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Reimagining Civic Education in the Digital Era: A Values-Based Framework for Digital Citizenship in Indonesia

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Abstract

The rapid acceleration of digital transformation has redefined how citizens learn, deliberate, and participate in democratic life, creating both opportunities and ethical challenges for Indonesian civic education. Although Pendidikan Pancasila dan Kewarganegaraan (PPKn) under Kurikulum Merdeka has acknowledged digital literacy, its integration with values-based pedagogy remains conceptually fragmented. This study aims to reimagine civic education for the digital era by proposing a values-based framework for digital citizenship grounded in Indonesia's Pancasila philosophy. A Systematic Literature Review following the PRISMA 2020 protocol was conducted on 50 peer-reviewed articles published between 2021 and 2026 (including advance online publications retrieved by August 2025) from Scopus, Web of Science, ERIC, and Google Scholar. Thematic analysis revealed three interrelated findings: (1) global digital citizenship frameworks remain technocentric and culturally generic; (2) the Pancasila Student Profile offers an underutilized moral compass for humanizing digital civic learning; and (3) effective integration requires pedagogical mediation linking digital competence to character formation and civic action. Building on these insights, the study introduces the Reimagined Civic Education Framework (RCEF), a three-tiered model integrating digital competence, Pancasila-based moral reasoning, and civic engagement. Theoretically, the framework advances digital citizenship discourse by embedding indigenous moral philosophy as an analytical layer rather than contextual decoration. Practically, it offers a conceptual roadmap for designing civic learning that is digitally fluent, ethically grounded, and relevant to comparable Global South contexts.

Keywords: Civic Education, Digital Citizenship, Kurikulum Merdeka, Pancasila, Values-based Learning

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INTRODUCTION

When a wave of digital misinformation swept through Indonesian social media platforms including viral hoaxes on TikTok during the 2024 election cycle, educators across the country were forced to confront an uncomfortable truth documented by (Agus et al., 2025; Wijaya & Amalia, 2024): digital fluency without ethical grounding can be more dangerous than digital illiteracy itself. As of early 2025, Indonesia counts more than 219 million internet users (Kemp, 2025), with adolescents spending considerable time daily on digital platforms (Kemp, 2025).

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Yet the same generation that participates most vigorously in digital spaces also exhibits the lowest levels of civic literacy, ethical reasoning, and resilience against misinformation (Boler et al., 2025; Huang et al., 2024). This paradox is not unique to Indonesia, but its consequences are sharper here because civic education in Indonesia known as Pendidikan Pancasila dan Kewarganegaraan (PPKn) bears a distinct philosophical mandate: to form citizens whose digital lives reflect the moral architecture of Pancasila.

The introduction of Kurikulum Merdeka in 2022 marked a significant reform, foregrounding student centered learning and the Pancasila Student Profile (Profil Pelajar Pancasila) as the moral horizon of Indonesian education (Rachman et al., 2024). However, recent scholarship reveals a persistent gap between policy aspirations and classroom practice. Studies by (Hidayatulloh et al., 2026; Rizal, 2024) show that the integration of digital citizenship into PPKn remains ad hoc, often left to individual teacher discretion and rarely anchored in national standards. Furthermore, when digital citizenship is taught, it tends to follow the nine-element framework proposed by (Ribble, 2015) a useful but increasingly contested taxonomy that has been critiqued as a normative checklist insufficient for the moral complexity of algorithmically mediated environments (Allaste & Waechter, 2025; Webster, 2025).

Previous studies have made important contributions but reveal three persistent limitations. Much of the international literature is dominated by a technocentric paradigm that conflates digital citizenship with technical skill (Tang et al., 2025). In addition, Indonesian studies that engage Pancasila tend to treat it as a contextual addition rather than as an analytical layer that reorganizes the digital citizenship construct itself (Ardiansyah et al., 2026; Khriswina et al., 2025).

Moreover, conceptual frameworks that synthesize digital transformation, civic education, and indigenous moral philosophy into a coherent model remain underdeveloped. Current scholarship in digital citizenship research has begun moving toward integrative frameworks that acknowledge affective and ethical dimensions (Brummer, 2025; Webster, 2025), and toward post Ribble models that explicitly engage local values (Ardiansyah et al., 2026). Yet a framework that systematically reorganizes digital citizenship around Pancasila as its philosophical center rather than its decorative periphery has not yet been articulated.

This gap matters because civic education without an indigenous moral anchor risks producing what Boler et al. describe as "technically literate but ethically rudderless" citizens a particularly grave concern in pluralistic democracies where digital polarization threatens social cohesion (Boler et al., 2025). Pancasila, with its five interrelated principles of divinity, humanity, unity, deliberative democracy, and social justice, offers more than a list of values: it offers an entire moral grammar that can structure how digital citizens think, feel, and act. In addition, the tripartite model of moral knowing, moral feeling, and moral action proposed by (Lickona, 1991) provides a complementary psychological anchor, and Ibrahim and Sundawa and Sakti et al. demonstrate that indigenous knowledge and local wisdom can be systematically integrated into civic education through structured, culturally grounded instructional design (Ibrahim & Sundawa, 2023; Sakti et al., 2024).

Given these gaps, this study focuses on two research questions: (RQ1) How has digital citizenship been conceptualized and operationalized in recent global and Indonesian civic education literature, and what gaps emerge from this synthesis? (RQ2) How can Pancasila values be integrated as an analytical and pedagogical foundation in a reimagined framework for digital citizenship education? The scope of this conceptual review is limited to peer-reviewed articles published between 2021 and 2026 in English and Indonesian, focusing on K-12 and higher education contexts. The study acknowledges two limitations: it relies on conceptual synthesis rather than empirical validation, and its findings are most directly applicable to Indonesia and comparable Global South contexts.

Despite these limitations, the study offers meaningful contributions. Theoretically, it advances digital citizenship discourse by proposing the Reimagined Civic Education Framework (RCEF), which embeds Pancasila as an analytical layer rather than a contextual ornament. Practically, it offers educators a preliminary roadmap for designing PPKn learning experiences that are simultaneously digitally fluent and morally grounded a roadmap that must ultimately be tested and refined through classroom research. Policy wise, it supports ongoing curriculum reform under Kurikulum Merdeka by aligning digital citizenship with the Pancasila Student Profile. Together, these contributions respond to a genuine and growing need to reimagine civic education for a digital era that is fast, fragmented, and morally demanding.

METHOD

This study employed a Systematic Literature Review (SLR) following the Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) 2020 guidelines (Page et al., 2021). The SLR design was

chosen because it offers a transparent and replicable basis for conceptual synthesis in this field, and the unit of analysis is the peer-reviewed journal article.

Literature was retrieved between June and August 2025 from three primary databases: Scopus, Web of Science, and the Education Resources Information Center (ERIC), with Google Scholar used as a supplementary source to capture additional indexed studies and ensure broader coverage of the Indonesian literature. These databases were selected for their methodological rigor and extensive indexing of education and social science journals (Droog et al., 2025). The search strategy used the following Boolean combinations: ("digital citizenship" OR "digital citizenry") AND ("civic education" OR "citizenship education" OR "Pancasila education" OR "PPKn") AND ("values-based learning" OR "character education" OR "moral education" OR "local wisdom" OR "Pancasila"), applying the publication period and language criteria presented in Table 1. Eligibility criteria were defined a priori to ensure consistency and are summarized in Table 1.

Table 1. Inclusion and Exclusion Criteria

Criteria	Inclusion	Exclusion
Publication type	Peer-reviewed journal articles, systematic reviews	Editorials, opinion pieces, dissertations, non-peer-reviewed chapters
Year of publication	2021 – 2026 (including advance online publications retrieved by August 2025)	Before 2021
Language	English or Indonesian	Other languages
Topic relevance	Digital citizenship, civic/values-based education, Pancasila	Unrelated to civic or moral dimensions of digital learning
Accessibility	Full-text accessible	Abstract only or paywalled without access

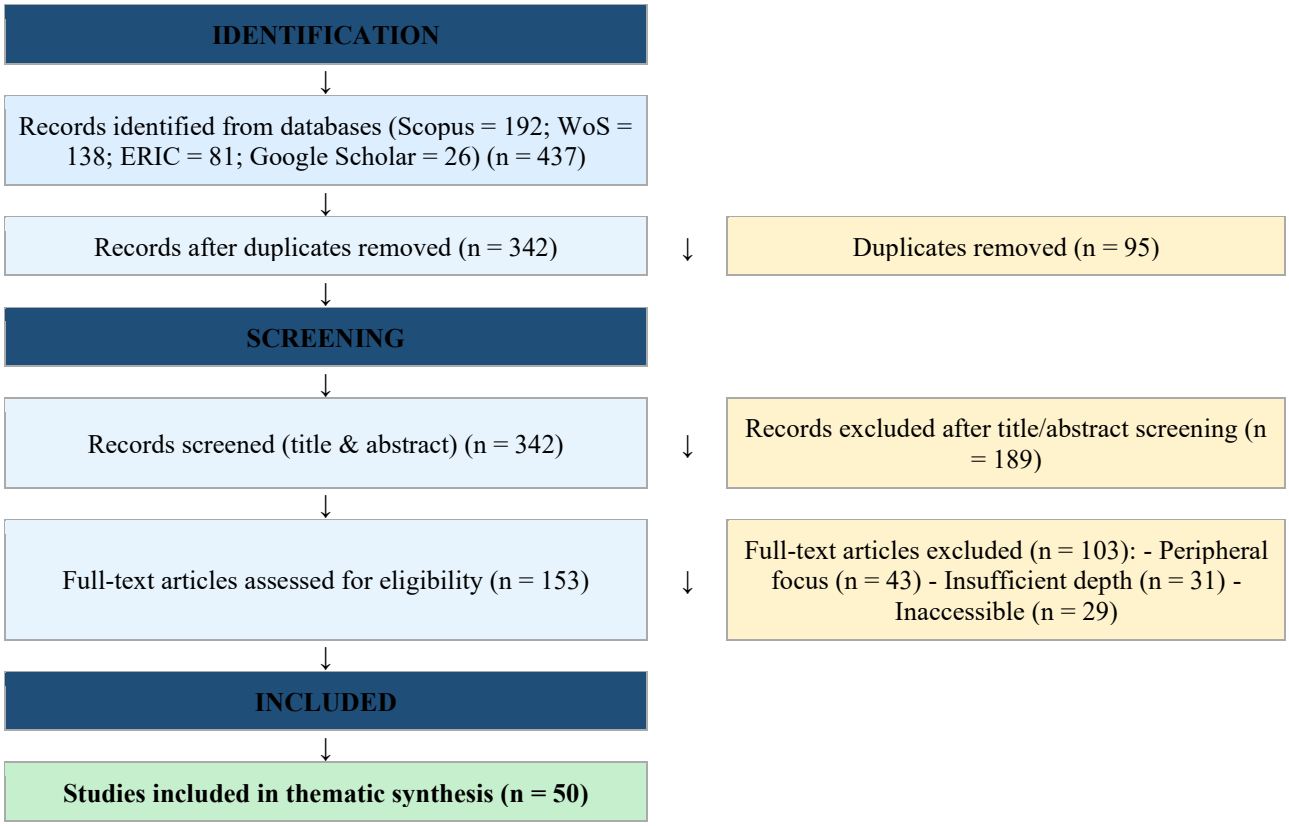

Figure 1. PRISMA 2020 Flow Diagram of Article Selection Process
Adapted from Page et al. (2021).

The search identified 437 records, of which 50 articles were retained for thematic analysis after duplicate removal, title and abstract screening, and full-text assessment. This selection process aligns with established

SLR practices in education research (Berg et al., 2025; Droog et al., 2025). The complete article selection process is presented in Figure 1, following the PRISMA 2020 flow diagram format (Page et al., 2021).

Retained articles were analyzed using thematic content analysis as proposed by Braun and Clarke and elaborated by Chigbu et al. (Braun & Clarke, 2006; Chigbu et al., 2023). Each article was coded on five dimensions: (1) conceptualization of digital citizenship; (2) integration of values-based or character education; (3) pedagogical strategies for civic education in digital contexts; (4) treatment of indigenous moral philosophies (e.g., Pancasila, local wisdom); and (5) identified gaps or future directions. Coding was performed iteratively using a shared coding matrix by a single researcher with systematic peer review for validation (Cohen's κ was not computed given the single-coder design). Recurring themes were synthesized into a conceptual framework mapping the relationships among digital transformation, civic education, digital citizenship, and Pancasila-based values education, forming the foundation for the Reimagined Civic Education Framework (RCEF) presented in the Results and Discussion section.

This study did not involve human participants or animals, nor did it use identifiable personal data or other materials requiring formal ethical approval. Accordingly, formal ethical approval (Ethical Clearance) was not required under the applicable institutional requirements.

RESULTS AND DISCUSSION

The thematic synthesis of 50 articles produced three major findings that correspond directly to the two research questions. Section 3.1 and 3.2 address RQ1 by examining how digital citizenship has been conceptualized and what gaps emerge from current literature. Section 3.3 addresses RQ2 by proposing the Reimagined Civic Education Framework (RCEF). Each subsection presents the findings followed by a discussion that links them to prior literature.

The Technocentric Bias in Current Digital Citizenship Discourse

Twenty-two of the 50 reviewed articles addressed the conceptualization and operationalization of digital citizenship. Across this body of work, the dominant pattern is a technocentric bias: digital citizenship is frequently framed as mastery of digital skills, with limited attention to its affective, moral, and political dimensions. Ribble (2015) nine-element framework comprising digital access, commerce, communication, literacy, etiquette, law, rights and responsibilities, health, and security remains the most cited taxonomy, particularly in K-12 contexts (Aprilianata et al., 2026; Tadlaoui-Brahmi et al., 2022), though critical scholarship increasingly challenges its adequacy. Allaste and Waechter (2025) argue that Ribble elements function as a normative checklist that, while useful for awareness, falls short of guiding ethical action in algorithmically mediated environments. Webster (2025), through a Delphi study with 23 experts, proposes a redefinition encompassing considered use, community care, and civic action across affective, behavioral, and cognitive dimensions.

The thematic synthesis of the Indonesian literature reinforces this critique. Available studies suggest that digital citizenship as taught in Indonesian schools tends to remain overly focused on technical skills, while the moral, ethical, and national character dimensions are frequently underemphasized (Khriswina et al., 2025; Rizal, 2024; Saylendra et al., 2023). A similar pattern is documented in the review by Fajri et al. (2022) of 41 Scopus articles on digital citizenship in PPKn, which concludes that instructional emphasis continues to concentrate on political participation and democracy without reaching deeper ethical dimensions.

These findings extend earlier critiques by Brummer (2025) and Tadlaoui-Brahmi et al. (2022), who argue that the field has matured in technical scope but stagnated in moral depth. They also corroborate the meta-analytic findings of Huang et al. (2024) showing that media literacy interventions tend to focus on cognitive resilience to misinformation without addressing the underlying values that shape information-sharing behavior. The persistence of the technocentric bias suggests that incremental improvements within the Ribble paradigm are unlikely to produce the moral citizens that pluralistic democracies require. A more fundamental reimagining one that places moral philosophy at the analytical center is needed.

Pancasila as Underutilized Moral Compass for Indonesian Digital Citizenship

Eighteen reviewed articles addressed character education, values-based learning, or Pancasila in civic contexts. A clear pattern emerges: Pancasila is widely invoked in Indonesian civic education scholarship, yet its potential as an analytical framework for digital citizenship remains underutilized (Ardiansyah et al., 2024; Khriswina et al., 2025). Most studies treat Pancasila as a list of values to be memorized rather than as a moral grammar structuring how digital citizens reason, feel, and act. Ibrahim and Sundawa (2023) and Pernantah et

al. (2025) show that integrating local wisdom and Pancasila into character education improves civic disposition, yet such integration has rarely extended to the digital domain.

The reviewed literature converges on three observations. First, Pancasila offers a coherent moral architecture: the five sila form an interrelated system covering divinity, humanity, unity, deliberative democracy, and social justice, each relevant to digital civic life from religious tolerance online to inclusive digital deliberation (Ardiansyah et al., 2026; Pernantah et al., 2025). Second, ethnopedagogical approaches that operationalize local wisdom in structured routines have produced positive outcomes for character formation (Noe et al., 2026; Sakti et al., 2024). Third, combining Pancasila with Lickona (1991) tripartite model of moral knowing, feeling, and action makes it possible to design civic learning engaging cognitive, affective, and behavioral dimensions simultaneously (Suroso & Husin, 2024).

A recurring theme across the Indonesian literature captures this point precisely: the Pancasila Student Profile should be understood not merely as a curricular goal but as a moral compass that can guide Indonesian digital citizens in responding to ethical challenges in cyberspace (Khriswina et al., 2025; Rachman et al., 2024; Rusnaini et al., 2021). This position affirms that Pancasila values must not be treated as a supplementary addition but as the epistemological foundation of digital citizenship education in Indonesia.

These findings extend the work of Ardiansyah et al. (2024), whose character-based good governance model called for rooting digital citizenship in local wisdom, and of Ibrahim and Sundawa (2023) and Sakti et al. (2024), who show how local wisdom can be systematically integrated into civic learning. The current synthesis goes further in one respect: whereas Ardiansyah et al. (2024) treat local wisdom as a supplementary ethical layer applied to existing digital citizenship frameworks, the RCEF proposes that Pancasila function as the organizing center that restructures the framework itself not added onto Ribble nine elements, but placed beneath them as the philosophical ground from which the elements derive their civic meaning.

This shifts the teacher's role from delivering digital skills with values appended to facilitating moral reasoning that gives digital competence its civic direction (Hidayatulloh et al., 2026; Rachman et al., 2024). It is worth noting, however, that Pancasila's five sila are not without interpretive plurality particularly the first sila (Ketuhanan Yang Maha Esa), whose application across Indonesia's diverse religious and cultural communities may produce real tensions in practice (Pernantah et al., 2025); future empirical work should attend to how teachers and students navigate these tensions rather than assuming a frictionless moral consensus.

The Reimagined Civic Education Framework (RCEF)

Building on the findings above, this study proposes the Reimagined Civic Education Framework (RCEF) as a three-tiered conceptual model for digital citizenship education in Indonesia. The framework is designed to address the technocentric bias identified in Section 3.1 (Allaste & Waechter, 2025; Tang et al., 2025) by embedding Pancasila as an analytical layer rather than a decorative element. Table 2 illustrates the three-tiered structure and the dialogic relationships among the tiers.

Tier 1: Foundational Layer Digital Competence. This layer adopts the nine elements proposed by Ribble (2015) as the technical foundation, ensuring that students develop core digital skills including access, commerce, communication, literacy, etiquette, law, rights and responsibilities, health, and security. However, unlike conventional applications, the RCEF treats this layer as necessary but insufficient. Technical competence is the precondition for, not the destination of, digital citizenship.

Tier 2: Mediating Layer Pancasila-Based Moral Reasoning. This layer integrates the tripartite model of moral knowing, moral feeling, and moral action proposed by Lickona (1991) with the five Pancasila principles (Pernantah et al., 2025; Suroso & Husin, 2024). Each sila is operationalized for digital civic life: sila 1 (Ketuhanan) informs respect for religious diversity online; sila 2 (Kemanusiaan) informs anti-cyberbullying ethics and digital empathy (Aprilianata et al., 2026; Obermaier et al., 2025); sila 3 (Persatuan) informs resistance to online polarization (Boler et al., 2025); sila 4 (Kerakyatan) informs deliberative digital democracy (Wijaya & Amalia, 2024); and sila 5 (Keadilan) informs equitable digital access and content. The mediating layer ensures that digital competence is always processed through a moral lens before being translated into action.

Tier 3: Action Layer Civic Engagement in Digital Spaces. This layer focuses on the translation of moral reasoning into civic action: participating in digital deliberation, producing constructive online content, intervening as bystanders against online hate, and contributing to community well-being through digital platforms (Wijaya & Amalia, 2024; Obermaier et al., 2025). The action layer is the visible expression of internalized values.

These three tiers operate dialogically: technical competence feeds moral reasoning, moral reasoning shapes civic action, and civic action reinforces both technical competence and moral commitment through reflective practice. The framework is designed to be implemented through blended pedagogies (Hidayatulloh et al., 2026), project-based learning aligned with the P5 (Projek Penguatan Profil Pelajar Pancasila), and assessment instruments that capture all three dimensions (Rachman et al., 2024).

Table 2. The Reimagined Civic Education Framework (RCEF): A Three-Tiered Model for Digital Citizenship in Indonesia

Tier	Component	Pedagogical Focus
Tier 1 **Digital Competence**	**Ribble (2015) Nine Elements** • Digital access, communication, literacy • Digital etiquette, law, rights & responsibilities • Digital health, security, commerce → Necessary but insufficient foundation	Technical skill development; digital safety literacy; awareness of rights and responsibilities online
↕	*Dialogic relationship: competence feeds reasoning; reasoning shapes action; action reinforces both*	
Tier 2 **Pancasila-Based Moral Reasoning**	**Lickona Tripartite Model × Five Sila** • Sila 1 (Ketuhanan): Religious tolerance online • Sila 2 (Kemanusiaan): Digital empathy & anti-cyberbullying • Sila 3 (Persatuan): Resistance to online polarization • Sila 4 (Kerakyatan): Deliberative digital democracy • Sila 5 (Keadilan): Equitable digital access & content → Moral knowing · Moral feeling · Moral action	Character formation; values-based reflection; ethical decision-making in digital contexts
↕		
Tier 3 **Civic Engagement in Digital Spaces**	**Visible Civic Action** • Participating in digital deliberation • Producing constructive online content • Bystander intervention against online hate • Contributing to community well-being digitally → Internalized values translated into civic action	Project-based learning (P5); community digital projects; civic participation assessments
Note. RCEF = Reimagined Civic Education Framework. The three tiers operate dialogically: each tier reinforces and informs the others through reflective practice. Implementation via blended pedagogies, P5 projects, and multi-dimensional assessment instruments.		

Table 3. Summary of Reviewed Articles by Thematic Focus

Thematic Focus	Articles	Representative References
Digital citizenship conceptualization	22	Ribble (2015); Fajri et al. (2022); Allaste & Waechter (2025); Brummer (2025); Webster (2025)
Pancasila & character education	18	Ardiansyah et al. (2024); Khriswina et al. (2025); Suroso & Husin (2024); Rusnaini et al. (2021); Noe et al. (2026)
Digital transformation in civic/higher ed.	17	Hidayatulloh et al. (2026); Agus et al. (2025); Wijaya & Amalia (2024); Tang et al. (2025)
Media literacy & misinformation	10	Huang et al. (2024); Droog et al. (2025); Boler et al. (2025); Berg et al. (2025)
Cyberbullying & online hate	9	Aprilianata et al. (2026); Obermaier et al. (2025)
Note. Total exceeds 50 because several articles addressed multiple themes.		

Table 3 summarizes the distribution of the 50 reviewed articles across four thematic foci. Digital citizenship conceptualization (22 articles) and Pancasila and character education (18 articles) form the largest clusters, explaining why Sections 3.1 and 3.2 draw most heavily on them. Digital transformation in civic and higher education (17 articles) grounded Tier 1 of the RCEF (Hidayatulloh et al., 2026; Tang et al., 2025), while media literacy and misinformation (10) (Droog et al., 2025; Huang et al., 2024) and cyberbullying and online hate (9) (Aprilianata et al., 2026; Obermaier et al., 2025) informed the operationalization of sila 2 and sila 3 within Tier 2. Totals exceed 50 because several articles addressed multiple themes, underscoring how digital citizenship, moral education, and misinformation research remain conceptually intertwined.

The RCEF addresses the persistent gap identified across the reviewed literature: the absence of integrative frameworks that connect technical, moral, and cultural dimensions of digital citizenship in a coherent, contextually grounded model (Hidayatulloh et al., 2026; Tang et al., 2025). It builds on Ardiansyah et al.

(2024) by extending the character-based good governance model into a full pedagogical framework, and it complements the Delphi-derived definition of Webster (2025) by supplying the Indonesian moral content that their generic affective-behavioral-cognitive structure lacks. Compared to the conceptual review of Hidayatulloh et al. (2026), which emphasizes blended learning pedagogies, the RCEF is more philosophically rooted, positioning Pancasila as the analytical center rather than a curricular reference this positioning is the study's key theoretical contribution. It is nonetheless important to acknowledge the structural realities any implementation must contend with: PPKn teachers vary widely in digital competence, and many work under limited internet access, high teaching loads, and minimal professional development (Agus et al., 2025; Hidayatulloh et al., 2026), which make three-tiered pedagogical integration genuinely difficult. The RCEF as presented here is a conceptual aspiration rather than a readymade implementation manual; its value lies in giving curriculum designers a philosophically coherent target, while translating that target into school-ready strategies remains a research agenda to be built with teachers and students.

Despite its theoretical contribution, this study has several limitations. First, because it is based on a Systematic Literature Review, the proposed RCEF remains conceptual and has not yet been empirically tested in classroom settings. Second, the review was limited to peer-reviewed articles published between 2021 and 2026 in English and Indonesian, which may exclude relevant studies published in other languages or non-indexed local journals. Third, implementation of Pancasila-based digital citizenship may vary across school contexts due to differences in teacher readiness, digital infrastructure, and local interpretation of Pancasila values (Khriswina et al., 2025; Rizal, 2024). Future studies should therefore validate the RCEF through classroom-based case studies, mixed-method investigations, or action research involving PPKn teachers and students, and develop the teaching modules and assessment instruments needed to translate the framework into school-ready pedagogical strategies.

The findings of this study have important potential implications for education, particularly for the development of civic education in the digital era. By positioning Pancasila not merely as a curricular value but as the moral foundation of digital citizenship, the RCEF can help educators design learning experiences that connect digital competence with ethical reasoning, character formation, and civic participation. In the context of PPKn and Kurikulum Merdeka, this framework may support implementation of the Pancasila Student Profile by guiding students to become digitally literate, morally responsible, and actively engaged citizens (Rachman et al., 2024; Khriswina et al., 2025). For teachers, it offers clearer direction for integrating issues such as misinformation, cyberbullying, online polarization, and digital empathy into civic learning (Boler et al., 2025; Obermaier et al., 2025). For curriculum developers and policymakers, it provides a conceptual basis for designing educational policies and assessment models that respond to the moral challenges of digital transformation, contributing to education that is technologically adaptive, ethically grounded, and socially transformative.

CONCLUSION

This conceptual review concludes that civic education in the digital era must move beyond a narrow emphasis on technical digital skills toward a more holistic formation of ethical, reflective, and socially responsible citizens. In response to RQ1, the synthesis shows that global and Indonesian digital citizenship literature remains technocentric and culturally generic, and that although Pancasila is widely invoked in Indonesian scholarship, it rarely functions as an analytical framework capable of structuring digital civic reasoning. In response to RQ2, the study proposes the Reimagined Civic Education Framework (RCEF), which repositions Pancasila not as an additional value attached to digital citizenship but as a guiding foundation that integrates digital competence, Pancasila-based moral reasoning, and civic engagement, connecting technological fluency to character formation and democratic participation. Because the RCEF remains a conceptual framework that has not yet been empirically tested, future research should prioritize classroom-based validation such as action research or mixed-method studies involving PPKn teachers and students to examine how the framework performs in practice.

AUTHOR CONTRIBUTIONS

Badrus Shalih: Conceptualization, Methodology, Investigation, Data Curation, Formal Analysis, and Writing - Original Draft; **Marzuqi**: Conceptualization, Methodology, Formal Analysis, Writing - Review & Editing, and Supervision; **Rafsan**: Investigation, Data Curation, and Writing - Review & Editing; and **Adham Hasif bin Najmuddin**: Writing - Review & Editing and Supervision. All authors have read and approved the final version of this manuscript.

DATA AVAILABILITY STATEMENT

The data supporting the findings of this study are available subject to applicable access conditions. Depending on the nature of the data, access may be provided publicly or upon reasonable request, unless restricted by ethical, legal, privacy, or institutional requirements.

DECLARATION OF COMPETING INTEREST

The authors declare no known financial conflicts of interest or personal relationships that could have influenced the work reported in this manuscript.

DECLARATION OF ETHICS

The authors declare that the research and writing of this manuscript adhere to ethical standards of research and publication, in accordance with scientific principles, and are free from plagiarism.

DECLARATION OF ASSISTIVE TECHNOLOGIES IN THE WRITING PROCESS

The authors declare that generative artificial intelligence (Gen AI) and other AI-assisted tools were used prudently, not excessively, during the research and preparation of this manuscript. Specifically, ChatGPT was used for assist with language editing, paragraph restructuring, and formatting of this manuscript. All AI-generated material was reviewed and edited for accuracy, completeness, and compliance with ethical and scholarly standards. The authors accept full responsibility for the final content of the manuscript.

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