

Conceptual Study of Technology-Based Learning Media in Internalizing Religious Ethical Values

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Abstract

The increasing moral challenges faced by students in the digital age require educational strategies that are not only cognitively oriented but also capable of fostering a commitment to religious values and ethical behavior. This study aims to formulate a conceptual framework on how technology-based learning media can be designed and implemented pedagogically to internalize religious ethical values in students, by linking the concepts of digital media, value internalization theory, religious character education, and the context of Society 5.0. The method used is a qualitative approach through literature study with content analysis; literature is selected from reputable scientific sources and analyzed thematically to map trends, media forms, success factors, and the potential and challenges of implementation. The results of the study show a shift in the function of technology from merely presenting material to becoming an effective "mediator of valuable experiences" when supported by learning orchestration (assignments, discussions, reflections) so that digital experiences are transformed into ethical meanings. The dominant media discussed include VR/360°, digital game-based learning, interactive multimedia, film-making/docutube, and the e-learning/LMS ecosystem, with the determining factors for success being the alignment of design with value objectives, teachers' pedagogical and digital literacy competencies, and institutional support (infrastructure, training, policies). The main challenges include the risk of reducing values to mere entertainment/visuals, access inequality, and the need for cultural sensitivity and a safe learning space. Conceptually, the internalization of religious ethical values through technology requires value-conscious learning design that is integrated, sustainable, and measurable within the educational ecosystem.

Keywords: technology-based learning media; internalization of values; religious ethics; character education; Society 5.0.

Introduction

Reports from various international institutions show that moral crises and juvenile delinquency continue to increase along with the penetration of digital technology. In Indonesia, data from the 2011–2019 Village Potential Survey (Podes) shows that the number of villages/subdistricts where juvenile delinquency occurs has risen from around 2,500 (2011) to around 3,100 (2019), including student fights, drug abuse, promiscuity, and other crimes involving students (Abdul et al., 2022). This increase correlates with the rapid flow of information and technology, which is often not balanced by adequate moral and religious literacy. At the same time, the adoption of online learning and e-learning is growing rapidly; a survey of 968 primary and secondary school teachers shows that the transformation to online learning is massive, although it is still marked by various infrastructure and digital competency challenges (Sofi-Karim et al., 2022). In the era of Society 5.0, when digital technology has become an integral part of daily life, digital literacy is positioned as the key to strengthening the character and ethics of students (Sugiarto & Farid, 2023). In the context of character education theory, the development of a well-rounded personality requires the integration of four main dimensions: emotional, intellectual, physical, and aesthetic development, which must work synergistically to produce moral and responsible behavior. Education, therefore, is not only tasked with transferring knowledge but also maximizing human potential toward moral, spiritual, and social perfection (Susilawati et al., 2022).

Technology-based learning media has emerged as one of the strategic innovations to address these demands. Digital platforms, educational applications, learning videos, and interactive media have been proven to improve access, flexibility, personalization, and interactivity in the teaching and learning process (Chusna et al., 2024; Josué et al., 2023). Various literature reviews show that digital learning platforms facilitate collaboration, provide diverse learning resources (text, video, interactive activities), and enable more accurate monitoring of learning progress (Josué et al., 2023; Shkurti, 2025). In contemporary social studies learning, technology-based media is considered crucial for integrating character education so that the learning experience becomes more holistic and produces a moral generation in the midst of society 5.0.

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(Suharsiwi et al., 2023) . However, the use of these media often focuses on cognitive achievements and technical skills, while the dimension of value internalization—especially religious ethical values—is often not yet systematically addressed (Dewi & Mastoah, 2025; Suharsiwi et al., 2023) . Theoretically, a technology-based learning approach oriented towards character needs to be based on the concept of value internalization, which is a gradual process starting from the transformation of value knowledge, value transactions in educational interactions, to the formation of value commitments that are manifested in the attitudes and real behavior of students (Susilawati et al., 2022) .

Meanwhile, religious education literature emphasizes that religious values are the main foundation for shaping the morals and ethics of the younger generation. The integration of religious values into character education, through the habit of worship (such as congregational prayers, recitation and memorization of the Qur'an, almsgiving) and the cultivation of religious schools, has been proven to contribute to the formation of a generation with noble character, integrity, and social awareness (Jakandar et al., 2025; Syukrin & Salahudin, 2024) . Islamic religious education is specifically aimed at instilling the values of justice, honesty, compassion, responsibility, and integrity, which serve as guidelines for behavior in daily life (Etika et al., 2024; Haerudin, 2025) . Studies on the internalization of moral and religious values show that effective strategies include modeling, analysis of actual problems, development of contextual values, and direct practice of moral values in students' daily activities (Muzakkir & Muhammad, 2024). From a religious education perspective, ethics and morality are not merely conceptual material, but principles that govern human behavior and must be integrated into the curriculum and learning practices explicitly and continuously (Etika et al., 2024; Komalasari & Yakubu, 2023). The challenges of the digital age—such as exposure to negative content, value relativism, and identity disorientation—make the internalization of religious ethical values through education increasingly urgent as a "moral shield" for Generation Z (Aprilia & Wahab, 2025; Dewi & Mastoah, 2025).

The development of information technology has opened up new opportunities for the internalization of religious values through technology-based learning media. Religious learning applications, social media with a religious tone, educational games with religious themes, and analysis of short videos relevant to religious themes are potential means of instilling religious-based ethical values in a more interesting and contextual way for the digital generation (Susilawati et al., 2022; Syukrin & Salahudin, 2024). Research on religious-based character in the digital age emphasizes the need to integrate character curriculum with digital literacy, including understanding online communication ethics, personal data protection, and the ability to filter information critically and responsibly (Hukubun et al., 2024; Sugiarto & Farid, 2023). At the educational unit level, various case studies show that the internalization of religious values is carried out through a combination of formal teaching, daily habits, and family involvement, so that religious values do not stop at the cognitive level but permeate the habits and moral identity of students (Fristyarini et al., 2025; Jakandar et al., 2025). However, the specific use of technology-based learning media for the purpose of internalizing religious ethical values is still relatively new and has not been studied in depth conceptually. Many studies highlight the role of technology in improving access and quality of learning, or the role of religious education in character building, but have not systematically elaborated on how technology-based design, content, and pedagogical strategies can be optimized to internalize religious ethical values (Chusna et al., 2024; Josué et al., 2023).

Starting from this theoretical gap, this article presents a conceptual study of technology-based learning media in internalizing religious ethical values. This study analyzes the concept of technology-based learning media, the theory of value internalization and religious character education, and relates them to the challenges and opportunities of education in the digital era and Society 5.0. By examining findings related to the integration of religious values in character education, strategies for internalizing moral values, and the use of digital media in learning, this article aims to formulate a comprehensive conceptual framework on how technology-based learning media can be designed and implemented pedagogically to effectively instill religious ethical values in students (Jakandar et al., 2025; Sugiarto & Farid, 2023)

Research Method

The research method used in this study is a qualitative approach with a literature study that uses content analysis. A qualitative approach was chosen because the focus of this study is to understand and interpret the content of articles discussing the use of technology-based learning media in religious education, as well as to explore further how this technology can support the internalization of religious ethical values.

This literature study will involve searching for and selecting relevant scientific articles from various leading sources such as Scopus, Google Scholar, ERIC, PubMed, and SpringerLink. The keywords used include religious education,

technology-based learning media, internalization of religious ethical values, and the effectiveness of technology- s in education. The selected literature will be filtered based on criteria of substantive relevance, source credibility, and recency of study, in order to reflect the latest developments in the field of religious education and technology (Snyder, 2020).

After the relevant articles were collected, content analysis was conducted by identifying the main themes that emerged in the text, such as trends and gaps in research related to the use of digital learning media, types and characteristics, factors influencing the successful implementation of technology in religious education, and the potential and challenges of its use in learning. These themes will be analyzed systematically to gain a deeper understanding of the benefits and challenges associated with the use of technology in religious education.

In addition, this content analysis will examine how technology in religious education plays a role in internalizing religious ethical values, as well as relevant strategies to improve the implementation of this technology in the context of religious education (Anshori & Zainal, 2021; Purnomo et al., 2021). The results of this analysis will provide evidence-based insights into the role of technology in religious education and how technology can support the process of internalizing religious ethical values in education.

RESULTS AND DISCUSSION

Trends and gaps in research findings related to the application of digital learning media

Trends and gaps in research findings related to the application of digital learning media in internalizing religious ethical values show a consistent shift: technology is no longer positioned solely as a tool for presenting material, but rather as a mediator of valuable learning experiences which, when properly designed and facilitated, can trigger moral reflection, habit formation, and the development of ethical behavior (Aseery, 2024; Aukland et al., 2024; Papakostas, 2024; Wolffe et al., 2024).

VR/360 images in the immersive realm are seen as capable of expanding access to experiences and shifting learners' perspectives on value-laden contexts. However, their effectiveness still depends on pedagogical bridges through classroom activities (e.g., discussion and reflection) so that digital experiences truly transform into ethical meaning-making (Aukland et al., 2024). In line with this, digital game-based learning is seen as having the potential to build "immersive-interactive-experiential" experiences that support deeper engagement and understanding, but the literature emphasizes the main requirements: game design must be aligned with pedagogical goals, manage cognitive load, and be culturally sensitive so that religious values/ethics learning is not reduced to entertainment (Papakostas, 2024).

At the learning strategy level, multimedia such as digital storytelling, gamification, audio/multimedia, and film/dialogue-based media are presented as drivers of motivation and engagement necessary for students to actively participate in the process of learning values. The literature also emphasizes that the role of teachers and the learning environment are determining factors in ensuring that such engagement truly leads to the internalization of ethical attitudes (Aseery, 2024). Creative-collaborative approaches such as film-making/docutube are positioned as vehicles for social learning through a series of production stages (planning–production–reflection) that encourage dialogue, cooperation, and cross-difference relationships relevant to the formation of ethics (Wolffe et al., 2024).

Islamic Religious Education shows that implementation trends are moving towards the use of *e-learning*, interactive videos, mobile applications, LMS, and online platforms to aid in the understanding of abstract material while directing learning towards the internalization of Islamic values (aqidah–akhlak–ibadah) and character building (Ali, 2025; Sholihah et al., 2025). This trend also includes strengthening religious moderation through more contextual media (Putri et al., 2026), as well as an emphasis that digital transformation requires Information and Communication Technology (ICT) literacy and a 21st-century learning framework that needs to be guided so that it remains focused on ethics in learning practices and digital interactions (Ramadhan et al., 2025). On the development and conceptual framework side, research shows a trend of media/learning design that is explicitly value-oriented, such as the development of digital media for the internalization of religious moderation in early childhood education (Munawaroh, 2025), the integration of religious values in the design of digital technology-based PAI learning in the Society 5.0 era (Jannah et al., 2025), as well as strategies for internalizing morals that emphasize curriculum integration, role modeling, spiritual habits, and the use of digital media

as an ecosystem (Januaripin et al., 2025).

However, the literature consistently highlights the limitations of empirical evidence and the need for methodological strengthening: VR/360 studies are still limited, requiring more systematic follow-up research (Aukland et al., 2024), while DGBL requires validation of real-classroom implementation, convincing impact measurement, and management of digital divide and cultural sensitivity issues (Papakostas, 2024). Literature review-based studies of motivation and engagement also require more rigorous and standardized testing in specific contexts (Aseery, 2024), and the docutube/film-making approach still leaves a need for evidence of long-term impact on ethical attitude change (Wolffe et al., 2024). In the context of Islamic Education (PAI), the effectiveness of digital media is reported to be influenced by infrastructure readiness, content alignment with the curriculum, and disparities in teachers' digital competencies, making it difficult to generalize findings across schools (Ali, 2025; Sholihah et al., 2025), and there is a risk that learning will become predominantly cognitive-visual and weaken spiritual/affective depth if it is not holistic and contextual (Ali, 2025; Ramadhan et al., 2025). Therefore, a more systematic, sustainable, and measurable integration is needed so that the internalization of religious ethical values through digital media does not stop at claims of effectiveness but produces a stable and replicable implementation model across contexts (Jannah et al., 2025; Januaripin et al., 2025; Munawaroh, 2025; Putri et al., 2026).

Forms and characteristics of digital learning media

Digital learning media in this conceptual study is understood as technology-based tools, platforms, and content designed to mediate learning experiences while supporting the internalization of religious ethical values through meaning-making, habituation, and reflection. Within this framework, digital media is not positioned solely as a channel for conveying information, but rather as a learning environment that allows students to interact with representations of values, engage in meaningful activities, and process learning experiences into ethical understanding and attitudes (Aukland et al., 2024; Papakostas, 2024; Ramadhan et al., 2025; Wolffe et al., 2024). In the context of PAI learning, digital media also includes online learning ecosystems such as e-learning and LMS, as well as the use of popular digital platforms for presenting material, exercises, evaluations, and learning interactions across space and time (Ali, 2025).

The forms of digital learning media in the analyzed literature can be classified into several categories. First, immersive media such as VR/360° (360-videos/360-images) function as *learning materials* that provide a contextual experience of "being on location," allowing learners to explore meaning through immersive visual representations. However, in order for value learning not to stop at the viewing experience, the use of this media requires follow-up pedagogical activities such as assignments, discussions, and reflections as mechanisms for processing meaning (Aukland et al., 2024). Second, digital game-based learning is understood as game-based learning media with *immersive-interactive-experiential* characteristics that rely on interaction, challenges, and learning experiences in game mechanics; these characteristics require alignment of design with pedagogical objectives, management of cognitive load, and cultural sensitivity so that games continue to function as a medium for learning values and not merely entertainment (Papakostas, 2024). Third, the operational form in the classroom appears as multimedia and ICT-based strategies such as *computer-based iterative teaching*, *digital storytelling* (including animation), *gamification*, audio technology support, and film/dialogue-based media for discussion; this category emphasizes the multimodal (text-audio-visual) and interactive nature of digital media to encourage the engagement required in the process of learning values (Aseery, 2024). Fourth, content-based digital media such as *film-making/docutube* (short documentary films) position learners as knowledge producers through collaborative work, dialogue, and reflection, and are positioned to encourage *deep learning* and cross-group understanding relevant to the formation of ethics (Wolffe et al., 2024).

In the context of Islamic Education (PAI), media formats also include e-learning, interactive videos, mobile applications, and Learning Management Systems (LMS), including the use of platforms such as YouTube, Canva, and Quizizz as tools for presenting materials, exercises, evaluations, and learning interactions (Ali, 2025). In madrasahs, interactive media and Islamic applications are positioned to incorporate values (aqidah-akhlak-ibadah) into learning content, so that "digital" is understood as a medium that carries values and is not merely a presentation tool (Sholihah et al., 2025). In addition, audiovisual and interactive multimedia media are positioned to help internalize religious moderation through case visualization, social simulation, and contextual narratives that are close to the reality of students (Putri et al., 2026). In the realm of value-based learning development and design, digital media also appears as interactive multimedia based on educational games for the internalization of moderation in early childhood education (Munawaroh, 2025). Another form appears as a digital PAI activity ecosystem in the form of digital religious habits, digital moral stories,

e-fiqh labs, VR-based worship simulations, and digital ethics reflections (Jannah et al., 2025). In an integrative madrasah strategy, the use of interactive videos and online quizzes is also positioned as a medium to support the formation of character (Januaripin et al., 2025).

The characteristics of digital learning media from all of the articles are relatively consistent. First, digital media is interactive and multimodal because it combines text, audio, visuals, animation, simulation, or game mechanics to build engagement and facilitate understanding (Ali, 2025; Aseery, 2024; Munawaroh, 2025). Second, digital media is flexible and adaptive through the use of online platforms and LMS that expand learning access and enable learning activities across space and time (Ali, 2025). Third, within the framework of religious ethics internalization, the defining characteristics are value orientation and reflection: digital media is positioned as an intermediary for the internalization of attitudes and values through the integration of Islamic substance into content (Munawaroh, 2025), strengthening moderation through audiovisual media and contextual narratives (Putri et al., 2026), and learning designs that emphasize religious habits, practices, and digital ethics reflection (Jannah et al., 2025). Thus, relevant digital learning media in this study are not measured solely by the level of technological innovation, but by their ability to facilitate valuable learning experiences through meaning-making, dialogue, collaboration, and reflection, thereby supporting the character and moral development of students (Januaripin et al., 2025; Ramadhan et al., 2025).

Factors Affecting the Success of Technology-Based Learning Media

The success of technology-based learning media does not depend on the level of sophistication of the device, but on the integration of design, pedagogy, and the learning ecosystem. Media works effectively when the design is aligned with learning objectives, manages cognitive load, and is responsive to cultural context and representation (Papakostas, 2024). This alignment is the basis for technology to serve as a learning tool, not just an attractive digital feature. Beyond design, learning outcomes are also influenced by learning management that encourages the process of meaning-making. VR/360° or immersive media experiences need to be accompanied by a series of tasks, discussions, and reflections so that "rich" experiences turn into meaningful understanding, rather than remaining mere "spectacles" (Auckland et al., 2024). This means that technology has an impact when teachers process these experiences through pedagogical strategies in the classroom.

Teachers' pedagogical competence and digital literacy remain irreplaceable determinants that technology cannot replace. Approaches such as digital storytelling, animation, and gamification yield better results when teachers set the pace of learning, divide tasks into controlled stages, provide feedback, and build a supportive classroom climate so that student motivation and engagement increase (Aseery, 2024). For sensitive topics such as religion and ethics, learning also requires psychological safety, appropriate facilitation, and technical support so that collaborative work, such as film-making or docutube, fosters understanding and respect rather than triggering conflict (Wolffe et al., 2024). At the system level, the effectiveness of technology-based learning media is also determined by institutional readiness through infrastructure, teacher training, curriculum load, equitable access, and consistent school policies. Without this support, the use of digital media often stops at the operational level and does not form a complete learning experience (Ali, 2025; Putri et al., 2026; Sholihah et al., 2025). These institutional factors determine whether technology can be sustainable and enjoyed equally.

From a development perspective, learning outcomes tend to improve when media is structured using the R&D/ADDIE model, undergoes expert validation, gradual testing, and interactive-visual design based on educational games, which have been proven to improve learning outcomes (Munawaroh, 2025). In PAI learning in the Society 5.0 era and the madrasah context, another key emerges in the integration of pedagogy, content, and technology through frameworks such as TPACK/ADDIE, digital ethics reflection, and synergy between technology and spirituality supported by teacher role models, habit formation of values, and process-oriented character evaluation (Jannah et al., 2025; Januaripin et al., 2025). Technology-based value learning also requires a consistent character-building environment, namely an Islamic school culture, exemplary educators, and parental involvement, so that the internalization of values does not stop in the classroom or in digital activities, but continues in the daily lives of students (Ramadhan et al., 2025).

The effectiveness of technology-based learning media in Islamic Religious Education in cognitive, affective, and psychomotor aspects is influenced by the careful selection of media that is in line with the learning material and objectives (Hapiz, 2024; Yuniarti et al., 2024), and is further reinforced by the pedagogical abilities of teachers and their level of mastery and application of technology during the learning process (Hapiz, 2024). In the affective aspect, media works optimally when it is able to foster attention, emotions, and interest in learning, and is supported by the willingness and motivation of teachers and students in utilizing learning media (Hapiz, 2024; Yuniarti et al., 2024). In the psychomotor aspect, technology needs to be used to facilitate skill practice and performance, in line with the function of PAI which fosters knowledge, skills, and attitudes, thus requiring teacher creativity, including fluency, flexibility, originality, and

elaboration, as well as the readiness of teachers to continuously update and integrate technology in learning (Hapiz, 2024; Yuniarti et al., 2024). However, achievements in these three aspects can be hampered by limitations in facilities and infrastructure, such as a lack of multimedia facilities, technical constraints during use, and weak operational support from schools (Yuniarti et al., 2024).

Potential and Challenges in Implementing Technology-Based Learning Media to Internalize Religious Ethical Values

Technology-based learning media has strong potential to internalize religious ethical values when technology is positioned as a pedagogical tool that provides meaningful experiences, triggers moral reflection, and facilitates dialogue on values. VR/360° can broaden the learning experience through immersion so that students gain new perspectives that spark ethical reflection and make value discussions feel more contextual (Aukland et al., 2024). Digital game-based learning (DGBL) also has the potential to foster engagement and train value-based decision-making due to its interactive nature and the fact that it allows students to "test" the consequences of their choices in structured scenarios; this effectiveness is strengthened when the game design is aligned with pedagogical objectives, the religious content is accurate, and it is sensitive to cultural diversity (Papakostas, 2024). Creative-collaborative approaches such as *film-making/docutube* also have the potential to internalize values of tolerance and respect because they provide a process of collaboration and shared reflection in a relatively safe space for dialogue (Wolffe et al., 2024).

In basic religious education, digital strategies such as *digital storytelling*, animation, and film dialogue can increase motivation and *engagement*, which are prerequisites for ethical values to go beyond memorization and be processed in a meaningful way (Aseery, 2024). Similar potential is also evident in the broader context of Islamic education: interactive digital media in early childhood education can help children recognize and practice the value of religious moderation (Munawaroh, 2025). The use of technology in Islamic education in the Society 5.0 era is emphasized as a reinforcement for character building and media ethics (Jannah et al., 2025). and in madrasahs, technology is considered effective when synergized with spirituality through a values-based curriculum, role modeling, and habit formation (Januari-pin et al., 2025). Thus, technology opens up space for the internalization of values through experiences, involvement, and habit formation that are closer to the learning reality of students.

The most decisive challenge in implementation lies not in the "presence or absence of technology," but in the quality of learning design and its supporting ecosystem. DGBL risks shifting into entertainment if the alignment of goals and values is weak, the cognitive load is not managed, or the representation of religious traditions is not handled carefully (Papakostas, 2024). VR/360° can lose its internalization impact if the immersive experience is not followed up with meaning-making activities through structured discussion and reflection, and can be disrupted by physical-technical constraints such as *cybersickness* or device quality that reduces learning focus (Aukland et al., 2024). *Film-making/docutube* faces social-ethical challenges because religious issues touch on personal identity, requiring careful facilitation, safe spaces, and institutional support to ensure the collaborative process does not trigger discomfort or conflict (Wolffe et al., 2024).

At the classroom level, the role of teachers remains the main driver because technology is only effective when accompanied by pedagogical strategies that maintain *engagement*, provide feedback, and build a supportive learning climate (Aseery, 2024). Challenges in the context of early childhood education, Society 5.0, and madrasahs also include educator competence, technology integration into learning, continuous training, and process-oriented character evaluation so that the internalization of values is not interrupted and does not stop as a mere digital activity (Jannah et al., 2025; Januari-pin et al., 2025; Munawaroh, 2025). In other words, the potential for internalizing religious ethical values through technology will be consistently realized when media design is aligned with goals and values, learning guides ethical reflection, social-ethical risks are managed, and ecosystem support ensures that the practice of values continues beyond digital activities (Aseery, 2024; Aukland et al., 2024; Papakostas, 2024; Wolffe et al., 2024).

The implications of values in PAI learning, as well as its potential and challenges, can be mapped into the cognitive, affective, and psychomotor domains. The cognitive domain in PAI learning is strengthened through the use of technologies such as VR/360°, digital game-based learning (DGBL), and interactive multimedia, which enable students not only to receive material but also to experience and interpret values through scenarios, visualizations, and immersive experiences

that encourage reflection and ethical reasoning (Aseery, 2024; Aukland et al., 2024; Papakostas, 2024). The challenge in this area lies in the risk of superficiality when technology only serves as a content presenter; without pedagogical design that guides discussion, reflective tasks, and concept reinforcement, digital experiences can stop at mere entertainment (Aukland et al., 2024; Papakostas, 2024).

The strengthening of the affective domain in PAI learning is evident through the potential of digital media to foster emotional involvement, empathy, and moral awareness through immersive experiences and creative-collaborative approaches such as film-making or docutube, which encourage dialogue on values, tolerance, and respect (Aukland et al., 2024; Wolffe et al., 2024). Multimedia and digital storytelling also enhance motivation and engagement as prerequisites for personalizing religious values (Aseery, 2024). Challenges in the affective domain arise when emotional involvement is not guided through teacher facilitation, structured reflection, and a safe classroom environment, as well as the limited evaluation of attitude changes in digital learning (Aseery, 2024; Wolffe et al., 2024).

The manifestation of the psychomotor domain in PAI learning is reflected in the opportunities offered by technology to encourage ethical practices and habits through interactive activities, value-based decision-making, and digital projects that train responsibility and media ethics (Jannah et al., 2025; Papakostas, 2024). Digital media in the context of early childhood education and madrasahs also supports the practice of religious moderation and character building through structured activities (Januaripin et al., 2025; Munawaroh, 2025). The main challenge in this area lies in the continuity of practice, as digital activities often stop at technical skills without continuing into religious habits outside the classroom, especially when school ecosystem support, teacher role modeling, and character evaluation are not yet optimal (Jannah et al., 2025; Januaripin et al., 2025; Munawaroh, 2025).

The results of the study confirm a shift in the landscape of digital learning media from "presenting material" to "mediating valuable experiences" that guide meaning-making, moral reflection, attitude formation, and the development of ethical behavior. A common thread across technologies shows that the internalization of religious ethical values does not automatically increase because the medium is digital; it is effective when placed in a pedagogical design that deliberately directs the meaning-making process, not just enriching the appearance of learning (Aseery, 2024; Aukland et al., 2024; Papakostas, 2024; Wolffe et al., 2024).

In the immersive realm, VR/360° appears as *an experience expander* that opens up access to value-based experiences and encourages a shift in the perspective of learners. However, the main gap is clear: immersive experiences can stop at visual sensations if they are not bridged by structured classroom activities (assignments, discussions, reflections) to ensure that the internalization process truly occurs (Aukland et al., 2024). This underscores the theory–outcome convergence: immersion provides the “raw material of experience,” while pedagogy serves as the “meaning-processing engine”; without it, ethics education tends to become *exposure* rather than *formation*. DGBL shows that research trends reinforce immersive–interactive–experiential learning because learners can “test” the consequences of choices and experience the dynamics of value-based decisions. However, recurring gaps emerge when DGBL shifts into entertainment due to designs that are misaligned with pedagogical goals, fail to manage cognitive load, or lack cultural sensitivity. Therefore, DGBL that is relevant to the internalization of religious ethics is one that links mechanics, narrative, and feedback to guide conscious value reflection, so that success is not measured by “feature sophistication” but rather “design-value alignment” (Papakostas, 2024).

At the operational strategy level, multimedia (digital storytelling, gamification, audio/multimedia, film/dialogue) is strengthening its role as a driver of motivation and engagement; however, engagement is positioned as a prerequisite, not an end goal, because it must be directed towards changing attitudes and ethical habits. Here, teachers become a leveraging variable through pacing, task breakdown, feedback, and the creation of a supportive classroom climate so that digital activities do not become fragmented and “loud but empty of value” (Aseery, 2024). In line with this, creative-collaborative approaches such as film-making/docutube shift students from being content consumers to meaning producers; the planning–production–reflection process encourages dialogue, cooperation, and encounters across differences that are relevant to the formation of ethics, although there is still a need for evidence of long-term impact and character evaluation that is not solely based on the final product (Wolffe et al., 2024).

Success factors and emerging integrative patterns include the alignment of media design with pedagogical objectives and context, the orchestration of learning to transform experiences into meaning (tasks–discussions–reflection), teachers’ pedagogical competence and digital literacy, and institutional support (infrastructure, training, policies, equitable access). This pattern is consistent across media: VR/360° requires a reflection bridge (Aukland et al., 2024), DGBL requires alignment of goals–values and management of cognitive load (Papakostas, 2024), multimedia requires teacher facilitation and a supportive learning climate (Aseery, 2024), and creative collaboration requires a safe space and technical-social support (Wolffe et al., 2024). At the PAI system level, teacher competence and institutional support are the main

differentiators that make implementation results difficult to generalize across schools (Ali, 2025; Putri et al., 2026; Sholihah et al., 2025).

On the development side, the study also confirms that media designed systematically through a development model (e.g., R&D/ADDIE), validated by experts, and tested in stages tends to be more robust because it ties technology to learning objectives and user experience from the outset. The development of interactive multimedia based on educational games for the internalization of moderation in early childhood education highlights the importance of interactive-visual design that is not only attractive but also measurable and tested (Munawaroh, 2025). In PAI in the Society 5.0 era, the direction of strengthening is towards the integration of pedagogy–content–technology (e.g., the TPACK/ADDIE framework) and digital ethics reflection so that digital transformation does not merely modernize learning but also shapes character in learning practices and digital interactions (Jannah et al., 2025; Ramadhan et al., 2025). In the context of madrasahs, the internalization of integrative character emphasizes the curriculum, role models, spiritual habits, and digital media as an ecosystem for character building, rather than as separate components (Januaripin et al., 2025).

The main gaps are methodological and implementational: VR/360° studies are still limited, requiring more systematic research to confirm the internalization mechanism of values (Aukland et al., 2024); DGBL requires stronger validation in real classrooms, including measuring learning impact, digital divide issues, and cultural sensitivity (Papakostas, 2024); Motivation-engagement studies still require more standardized testing in specific contexts (Aseery, 2024); and docutube/film-making still requires evidence of long-term ethical attitude change (Wolffe et al., 2024). In PAI, the implementation gap is evident in the imbalance of infrastructure, the quality of content that is aligned with the curriculum, and the uneven digital competence of teachers, making success difficult to replicate (Ali, 2025; Sholihah et al., 2025). Therefore, there is a growing need for a stable implementation model—one that is integrated, sustainable, measurable, and transferable across contexts without losing its value content (Jannah et al., 2025; Januaripin et al., 2025; Munawaroh, 2025; Putri et al., 2026).

Overall, the theory positions digital media as a valuable learning environment, while the results of the discussion show that the internalization of religious ethical values occurs when the environment is "programmed" by value-conscious pedagogical design—involving reflection, dialogue, habituation, role modeling, and institutional support. Therefore, the most rational indicator of success is not "how sophisticated the media is," but rather "how consistently the media triggers ethical meaning and habituation" in a holistic PAI learning ecosystem (Ali, 2025; Januaripin et al., 2025; Ramadhan et al., 2025).

Conclusion

This study concludes that technology-based learning media can be a powerful tool for internalizing religious ethical values, especially because it can provide interactive, contextual learning experiences that are close to the reality of the learners. However, ethical impacts do not automatically arise simply because the technology is "modern." The success of internalizing values depends heavily on value-conscious learning design: value objectives must be clear, and content and activities must guide learners from understanding values to reflecting on their meaning and practicing behaviors. In addition, school ecosystem factors also play a role, such as teacher readiness, digital literacy, infrastructure availability, and a consistent school culture in both offline and online learning spaces. Without pedagogical reinforcement and institutional support, technology risks remaining at the level of visuals and entertainment, so that the targeted values are not realized in real attitudes and actions.

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