rigidity, limited teacher readiness, institutional conservatism, and ethical risks—illustrate the multidimensional nature of Islamic education reform in the digital age. Reform efforts must therefore adopt a holistic and context-sensitive approach, taking into account not only infrastructural needs but also the epistemological and cultural frameworks of Islamic education.

While some institutions have begun to pilot technology-based initiatives, the scale of reform remains limited, especially among pesantren and madrasas in rural areas. To ensure the success of reform, stakeholders—including government agencies, religious organizations, educational leaders, and community members—must work collaboratively to create an ecosystem of support that facilitates both technological innovation and religious continuity.

3.2. Opportunities of Digitalization in Islamic Education Institutional Reform

While digitalization presents multiple challenges for Islamic education, it simultaneously opens up substantial opportunities to improve quality, access, and institutional efficiency. Islamic educational institutions—if adequately supported—can leverage digital technology to reform their systems and practices in alignment with global educational standards without compromising religious values. The following are key opportunities identified in this transformation:

3.2.1 Broader Access to Educational Resources

Digitalization significantly enhances access to global educational content. Through online platforms, students and educators in Islamic institutions can access a wide range of resources such as e-books, scholarly articles, instructional videos, and open courseware from around the world. This helps reduce dependence on limited local resources and promotes knowledge diversity. According to Yusof (2020), the availability of digital materials allows for personalized and self-paced learning, thus supporting educational equity, especially for institutions in rural or underserved areas.

3.2.2 Flexible and Asynchronous Learning

Technology enables Islamic education to move beyond the confines of traditional classroom-based instruction. E-learning platforms and mobile applications facilitate learning that is flexible in both time and space, which was especially evident during the COVID-19 pandemic when institutions had to rapidly adopt remote learning models. This flexibility also benefits female students and learners with limited mobility, thereby contributing to more inclusive education systems.

3.2.3 Cross-Institutional and Global Collaboration

Digital platforms facilitate inter-institutional collaboration both domestically and internationally. Islamic educational institutions can now engage in joint research, online seminars, student exchange programs, and teacher development activities with partners across the globe. These collaborations can foster intellectual pluralism and intercultural dialogue within Islamic education (Wahid, 2019).

3.2.4 Institutional Management Efficiency

Digital tools and information systems also enhance the administrative and managerial capabilities of Islamic educational institutions. With education management information systems (EMIS), schools and madrasas can streamline data management, monitor academic performance, manage finances more transparently, and improve communication among stakeholders. Digital dashboards and cloud-based services can improve decision-making and institutional accountability.

Collectively, these opportunities underline the potential of digitalization to serve as a catalyst for modernizing Islamic education, ensuring it remains responsive to the evolving needs of learners in the 21st century.

3.3. Strategic Reform Initiatives in the Digitalization Era

To fully realize the benefits of digitalization, Islamic educational institutions must adopt strategic and structured reform initiatives. These reforms should not only address infrastructural needs but also reconfigure pedagogical approaches and institutional culture. The following are four key strategies proposed for effective institutional reform in the digital era:

3.3.1 Transformation of Technological Infrastructure

A foundational step in digital reform is the establishment of reliable technological infrastructure. This includes stable internet connectivity, sufficient hardware (computers, tablets, projectors), and educational software. Hidayat (2020) emphasizes that without robust infrastructure, digitalization efforts will be fragmented and unsustainable. Institutions must prioritize investments in smart classrooms, cloud-based systems, and secure learning management systems (Nasir, 2022). For instance, some modern

pesantren have begun equipping their classrooms with high-speed internet and multimedia devices to support digital learning integration.

3.3.2 Digital Human Resource Development

Technology adoption is ineffective without technologically literate educators and administrators. Therefore, human resource development is a critical pillar of institutional reform. This includes continuous training in digital pedagogy, certification in educational technologies, and the promotion of a growth mindset among teachers (Zuhdi, 2021). Schools must institutionalize professional development programs to equip staff with the skills required to use and innovate with digital tools. For example, many pesantren have started organizing workshops on platforms such as Google Classroom and developing hybrid (blended) learning strategies.

3.3.3 Curriculum Innovation Based on Technology and 21st-Century Skills

A digital era demands a contextualized and forward-looking curriculum. The Islamic education curriculum must go beyond traditional religious subjects by integrating digital literacy, coding, critical thinking, media ethics, and other 21st-century competencies. Tilaar (2021) argues that Islamic education must evolve into a holistic model that balances spiritual depth with technological awareness. Examples of this innovation include pesantren that offer subjects like graphic design, video editing, or introductory programming as part of their formal curriculum.

3.3.4 Utilization of Digital Platforms for Da'wah and Religious Moderation

Digital media offers a strategic avenue for spreading moderate Islamic teachings and countering radical or intolerant narratives. Through podcasts, social media, webinars, and YouTube channels, Islamic institutions can reach broader audiences, especially youth, with messages of tolerance, peace, and inclusivity (Azra, 2019). This strategy not only fulfills educational functions but also aligns with national goals of strengthening religious moderation. Many pesantren and Islamic universities have successfully created digital da'wah content and partnered with influencers to promote ethical Islamic values online.

The digitalization of Islamic education presents a dual landscape: one of urgent challenges and expansive opportunities. While digital inequality, limited teacher readiness, and resistance to change hinder progress, the transformative potential of technology can drive institutional innovation, inclusivity, and excellence in Islamic education.

The strategies discussed above—spanning infrastructure, human capital, curriculum, and outreach—should form the backbone of any digital-era reform policy. Importantly, reform must be context-sensitive, balancing the integration of technology with the preservation of Islamic pedagogical identity. Sustainable institutional transformation will require cross-sectoral collaboration, long-term vision, and a commitment to capacity building across all levels of Islamic educational leadership.

4. CONCLUSION

This study has examined the transformative role of digitalization in Islamic education, identifying both its potential to enhance institutional relevance and the significant challenges it poses. The main findings highlight that digital technologies offer meaningful opportunities to improve access to knowledge, enable flexible and collaborative learning, and strengthen institutional management. However, several persistent barriers—such as unequal access to digital infrastructure, limited teacher readiness, rigid curricula, and cultural resistance—continue to impede effective reform. While this research provides valuable insights, it is limited by its reliance on literature analysis and a small number of informants from a specific regional context, which may not fully capture the diversity of Islamic educational settings across Indonesia or other Muslim-majority countries. Future research should consider broader empirical studies involving comparative case analyses, longitudinal data, or mixed-methods approaches to examine how institutional reform unfolds across different educational

ecosystems. Moreover, exploring the role of student agency, community involvement, and policy interventions in shaping digital transformation could provide a more comprehensive understanding of sustainable reform in Islamic education.

REFERENCES

- Asror, M., Bakar, M. Y. A., & Fuad, A. Z. (2023). Modernism of Islamic education in the thought of Mahmud Yunus: Analysis and its relevance in improving the quality of Indonesian Islamic education in the Society Era 5.0. *Al-Thariqah: Journal of Islamic Studies*, 8(1).
[https://doi.org/10.25299/al-thariqah.2023.vol8\(1\).11693](https://doi.org/10.25299/al-thariqah.2023.vol8(1).11693)
- Bassar, A. S., Ruswandi, U., & [Author Missing]. (2021). Islamic education: Opportunities and challenges in the global and multicultural era. *Religious Education*. <http://ejournal.uin-malang.ac.id/index.php/jpai/article/view/9577>
- Dacholfany, M. I. (n.d.). Islamic education reform in the face of the era of globalization: A challenge and hope. [Journal name missing].
- Firdaus, A., Asrori, A., Hakim, D. A., & Anggraini, H. (2024). The implementation of a technology-based Islamic education management model in improving teacher performance in the digital era. *Unisan Journal*. <http://journal.an-nur.ac.id/index.php/unisanjournal/article/view/2082>
- Habibi, F. (2020). Mapping of bureaucratic reform research in Indonesia. *Journal of Borneo Administrator*, 16(2), 199–230. <https://doi.org/10.24258/jba.v16i2.695>
- Hajri, M. F. (2023). Islamic education in the digital age: Challenges and opportunities in the 21st century. *Al-Mikraj: Journal of Islamic Studies and Humanities*.
<https://ejournal.insuriponorogo.ac.id/index.php/almikraj/article/view/3006>
- Hasanah, U., & Sukri, M. (2023). Implementation of digital literacy in Islamic education: Challenges and solutions. *Equilibrium: Educational Journal*.
<https://ojs3.unismuh.ac.id/index.php/equilibrium/article/view/10426>
- Hermawan, A. A., Hadi, I., Rizkia, M., & [Author Missing]. (2023). Islamic religious management in the digital era: Challenges and opportunities for the millennial generation. *Islamic Education*.
<http://maryamsejahtera.com/index.php/Education/article/view/587>
- Irfan, M., Harun, S., & Latif, T. F. D. (2023). Improving the quality of Islamic education in the digital era: Opportunities and challenges. *Mount Djati Conference Series*.
<http://www.conferences.uinsgd.ac.id/index.php/gdcs/article/view/2006>
- Ismael, F., & Supratman. (2023). Islamic education strategy in the digital era: Opportunities and challenges. *INNOVATIVE: Journal of Social Science Research*, 3(3), 4526–4533.
- Johan, B., Husnah, F. M., Puteri, A. D., Hartami, H., Rahmah, A. A., & Adnin, A. R. J. (2024). Challenges and opportunities of Islamic education in the modern context. *Journal of Islamic Education*, 1(4), 13. <https://doi.org/10.47134/pjpi.v1i4.758>
- Lundeto, A. (2023). The development of Islamic education in the era of globalization: Challenges and opportunities. *Journal of Sciencetech Research and Development*.
<https://idm.or.id/JSCR/index.php/JSCR/article/view/154>
- Ma'arif, A. I., & Nursikin, M. (2024). Value education in the digital age: Challenges and opportunities. *Journal of Educational Evaluation*.
<https://pdfs.semanticscholar.org/468b/4c7521c8038a475900dd0e6199f204e3a703.pdf>
- Mahlani, I., Ilyas, A., Pilo, N., & Mahmud, H. (2020). Islamic education perspective on change management for the development of Islamic educational institutions. *Journal of Management Science (JMAS)*, 1(3), 26–36.
- Maulana, M. N. A. (2024). The role of Islamic education in shaping students' character in the digital era 4.0. *Journal of Islamic Education and Studies*.
<https://ejournal.merivamedia.com/index.php/meriva/article/view/17>
- Mustopa, A., & Iswanti, I. (2023). Development of management of Islamic educational institutions in

- the era of disruption. *Journal of Islamic Studies and Education*.
<https://www.journal.uiad.ac.id/index.php/al-qalam/article/view/1565>
- Nizar, S. (2016). Islamic education in the era of the ASEAN Economic Community. *Academics: Journal of Education and Religion*, 11(6), 7–25.
- Nuryadin. (2017). Islamic education strategy in the digital era. *Journal of Islamic Studies*, 3(1), 209–225.
- Son, P. H. P. A. (2024). Strengthening the character of the digitalization era of the Indonesia-Malaysia border. [Journal name missing].
- Ristanti, I., Subhan, K. F., Nissa, K., & Eviana, N. (2023). Digitization of Islamic education planning in madrasahs. *Mapendis: Journal of Islamic Education Management*, 1(1), 57–107.
- Rizfani, M., Mauladi, M., & Wardana, A. (2024). Religious education in the digital era. *Islamic Education*. <https://maryamsejahtera.com/index.php/Education/article/view/1062>
- Salisah, S. K., Darmiyanti, A., & [Author Missing]. (2024). The role of Islamic religious education in shaping the character of students in the digital era: Literature review. *Islamic Education*.
<http://jurnal-tarbiyah.iainsorong.ac.id/index.php/alfikr/article/view/378>
- Saraswati, A., Meilana, S. F., Wahyuningsih, S., Utami, S., Artiani, L. E., Syamiya, E. N., & Rifai, M. H. (2022). Challenges of education in the digital era 5.0. In *Education Era 4.0*.
- Sholeh, M. I., & Efendi, N. (2023). Integration of technology in Islamic education management: Improving teacher performance in the digital era. *Journal of Ink*.
<http://ejournal.alqolam.ac.id/index.php/jurnaltinta/article/view/1049>
- Susyanto, B. (2022). Management of Islamic educational institutions in the face of the digital era. *Al-Madrasah: Journal of Madrasah Ibtidaiyah Education*, 6(3), 692. <https://doi.org/10.35931/am.v6i3.1072>
- Suwahyu, I. (2024). The role of technological innovation in the transformation of Islamic education in the digital era. *Islamic References: Journal of Islamic Studies*.
<https://pdfs.semanticscholar.org/3b50/a5e7897cfffdb6162f3bfd5f223dbb95650c2.pdf>
- Syafiq, M. A., Davina, S., Butar, W. P. S.,. (2024). Innovation in Islamic education management in facing modern challenges. *Philosophia Mundi*.
<https://philosophiamundi.id/index.php/philosophia/article/view/58>
- Syifa, A., & Ridwan, A. (2024). Islamic character education in the digital age: Challenges and solutions based on the social thought of Imam Al-Ghazali. *Social Studies in Education*.
<https://jurnalftk.uinsa.ac.id/index.php/sse/article/view/4307>
- Tsani, I., Efendi, R., & Sufirmansyah, S. (2020). Evaluation of the readiness of Islamic higher education institutions in facing the digital era. *The Journal of Islamic Education*.
<https://www.academia.edu/download/86576118/1755.pdf>
- Ulyan Nasri, & Abdul Malik Salim Rahmatullah. (2023). Ummuna Hajjah Sitti Raihanun Zainuddin Abdul Madjid: Women scholars and the transformation of Islamic education in West Lombok-Nusa Tenggara. *An-Nahdlah: Journal of Islamic Education*, 3(2), 102–114.
<https://doi.org/10.51806/an-nahdlah.v3i2.83>
- Ummah, M. S. (2019). No covariance structure analysis of health-related indicators in elderly people at home focusing on subjective health perception. *Sustainability (Switzerland)*, 11(1), 1–14.
- Wijaya, T., & Murtafiah, N. H. (2023). The implementation of Islamic education management in improving the quality of learning in the digital era. *An Najah: Journal of Islamic Education*.
<https://journal.nabest.id/index.php/annajah/article/view/36>
- Zaelani, Z., Junaidi, J., Muhammad, M., & [Author Missing]. (2023). Transformation of the Islamic religious education curriculum: Latest developments and challenges in the digital era. *Schemata: Journal of Islamic Education*.
<http://journal.uinmataram.ac.id/index.php/schemata/article/view/7678>