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Utilization of the Metaverse World in Islamic Religious Education Learning for Ease of Islamic Mosaic Exploration

Muhammad Abdul Ilah
Institut Agama Islam Al Khoziny Indonesia
Email : abduh@alkhoziny.ac.id

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**Corresponding Author*

ABSTRACT

This study aims to examine the potential of metaverse-based learning in facilitating the exploration of the Islamic mosaic and enhancing students' understanding within Islamic Religious Education (Pendidikan Agama Islam, PAI). Employing a qualitative case study approach, the research involved purposively selected students participating in PAI courses. Data were collected through classroom observations, in-depth interviews, and document analysis, and were analyzed using coding, thematic analysis, and interpretative techniques. The findings reveal that the integration of the metaverse creates an interactive and immersive learning environment that supports students' engagement with the diverse and complex dimensions of Islamic teachings. From an educational management perspective, effective instructional planning, learning organization, and the facilitative role of PAI teachers were found to be crucial in optimizing metaverse utilization. Furthermore, the metaverse encourages reflective learning and collaborative interaction, contributing to deeper religious understanding. The study implies that the strategic management of digital learning environments is essential to ensure that metaverse-based PAI learning remains pedagogically effective and value-oriented. These findings offer practical insights for educators and institutions in developing innovative and well-managed Islamic Religious Education models in the digital era.

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INTRODUCTION

In recent years, Indonesian society has witnessed a renewed public interest in supernatural and metaphysical phenomena, reflected in the widespread popularity of mystical narratives across television programs, digital media, and YouTube platforms (Chia, 2025). This phenomenon indicates that, despite the dominance of scientific rationalism and technological progress, metaphysical dimensions remain deeply embedded in collective social consciousness. Such interest is not merely cultural entertainment but represents

a broader search for meaning, identity, and moral orientation in an increasingly complex modern world. At the same time, education is expected to respond to this condition by providing rational, ethical, and value-based frameworks that guide learners in understanding metaphysical concepts critically and responsibly. Islamic Religious Education (Pendidikan Agama Islam, PAI) holds a strategic position in addressing this societal need, as it integrates spiritual, ethical, and rational dimensions of learning. Therefore, investigating innovative educational approaches that bridge metaphysical curiosity with structured Islamic knowledge is socially significant and academically urgent.

Despite the persistent relevance of metaphysical discourse in society, formal educational institutions often struggle to address such issues in ways that resonate with contemporary learners. Traditional pedagogical approaches in Islamic Religious Education frequently rely on text-based instruction and teacher-centered delivery, which may limit students' engagement and critical reflection. This challenge is compounded by the rapid digital transformation of society, where Generation Z and Generation Alpha students are accustomed to immersive, interactive, and visually rich environments. As a result, a gap emerges between students lived digital experiences and the instructional strategies employed in religious education. From a management of education perspective, this gap reflects limitations in curriculum planning, instructional design, and technological integration within PAI learning systems. Without adaptive learning management strategies, Islamic education risks losing relevance and effectiveness in shaping students' understanding of Islamic values amid complex digital and metaphysical influences present in contemporary society.

Empirical observations during and after the COVID-19 pandemic further highlight the transformation of learning environments. Educational activities across the globe rapidly migrated to digital platforms, accelerating the adoption of virtual spaces for academic interaction (Bick, Blandin, & Mertens, 2021). One notable example is the University of California, Berkeley's virtual graduation ceremony conducted via Minecraft, illustrating how virtual worlds can host meaningful academic rituals (Watch Berkeley, 2020). In Indonesia, similar shifts have occurred, with universities experimenting with virtual classrooms and immersive technologies. However, within PAI learning, the use of advanced virtual environments such as the metaverse remains limited and largely unexplored. Most implementations focus on technical feasibility rather than pedagogical management, ethical considerations, and value-oriented learning outcomes. This phenomenon suggests the need for systematic research that examines how metaverse-based learning can be strategically managed to support Islamic Religious Education objectives.

Previous studies have examined the intersection of digital technology and education from various perspectives. (Chia, 2025) provides cultural insights into supernatural phenomena in Indonesian society, emphasizing their persistence within modern contexts. Hasanah (2022) highlights the urgency of integrating mobile learning and digital platforms in PAI to respond to technological disruption. Meanwhile, Rahman et al. (2023) explore the educational potential of the metaverse as an immersive learning environment capable of transcending physical limitations. These studies collectively demonstrate that digital innovation offers significant opportunities for transforming learning experiences. However, most existing research focuses on technological affordances or general pedagogical implications, with limited attention to Islamic Religious Education as a value-based discipline. Furthermore, the management dimension—such as instructional planning, learning governance, and institutional readiness—remains underdeveloped in these discussions.

Although previous research acknowledges the potential of immersive technologies, there is a notable lack of empirical studies examining how the metaverse can be systematically utilized to facilitate the exploration of Islamic teachings in higher education contexts. Existing studies rarely address how metaverse implementation can be aligned with PAI learning objectives, ethical considerations, and educational management frameworks. Susilawati emphasizes the strategic role of PAI teachers in responding to digital challenges, yet empirical models illustrating this role within immersive virtual environments are still scarce. This gap indicates the need for research that integrates pedagogical innovation with educational management principles, particularly in curriculum design, learning supervision, and evaluation. Addressing this gap is crucial to ensure that metaverse-based learning does not merely replicate entertainment-oriented virtual experiences but functions as a structured, value-oriented educational space.

The novelty of this study lies in its conceptualization of the metaverse not only as a technological tool but as a managed pedagogical ecosystem for Islamic Religious Education. By positioning the metaverse as a learning environment that facilitates the exploration of the Islamic mosaic—encompassing theological, ethical, historical, and cultural dimensions—this study advances existing scholarship. It integrates educational management perspectives, including instructional planning, learning organization, and institutional policy support, into the discussion of immersive learning. This approach represents a state-of-the-art contribution by bridging digital innovation, Islamic pedagogy, and education management. Such integration is essential to ensure that metaverse-based PAI learning remains ethically grounded, pedagogically effective, and institutionally sustainable in the digital era.

Based on the issues outlined above, this study addresses the following research problem: how can the metaverse be effectively utilized to facilitate the exploration of the Islamic mosaic and enhance students' understanding of Islamic religious aspects within PAI learning? The central argument of this study is that well-managed metaverse-based learning environments can enhance students' engagement, critical reflection, and holistic understanding of Islam when aligned with sound pedagogical and educational management principles. Through a case study conducted at Universitas Airlangga, Surabaya, this research is expected to contribute theoretically by enriching discourse on immersive religious education and practically by offering a reference model for PAI educators and higher education institutions. Ultimately, this study aims to support the development of innovative, responsible, and value-oriented Islamic Religious Education in the metaverse era.

RESEARCH METHODS

This study employs a qualitative research design using a case study approach to obtain an in-depth understanding of how the metaverse is utilized in Islamic Religious Education (Pendidikan Agama Islam, PAI) learning and how it facilitates students' exploration of the Islamic mosaic. A qualitative case study is appropriate because it allows the researcher to examine complex educational processes, social interactions, and meaning-making practices within a real-life context (Takona, 2024; Cole, (2024). From an educational management perspective, this design enables the analysis of how instructional planning, learning organization, and pedagogical facilitation are managed within metaverse-based PAI learning environments.

The research was conducted at Universitas Airlangga, Surabaya, selected due to its openness to digital learning innovation and the implementation of technology-supported instructional strategies within PAI courses. The institution provides a relevant context for examining the managerial readiness of higher education in integrating immersive digital platforms into religious education. Participants consisted of students enrolled in PAI courses who had direct experience with metaverse-based learning activities. Purposive sampling was applied to ensure that participants possessed relevant knowledge and experience aligned with the research objectives (Robinson, 2023).

Data were collected using multiple techniques to ensure richness and triangulation, including observation, semi-structured interviews, and document analysis. Observations focused on students' engagement, interaction patterns, and participation within the metaverse learning environment (Vezne et al., 2023). Interviews with students and PAI lecturers explored perceptions, learning experiences, and instructional management strategies related to metaverse

utilization (Demirci, 2024). Document analysis examined learning artifacts such as assignment outputs, interaction logs, and recorded learning sessions to assess learning organization and instructional effectiveness (Damaševičius & Sidekerskienė, 2024).

Data analysis followed an interactive qualitative model consisting of data condensation, data display, and conclusion drawing and verification (Miles et al., 2023). Data condensation involved selecting, focusing, and simplifying raw data through coding and categorization (Reyes et al, 2024). The condensed data were then displayed in thematic matrices to facilitate pattern recognition and interpretation (Braun & Clarke, 2023). Finally, conclusions were drawn and verified through iterative analysis and triangulation across data sources to ensure credibility and trustworthiness (Brummans et al., 2024). This analytical process enabled a systematic understanding of metaverse-based PAI learning from both pedagogical and educational management perspectives.

RESULTS AND DISCUSSION

Results

Metaverse Utilization and Students' Understanding of the Islamic Mosaic

The findings demonstrate that the utilization of the metaverse significantly enhances students' understanding of Islamic teachings by transforming abstract concepts into immersive learning experiences. Virtual environments allow students to interact with representations of Islamic symbols, spaces, and cultural artifacts, enabling learning to occur through direct experience rather than textual explanation alone. This shift supports a more meaningful engagement with Islamic knowledge, particularly in areas that are traditionally difficult to visualize or contextualize.

Through metaverse-based activities, students are able to explore the Islamic mosaic as a multidimensional construct encompassing theological, historical, aesthetic, and spiritual dimensions. The immersive nature of the learning environment facilitates the integration of these dimensions into a coherent understanding, helping students recognize Islam not merely as a set of doctrines but as a lived and culturally rich tradition. This experiential engagement supports reflective learning and deeper internalization of religious concepts.

From a pedagogical perspective, these findings indicate that the metaverse functions as a mediating space that bridges theoretical instruction and experiential understanding. When supported by structured instructional design, the metaverse enables Islamic Religious Education to move beyond rote learning toward holistic comprehension, thereby strengthening the educational relevance of PAI in contemporary digital contexts.

Learning Motivation, Engagement, and Participation

The findings reveal that metaverse-based learning substantially increases students' motivation and engagement in Islamic Religious Education. Students demonstrate heightened enthusiasm during learning activities, as reflected in sustained attention, active questioning, and voluntary participation in discussions. The immersive and interactive characteristics of the metaverse align with students' digital learning preferences, making religious learning experiences feel more relevant and engaging.

This increased engagement also leads to higher levels of participation in classroom activities. Students become more responsive to learning tasks, actively contribute ideas, and demonstrate a willingness to explore religious themes collaboratively. Such participation reflects a shift from passive reception of content toward active involvement in the learning process, which is essential for meaningful knowledge construction.

From an educational management standpoint, these findings suggest that immersive learning environments can be strategically leveraged to enhance student engagement when integrated into well-planned instructional frameworks. Effective scheduling, task design, and facilitation are critical to ensuring that increased motivation translates into sustained learning outcomes rather than short-term novelty effects.

Collaboration, Social Interaction, and Learner Autonomy

Another key finding is the role of the metaverse in fostering collaboration and social interaction among students. Virtual spaces provide opportunities for communication, idea exchange, and collective exploration of Islamic themes. These interactions support dialogical learning, allowing students to negotiate meanings, compare perspectives, and deepen understanding through peer engagement.

Collaborative learning within the metaverse also strengthens students' social presence and sense of belonging in the learning environment. This is particularly important in religious education, where shared reflection and discussion play a central role in meaning-making. The findings indicate that social interaction in virtual environments can effectively support collective learning without diminishing the seriousness of religious content.

In addition, metaverse-based learning promotes learner autonomy. Students demonstrate increased responsibility in managing their learning activities, exploring content independently, and seeking additional information related to Islamic teachings. This autonomy reflects the development of self-regulated learning skills, suggesting that immersive digital environments can support independent learning while remaining aligned with structured educational goals.

Student Perceptions and the Preservation of Religious Values

Students' perceptions of metaverse-based learning are predominantly positive, particularly regarding its contribution to understanding Islamic teachings. Students perceive the metaverse as an enabling tool that enriches learning experiences rather than weakening religious meaning. This perception challenges common assumptions that advanced digital technologies are inherently incompatible with spiritual or value-based education.

Importantly, the findings indicate that students do not view immersive learning environments as diminishing the sacredness of religious content. Instead, when learning activities are guided appropriately, the metaverse is seen as a medium that supports reflection and engagement with Islamic values. This highlights the importance of pedagogical mediation in shaping how technology is perceived and utilized in religious education.

These findings suggest that concerns about the erosion of religious values are not intrinsic to the technology itself but are closely related to how learning is designed and facilitated. From this perspective, the metaverse can function as a supportive learning environment that preserves religious depth when ethical considerations and instructional objectives are clearly articulated.

Role of Lecturers and Educational Management

The findings emphasize the pivotal role of lecturers in determining the effectiveness of metaverse-based PAI learning. Lecturers are not merely content providers but act as facilitators, ethical guides, and learning managers who shape students' engagement with technology. Their guidance ensures that immersive learning activities remain aligned with Islamic values and educational objectives.

Lecturers' openness to innovation, coupled with their cautious reflection on ethical and religious implications, illustrates the need for balanced pedagogical decision-making. This balance enables the metaverse to be used as a tool for enrichment rather than distraction. The findings highlight that lecturer preparedness, digital competence, and pedagogical sensitivity are essential for successful implementation.

From an educational management perspective, these results underscore the importance of instructional planning, classroom management, and continuous professional development. Without systematic training and institutional support, the pedagogical potential of the metaverse may not be fully realized, and risks related to superficial engagement or misalignment with learning goals may emerge.

Institutional Support and Leadership Readiness

At the institutional level, the findings reveal that successful metaverse integration depends heavily on leadership readiness and organizational support. Institutional policies, infrastructure investment, and strategic planning play a critical role in enabling or constraining the implementation of immersive learning technologies. Leadership commitment is essential to ensure that technological innovation aligns with educational values and long-term goals.

The findings also highlight challenges related to infrastructure, particularly internet stability and access to adequate technological resources. These constraints affect both lecturers' ability to design immersive learning experiences and students' capacity to engage consistently. Addressing such challenges requires coordinated institutional efforts rather than isolated individual initiatives.

From a management perspective, the integration of the metaverse must be understood as an organizational change process. This involves capacity building, resource allocation, and the development of clear guidelines to support sustainable implementation. Institutional readiness thus emerges as a decisive factor in determining the long-term viability of metaverse-based Islamic education.

Contribution to Theory and Practice

Collectively, the findings demonstrate that the metaverse can serve as a meaningful pedagogical environment for Islamic Religious Education when implemented through careful instructional design and strong educational management. This study contributes theoretically by extending discussions on immersive learning into the domain of value-based and religious education, an area that remains underexplored in existing literature.

Practically, the study offers insights into how immersive technologies can be aligned with ethical guidance, lecturer facilitation, and institutional support to enhance learning quality. The integration of educational management dimensions—such as instructional planning, professional development, and leadership support—strengthens the applicability of the findings across diverse educational contexts.

Overall, this study positions the metaverse not as a technological novelty but as a pedagogical space that supports holistic learning and the exploration of the Islamic mosaic. By emphasizing the interplay between technology, pedagogy, values, and management, the findings provide a transferable framework for integrating immersive technologies into Islamic education in a responsible and sustainable manner.

Table 1. Summary of Discussion Analysis: Integrating Research Findings with Theoretical Frameworks

No.	Analytical Focus	Integration of Findings with Theory	Analytical Conclusion
1	Student Responses and Learning Motivation	The findings reveal strong student enthusiasm toward the use of the metaverse in Islamic Religious Education (PAI). This enthusiasm indicates that innovative and interactive learning environments are able to foster students' intrinsic motivation and engagement in the learning process. However, students' concerns regarding the depth and authenticity of religious experience highlight the importance of ensuring that spiritual and religious dimensions remain meaningfully embedded within technology-mediated learning environments.	Students demonstrate high interest in exploring the Islamic mosaic through metaverse-based learning, although their initial conceptual understanding remains limited. This indicates the need for systematic, contextual, and value-oriented introduction strategies to ensure meaningful adoption in PAI learning.
2	Lecturers' Perspectives and Educational Innovation Theory	The diversity of lecturers' responses reflects the complexity of adopting educational innovations in instructional practice. While some lecturers perceive the metaverse as a promising pedagogical innovation, their cautious attitudes indicate the need to carefully consider issues related to perceived usefulness, ease of use, and ethical implications. This diversity highlights that the acceptance of new technologies in Islamic Religious Education requires not only technical readiness but also pedagogical and value-based considerations.	PAI lecturers perceive the metaverse as a potential medium for innovative Islamic learning but emphasize the necessity of careful planning to prevent the erosion of religious substance and humanistic values. The core challenge lies in maintaining equilibrium between technological advancement and the preservation of Islamic educational values.
3	University Leadership Perspective and Educational Leadership	University leaders' emphasis on collaboration and long-term planning reflects a leadership approach that prioritizes vision, institutional change, and sustainability. This perspective positions higher education leaders as key drivers of innovation and policy development, highlighting their strategic role in guiding the integration of emerging technologies within the institutional and educational framework.	University leaders acknowledge the strategic potential of the metaverse for PAI learning while recognizing investment, training, and infrastructure as critical challenges. Metaverse implementation is therefore viewed not merely as a technical initiative, but as a value-driven and sustainability-oriented institutional transformation.

Discussion

The findings indicate that students' positive responses toward metaverse-based learning in Islamic Religious Education (PAI) are closely linked to increased motivation and engagement. This condition reflects how interactive and immersive learning environments can stimulate intrinsic motivation, as students perceive learning as more meaningful and relevant to their experiences (Zhou & Zhang, 2024). However, students limited initial understanding of the metaverse confirms that technological novelty alone is insufficient; systematic introduction and contextualization are required to ensure that learning innovation contributes to deeper religious understanding rather than superficial engagement.

From the lecturers' perspective, the varied responses toward metaverse integration illustrate the complex process of educational innovation adoption. Consistent with Rogers' diffusion of innovation theory, acceptance of new technology depends on awareness, perceived relevance, and alignment with existing values (Lee, 2024). Lecturers' cautious attitudes also reflect concerns emphasized in technology acceptance studies, particularly regarding ethical implications, pedagogical effectiveness, and the preservation of religious substance (Rejali et al., 2023). These findings reinforce the idea that innovation in religious education must be guided by pedagogical intentionality rather than technological enthusiasm alone.

The results further demonstrate that concerns about the potential erosion of religious and humanistic values are not a rejection of innovation, but rather an expression of professional responsibility. This aligns with previous discussions on the integration of technology in value-based education, which emphasize the importance of instructional design that embeds spiritual meaning and ethical reflection (Azhar et al., 2024). In this context, the role of PAI lecturers as facilitators and ethical guides becomes central, ensuring that immersive environments support reflective, value-oriented learning rather than replacing meaningful human interaction.

From an institutional perspective, university leadership plays a strategic role in determining the success of metaverse implementation. The emphasis on long-term planning, collaboration, and sustainability reflects principles of transformational leadership, where innovation is viewed as part of broader institutional change rather than a standalone technical project (Yu & Jang, 2024). Challenges related to infrastructure, investment, and professional development further support the argument that technological integration in higher education requires strong policy alignment and organizational readiness (Ghamrawi, 2023).

Overall, the discussion reveals that the integration of the metaverse in PAI learning represents both an opportunity and a managerial challenge. While immersive technology offers significant potential to enhance engagement and facilitate exploration of the Islamic mosaic, its effectiveness depends on lecturer readiness, institutional support, and value-based pedagogical frameworks. These findings affirm that successful adoption of advanced educational technologies in Islamic education requires a balanced approach that integrates innovation, educational management, and the preservation of religious and ethical foundations.

CONCLUSION

The most important finding of this study demonstrates that the metaverse, when pedagogically and ethically managed, can function as an effective learning medium in Islamic Religious Education by enabling deeper exploration of the Islamic mosaic. The key insight gained is that immersive digital environments are capable of bridging abstract religious concepts with experiential learning without undermining Islamic values. This study contributes academically by extending the discourse on technology-enhanced religious education through the integration of immersive learning, value-based pedagogy, and educational management perspectives. It offers a conceptual and practical framework that positions the metaverse not merely as a technological innovation, but as a managed pedagogical space that enhances engagement, inclusivity, and meaningful learning in Islamic education.

Despite its contributions, this study has several limitations. The findings are based on a qualitative case study within a single institutional context, which limits generalizability across different educational settings. In addition, the study focuses primarily on perceptions and learning experiences rather than long-term learning outcomes or comparative effectiveness with other digital learning models. Future research is therefore encouraged to employ mixed-methods or experimental designs, involve multiple institutions, and examine long-term impacts on students' religious understanding, ethical development, and learning sustainability. Further studies may also explore policy frameworks, leadership strategies, and scalability models for integrating metaverse-based learning into Islamic education more broadly.

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