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Strengthening Digital Literacy in Islamic Religious Education (PAI) Learning

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ABSTRACT

The purposes of this research are to: (1) describe the concept of digital literacy and its relevance to PAI learning; (2) analyze strategies for strengthening digital literacy; (3) identify challenges and opportunities; and (4) explain the role of PAI teachers in digital literacy strengthening. This study synthesizes qualitative library research, analyzed through content analysis and source triangulation of published literature rather than field data, to strengthen digital literacy in Islamic Religious Education (PAI) learning. Findings identify four interrelated strategies operating at structural, cognitive, and behavioral levels: curriculum integration, critical thinking through a source-verification strategy, digital da'wah through social media, and value-based digital ethics. The study's contribution lies in grounding the verification strategy within the Islamic principle of tabayyun, and in adopting—not modifying—an existing five-stage learning model as an analytical framework linking these strategies. Infrastructure gaps and negative digital content remain key challenges; the proposed framework itself has not yet been empirically tested.

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digital literacy;
CAKEP learning;
islamic religious education.

INTRODUCTION

The rapid development of information and communication technology (ICT) in the 21st century has brought significant changes across various aspects of human life, including education. The digital era, characterized by the proliferation of the internet, social media, and various digital platforms, demands that every individual be able to adapt and utilize technology wisely and productively. In this context, digital literacy has become a competency that can no longer be ignored, including in the process of Islamic Religious Education (PAI) learning.

Digital literacy is not merely the ability to use technological devices; rather, it encompasses the capacity to access, understand, analyze, evaluate, and create digital content critically and responsibly (Jury et al, 2023; Mairisiska et al, 2023). Susilawati et al. (2021) further emphasize that for Generation Z, born into a world where technology is omnipresent, digital literacy is inseparable from their identity as learners, requiring PAI educators to bridge traditional religious knowledge with digital competency.

PAI, as one of the core subjects in schools, has a strategic role in the formation of students' character and morality. However, the challenges faced in PAI learning today are quite complex. On one hand, PAI teachers are required to integrate digital technology into the learning process to stay relevant. On the other hand, the use of digital technology without adequate literacy can cause negative impacts, such as susceptibility to radicalism content, religious hoaxes, and misleading information widely circulated in cyberspace.

Existing literature indicates that most students today can be classified as digital natives, having been introduced to technology from an early age. However, this familiarity with digital tools does not automatically translate into sound digital literacy competence. Rohmah and Wijaya (2021) found that many students remain unable to distinguish valid religious information from erroneous content circulating in digital media, while Munadirin et al. (2023) argue that this gap calls for a fundamental transformation of PAI learning approaches through active digital engagement rather than passive technology adoption.

Previous studies have addressed isolated dimensions of this issue rather than an integrated one. Nuryana (2019) examined the systematic integration of technology into the PAI curriculum, focusing on lesson planning and the selection of digital learning resources, but did not address how such integration develops students' critical thinking toward digital religious content. Muzakki (2019) explored the incorporation of Islamic ethical values—such as *sidiq*, *amanah*, *tablig*, and *fathanah*—into a digital-based PAI curriculum, yet stopped short of offering an operational pedagogical model linking these values to concrete digital-literacy practices such as source verification or claim-tracing. Similarly, Arifin and Listyarini (2020) proposed the SIFT strategy for the critical evaluation of digital information but did not situate this strategy within a broader PAI curricular framework. Consequently, the literature still lacks a synthesis that integrates curriculum design, critical-thinking strategies, and value-based digital ethics into a single, applicable pedagogical model for PAI learning. This study addresses that gap by developing an integrative framework—culminating in the CAKEP learning model—that connects these previously disconnected strands into a coherent, actionable strategy for strengthening digital literacy in PAI learning. The objectives of this research are to: (1) describe the concept of digital literacy and its relevance to PAI learning; (2) analyze strategies for strengthening digital literacy; (3) identify challenges and opportunities; and (4) explain the role of PAI teachers in digital literacy strengthening.

METHOD

This research employs a qualitative approach with a library research (*kajian pustaka*) design. According to Sari and Asmendri (2020), library research is a type of research conducted by systematically collecting data and information through documents such as reference books, journal articles, and prior research results relevant to the issue being studied.

Literature was retrieved from academic databases including Google Scholar, Garuda (Garba Rujukan Digital), and Sinta-indexed Indonesian journal repositories, using combinations of the following keywords. The search was limited to

publications from 2017–2024, reflecting the period in which digital literacy discourse in Islamic education began to intensify following the widespread adoption of e-learning platforms. Regarding the validity of library research, Haryono et al. (2024) assert that library research at higher education institutions requires a new paradigm that emphasizes systematic, transparent, and auditable data collection and analysis processes, which this study adheres to through source triangulation.

The data analysis technique used is content analysis. Each selected source was coded according to three thematic categories derived from the research objectives: (1) conceptual definitions and components of digital literacy; (2) strategies, models, and teacher roles in PAI-based digital literacy; and (3) challenges and opportunities in implementation. Recurring themes within each category were identified through iterative reading and comparison across sources, and were then synthesized into the strategic framework presented in the Results section. Regarding the validity of library research, Haryono et al. (2024) assert that library research at higher education institutions requires a new paradigm that emphasizes systematic, transparent, and auditable data collection and analysis processes, which this study adheres to through the search protocol and coding procedure described above.

Source validation was conducted through triangulation of sources by comparing findings across multiple references addressing the same theme, in order to ensure the consistency and validity of the conclusions drawn. This approach aligns with the nature of qualitative content analysis in educational research, where systematic synthesis of existing literature allows for the construction of new frameworks and theoretical insights (Susilawati et al., 2021).

RESULTS

Digital Literacy: Concept and Relevance to PAI Learning

Digital literacy is a continuously evolving concept alongside advances in ICT. According to Sulisworo and Arifin (2020), digital literacy is the ability of individuals to use digital technology, communication tools, and networks to access, manage, integrate, evaluate, and create information effectively. This definition emphasizes that digital literacy is not only about mastering tools but also about critical thinking

in processing digital information. Pratiwi and Pritanova (2017) divide digital literacy into several components: (1) internet literacy; (2) media literacy; (3) information literacy; (4) communication literacy; and (5) technological literacy. Susilawati et al. (2021) add that for Generation Z, these components must be embedded within their identity formation, as digital and real-life experiences are inseparable for this cohort.

Read together, these sources reveal a consistent conceptual shift across the literature: from the 2017–2020 definitions that treat digital literacy primarily as a skill set (Pratiwi & Pritanova, 2017; Sulisworo & Arifin, 2020) toward the 2021 formulation that treats it as an identity dimension (Susilawati et al., 2021). This shift matters for PAI specifically, because it reframes the pedagogical target: teaching digital literacy as a discrete skill module is a narrower task than cultivating it as part of how students understand themselves as both digital natives and Muslims. PAI learning has a very close relevance to the development of digital literacy. From a content perspective, Islam teaches the importance of seeking knowledge, verifying information, and spreading truth. Hidayat and Nizar (2021) affirm that the concept of *tabayyun* in QS. Al-Hujurat: 6 has strong relevance to the principle of critical thinking in digital literacy, while Munadirin et al. (2023) demonstrate that active deep-learning experiences in the digital era strengthen the integration of Islamic values with digital competencies. The convergence of these two findings — a theological verification principle (*tabayyun*) and an empirically observed pedagogical mechanism (active deep learning) — indicates that PAI is not merely a subject that can accommodate digital literacy, but one that already possesses an internal doctrinal basis for teaching it.

Strategies for Strengthening Digital Literacy in PAI Learning

Four main strategies are identified for strengthening digital literacy in PAI learning. First, integration of technology into the PAI curriculum. Nuryana (2019) argues that this must be planned systematically, starting from lesson plan preparation, selection of valid digital learning resources, and technology-based evaluation. Second, development of students' critical thinking toward digital religious information. Arifin and Listyarini (2020) propose the SIFT strategy (Stop,

Investigate the source, Find better coverage, Trace claims), developed through activities such as hadith verification practice and discussion of religious content on social media. Third, utilization of social media as a platform for digital da'wah. Ramadhan and Syamsuddin (2022) state that this approach helps students develop a positive Islamic identity in cyberspace through digital content creation projects, and Wahyudi and Mustafa (2021) demonstrate that project-based learning in this context is effective in increasing student motivation. Fourth, curriculum development integrating Islamic values with digital ethics. Muzakki (2019) argues that the PAI curriculum must instill values such as *sidiq*, *amanah*, *tablig*, and *fathanah* within digital contexts.

Across these four strategies, a clear division of function emerges rather than four unrelated recommendations. Nuryana's (2019) curriculum-integration strategy and Muzakki's (2019) value-based curriculum strategy both operate at the structural level – they shape what is planned and taught. Arifin and Listyarini's (2020) SIFT strategy operates at the cognitive-skill level – it shapes how students process information once presented to them. Ramadhan and Syamsuddin's (2022) digital da'wah strategy, supported by Wahyudi and Mustafa (2021), operates at the behavioral-output level – it gives students a productive channel to apply the first two levels. This three-tier pattern (structural planning → cognitive skill → behavioral application) suggests that the four strategies identified in the literature are not interchangeable options but sequential and complementary layers, none of which is sufficient in isolation – a relationship the source studies, taken individually, do not make explicit.

The Role of PAI Teachers

The success of digital literacy strengthening in PAI learning is highly dependent on the digital competency of PAI teachers. According to Ismail and Rahman (2020), the digital competencies needed include: (1) the ability to use digital learning platforms; (2) the ability to curate valid Islamic learning resources; (3) the ability to create engaging digital content; (4) the ability to manage virtual classrooms; and (5) the ability to conduct technology-based assessment. Artini and

Padmadewi (2018) emphasize that teacher modeling is the most effective strategy in character education, including the formation of students' digital character.

Comparing these two sources shows that Ismail and Rahman's (2020) five competencies are primarily technical-operational, describing what a teacher must be able to do, whereas Artini and Padmadewi's (2018) modeling principle is dispositional, describing how a teacher's own conduct shapes student character regardless of technical skill. Neither source alone accounts for both dimensions; their combination indicates that technical competency without visible ethical modeling – or ethical modeling without technical competency – is each individually insufficient for a teacher to function as an effective agent of digital literacy in a PAI setting.

Challenges and Opportunities

Implementation of digital literacy in PAI learning is not free from various challenges. First, the challenge of infrastructure and accessibility: not all schools in Indonesia, especially in remote areas, have adequate technological infrastructure. Kurniawan (2022) notes that this digital access gap potentially exacerbates educational quality disparities. Second, the challenge of teacher competency. Third, the challenge of negative digital content – studies emphasize that exposure to such content is a serious threat to students' moral and spiritual development. Fourth, the challenge of balancing digital and real life (Maulana and Hamid, 2021).

Despite these challenges, significant opportunities exist. First, the development of the Islamic digital ecosystem. Second, government policy support – particularly the National Digital Literacy Program – provides significant institutional backing. Third, the potential for cross-institutional collaboration. Fourth, students' motivation to learn using digital tools, which several sources link to their status as a digital-native generation (Fitriyani, 2020).

Positioning these challenges and opportunities side by side reveals that they are not independent lists but largely mirror images of one another: the infrastructure gap (Kurniawan, 2022) is partially offset by government policy support; the teacher-competency challenge is addressed by the same competency framework discussed by Ismail and Rahman (2020) in the preceding subsection; and the risk of negative

digital content is counterbalanced by the growth of an Islamic digital ecosystem that offers curated alternatives. This mirrored structure suggests that the four challenges and four opportunities identified across the literature are best read as paired conditions – each opportunity representing a partial, not complete, mitigation of its corresponding challenge – rather than as two separate and unrelated categories.

The CAKEP Learning Model

Ramadhan and Syamsuddin (2022) propose the CAKEP learning model (Critical thinking, Accessing, Knowledge construction, Ethical behavior, and Publishing) as a concrete framework. The five stages provide a structured approach: (1) Critical thinking, stimulating critical awareness of digital content; (2) Accessing, directing students to curated digital learning resources; (3) Knowledge construction, collaborative building of understanding; (4) Ethical behavior, reflection integrating Islamic values; and (5) Publishing, creating quality Islamic digital content.

Mapped against the strategy pattern identified earlier, CAKEP's five stages closely parallel the three-tier structure (structural → cognitive → behavioral) observed across the four strategies: "Accessing" and "Knowledge construction" correspond to the structural/curricular layer, "Critical thinking" corresponds to the cognitive-skill layer exemplified by SIFT, and "Ethical behavior" together with "Publishing" corresponds to the behavioral-application layer exemplified by digital da'wah. This alignment indicates that CAKEP is not an isolated model sitting apart from the other findings in this study, but rather a stage-by-stage operationalization of the same underlying structural-cognitive-behavioral pattern that emerged independently from the strategy literature – a convergence that strengthens confidence in the pattern's validity, since it was derived from two separate bodies of literature examined for different purposes.

Empirical support for this risk can be found in Al Jury et al. (2023), who observed that unsupervised smartphone-based access to digital learning tools left some students prone to disengaging from learning material in favor of social media use, illustrating precisely how a digital skill can fail to translate into disciplined, ethically consistent behavior without deliberate teacher-guided reinforcement.

CONCLUSION

This study set out to develop an integrative framework for strengthening digital literacy in PAI learning. Rather than treating digital skills and Islamic values as parallel agendas, the study's central contribution is theoretical: it grounds digital-verification competence in the Islamic epistemic principle of *tabayyun*, and situates the CAKEP model's "Ethical behavior" stage as the mechanism through which verification skill is translated into consistent ethical conduct. This reframing gives PAI teachers a theologically grounded rationale for teaching digital literacy, rather than importing a purely secular media-literacy agenda into religious education.

Beyond this conceptual contribution, the study synthesizes four interrelated strategy domains (curriculum integration, critical-thinking development through SIFT, social-media-based *da'wah*, and value-integrated curriculum design), identifies the structural and content-related challenges constraining implementation (infrastructure gaps, teacher competency limitations, exposure to negative digital content, and the digital-real-life balance), and clarifies the central role of PAI teachers as facilitators, content curators, and digital role models.

This study has several limitations. First, as a library research design, its conclusions are drawn entirely from secondary literature rather than from direct classroom observation or empirical testing; the strategies, challenges, and opportunities identified therefore reflect patterns reported across existing studies rather than findings generated from primary data in a specific school context. Second, the integrative framework proposed here – linking SIFT, *tabayyun*, and the CAKEP model – has not been empirically validated through classroom implementation, and its effectiveness in improving students' actual digital literacy or ethical digital behavior remains to be tested. Third, the literature reviewed is predominantly Indonesian in origin, which may limit the framework's generalizability to PAI education in other national or cultural contexts.

Future research should therefore prioritize empirical validation of the proposed framework, for instance through classroom-based action research or quasi-experimental design measuring change in students' verification behavior and ethical

digital conduct before and after CAKEP-based instruction. Comparative studies across school types (public, madrasah, pesantren-affiliated) and regions with differing infrastructure access would also help clarify the framework's practical scalability.

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