

Internalization of Religious Moderation Values in Islamic Religious Education Learning in the Era of Society 5.0

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ABSTRACT

The digital transformation in Islamic education presents both new opportunities and serious challenges for efforts to foster religious moderation in students. This study aims to comprehensively analyze how the digitalization of Islamic Religious Education (PAI) learning contributes to improving digital religious literacy, strengthening teacher competencies, and developing inclusive, critical, and balanced religious attitudes. Through a Systematic Literature Review (SLR) of 75 international articles indexed by Scopus and Web of Science for the period 2017–2024, this study identifies seven main trends influencing the dynamics of digital PAI learning, namely: 1) the shift of religious authority from the classroom to cyberspace, 2) digital religious literacy as a foundation for moderation, 3) expanding access to religious dialogue through online learning platforms, 4) teachers as digital moderators, 5) implementation barriers in the form of inequality in access and digital competency, 6) the need for conceptual integration between Islamic pedagogy, religious moderation, and technology, and 7) digitalization as a space for the formation of reflective religious character. This study confirms that the digitalization of Islamic education is not merely a shift in learning media but rather an epistemological transformation that necessitates a new curriculum, teacher digital competency, and robust media ethics. This research offers practical implications for schools, policymakers, and Islamic educational institutions in designing Islamic Religious Education (PAI) learning models relevant to the 5.0 era.

Keywords: Religious Moderation, Islamic Religious Education, Society 5.0

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INTRODUCTION

Technological developments in the Society 5.0 era have brought about a major paradigm shift in the global education ecosystem. The concept of Society 5.0, first introduced in Japan, describes an intelligent society that deeply integrates artificial intelligence (AI), the Internet of Things (IoT), big data, and digital systems into human life, with a primary focus on improving the quality of life (Legi et al., 2023). Unlike the Industrial Revolution 4.0, which emphasized efficiency and automation, Society 5.0 positions technology as an instrument for building a humanistic, collaborative, and equitable society (Kasinathan et al., 2022). In the educational context, these changes demand a pedagogical transformation that emphasizes not only the capabilities of digital technology but also the strengthening of students' values, ethics, and character (Tavares et al., 2022).

In Islamic Religious Education (PAI), this dynamic presents both challenges and strategic opportunities. Religious education is no longer confined to a linear learning environment but

has shifted to a digital ecosystem that is interactive, open, and multi-faceted (Luthfi et al., 2025). Students now acquire religious knowledge not only from teachers and textbooks, but also from social media, global video platforms, digital influencers, and online missionary networks (Zou et al., 2025). This phenomenon aligns with the theory of "networked religion," which states that religious authority in the digital age is increasingly distributed and no longer centralized, as in traditional educational models (Vallo Hult et al., 2025). This situation triggers the need to strengthen digital religious literacy so that students can verify information, understand diverse views, and avoid textual, extreme, or manipulative interpretations of religion (Berger & Golan, 2024).

Religious moderation, or *wasathiyah*, is a crucial discourse in contemporary Islamic education as a response to the rise of polarization, sectarianism, and the spread of digital-based radicalism (Subchi et al., 2022). Conceptually, Islamic moderation is rooted in the values of *tawassuth* (middle way), *tasamuh* (tolerance), *tawazun* (balance), and *i'tidal* (justice), which have long been integral to the Islamic scholarly tradition, maintaining harmony and civility in society (Hadiyanto et al., 2025). In Indonesia, religious moderation has become a national education policy agenda to strengthen social cohesion and prevent the spread of extremism (Ministry of Religious Affairs of the Republic of Indonesia, 2019). However, in the digital context, implementing the values of moderation can no longer rely solely on lectures but requires pedagogical strategies that can reach the digital learning spaces where students interact daily (Eddy Saputra et al., 2023).

Several studies have shown that digital media is the most active space for the spread of emotionally powerful religious narratives, including extreme propaganda and intolerant rhetoric (Dyuti, 2026). Social media algorithms amplify sensational, provocative, and black-and-white content, leaving students vulnerable to developing narrow and exclusive mindsets if they are not equipped with adequate digital religious literacy skills (Sharma, 2023). Therefore, digital religious literacy is not solely oriented toward information-seeking skills but encompasses epistemological evaluation processes, algorithmic awareness, the ability to discern credible religious authorities, and the ethical capacity for productive dialogue (Horgan et al., 2024).

In the context of Islamic Religious Education (PAI) learning, teachers occupy a strategic position as digital moderation agents, namely educators who not only master religious material but also understand the dynamics of the digital space, are able to facilitate reflective discussions, filter content, and design learning that fosters critical awareness and inclusive religious attitudes (Samiee et al., 2025). However, various studies reveal that most teachers still face obstacles in integrating digital pedagogical competencies and religious values simultaneously (Fasel & Weerts, 2025). The digital divide is a real problem, especially in schools facing limited devices, internet connections, and basic digital literacy skills (Firayani, 2025). Therefore, the success of internalizing religious moderation in Islamic Religious Education (PAI) is greatly influenced by teachers' capacity to interpret technology not merely as a medium for communication, but as a space for value dialectics (Herlina et al., 2024).

On the other hand, digital technology also opens up significant opportunities to strengthen religious moderation learning (Salman et al., 2022). Various studies have shown that Learning Management Systems (LMS), online discussion forums, virtual classrooms, digital simulations, gamification, and global video platforms can increase learning engagement, broaden perceptions of religiosity, and create more contextual learning experiences (Songkram et al., 2023). Through structured learning, students have the opportunity to interact with diverse schools of Islamic thought and engage in dialogic discussions, fostering empathy, argumentative skills, and intellectual openness (Zainil et al., 2024). Thus, digital technology is not simply a tool for conveying religious knowledge, but rather a transformative medium that changes how students interpret Islamic teachings in a broader and more balanced way (Hwang et al., 2023).

However, the literature reveals a conceptual gap in previous research. Most research on religious moderation focuses on theological approaches, government policies, or sociological analyses (Setinawati et al., 2025). On the other hand, studies of digital learning in Islamic education have focused more on technological aspects, digital platforms, or instructional design

without directly linking them to the internalization of moderation values (Fitchett et al., 2024). Consequently, there is still a paucity of research integrating the three major domains religious moderation, Islamic pedagogy, and digital transformation into a single, comprehensive conceptual model of learning (Fuentes et al., 2026). Based on this gap analysis, this study was designed to address the academic need for a conceptual model for the internalization of religious moderation in Islamic Religious Education (PAI) that is relevant to the learning characteristics of Society 5.0 (Hakim et al., 2025). Therefore, this study formulated three main research questions:

- RQ1: How does the scientific literature view the concept of digital religious literacy as a foundation for developing moderate attitudes in Islamic education?
- RQ2: What teacher competencies are needed to enable educators to become effective agents of religious moderation in digital learning?
- RQ3: How can learning technology function as a dialogical and transformative space for the internalization of religious moderation values in Islamic Religious Education (PAI)?

To answer these questions, this study employed a Systematic Literature Review (SLR) approach with the PRISMA protocol, synthesizing findings from internationally reputable publications in the Scopus, Web of Science, Springer, ScienceDirect, and SAGE databases (Chikeya & Ntsalaze, 2025). This approach not only allows for tracing the evolution of the concept of religious moderation in the digital ecosystem but also provides a comprehensive scientific mapping of the challenges, potential, and direction of Islamic education research development in the era of a smart society (Laugu et al., 2024). Thus, this research makes theoretical and practical contributions to the development of modern Islamic education, particularly by proposing a conceptual framework that integrates religious digital literacy, teacher pedagogical competence, and the use of technology as an instrument for developing balanced, tolerant, and critical religious attitudes (Begum et al., 2021). This framework is expected to serve as an academic foundation for the development of policies, curricula, learning models, and further research on moderated Islamic education in the era of Society 5.0.

METHOD

This study uses a Systematic Literature Review (SLR) approach with reference to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) standards (Rahmanu & Molnár, 2024). This approach was chosen because it enables the presentation of a structured, transparent, and replicable scientific analysis to trace the development of research on religious moderation, digital religious literacy, and Islamic Religious Education learning within the context of digital transformation (Samala et al., 2025). Data sources were obtained from internationally reputable journal articles indexed by Scopus, Web of Science, Taylor & Francis, ScienceDirect, SpringerLink, SAGE, and Emerald Insight, which have extensive authority in scientific publications in the fields of education, Islamic studies, and learning technology (Rabiei et al., 2022).

The article search process was carried out using a combination of keywords such as "Islamic education," "religious moderation," "digital literacy," "digital religion," "online learning," and "Society 5.0," using Boolean operators such as AND, OR, and NOT to increase the accuracy of the findings. Inclusion criteria included peer-reviewed articles published between 2014 and 2024, written in English or Indonesian, and directly relevant to Islamic education, digital religious literacy, or technology-based learning transformation. Articles were excluded if full-text access was not available, they had not undergone peer review, or they lacked substantive relevance to the research focus (Herrero et al., 2024).

The selection process followed the four stages of PRISMA: identification, screening, eligibility, and inclusion. Initially, 1,247 articles were identified from all databases, which were then screened to remove duplications, leaving 835 articles for review based on title and abstract (Veroniki et al., 2025). After relevance screening, only 142 articles met the criteria for full reading, and 72 of these were ultimately deemed suitable for analysis due to their methodological merit and relevance to the research theme (Cheng & Kinoshita, 2024). All articles were then analyzed through bibliographic information extraction, identification of the

study focus, thematic categorization, and comparative synthesis using thematic analysis techniques as recommended by Miles, Huberman, and Saldaña (2020). The thematic approach was chosen because it can reveal relationships between concepts and research patterns in depth (Xu et al., 2025). This analysis resulted in a scientific mapping of research trends, theoretical contributions, research gaps, and the direction of development of digital Islamic education studies in the Society 5.0 era. Because this study only uses openly published secondary data, no ethics committee approval is required, but all citations and use of sources follow the principles of academic ethics and scientific integrity (Lahijanian et al., 2025).

RESULT AND DISCUSSION

The study's findings indicate that research on religious moderation in Islamic Religious Education in the digital era has experienced significant growth over the past decade, in line with increasing academic attention to educational transformation in Society 5.0. A thematic analysis of 72 articles certified in the final synthesis revealed that the majority of studies positioned digital religious literacy as the primary foundation for developing moderate religious attitudes among students (Rahmadi, 2024). The use of educational technology is considered capable of expanding learning spaces and enriching religious experiences through interaction with more diverse and open sources of knowledge (Tang et al., 2025). This demonstrates that digital transformation is not merely a technical development in learning, but rather a paradigm shift in how students learn, interact, and interpret religious values (Gkrimpizi et al., 2023).

The study also shows that research on Islamic Religious Education (PAI) learning in the digital space has highlighted changes in patterns of religious authority and knowledge distribution. Students no longer rely solely on teachers as the primary source of religious knowledge, but utilize social media, da'wah apps, educational videos, and digital influencers as alternative religious resources (Stasiuk, 2025). This situation presents both challenges and opportunities. The challenge lies in the proliferation of unvalidated religious information, containing intolerant content, or favoring narrow and literal interpretations of religion. Several studies have confirmed that digital algorithms tend to amplify emotional, black-and-white, and provocative content, leaving students vulnerable to online radicalization if they lack adequate digital religious literacy skills (Mercy Rolando et al., 2024).

However, research also shows that digital technology offers significant opportunities for the internalization of religious moderation. Learning Management Systems (LMS), online discussion platforms, educational gamification, virtual classrooms, and digital simulations have proven to be interactive dialogue spaces that encourage students to develop empathy, argumentation skills, critical thinking, and intellectual openness (Wang & Zhao, 2024). Several studies have even found that digital-based learning systems can facilitate the safe, educational, and focused exchange of ideas across Islamic schools of thought, thus supporting the development of more proportionate religious perspectives (Saada, 2023).

In terms of the role of educators, research shows that teachers occupy a central position in digital-based Islamic Religious Education (PAI) learning. However, most teachers still face obstacles related to limited digital pedagogical competencies, online communication strategies, and the ability to moderate content and discussions in digital spaces (Juhaidi et al., 2025). The gap in infrastructure and digital literacy between schools is also a serious issue that limits the effectiveness of integrating religious moderation values into technology-based learning (Thida et al., 2025). In other words, the success of internalizing moderation values is determined not only by the availability of technology itself, but also by the readiness of teachers to facilitate balanced religious dialogue.

Furthermore, the analysis shows that conceptual gaps in previous research remain quite evident. Much research on religious moderation focuses on [theological approaches, state policies, and social developments] while pedagogical aspects and digital learning transformation are often treated as separate issues. On the other hand, studies of digital education in Islamic Religious Education (PAI) tend to emphasize media and learning models, but have not yet strongly linked these to the formation of moderate religious attitudes

(Masuwai et al., 2025). Therefore, the findings of this SLR emphasize the importance of an integrative approach that combines the acquisition of religious knowledge, the formation of religious character, and digital literacy competencies within a unified educational framework (Sulastri & Ismail, 2025).

Overall, the data demonstrates that digital transformation in Islamic Religious Education (PAI) has significant potential to strengthen religious moderation, provided it is accompanied by students' critical skills in assessing religious information sources, teachers' readiness as agents of digital moderation, and technological support that enables dialogic, reflective, and collaborative learning interactions. These findings provide an important foundation for developing a conceptual model for Islamic Religious Education (PAI) learning that aligns with the demands of the Society 5.0 era.

Table 1. Summary of SLR Key Findings

No	Dominant Research Themes	Summary of Findings	Scientific Sources
1	Shifting religious authority	Sources of religious knowledge are no longer centered on teachers, but are spread through social media, preaching platforms, and digital influencers.	Campbell (2021)
2	Digital literacy as the foundation of moderation	Students need the ability to assess the credibility of information, understand media algorithms, and engage in ethical dialogue in digital spaces.	Hoffmann & Reuter (2021)
3	Technology as a space for dialogue across ideas	LMS, discussion forums, and virtual classes enable safe and educational interaction between schools of thought.	Fidalgo-Blanco et al. (2021); Omar & Atallah (2022)
4	The role of teachers is increasingly crucial	Teachers must act as discussion moderators, content curators, and facilitators of the religious digital literacy process.	Hidayat et al. (2022)
5	The digital divide in education	Differences in internet access and devices have an impact on the uneven implementation of digital-based Islamic Religious Education learning.	Sari & Wahyono (2021)
6	Weaknesses of previous research designs	Previous research often separates studies of moderation, pedagogy, and digitalization so that there is no holistic model.	Sugiyono & Rahmawati (2021)
7	Technology as an instrument of character formation	Digital learning can foster empathy, reflective attitudes, and a more moderate perspective on religion.	Zawacki-Richter (2020)

DISCUSSION

The discussion of the study results shows that the transformation of learning in the digital era has multidimensional implications for Islamic Religious Education (PAI),

particularly in the context of internalizing religious moderation. First, changes in learning interaction patterns that are no longer teacher-centered require teachers to adapt to new role configurations as facilitators, moderators, and curators of religious discourse in the digital space. This change aligns with Zawacki-Richter's (2020) view that digitalization positions educators as key actors in directing the learning process to maintain a humanistic focus, even when conducted through digital media.

The increasingly decentralized distribution of religious authority reinforces the push to instill digital religious literacy as a basic 21st-century competency for students. Students are not only required to understand the content of Islamic teachings, but also to assess the credibility of sources, understand the diversity of scholarly authorities, and avoid black-and-white, emotional, and simplistic interpretations of religion (Wael & Reda, 2025). In this context, digital literacy is no longer technical, but rather epistemological and ethical, encompassing critical awareness of social media algorithms, the ability to verify information, and the ability to engage in productive dialogue in virtual public spaces (Shin & Jitkajornwanich, 2024).

Second, digital learning offers enormous potential as a dialectical space for Islamic thought. Learning Management Systems (LMS), discussion forums, virtual classrooms, gamification, and multimedia content provide opportunities for students to interact directly with diverse Islamic perspectives safely and educationally. Numerous studies confirm that targeted digital interactions can foster the development of argumentation skills, empathy, multicultural perspectives, and intellectual openness, which are core to religious moderation (Liu, 2025). Thus, digital technology can be viewed not as a threat to the stability of religious understanding, but as a strategic tool for broadening learning experiences and instilling moderate religious values contextually (Zimmer & Matthews, 2022).

Third, implementation barriers remain significant, particularly related to teacher competency, school readiness, and infrastructure gaps. Research findings indicate that most teachers have limited ability to simultaneously integrate learning technology with religious character education strategies (Momdjian et al., 2025). Meanwhile, the digital divide between schools creates unequal learning opportunities. This confirms that the successful implementation of religious moderation cannot be solely dependent on the availability of technology (Dang et al., 2025). Continuous teacher training, institutional support, and increased institutional digital literacy are required to ensure systematic use of technology (Ji & Li, 2025).

Fourth, the study's findings highlight a conceptual gap in previous research. Studies on religious moderation have focused largely on policy and theology, while studies on digital transformation have focused more on learning tools and applications. Few studies have simultaneously integrated pedagogical, digital, and moderation values into a unified model of Islamic education (Suraijiah et al., 2023). Therefore, this study contributes to emphasizing the urgency of a holistic approach, namely Islamic education that not only teaches religious knowledge but also shapes religious perspectives, experiences, and behaviors through the targeted use of digital space (Moslimany et al., 2024).

Overall, the discussion demonstrates that the Society 5.0 era offers an opportunity to develop a more open, collaborative, and reflective Islamic education culture, provided that learning is accompanied by adequate digital religious literacy, competent educators, a relevant curriculum, and the use of technology as a medium to strengthen religious moderation.

Table 2. Trends in SLR Research Findings on Digital Islamic Education and Religious Moderation

No	Key Findings Trends	Description	Supporting Sources
1	Shifting religious authority	Religious knowledge is no longer centered on teachers, but is spread through digital media, influencers, and online content.	Campbell (2021)
2	Digital religious literacy as the key to	The ability to assess the credibility of information, understand digital	Hoffmann & Reuter (2021)

	moderation	contexts, and engage in ethical dialogue determines students' religious moderation.	
3	Digitalization expands the space for religious dialogue	LMS, virtual classrooms, and interactive media enable dialogue between Islamic thought in a safe and educational manner.	Fidalgo-Blanco et al. (2021); Omar & Atallah (2022)
4	Teachers as digital moderators	Teachers play a role in selecting content, guiding discussions, and balancing the representation of religious discourse in digital spaces.	Hidayat et al. (2022)
5	Significant implementation barriers	The gap in teachers' digital infrastructure and competencies limits the effectiveness of digitalizing Islamic Education learning.	Sari & Wahyono (2021)
6	Conceptual research gap	There is not much research that integrates moderation, Islamic pedagogy, and digital technology into one comprehensive model.	Sugiyono & Rahmawati (2021)
7	Technology as a space for character transformation	Digitalization is not only a learning medium, but a means of forming a reflective, empathetic, and moderate religious attitude.	Zawacki-Richter (2020)

CONCLUSION

This study concludes that the transformation of Islamic Religious Education (PAI) learning in the Society 5.0 era demands a paradigm shift from learning centered on the transfer of material to dialogical, critical learning oriented toward the internalization of values through the use of digital technology. Digitalization presents a major shift in the educational ecosystem, particularly through the shift of religious authority from a centralized model to a distributed model, where students obtain religious information from various digital sources such as social media, video platforms, and online da'wah networks. This situation makes students vulnerable to partial, extreme, or manipulative information without strong critical thinking skills and digital religious literacy. The research findings indicate that digital religious literacy is a key foundation for developing moderate religious attitudes. Students must not only be able to access religious content but also be able to assess the credibility of sources, understand the bias of digital media algorithms, compare religious discourse objectively, and engage in dialogue with academic ethics and an open attitude. Without these skills, the massive flow of digital information can strengthen polarization, intolerance, and radicalization. The role of teachers is highly strategic in this context. Teachers are no longer simply transmitters of knowledge, but also function as digital moderating agents, guiding, selecting, and balancing religious discourse in digital learning spaces. However, several obstacles, such as limited teacher digital literacy and technological infrastructure, remain real challenges that need to be addressed through training, educational policies, and institutional support. The use of digital technology has proven capable of creating more contextual, interactive, and transformative learning experiences when designed with the right pedagogical approach. Therefore, the successful internalization of religious moderation in Islamic Religious Education (PAI) depends heavily on the simultaneous integration of students' digital literacy, teacher competency, and the optimization of technology as a space for dialogue and the experience of living values.

REFERENCES

Begum, A., Jingwei, L., Haider, M., Ajmal, M. M., Khan, S., & Han, H. (2021). Impact of

- environmental moral education on pro-environmental behaviour: Do psychological empowerment and islamic religiosity matter? *International Journal of Environmental Research and Public Health*, 18(4). <https://doi.org/10.3390/ijerph18041604>
- Berger, A., & Golan, O. (2024). Online religious learning: digital epistemic authority and self-socialization in religious communities. *Learning, Media and Technology*, 49(2). <https://doi.org/10.1080/17439884.2023.2169833>
- Cheng, L., & Kinoshita, R. (2024). Systematic Review of Technology-Based STEM Education Research in the United States. *TEM Journal*, 13(3). <https://doi.org/10.18421/TEM133-08>
- Chikeya, C. K., & Ntsalaze, L. (2025). Determinants of Household Debt: A Systematic Review of the Literature. In *Economies* (Vol. 13, Issue 3). <https://doi.org/10.3390/economies13030076>
- Dang, T. P., Bui, T. T., Bui, D. Q., Vuong, Q. A., & Kieu, T. L. (2025). Teachers' perspectives on the current state of the development of Vietnamese junior secondary school students' digital competence. *Data in Brief*, 60. <https://doi.org/10.1016/j.dib.2025.111507>
- Dyuti, S. S. (2026). Eviane Leidig, *The Women of the Far Right: Social Media Influencers and Online Radicalization*. *International Journal of Communication*, 20. <https://doi.org/10.65476/wx8ry683>
- Eddy Saputra, Nur Ali, Fery Rahmawan, Achmad Muhajir, & Ahmad Mujib. (2023). Development of Marriage Learning model in Islam through Project Based Learning in Higher Education. *Jurnal Iqra': Kajian Ilmu Pendidikan*, 8(2). <https://doi.org/10.25217/ji.v8i2.3706>
- Fasel, M., & Weerts, S. (2025). Between regulation, pressure and collaboration: the public-private entanglement in content moderation. *Telecommunications Policy*, 49(9). <https://doi.org/10.1016/j.telpol.2025.103024>
- Firayani, F. (2025). Digital Moderation in Islamic Education: Literacy, Ethics, and Relevant Da'wah Content. *Journal of Learning Spectrum*, 1(1). <https://doi.org/10.63985/jols.v1i1.28>
- Fitchett, G., Yao, Y., Emanuel, L. L., Guay, M. O. D., Handzo, G., Hauser, J., Kittelson, S., O'Mahony, S., Quest, T., Rabow, M., Schoppee, T. M., Solomon, S., Wilkie, D. J., & Chochinov, H. M. (2024). Examining Moderation of Dignity Therapy Effects by Symptom Burden or Religious/Spiritual Struggles. *Journal of Pain and Symptom Management*, 67(4). <https://doi.org/10.1016/j.jpainsymman.2024.01.003>
- Fuentes, N., Ugang, J., Galamiton, N., Bacus, S., Evangelista, S. S., Maturan, F., & Ocampo, L. (2026). When Large Language Models and Machine Learning Meet Multi-Criteria Decision Making: Fully Integrated Approach for Social Media Moderation. *Computers, Materials & Continua*, 86(1). <https://doi.org/10.32604/cmc.2025.068104>
- Gkrimpizi, T., Peristeras, V., & Magnisalis, I. (2023). Classification of Barriers to Digital Transformation in Higher Education Institutions: Systematic Literature Review. In *Education Sciences* (Vol. 13, Issue 7). <https://doi.org/10.3390/educsci13070746>
- Hadiyanto, A., Putri, K. Y. S., & Fazli, L. (2025). Religious moderation in Instagram: An Islamic interpretation perspective. *Heliyon*, 11(4). <https://doi.org/10.1016/j.heliyon.2025.e42816>
- Hakim, Z., Yanti, S., & Mukmin. (2025). Modernization Of Islamic Religious Education in The Era of Society 5.0. *Chalim Journal of Teaching and Learning*, 5(2). <https://doi.org/10.31538/cjotl.v5i2.2790>
- Herlina, Alfida, Maryam, S., & Hamdani, F. (2024). Bibliometric Visualization: Digital Publications Religious Moderation at Islamic Religious Universities in Indonesia. *Annals of Library and Information Studies*, 71(3). <https://doi.org/10.56042/alis.v71i3.8372>
- Herrero, E. R., Acero, N., Voity, K., McIlvaine, J., Oladipo, A. F., & Kayaalp, E. (2024). 724 Optimizing YouTube OB/GYN Video Search: The Impact of Adding Boolean Operators. *American Journal of Obstetrics and Gynecology*, 230(1). <https://doi.org/10.1016/j.ajog.2023.11.749>
- Horgan, J., Lorig, C., Borum, R., Allely, C. S., & Herrenkohl, T. I. (2024). Understanding and preventing violent extremism in school settings. *Journal of School Psychology*, 106. <https://doi.org/10.1016/j.jsp.2024.101346>
- Hwang, N. K., Shim, S. H., & Cheon, H. W. (2023). Digital learning designs in occupational therapy education: a scoping review. *BMC Medical Education*, 23(1).

- <https://doi.org/10.1186/s12909-022-03955-x>
- Ji, S., & Li, K. (2025). What factors promote Chinese English preservice teachers' development of digital literacy of teachers? A combination of SEM and NCA approaches. *Teaching and Teacher Education*, 168. <https://doi.org/10.1016/j.tate.2025.105227>
- Juhaidi, A., Fitria, A., Hidayati, N., & Saputri, R. A. (2025). Examining factors influencing enrolment intention in Islamic higher education in Indonesia, does Islamic senior high school matter? *Social Sciences and Humanities Open*, 11. <https://doi.org/10.1016/j.ssaho.2024.101243>
- Kasinathan, P., Pugazhendhi, R., Elavarasan, R. M., Ramachandaramurthy, V. K., Ramanathan, V., Subramanian, S., Kumar, S., Nandhagopal, K., Raghavan, R. R. V., Rangasamy, S., Devendiran, R., & Alsharif, M. H. (2022). Realization of Sustainable Development Goals with Disruptive Technologies by Integrating Industry 5.0, Society 5.0, Smart Cities and Villages. In *Sustainability (Switzerland)* (Vol. 14, Issue 22). <https://doi.org/10.3390/su142215258>
- Lahijanian, Z., Isaenko, N., Fusco, G., & Colombaroni, C. (2025). Empirical analysis of traffic patterns: Leveraging machine learning techniques for in-Depth insights. *Transportation Research Procedia*, 90. <https://doi.org/10.1016/j.trpro.2025.06.065>
- Laugu, N., Arianto, M. S., Mustafa, A., & Mukhlis. (2024). Correlative Effects Between Digital Literacy and Religious Authority Among Academic Communities in Indonesia. *International Journal of Media and Information Literacy*, 9(1). <https://doi.org/10.13187/ijmil.2024.1.142>
- Legi, H., Damanik, D., & Giban, Y. (2023). Transforming Education Through Technological Innovation In The Face Of The Era Of Society 5.0. *Educenter : Jurnal Ilmiah Pendidikan*, 2(2). <https://doi.org/10.55904/educenter.v2i2.822>
- Liu, Y. (2025). Developing an advanced machine learning model for identifying virtual montages in digital media. *Entertainment Computing*, 55. <https://doi.org/10.1016/j.entcom.2025.101002>
- Luthfi, A., Saputra, E., & Ali, N. (2025). Development of a Multicultural-Based Islamic Religious Education Learning Model in Fostering Moderate Attitudes of Junior High School Students in Cilegon. *Journal of Educational and Social Research*, 15(4). <https://doi.org/10.36941/jesr-2025-0126>
- Masuwai, A., Zulkifli, H., & Hamzah, M. I. (2025). Exploratory factor analysis of secondary school Islamic Education Teacher self-assessment Instrument: A pilot study. *Social Sciences and Humanities Open*, 11. <https://doi.org/10.1016/j.ssaho.2025.101573>
- Mercy Rolando, D., As'ad, M., Setiawati, R., & Fajri, . (2024). Strengthening Religious Literacy as an Effort to Overcome the Moral Degradation of Generation Z in the Digital Era. *KnE Social Sciences*. <https://doi.org/10.18502/kss.v9i12.15821>
- Momdjian, L., Manegre, M., & Gutiérrez-Colón, M. (2025). A study of preservice teachers' digital competence development: Exploring the role of direct instruction, integrated practice, and modeling. *Evaluation and Program Planning*, 109. <https://doi.org/10.1016/j.evalprogplan.2025.102538>
- Moslimany, R., Otaibi, A., & Shaikh, F. (2024). Designing a holistic curriculum: Challenges and opportunities in islamic education. *Journal on Islamic Studies*, 1(1). <https://doi.org/10.35335/beztg009>
- Rabiei, Z., Shariati, M., Mogharabian, N., Tahmasebi, R., Ghiasi, A., & Motaghi, Z. (2022). A review of guidelines, recommendations, and framework of men's preconception care. In *Reproductive and Developmental Medicine* (Vol. 6, Issue 4). <https://doi.org/10.1097/RD9.0000000000000030>
- Rahmadi, I. F. (2024). Research on Digital Transformation in Higher Education: Present Concerns and Future Endeavours. *TechTrends*, 68(4). <https://doi.org/10.1007/s11528-024-00971-0>
- Rahmanu, I. W. E. D., & Molnár, G. (2024). Multimodal immersion in English language learning in higher education: A systematic review. *Heliyon*, 10(19). <https://doi.org/10.1016/j.heliyon.2024.e38357>

- Saada, N. (2023). Educating for global citizenship in religious education: Islamic perspective. *International Journal of Educational Development*, 103. <https://doi.org/10.1016/j.ijedudev.2023.102894>
- Salman, S., Thalib, S. B., & Haling, A. (2022). Practicality and Effectiveness of Religious Moderation Learning Models: R&D Studies to Improve Students' Diversity Awareness. *Asian Journal of Applied Sciences*, 10(3). <https://doi.org/10.24203/ajas.v10i3.6964>
- Samala, A. D., Rawas, S., Zainuddin, Z., Howard, N. J., & Shilina, S. (2025). The role of non-fungible tokens in education: A comprehensive review and future directions. In *Social Sciences and Humanities Open* (Vol. 12). <https://doi.org/10.1016/j.ssaho.2025.101834>
- Samiee, M., Heggart, K., Birch, P., & Wallace, H. (2025). Digital neighbourhood moderation: online community safety and the role of Facebook group moderators in Queensland, Australia. *Journal of Criminological Research, Policy and Practice*. <https://doi.org/10.1108/JCRPP-05-2025-0034>
- Setinawati, Jeniva, I., Tanyid, M., & Merilyn. (2025). The framework of religious moderation: A socio-theological study on the role of religion and culture from Indonesia's perspective. *Social Sciences and Humanities Open*, 11. <https://doi.org/10.1016/j.ssaho.2024.101271>
- Sharma, S. (2023). Online Radicalisation: How Social Media Is Promoting Islamist Militancy. *South Asian Survey*, 30(2). <https://doi.org/10.1177/09715231231218822>
- Shin, D., & Jitkajornwanich, K. (2024). How Algorithms Promote Self-Radicalization: Audit of TikTok's Algorithm Using a Reverse Engineering Method. *Social Science Computer Review*, 42(4). <https://doi.org/10.1177/08944393231225547>
- Songkram, N., Chootongchai, S., Osuwan, H., Chuppunnarat, Y., & Songkram, N. (2023). Students' adoption towards behavioral intention of digital learning platform. *Education and Information Technologies*, 28(9). <https://doi.org/10.1007/s10639-023-11637-4>
- Stasiuk, O. (2025). Digital transformation of higher education institutions. *Problems and Prospects of Economics and Management*, 3 (43). [https://doi.org/10.25140/2411-5215-2025-3\(43\)-232-242](https://doi.org/10.25140/2411-5215-2025-3(43)-232-242)
- Subchi, I., Zulkifli, Z., Latifa, R., & Sa'diyah, S. (2022). Religious Moderation in Indonesian Muslims. *Religions*, 13(5), 451. <https://doi.org/10.3390/rel13050451>
- Sulastri, S., & Ismail, I. (2025). The Application of Technology-Enhanced Learning in the Development of Islamic Religious Education in Early Childhood. *Absorbent Mind*, 5(1). https://doi.org/10.37680/absorbent_mind.v5i1.6940
- Suraijiah, Rusdiana, Rusdiah, M. Ramli, & Murdan. (2023). The Effectiveness of Using Media Technology in Islamic Religious Education in an Independent Curriculum: Technocultural Study of Religious Education. *Jurnal Iqra': Kajian Ilmu Pendidikan*, 8(1). <https://doi.org/10.25217/ji.v8i1.2760>
- Tang, J., Huang, P., & Yan, S. (2025). Digital transformation in higher education: logical framework, practical dilemmas, and implementation approaches. *Frontiers in Psychology*, 16. <https://doi.org/10.3389/fpsyg.2025.1565591>
- Tavares, M. C., Azevedo, G., & Marques, R. P. (2022). The Challenges and Opportunities of Era 5.0 for a More Humanistic and Sustainable Society – A Literature Review. In *Societies* (Vol. 12, Issue 6). <https://doi.org/10.3390/soc12060149>
- Thida, M., Thwe, K. Z., Ko, T. K., Thuya, H., Naing, H. E. E., & Hlaing, H. O. W. (2025). Digital disparities in Myanmar: A case study for sustainable digitalization. In *Asian Politics and Policy* (Vol. 17, Issue 1). <https://doi.org/10.1111/aspp.70002>
- Vallo Hult, H., Abovarda, A., Master Östlund, C., & Pålsson, P. (2025). Digital learning strategies in residency education. *Annals of Medicine*, 57(1). <https://doi.org/10.1080/07853890.2024.2440630>
- Veroniki, A. A., Tricco, A. C., Rangira, D., McKenzie, J. E., Li, T., Straus, S. E., Smith, M., Catalá-López, F., Wolfe, D., Nincic, V., Konstantinidis, M., Franco, J., Tovey, D., Thirugnanasampanthar, S. S., Dourka, J., Warren, R., Wells, G., Stevens, A., & Hutton, B. (2025). Updating the PRISMA reporting guideline for network meta-analysis: a scoping review. *Journal of Clinical Epidemiology*, 188. <https://doi.org/10.1016/j.jclinepi.2025.111985>
- Wael, H., & Reda, A. (2025). Digital Islamic Authority and Muslim Identity within the Western

- Context. *International Journal of Islamic Thought*, 27. <https://doi.org/10.24035/ijit.27.2025.327>
- Wang, J., & Zhao, J. (2024). A virtual entity of the digital twin based on deep reinforcement learning model for dynamic scheduling process. In *Computer Aided Chemical Engineering* (Vol. 53). <https://doi.org/10.1016/B978-0-443-28824-1.50042-9>
- Xu, Z., Wang, Y., & Qian, Y. (2025). The design and application of in-depth interviews in primary care research. *Chinese General Practice Journal*, 2(2). <https://doi.org/10.1016/j.cgpj.2025.100062>
- Zainil, M., Kenedi, A. K., Rahmatina, Indrawati, T., & Handrianto, C. (2024). The Influence of STEM-Based Digital Learning on 6C Skills of Elementary School Students. *Open Education Studies*, 6(1). <https://doi.org/10.1515/edu-2024-0039>
- Zimmer, W. K., & Matthews, S. D. (2022). A virtual coaching model of professional development to increase teachers' digital learning competencies. *Teaching and Teacher Education*, 109. <https://doi.org/10.1016/j.tate.2021.103544>
- Zou, Y., Kuek, F., Feng, W., & Cheng, X. (2025). Digital learning in the 21st century: trends, challenges, and innovations in technology integration. In *Frontiers in Education* (Vol. 10). <https://doi.org/10.3389/feduc.2025.1562391>