

Civic Literacy for Sustainable Futures: Insights from a Systematic Review

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ABSTRACT

This study aimed to systematically examine practices, strategies, and models for developing civic literacy across educational settings, digital environments, and public knowledge institutions in response to the growing challenges of misinformation, polarization, and digital transformation. A Systematic Literature Review (SLR) was conducted following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) framework, including the stages of identification, screening, eligibility, and inclusion. A total of 30 peer-reviewed articles retrieved from national and international scholarly sources were analyzed using thematic analysis. The review explored six interrelated domains: civic learning, digital participation, educational policy, culture, libraries, and public knowledge spaces. The findings indicate that civic literacy is fostered through critical engagement with public information, dialogic and democratic communication, culturally responsive and local wisdom-based learning, and equitable access to reflective participation spaces within educational, digital, and public contexts. The synthesis further demonstrates that effective civic literacy initiatives integrate critical thinking, ethical reasoning, digital competencies, and participatory learning to strengthen informed citizenship. Civic literacy functions as a conceptual bridge between information literacy and Sustainable Development Goal (SDG) by enabling individuals to critically evaluate information, make ethical decisions, and participate responsibly in democratic life. These findings provide evidence-based implications for curriculum development, teacher education, and the design of inclusive democratic learning ecosystems across diverse educational contexts.

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Introduction

Rapid digital transformation in the 21st century has altered how individuals' access, interpret, and use information in social life (Dewi & Budimansyah, 2020; Sukmayadi et al., 2025). The accelerated flow of communication has increasingly blurred the distinction between verified information and misinformation, making the ability to evaluate digital information an essential civic capacity (Jägerskog & Tväråna, 2025; Pavlounis et al., 2025). This condition creates an epistemic challenge for society, in which the ability to differentiate facts from manipulation becomes a prerequisite for democratic participation (DeLuca, 2025; Kranich, 2024; Pavlounis et al., 2025). The rise of opinion polarization and digital conflict further demonstrates the need for citizens to critically assess public information in order to sustain healthy democratic life (Keegan, 2021; Wahlström, 2022).

These challenges have direct implications for education as a space for cultivating citizens' civic capacities. Education is no longer sufficient if it merely transmits normative knowledge about the state; it must also provide learning experiences that develop reflective judgment and responsible public decision-making (O'toole et al., 2026; Sangpom & Sangpom, 2026). This mandate aligns with Sustainable Development Goal 4, Target 7 (SDG 4.7), which emphasizes the role of education in promoting human rights, a culture of peace, global citizenship, and sustainable development through the integration of democratic values into learning systems. In this study, SDG 4.7 is understood as an educational agenda that prepares learners to become critical, ethical, and responsible citizens in addressing social, cultural, and democratic challenges. In this regard, education functions as a strategic mechanism for preparing citizens who are capable of responding critically and ethically to contemporary social dynamics.

The 21st-century competencies framework provides a conceptual basis for strengthening these capacities. Critical thinking, communication, collaboration, and information and media literacy are foundational competencies for understanding and responding to public issues (Thornhill-Miller et al., 2023; López-González et al., 2023). These competencies require epistemic sensitivity in managing information and ethical awareness in shaping social interactions. Accordingly, 21st-century competencies can be understood as an operational framework for realizing SDG 4.7 through learning that is oriented not only toward declarative civic knowledge, but also toward evaluative and participatory civic practice. Within this context, information literacy becomes a fundamental competency because it enables individuals to identify information needs, locate credible sources, and evaluate and use information reflectively (Cutillas et al., 2023; Fernández-Otoya et al., 2024). Septiono & Anizah (2019), conceptualize information literacy as a strategy for community empowerment in reducing information uncertainty in the digital age. Thus, information literacy functions as a foundation for navigating the digital public sphere and as a prerequisite for ethical and rational social behavior.

However, the ability to manage information does not automatically translate into responsible public participation. Previous studies indicate that students and young citizens still face difficulties in evaluating digital information, responding critically to public issues, and avoiding unverified content in online spaces (Pratiwi & Asyarotin, 2019; Puspaningtyas et al., 2024; Sukmayadi et al., 2025). Similar concerns are also reflected in studies on digital and visual literacy, which show that misinformation, media bias, and persuasive digital messages require citizens to develop stronger evaluative and interpretive capacities (Jägerskog & Tväråna, 2025; Pavlounis et al., 2025). These findings show that the central problem is not merely access to information, but the limited capacity to transform information into ethical, reflective, and responsible civic action. At this point, civic literacy becomes essential because it provides a moral, epistemic, and social framework for

justifying public decisions. This problem is closely related to SDG 4.7, which emphasizes education for global citizenship, human rights, peace, cultural diversity, and sustainable development. Therefore, a systematic literature review is needed to synthesize how previous studies have positioned civic literacy as a capacity for strengthening reflective democratic citizens in line with SDG 4.7.

As digital public spaces create opportunities for identity manipulation and emotional propaganda, civic literacy acquires renewed significance. Citizens' capacity to interpret visual constructions of political information in digital media, as demonstrated by Pavlounis et al. (2025), serves as a form of epistemic protection against information manipulation. Such findings reaffirm that reflective democratic practice requires the integration of information literacy and civic literacy in education as a preventive strategy against social polarization. Although civic literacy, digital citizenship, information literacy, and SDG 4.7 have been widely discussed in educational literature, existing studies and reviews tend to address these domains separately. Reviews on civic literacy often emphasize democratic participation (Ernita, T., & Suyato, 2026; Mazid et al., 2026), citizenship learning (Hamidah et al., 2026; Agus et al., 2025), or digital citizenship (Shaw., 2023; Anditasari et al., 2023), while studies on information literacy generally focus on the ability to access, evaluate, and use information critically (Muid et al., 2026; Trixa & Kaspar., 2024; Ardyawin, 2024). Meanwhile, SDG 4.7 is frequently positioned as a normative framework for global citizenship, peace education, human rights, and sustainable development. However, limited systematic attention has been given to how information literacy and civic literacy intersect as mutually reinforcing competencies for achieving SDG 4.7 in contemporary educational ecosystems.

This review addresses that gap by synthesizing civic literacy through the combined lens of information literacy, SDG 4.7, and 21st-century competencies. Unlike previous reviews that primarily focus on civic education practices, digital citizenship, or media literacy as separate domains, this study positions civic literacy as an epistemic and participatory capacity that requires critical engagement with public information. By integrating these perspectives, this review contributes to educational research by offering an integrative synthesis of civic literacy as a democratic capacity that connects information evaluation, ethical reasoning, and responsible public participation. Thus, this study aims to systematically examine models and practices for strengthening civic literacy through a systematic literature review approach to answer two key questions: how is civic literacy developed through learning, policy, digital spaces, and public knowledge institutions; and how do these competencies contribute to the formation of reflective democratic citizens in the context of a digital society.

Method

This study employed a Systematic Literature Review (SLR) method (Creswell & Creswell, 2018) to identify, evaluate, and synthesize previous studies related to civic literacy, information literacy, Sustainable Development Goal 4, Target 7 (SDG 4.7), and 21st-century competencies. Creswell & Creswell (2018) explain that a literature review is used to position a study within existing knowledge and to build a coherent basis for scholarly argumentation. In line with this orientation, the SLR approach was used to map research developments, identify recurring themes, and synthesize conceptual relationships across educational, digital, cultural, and public knowledge contexts. Similar to Bhakti et al. (2023), this review followed PRISMA-based stages consisting of identification, screening, eligibility assessment, and inclusion to ensure a systematic and transparent article selection process.

The article selection process was guided by the PRISMA framework. Page et al. (2021) state that PRISMA supports transparent reporting of systematic reviews through the stages of identification, screening, eligibility assessment, and inclusion. Articles were identified from Google Scholar, Scopus, ERIC, SINTA, Garuda, and DOAJ using keywords such as “civic literacy,” “citizenship literacy,” “civic education,” “information literacy,” “digital citizenship,” “SDG 4.7,” “21st-century competencies,” “literasi kewarganegaraan,” and “pendidikan kewarganegaraan.” The selection was limited to full-text scholarly publications written in English or Indonesian.

A total of 51 articles were identified from the selected sources. After title and abstract screening, 18 articles were excluded because they were not directly relevant to civic literacy, information literacy, SDG 4.7, 21st-century competencies, or educational contexts. The remaining 33 articles were assessed through full-text reading. At this stage, 3 articles were excluded because they were not sufficiently related to civic literacy development, SDG 4.7, 21st-century competencies, or public knowledge contexts. Thus, 30 articles were included in the final synthesis. The selection process is presented in **Figure 1**.

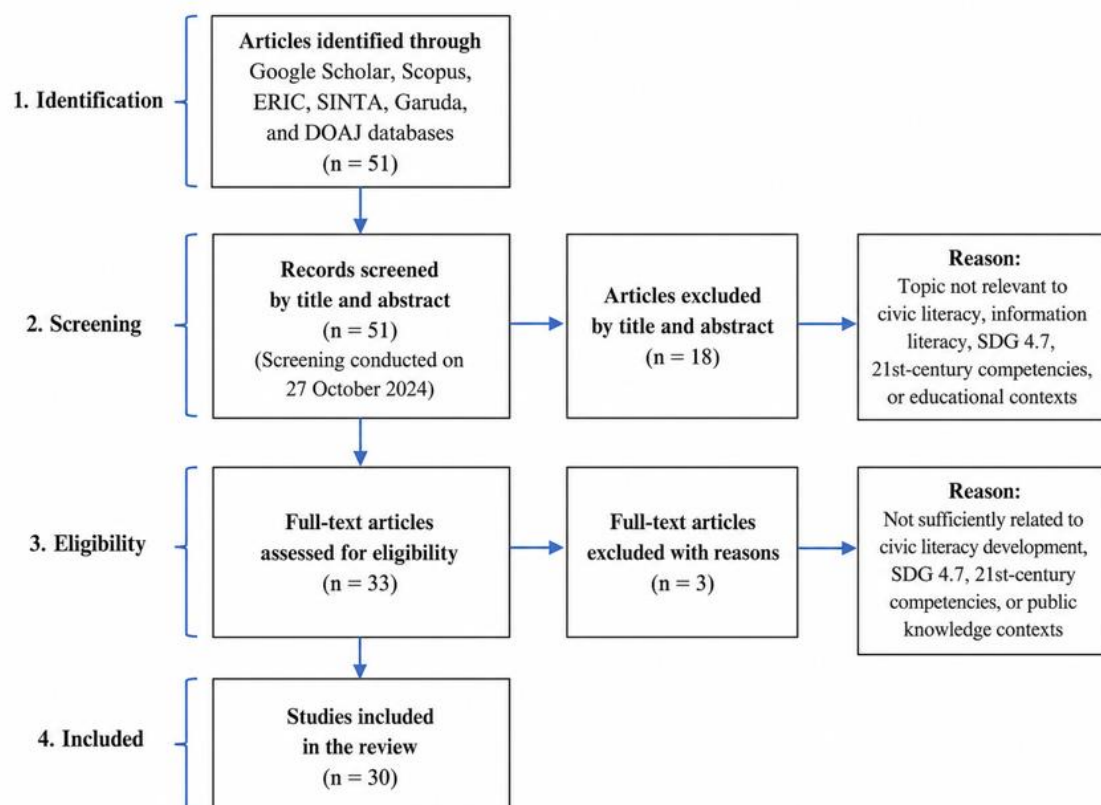


Figure 1. PRISMA diagram flow of article selection

The included articles were analyzed using thematic synthesis. The extracted information included author, year of publication, study context, research method, conceptual focus, key findings, and relevance to civic literacy, information literacy, SDG 4.7, and 21st-century competencies. The synthesis was conducted by grouping recurring concepts into themes and interpreting their relationships. Meta-analysis was not conducted because the reviewed studies varied in design, context, and conceptual orientation. Therefore, adopting a qualitative thematic approach enabled a rigorous and nuanced conceptual integration, effectively capturing the complex, context-dependent interplay among civic literacy, information literacy, and sustainable development goals across diverse educational landscapes.

Results and Discussion

The development of information technology, social dynamics, and the complexity of the contemporary public sphere position civic literacy as one of the key competencies in the formation of reflective citizens. Civic literacy is not only associated with the ability to understand basic concepts of the state and democracy, but also encompasses the capacity to access, evaluate, and critically use public information in decision-making with social implications. The challenges of misinformation, political polarization, and the erosion of social cohesion underscore the need for a new approach to civic education that focuses on developing more comprehensive literacy competencies. The relationship among these elements is summarized in **Figure 2** as an integrative framework of civic literacy for sustainable futures.

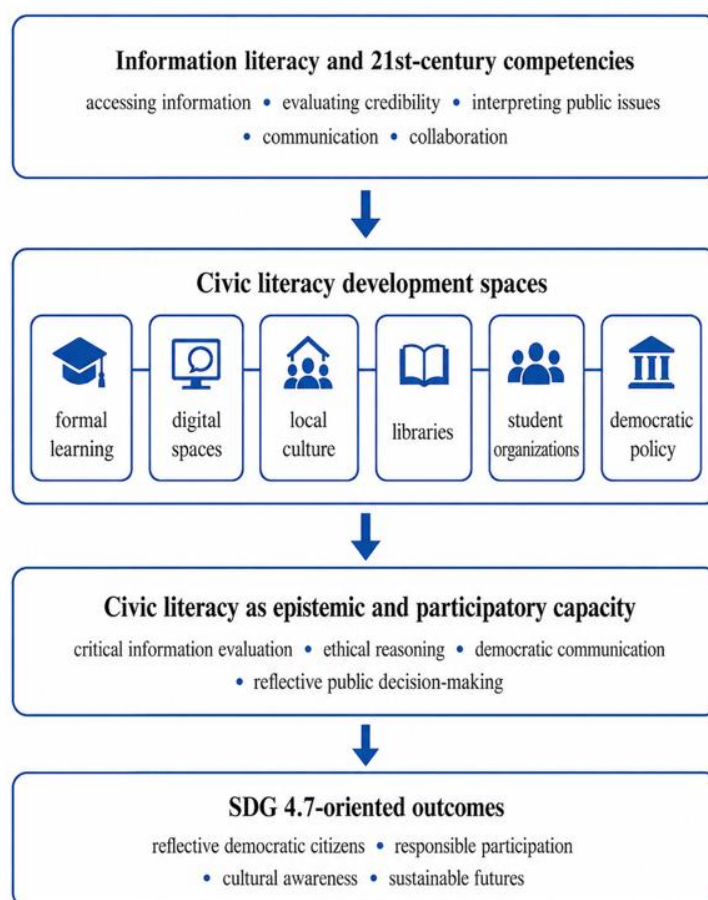


Figure 2. Integrative Framework of Civic Literacy for Sustainable Futures

This illustrates that civic literacy develops through the interaction between information literacy, 21st-century competencies, and diverse civic learning spaces. The literature reviewed in this study indicates that civic literacy is manifested through interconnected learning experiences and social institutions, including formal education, digital media, local culture, libraries as public knowledge spaces, student organizations, and democratic policies. These spaces facilitate the formation of citizens who are able to evaluate information, reason ethically, communicate democratically, and participate responsibly. Therefore, this framework helps explain how civic literacy contributes to the strengthening of national education, democratic participation, and the broader agenda of sustainable futures.

Civic Literacy as an Epistemic Practice in Civic Education

In the contemporary discourse on civic education, the primary issue is no longer limited access to information, but rather students' ability to determine which is credible enough to serve as the basis for public action. This ability requires learning oriented toward higher-order cognitive operations: verifying sources, assessing the reliability of information, and interpreting its socio- political implications. Thus, information literacy cannot be separated from the practice of citizenship, as democratic actions always stem from knowledge that the subject considers to be true. Based on this orientation, the studies included in this theme were mapped to show how civic literacy is connected to information evaluation, political judgment, civic attitude, and contextual citizenship learning.

Table 1. Data Synthesis of Included Studies

Author (Year)	Geographic Location	Target Educational Level	Research Design	Key Contribution
Pratiwi & Asyarotin (2019)	Indonesia	Youth/millennials	Conceptual study	Civic-cultural literacy counters disinformation.
Ridha & Riwanda (2020)	Indonesia	First-time voters	Quantitative study	Media and political literacy support civic participation.
Minanto et al. (2018)	Indonesia	School/community	Case study	Disaster literacy builds transformative citizenship.
Yuliadari et al. (2018)	Indonesia	Higher education	Empirical study	Election learning strengthens civic attitude.
Tasnur et al. (2020)	Indonesia	Higher education	Classroom study	Historical approach strengthens Pancasila civic values.
Puspaningtyas et al. (2024)	Indonesia	Vocational high school	Survey	Students need stronger digital information evaluation.

As presented in **Table 1**, the studies in this theme indicate that civic literacy is closely related to information evaluation, political reasoning, and contextual civic learning. This pattern is reflected in the tendency of the younger generation to disseminate unverified information, as found in the study by Pratiwi & Asyarotin (2019), which indicates that the problem of the digital information landscape is an epistemological issue, not merely a matter of media ethics. The spread of misinformation occurs not due to a lack of information, but because of weak evaluative structures in decision-making. This phenomenon indicates that learning needs to be structured as a process of preventing epistemic errors through the habit of evaluating the credibility of information.

The link between information literacy and political participation becomes more apparent when research findings show that first-time voters with media literacy and political literacy are better able to participate in reflective manner in elections (Almanza Cabe et al., 2026; Ridha & Riwanda, 2020). This means that political action does not arise spontaneously but is mediated by the ways in which individuals interpret political messages framed by the media. Education that does not provide space for analyzing media discourse risks producing citizens who are procedurally active but susceptible to information manipulation. The social dimension of civic literacy becomes evident when disaster-related information is collectively interpreted and managed through the school community's experiences, as demonstrated in the study by Minanto et al. (2018). In this context, information evaluation relies not only on formal procedures but also on social validation grounded in the actual experiences of citizens who have faced risks. Learning that facilitates the convergence of personal experiences, technical information, and collective discussion establishes the epistemic conditions for the formation of reflective citizenship.

Politics-based learning offers a space where students practice evaluating arguments, information sources, and the consequences of political actions. When students analyze election information, the development of civic attitudes is not merely a result of understanding election procedures, but rather the outcome of internalizing critical thinking practices grounded in information evaluation (Yuliadari et al., 2018). Thus, civic literacy cannot be reduced to a set of substantive knowledge, but should be understood as a process of forming an epistemic habitus through continuous interaction with social reality. A similar epistemic orientation is also reflected in historical approaches to Pancasila education. Tasnur et al. (2020) show that historical learning enables students to understand Pancasila not merely as a normative doctrine, but as a value system shaped through social and national experiences. This approach encourages students to interpret civic values through historical reasoning, contextual reflection, and awareness of collective identity. Therefore, civic literacy in higher education can be developed by connecting constitutional values, historical consciousness, and reflective understanding of citizenship.

This need for epistemic strengthening becomes more urgent in vocational education, where students face increasingly complex flows of digital information. Puspaningtyas et al. (2024) found that students still encounter difficulties in distinguishing the credibility of digital sources, indicating that citizenship education grounded in digital literacy must strengthen information navigation skills. Without adequate evaluative tools, students may become confined within patterns of instant information consumption, thereby increasing the risk of public participation mediated by emotional sentiment rather than evidence-based reasoning. Within the framework of Society 5.0, digital literacy education cannot be disentangled from the strengthening of civic literacy, as emphasized by Nuryadi & Widiatmaka (2023). The integration of both creates opportunities for the formation of citizens capable of utilizing technology reflectively. In other words, technology is not merely a tool for delivering information, but a digital public space where citizens engage with political discourses and interests. Consequently, education must position digital literacy as a medium for building citizens' epistemic capacity, not merely as a technical skill for operating devices.

The perspective of sustainable development further clarifies the relevance of citizenship literacy in education. SDG Target 4.7 identifies critical thinking skills, human rights awareness, and social responsibility as key learning outcomes (Inter-Agency and Expert Group on Sustainable Development Goal Indicators, 2016). If the ability to evaluate information is understood as a prerequisite for civic knowledge, then educational programs that do not integrate information literacy may hinder the achievement of sustainable educational goals. Thus, civic literacy is not a supplementary curricular element but a fundamental component of achieving global educational quality. Analysis of national educational outcomes also indicates existing gaps in the implementation of these goals. The low level of information literacy among students in Indonesia can hinder the citizenship education process because citizens cannot make responsible public decisions if their information base is weak. This situation underscores the urgency of pedagogical reform grounded in civic literacy, emphasizing the epistemological dimensions of citizens' actions rather than merely normative knowledge about the political system.

The expectation that schools will serve as a primary arena for fostering citizens' public rationality is increasingly reinforced, in line with the view that civic action requires the capacity to reflect on information and social conditions (Wahlström, 2022). The model of civic literacy education developed by Kurniawan et al. (2025) demonstrates that national character cannot be built without the ability to analyze information claims and consider their social consequences. Thus, civic literacy education must be directed toward fostering

citizens' epistemic habitus, that is, the habit of evidence-based thinking and moral reflection, so that civic capacity can develop sustainably and not be easily undermined by manipulative information flows.

Information Literacy-Based Civic Education in the Digital Ecosystem

Digital transformation has introduced civic education into a new epistemic space. Public information, which was previously accessed primarily through textbooks, is now available through various digital platforms, changing the learning experience from merely receiving knowledge to actively managing information. When students access public issues through online media, they are confronted with a plurality of conflicting sources. Therefore, learning is no longer sufficient if it merely emphasizes memorizing citizenship concepts; instead, it must empower students to assess the quality of information before drawing conclusions or taking a public stance. To clarify how this issue appears across the reviewed literature, the studies in this theme were mapped based on their context, educational level, research design, and contribution to civic literacy.

Table 2. Data Synthesis of Included Studies

Author (Year)	Geographic Location	Target Educational Level	Research Design	Key Contribution
Asmaroini et al. (2023)	Indonesia	Senior high school	Descriptive study	PPKn learning actualizes civic literacy.
Anditasari et al. (2023)	Indonesia	Senior high school	Empirical study	Citizenship learning supports civic literacy practice.
Nur'aeni & Dewi (2021)	Indonesia	School education	Development study	Project-based e-modules improve civic literacy.
Adlina (2024)	Indonesia	Higher education	Literature study	Academic Pancasila discourse strengthens civic understanding.
DeLuca (2025)	United States	Public knowledge setting	Conceptual study	FOIA and libraries support civic information access.
Morgan (2016)	United States	School education	Implementation study	Project Citizen develops civic literacy and efficacy.
Saputri et al. (2019)	Indonesia	Students	Empirical study	Civic literacy supports learning in era 4.0.
Nirmayani & Yudiana (2025)	Indonesia	School education	Educational model study	Cultural-civic literacy strengthens critical literacy.

As shown in **Table 2**, the studies in this theme indicate that digital civic education is closely related to information literacy, digital learning resources, and students' ability to engage with public issues through digital media. This shift in the orientation of knowledge is evident in teaching practices that provide space for students to explore digital sources, synthesize information from various media, and discuss their findings in online class forums. These activities have been demonstrated in information literacy-based civic education practices that facilitate navigation of digital sources and critical reflection through digital content evaluation tasks (Asmaroini et al., 2023; Anditasari et al., 2023). The use of project-based civic education e-modules also supports this direction by providing structured digital learning resources that can improve students' civic literacy (Nur'aeni & Dewi, 2021). Thus, digital transformation serves to expand the learning space from the physical classroom to a digital media-based public dialogue environment.

Digital technology has also stimulated the emergence of new patterns of interaction between teachers and students in civics education. Teachers no longer occupy a central

position as the sole providers of information; instead, they function as facilitators who guide students in selecting, verifying, and interpreting digital information. This function shifts the pedagogical role toward epistemic mediation, which requires information literacy as a fundamental competency of digital citizenship. This shift in relational structure aligns with the idea that citizenship education must cultivate citizens' capacity for reflective and critical engagement with digital discourse (Rajavel, 2026; Anggraheni et al., 2026; Adlina, 2024).

In addition to transforming the dynamics of interaction, digital media plays a role in presenting a more authentic citizenship experience through access to current public content. Digital repositories, transparency portals, and sources of public information enable students to analyze governance and policy issues directly, without the intermediary of textbook narratives. Learning practices that utilize the openness of these public documents have been shown to strengthen the evaluative skills of digital citizens, as students are required to interpret data and connect it to public issues (Zheltukhina et al., 2026; DeLuca, 2025). Thus, digital technology generates opportunities for learning based on real-world policy documentation that were previously unavailable in traditional classrooms.

Digital transformation is also reconfiguring the pedagogical model of citizenship education. As students explore data, identify public issues, and construct arguments based on digital sources, learning evolves into a process of social inquiry. This digital project-based learning approach enables students to participate in more substantive civic practices, distinct from normative learning that emphasizes cognition alone (Morgan, 2016). This orientation is also reinforced by Saputri et al. (2019), who emphasize the importance of reinforcing civic literacy in sustaining students' learning in the industrial era 4.0. Consequently, this pedagogical evolution repositions civic education from passive knowledge transmission toward empowering students as critical, data-literate agents capable of navigating and shaping contemporary democratic spaces.

This transformation marks a shift in civics education toward epistemic participation, that is, the ability to form public judgments based on the evaluation of sources. Digital transformation has had implications direct on the competency civic literacy. The required skills are no longer limited to understanding political rules and systems but include the ability to assess the credibility of digital information, understand media bias, and identify the motives behind the production of digital content. These competencies align with the domains of information literacy, media literacy, and ICT literacy in the P21 Framework, which emphasizes the ability to access, evaluate, and manage digital information as 21st-century skills (Mann, 2026; Ardyawin, 2024; López-González et al., 2023). In other words, digital civic literacy requires a information literacy-based epistemological foundation.

The relevance of digital transformation becomes increasingly clear when associated with SDG 4, particularly indicator 4.7, which emphasizes the importance of education that promotes global citizenship, human rights, and a critical understanding of social realities. Civics education grounded in the evaluation of digital information contributes to achieving this indicator, as it enables students to develop a more reflective understanding of global issues by referencing credible information sources (Asmaroini et al., 2023; Anditasari et al., 2023; Nur'aeni & Dewi, 2021). SDG documents highlight the importance of citizens' ability to participate responsibly through access to and evaluation of public information, a capability now dependent on digital literacy (DeLuca, 2025; Morgan, 2016). Digital transformation also forces students to face epistemic risks, such as misinformation and digital hate speech. Without the integration of digital literacy as a core component civics education, students risk passively absorbing information and becoming trapped in manipulative public participation. Therefore, civics education must be designed with pedagogical strategies that expand evaluative skills and digital ethics, including training in bias identification, fact-checking,

and the use of authoritative sources (Morgan, 2016; Saputri et al., 2019; Nirmayani & Yudiana, 2025).

Ultimately, digital transformation is redefining the epistemology of civic education. Civic knowledge is no longer acquired through hierarchical information transfer but through reflective engagement with digital discourse. Civic literacy in the digital age functions as an epistemic capability involving information access, source verification, evidence-based argumentation, and responsible public action. Thus, civics education responsive to the digital era demands the integration of information literacy and media literacy as the foundation of reflective civic education. Education that fails to respond to this transformation risks producing citizens who are procedurally active but epistemically vulnerable when confronting the flow of digital information.

Civic Literacy as a Mechanism for Shaping Digital Citizenship and Social Media Ethics

The advancement of information technology has transformed the nature of the public sphere into a digital space that requires citizens to act responsibly. In this context, civic literacy serves as the epistemological foundation for the practice of digital citizenship. Civic literacy includes not only knowledge of rights and obligations but also the ability to understand the moral and social consequences of digital actions. Without this ability, the use of social media can deteriorate into impulsive practices that harm the public interest. The studies grouped in this theme clarify how responsible digital citizenship is constructed through different literacy practices, including civic education, digital ethics, visual interpretation, and critical responses to misinformation.

Table 3. Data Synthesis of Included Studies

Author (Year)	Geographic Location	Target Educational Level	Research Design	Key Contribution
Sukmayadi et al. (2025)	Indonesia	Higher education	Empirical study	Civic education strengthens digital civic literacy.
Dewi & Budimansyah (2020)	Indonesia	School education	Empirical study	Digital citizenship literacy supports civic behavior.
Zápotočná (2012)	European context	Civic education	Conceptual study	Literacy helps citizens respond to power.
Jägerskog & Tväråna (2025)	Sweden	School education	Qualitative study	Visual literacy supports civic interpretation.
Pavlounis et al. (2025)	Canada	Teachers	Qualitative study	Critical digital literacy counters misinformation.

The pattern emerging from these studies (Table 3) suggests that digital citizenship is not formed simply by being active online. It depends on evaluative habits that guide students to verify information, read public messages critically, and consider the social consequences of sharing content. The ability to evaluate information is therefore a fundamental component of civic literacy in the digital context (Hermawan et al., 2026; Almanza Cabe et al., 2026). When students develop the habit of verifying sources before sharing information, the process of digital participation shifts from emotional reactions to rational decisions. In learning that requires evaluating the credibility of information, students demonstrate greater caution in responding to public issues on social media (Sukmayadi et al., 2025). This indicates that digital citizenship literacy can regulate the use of digital media through evaluative processes.

Ethical reflection on digital information also serves as a mechanism for fostering digital citizenship. When students are engaged in discussions of public issues based on digital sources, their awareness of the social impact of digital information increases. This

process fosters an understanding that digital actions have social consequences, which must be considered before they are taken (Dewi & Budimansyah, 2020). Thus, civic literacy serves as a link between information evaluation and responsible digital behavior. Digital citizenship literacy also serves to protect citizens from the dominance of digital discourse. The ability to identify media bias and understand power structures enable students to resist symbolic manipulation in political content. This perspective broadens the understanding of civic literacy, not merely as the ability to follow rules, but also as the capacity for critical engagement with narratives produced by interested actors (Zápotočná, 2012). This literature highlights that civic literacy serves as a tool of resistance against misleading information.

On the other hand, the dominance of visual content in the digital space presents new challenges for civic education. Visual political representations can shape opinions without rational argumentation. The ability to interpret visual messages within a socio-political context is a key component of digital civic literacy, thereby protecting citizens from manipulation through digital aesthetics (Jägerskog & Tväråna, 2025). Therefore, visual literacy must be incorporated into civic education. Strengthening digital citizenship literacy corresponds with SDG 4.7, which emphasizes the importance of education that fosters tolerant, peaceful, and responsible citizens. When students can evaluate information and consider its social impact, they can contribute to maintaining social order in the digital space. Thus, citizenship education serves to support sustainable development goals, particularly regarding the ethics of digital interaction.

Integrating digital citizenship literacy into the 21st-century literacy framework illustrates that the ability to evaluate information, think critically, and assess the social context of digital actions are inseparable competencies (Rodríguez-Díaz & Rodríguez-Ferrándiz, 2026; Ardyawin, 2024). Responsible digital participation requires the skill to manage information ethically, making information literacy and digital citizenship literacy an essential part of digital citizenship practice. Consequently, citizenship education must be oriented toward authentic experiences using digital information. Activities such as fact-checking, analyzing media bias, and examining visual representations are pedagogical strategies that can enhance digital citizenship literacy. When these strategies are systematically applied, students can practice making public decisions with sound moral judgment.

Overall, civic literacy influences digital citizenship through three functions: evaluative regulation of digital information, the internalization of ethical considerations prior to action, and resistance to manipulation of digital discourse. These three functions determine whether digital citizens can participate reflectively and responsibly. Therefore, citizenship education needs to undergo a paradigm shift toward digital citizenship literacy-based learning so that citizens can uphold the quality of democracy in the digital space. Ultimately, operationalizing this literacy-driven paradigm serves as a vital structural safeguard against digital misinformation, ensuring that future generations actively sustain democratic resilience within an increasingly complex information.

Strengthening Civic Literacy through the Integration of Culture and Local Wisdom in Civic Education

Civic literacy can be strengthened by integrating local culture and wisdom as educational resources for civic education. Local culture provides moral values, social norms, and community practices that are relevant to the goals of civic education. By incorporating cultural values into the learning process, students do not merely study abstract concepts of citizenship but observe concrete examples of social responsibility within their own communities. This approach aligns with the spirit of SDG 4.7, which emphasizes the importance of education that values diversity, peace, and social responsibility. The studies

in this theme show how culture, local narratives, and social interaction provide contextual spaces for developing civic values in educational practice.

Table 4. Data Synthesis of Included Studies

Author (Year)	Geographic Location	Target Educational Level	Research Design	Key Contribution
Pertiwi et al. (2025)	Indonesia	Vocational high school	Descriptive study	Social media shapes students' civic interaction.
Prasetyo et al. (2025)	International	Education	Systematic review	Civic literacy supports democratic learning.
Dharma et al. (2025)	Indonesia	School education	Experimental study	Local digital stories strengthen cultural civic literacy.

Across these studies (Table 4), civic literacy appears as a value-based learning process that is rooted in students' social and cultural environments. Local wisdom serves as a value foundation for the moral development of citizens. When students understand the traditions and social norms within their communities, they learn to value social harmony, cooperation, and community ethics as integral elements of their civic identity. Culturally-based learning provides contextual meaning to Citizenship Literacy, which has traditionally been more terminological and theoretical, while simultaneously promoting collaboration and communication skills-essential components of 21st-century competencies (Oktiningrum et al., 2026; Sajar et al., 2026; Dharma et al., 2025).

The use of media and learning resources rooted in local culture can strengthen authentic learning experiences. Studies that develop citizenship literacy through local media indicate that cultural representations help students identify citizenship practices within concrete contexts, rather than merely through hypothetical examples (Pertiwi et al., 2025). Values of community, courtesy, and social responsibility are reflected in students' social interactions within the school community, thereby embedding citizenship literacy through direct practice. This values-based learning reinforces students' ability to use public information responsibly in the digital age.

On the other hand, learning based on local wisdom can enhance students' civic reasoning. When cultural values serve as the basis for evaluating social actions, students learn to consider moral consequences before making public decisions. This is evident in a systematic review of culture-based Citizenship education, which shows that the practice of reflecting on local norms helps students understand the connection between individual actions and broader community life (Prasetyo et al., 2025). Thus, local culture serves as a source of moral legitimacy for Citizenship practices while stimulating 21st-century critical thinking skills.

The integration of local culture can also strengthen civic disposition, the tendency to act as a good citizen. Through the internalization of cultural values that uphold social harmony, students learn to align their behavior with community norms as a form of civic responsibility. Cultural media-based studies have found that students demonstrate increased awareness of the social impacts of digital interactions after reinterpreting local cultural values within the context of the digital world (Pertiwi et al., 2025). This means that local culture serves as a connector between traditional values and digital citizenship practices in modern society.

Strengthening civic literacy through local culture can be achieved by adapting educational materials based on folk tales, local traditions, or specific cultural practices. When students engage with cultural stories that convey values of social responsibility, participation, and morality, they learn to understand the ethical implications of public

actions. Civic education rooted in local culture has the potential to improve learning effectiveness and foster the internalization of cultural conservation values in daily life practices (Sajar et al., 2026; Dharma et al., 2025). Additionally, culture-based learning models encourage character development and global awareness as outlined within the framework of 21st-century competencies.

Learning strategies based on local wisdom also contribute to improving students' civic responsibility. When students engage in community-based activities, such as the preservation of cultural sites or local cooperative efforts, they directly experience how cultural values are applied in social life. This experience strengthens the connection between civic knowledge and real-world practices within the community, ensuring that civic literacy does not remain at the cognitive level but extends into the dimensions of attitude and action (Topal & Haçat, 2026; Hamidah et al., 2026). Consequently, embedding local wisdom into civic education frameworks functions as a transformative catalyst that converts abstract civic concepts into authentic, place-based civic action and enduring social cohesion.

Integrating local culture into civics education can increase the relevance of the curriculum for students. Cultural values provide a concrete social context for Citizenship material, which is often perceived as abstract. When learning is linked to local values and practices, students feel a closer connection to Citizenship values because they originate from their own social environment. Culture-based learning also strengthens cross-cultural communication skills, which are a core component of 21st-century social competencies, making them relevant for citizens in the global and digital age (Oktiningrum et al., 2026; Sajar et al., 2026; Dharma et al., 2025). Consequently, leveraging local cultural heritage as a pedagogical foundation effectively reconciles localized identity with global civic participation, thereby nurturing culturally grounded yet globally competent citizens.

Based on these arguments, it can be concluded that culture and local wisdom strengthen Citizenship Literacy through the internalization of community moral values, the reinforcement of the connection between individual actions and social life, and the provision of a cultural context for Citizenship education. By making local wisdom a source of learning, Citizenship education can produce citizens who not only know the norms of Citizenship but also understand how to implement them responsibly in social life. This approach aligns with the goals of SDG 4.7 and the demands of 21st-century competencies, which call for citizens who are knowledgeable, critical, collaborative, and ethical in the public sphere.

Libraries as Democratic Spaces for Strengthening Civic Literacy

Libraries play a democratic role by providing the knowledge infrastructure that enables citizens to make public decisions in a reflective manner. These institutions function not merely as repositories of collections, but as epistemic spaces where citizens learn to interpret public issues, evaluate arguments, and develop their civic stances. By providing access to credible information sources, libraries support the creation of informed citizens—a fundamental prerequisite for a deliberative democratic system. The studies in this theme place libraries and learning spaces as part of the civic ecosystem that supports access to information, dialogue, empathy, and democratic interpretation.

Table 5. Data Synthesis of Included Studies

Author (Year)	Geographic Location	Target Educational Level	Research Design	Key Contribution
Kranich (2024)	United States	Libraries/public	Conceptual study	Libraries support civic dialogue.
Hylton (2018)	United States	Higher education	Quantitative study	Civic literacy relates to empathy and engagement.

Author (Year)	Geographic Location	Target Educational Level	Research Design	Key Contribution
Jägerskog & Tväråna (2025)	Sweden	School education	Qualitative study	Visual literacy supports democratic interpretation.

The synthesis (**Table 5**) indicates that libraries contribute to civic literacy by connecting access to information with democratic participation. **Kranich (2024)** emphasizes that public and campus libraries carry a historical mandate to guarantee citizens’ right to information through open and non-discriminatory services. This principle of equal access is the foundation of democracy, as it enables all segments of society to access sources of knowledge regarding policy, social history, and public discourse without economic or social identity barriers. Through this function, libraries reduce information gaps that could potentially lead to disparities in democratic participation.

In the Indonesian context, this role is also reflected in **Perpustakaan Nasional Republik Indonesia (2024)**, which positions school libraries as learning support institutions that must be managed systematically to provide access to collections, services, facilities, and literacy activities. This standard is relevant to civic literacy because school libraries are not only expected to support reading activities, but also to provide learning resources that help students access reliable information, develop literacy habits, and participate in knowledge-based learning. Thus, the democratic function of libraries in Indonesia needs to be understood not only through public and campus libraries, but also through school libraries as early spaces for cultivating students’ civic awareness.

However, the availability of library access, whether in school, public, or campus contexts, does not automatically lead to civic engagement. **Hylton (2018)** demonstrates that civic literacy is associated with students’ social empathy and public engagement. Implications for library services include designing information literacy programs, reading clubs, social issue exhibitions, and policy advocacy training that go beyond mere information-searching skills to develop an understanding of others’ perspectives. Thus, the library serves as a linking agent between knowledge and the development of social sensitivity. Consequently, repositioning libraries as socio-pedagogical spaces transforms them from passive information repositories into dynamic catalysts for empathetic community stewardship and active democratic participation.

The democratic role of libraries becomes increasingly important when considering the growing visual dimension in modern public discourse. **Jägerskog & Tväråna (2025)** emphasize the urgency of civic visual literacy, the ability to interpret and critique visual representations containing social and political messages. Libraries can facilitate this through historical photo archives, political poster exhibitions, infographic reading workshops, and the curation of digital content. In this way, libraries become centers of visual democracy, not merely storage spaces for media. Beyond providing learning resources, libraries assume a democratic role by creating safe, neutral, and inclusive spaces for dialogue. Reading rooms and discussion spaces can function as arenas for public deliberation, where citizens learn to express opinions, listen to differing viewpoints, and test evidence-based arguments. When libraries facilitate forums for dialogue across identities and perspectives, they fulfill a core democratic function: fostering the habit of engaging in constructive public discourse.

Libraries also fulfill a democratic function through information literacy education to assess the credibility of sources, distinguish facts from opinions, and verify data. This literacy program is necessary because the digital space is filled with misinformation and algorithmic bias. Drawing on **Hylton’s (2018)** findings, literacy education grounded in social empathy can encourage the use of information not merely for consumption, but for accountable public participation. Another democratic function lies in the library’s efforts to

narrow the digital divide. Public computer facilities, free internet access, and training in the use of digital media provide opportunities for political participation among citizens who are economically or geographically marginalized. Access to technology alone is not enough; when libraries guide citizens in using digital resources to understand public issues, they enhance political participation through knowledge empowerment.

This democratic role of libraries aligns with SDG 4.7, which aims to ensure learners acquire the knowledge and skills to promote a culture of peace, tolerance, and global citizenship. By facilitating access to credible information and spaces for public discourse, libraries play a significant role in achieving this indicator. Furthermore, the 21st-century skills framework identifies critical thinking, communication, collaboration, information literacy, and media literacy as core competencies of modern citizens, competencies that can be cultivated through information literacy services and library discourse spaces. Therefore, libraries assume a democratic role through three primary mechanisms: providing equal access to public information, building citizens' reflective capacity through information and visual literacy education, and facilitating inclusive spaces for discussion and social participation. When libraries consciously direct their services to facilitate the reading, evaluation, and debate of public information, these institutions serve as the infrastructure of democracy, enabling citizens to become critical, informed, and responsible participants in public life (Hvenegaard Rasmussen, 2026; Carlsson et al., 2023).

Literacy as the Foundation for National Character Building in the Digital Age

The formation of national character cannot rely solely on memorizing national values or doctrines of nationalism; rather, it requires citizens' ability to understand, evaluate, and use public information critically and thoughtfully. Civic literacy serves as a crucial foundation for national character because it trains citizens to take stances based on knowledge and moral reflection, rather than emotional sentiment or short-term political mobilization. In an educational context, civic literacy enables students to internalize national values through critical thinking, social empathy, and rational public decision-making. The studies in this theme show that national character is shaped not only through formal value transmission, but also through democratic learning spaces, digital literacy, public knowledge access, and reflective citizenship education.

Table 6. Data Synthesis of Included Studies

Author (Year)	Geographic Location	Target Educational Level	Research Design	Key Contribution
Wahlström (2022)	Sweden	School education	Conceptual study	Schools build democratic character.
Pavlounis et al. (2025)	Canada	Teachers	Qualitative study	Digital literacy strengthens critical citizenship.
Kranich (2024)	United States	Libraries/public	Conceptual study	Libraries support democratic civic character.
Kurniawan et al. (2025)	Indonesia	School education	Literature-based analysis	Civic literacy shapes national character.

Taken together, these studies indicate that civic literacy strengthens national character by connecting knowledge, moral reasoning, and democratic responsibility. This relationship is evident in the idea that schools are democratic spaces where citizens learn to develop civic literacy and a commitment to the nation. Wahlström (2022) demonstrates that schools can foster democratic expectations through learning experiences that enable students to understand social structures, the rights and obligations of citizens, and the collective interest. These findings position citizenship literacy as a prerequisite for the formation of a reflective

national character, as citizens understand the moral reasons behind compliance with public norms and contributions to the common good.

Civic literacy is also relevant in the context of the digital age, where citizens are confronted with a vast flow of political information and digital nationalism that is susceptible to manipulation. [Pavlounis et al. \(2025\)](#) emphasize the importance of the ability to read and question political visual messages in the context of digital misinformation and disinformation. This ability contributes to the formation of reflective nationalism, as citizens do not simply accept national identity through propaganda or visual symbolism, but through critical engagement with national discourses in digital media. Accordingly, civic literacy serves as an epistemic filter to differentiate constructive nationalism from chauvinism.

In addition to educational institutions, libraries also play a crucial role in strengthening Civic Literacy, which has implications for national character. [Kranich \(2024\)](#) states that libraries can function as democratic spaces that facilitate public participation and citizens' information literacy. When libraries facilitate equal access to public knowledge resources and provide a space for dialogue across identities, national values are strengthened through experiences of diversity and collective reflection. Nationalism is not built through a single state narrative, but through the experience of interaction within a pluralistic public space of knowledge.

When these three findings are considered together, it becomes clear that civic literacy can shape national character through three mechanisms. First, formal education instills reflective skills and a moral orientation in understanding citizenship ([Wahlström, 2022](#)). Second, visual digital literacy skills help citizens resist political manipulation and promote rational nationalism ([Pavlounis et al., 2025](#)). Third, public knowledge spaces such as libraries provide an ecosystem for inclusive dialogue as a practical manifestation of citizenship ([Damiani & Fraillon, 2025](#); [Aasim, 2024](#)). Through these mechanisms, Civic Literacy is not merely knowledge of citizenship, but an intellectual and moral capacity that supports democratic nationalism.

Strengthening Civic Literacy is also aligned with the objectives of the Sustainable Development Goals ([Kranich, 2024](#)), particularly SDG 4.7, which mandates education to equip citizens with the knowledge and skills to advance peace, sustainability, and global citizenship. In this context, national character is not understood in an exclusive manner, but rather through a perspective of global interconnectedness that remains grounded in national collective values. Education for civic literacy in accordance with SDG 4.7 can serve as the foundation for a reflective nationalism directed toward social cohesion, respect for human rights, and democratic participation.

Furthermore, the 21st-century skills framework identifies information literacy, deliberative communication, and social collaboration as core competencies for democratic citizens. These competencies contribute to building national character because citizens who can evaluate information sources, understand differing perspectives, and work together in the public sphere will internalize national values through the practice of togetherness, not merely through symbolic declarations ([Hermawan et al., 2026](#); [Trixa & Kaspar, 2024](#)). By integrating civic literacy into the development of 21st-century skills, national character can be guided toward participatory ethics and collective responsibility.

Thus, civic literacy has proven capable of shaping national character, but not through the indoctrination of values. Civic literacy encourages a rational, reflective, and inclusive nationalism a national character rooted in citizens' ethical awareness of social responsibility, collective interests, and respect for diversity. This is crucial in the context of Indonesia's pluralistic democracy: the formation of national character must align with the strengthening of Civic Literacy as the foundation of national consciousness ([Damiani & Fraillon, 2025](#);

Munasib et al., 2023). Ultimately, embedding civic literacy into pluralistic educational frameworks transforms national identity formation from a passive dogma into an active, critically reflective practice that safeguards democratic governance.

Civic Literacy as the Basis for Democratic Policy and the Strengthening of Civic Engagement

Democratic policies play a role in guiding the strengthening of civic literacy because democracy requires citizens who are capable of understanding power structures, mechanisms of representation, and the impact of public policies on social life. Civic literacy is not merely understood as knowledge of citizenship, but as citizens' capacity to interpret policy information, offer rational criticism, and participate in political processes. Thus, democratic policies designed to expand public participation must incorporate an agenda for increasing civic literacy as a fundamental strategy. In this theme, the reviewed studies connect civic literacy with the social conditions that enable citizens to participate, deliberate, and respond to democratic challenges.

Table 7. Data Synthesis of Included Studies

Author (Year)	Geographic Location	Target Educational Level	Research Design	Key Contribution
Van Helvoort (2019)	International	General education	Literature review	Civic literacy develops across social spaces.
Keegan (2021)	United States	Social studies classroom	Conceptual framework	Affective civic literacy supports political learning.
Hidayah et al. (2020)	Indonesia	Higher education	Qualitative study	Student organizations strengthen democratic participation.

The synthesis shows that civic literacy depends on the availability of participatory spaces, both within and beyond formal education. van Helvoort (2019) asserts that civic literacy does not develop solely through formal education, but through interactions across social spaces such as communities, public spaces, educational institutions, and the media. These findings indicate that democratic policies must provide the social infrastructure that enables citizens to engage with public issues, discuss them, and make collective decisions. When policies open spaces for public participation, Civic Literacy plays a role in guiding citizens to evaluate arguments, respect differences, and formulate collective actions based on evidence, rather than emotional pressure or group identity. This orientation is also reflected in Hidayah et al. (2020), who show that civic literacy can be strengthened through student organizations as spaces for democratic participation and reflection on democratic challenges in Indonesia.

Keegan (2021) argues that democratic policies must account for the affective dimension in the development of civic literacy. Political emotions, if left unchecked, can fuel polarization and weaken social cohesion. Civic literacy serves to moderate such affective intensity through critical thinking, social empathy, and solution-oriented dialogue. Thus, democratic policies that facilitate spaces for participatory deliberation can strengthen civic engagement grounded in moral reflection, rather than short-term political mobilization that overlooks collective interests. The agenda for strengthening Civic Literacy also aligns with SDG 4.7, which mandates global citizenship education, a culture of peace, and respect for diversity. Democratic policies that incorporate aspects of Civic Literacy can directly contribute to achieving this indicator, as citizens are equipped with the skills to understand human rights, appreciate social pluralism, and make public decisions based on principles of

justice. In other words, democratic policies do not merely regulate political governance but support citizens' social learning processes as part of sustainable development.

When linked to the 21st-century skills framework, Civic Literacy requires the development of information literacy, critical thinking skills, deliberative communication, and social collaboration. Democratic policies that provide space for public dialogue, access to credible information, and citizen participation in the management of social issues can activate these skills. When citizens are involved in data-driven discourse and rational argumentation, civic literacy serves to strengthen democratic character through the development of deliberative and collaborative practices. Therefore, democratic policies that emphasize citizen participation, access to public information, and spaces for deliberative dialogue are prerequisites for strengthening civic literacy. Civic literacy is not merely an individual achievement but a form of social capital that enables citizens to participate rationally and ethically in political life (Mazid et al., 2026; Shaw, 2023). When democratic policies are implemented through an inclusive and social learning-based approach, they can enhance civic engagement while developing sustainable social cohesion.

Based on comprehensive analysis, it is evident that democratic policies guide the strengthening of civic literacy through the provision of social spaces for civic education, the management of public emotions within political discourse, and the expansion of access to credible public information. The integration of civic literacy with SDG 4.7 and 21st-century skills positions the strengthening of citizenship as a strategic priority for sustainable development. Democratic policies that recognize the dimensions of informational, affective, and deliberative literacy will be better able to ensure reflective, inclusive, and responsible citizen engagement in the democratic process (Rodríguez-Díaz & Rodríguez-Ferrándiz., 2026; Anditasari et al., 2023; Shaw, 2023). Consequently, institutionalizing this multi-dimensional civic literacy framework into national policy directives serves as an indispensable cornerstone for advancing sustainable governance and fostering democratic resilience in an increasingly complex socio-political landscape.

The civic literacy discussed here points in the same direction: that the ability to understand public life is not developed overnight, but rather through learning experiences distributed across various social spaces. From classroom learning practices, digital interactions, and local cultural values to library services and democratic policies, all contribute uniquely to how citizens interpret information, respond to shared challenges, and fulfill their roles as part of the nation. From this perspective, civic literacy can be seen as the unifying thread connecting education, the public sphere, and the formation of civic character; a process that gradually shapes citizens' awareness of communal life as the broader goal of civic education.

Strengthening civic literacy offers hope for a more advanced democracy, especially amid the challenges of misinformation, identity conflicts, and the declining focus on the public interest. When schools, families, communities, and knowledge institutions create spaces for inclusive dialogue and provide access to reliable information, citizens engage in developing attitudes that are both critical and empathetic. This is in accordance with the goals of SDG 4.7 and 21st-century skills, which emphasize information literacy, reflective thinking, and communication as the foundation of peaceful national life. From this perspective, civic literacy can be understood as an ethical asset that underpins the sustainability of democracy and national life. However, as a literature-based synthesis, this study is limited by the scope of selected databases, article availability, and the diversity of research contexts analyzed. The implication is that civic literacy needs to be strengthened not only as a curriculum content, but also as a cross-sector educational agenda involving schools, digital platforms, libraries, families, and democratic public spaces.

Conclusion

This systematic review demonstrates that civic literacy has shifted from a conventional focus on citizenship knowledge toward an integrative capacity that prepares learners to navigate democratic life in an increasingly complex information society. The synthesis shows that civic literacy is strengthened across formal education, digital spaces, cultural contexts, libraries, public knowledge institutions, and democratic participation through learning experiences that enable students to evaluate information, interpret public issues, reason ethically, and participate responsibly in social and political life. In this sense, the contribution of this review lies in positioning civic literacy as a bridge between information literacy and SDG 4.7, particularly in preparing reflective democratic learners who are able to respond critically to misinformation, polarization, and the changing dynamics of the digital public sphere. Future research should extend this synthesis through empirical studies that examine how civic literacy develops among students across educational levels and cultural settings, including intervention-based, mixed-methods, longitudinal, and comparative designs, as well as the development of valid instruments to measure students' civic literacy in relation to information evaluation, digital citizenship, democratic participation, and public reasoning.

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Conceptualization was contributed by TH, AH, and AS; methodology by TH and AS; and formal analysis by TH and AH. Investigation was conducted by TH, AH, and AS, with the original draft written by TH and AH. Review and editing were performed by TH and AS, while supervision was provided by TH, AH, and AS.

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The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Generative AI tools (Gemini 3.5) were used to assist in organizing literature and summarizing references. The authors independently verified all cited sources and interpretations.

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