Digital Literacy as a Reinforcement of Character Education in the Society 5.0 Era

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Abstract

The Society 5.0 era requires the world of education to prepare a generation that not only masters digital technology, but also has a strong, ethical, and globally competitive character. This study uses the Systematic Literature Review method to examine the role of digital literacy in strengthening character education in the last five years. The results of the study show that digital literacy is not only related to the technical ability to use devices, but also involves critical thinking skills, ethical awareness, and social responsibility. The integration of digital literacy in the educational curriculum has been proven to be able to foster the values of honesty, discipline, and empathy. Teachers and families play an important role in guiding students to be able to use technology wisely and responsibly. Thus, digital literacy is an important foundation in shaping the generation of Society 5.0 that is intelligent, creative, and has strong character. In addition, the results of this research are expected to be a reference in the development of national education policies that are oriented towards a balance between digital intelligence, morality, and humanity in the era of increasingly rapid technological transformation.

1. Introduction

The rapid development of information and communication technology has brought major changes to various aspects of human life. The shift from the Industrial Revolution 4.0 to the era of Society 5.0 marks a transformation of civilization that is not only oriented to technology, but also to human values. Society 5.0 is a human-centered concept of an intelligent society, where digital technologies such as Artificial Intelligence (AI), Internet of Things (IoT), and Big Data are used to improve the quality of human life (Özdemir & Hekim, 2018). Thus, the main goal of this era is not only industrial efficiency, but a balance between technological innovation and social welfare.

However, behind these various advances, there are also great challenges in the field of education and character formation of the younger generation. Massive digitalization has led to changes in people's mindsets, lifestyles, and ways of interacting, especially among students. Various phenomena such as cyberbullying, the spread of hoaxes, hate speech, and the decline in digital communication ethics indicate a moral degradation in cyberspace (Fitriarti, 2019). This condition emphasizes the need for education that not only emphasizes cognitive and technological aspects, but also the formation of character and solid moral values.

In the context of education in Indonesia, efforts to strengthen character have become a national priority through the Strengthening Character Education (*Penguatan Pendidikan Karakter*/ PPK) program based on the values of Pancasila and the 1945 Constitution (Sukasni, 2019). This program emphasizes the importance of religious values, nationalism, integrity, independence, and mutual cooperation as the

basis for the formation of students' personalities. However, in the midst of global changes and digital advancements, these values face challenges in their application in the real world and cyberspace. Therefore, digital literacy is an important instrument in maintaining a balance between technological progress and strengthening the nation's character.

Digital literacy is not just the technical ability to operate digital devices, but includes critical thinking skills, ethical awareness, the ability to collaborate, and social responsibility in the use of technology (McDougall et al., 2018). Individuals who have high digital literacy are able to use technology for positive purposes, such as developing creativity, expanding horizons, and strengthening social relationships. Conversely, a lack of digital literacy can lead to misuse of technology and a decline in the quality of social interaction. In the framework of education, digital literacy is the main foundation for forming students who are intellectually, socially, and emotionally intelligent.

Some recent research supports the importance of integrating digital literacy in character education. Yuniarto and Yudha (2021) explained that digital literacy plays a role in strengthening the nation's character because it helps balance artificial intelligence and human social intelligence. Meanwhile, Ningsih et al. (2021) emphasized that character-based digital literacy skills are able to increase ethical awareness and responsibility in using digital media. Thus, digital literacy not only functions as a learning tool, but also as a means of forming morality in the digital world.

Education in the era of Society 5.0 requires a paradigm transformation in the teaching and learning process. Teachers no longer play the role of the sole source of knowledge, but rather as facilitators who guide students to think critically and act ethically in the digital ecosystem. According to González-Pérez and Ramírez-Montoya (2022), 21st century learning must integrate character values in all aspects of learning, both in physical and virtual classrooms. Therefore, collaboration between schools, families, and the community is a key factor in fostering a culture of digital literacy with character.

The urgency of implementing character-based digital literacy is also strengthened by the fact that today's young generation lives in a highly digitally connected environment. They are not only consumers of information, but also producers of content that has the potential to influence public opinion. Without strong moral guidance, this generation can lose its way in utilizing technology productively and responsibly. Therefore, strengthening digital literacy in schools needs to be accompanied by value education and the formation of ethical attitudes in every digital activity.

Based on this description, it can be understood that the relationship between digital literacy and character education has strong relevance in answering the challenges of the Society 5.0 era. Digital literacy is an important foundation for the formation of individuals who are not only technologically literate, but also have noble personalities and social responsibility. This paper aims to systematically review various research results that discuss the relationship between digital literacy and character education in the context of Society 5.0. Through the Systematic Literature

Review approach, this research is expected to make a conceptual and practical contribution to the development of national education policies that are able to balance technological advances with human values.

2. Methods

This study uses the Systematic Literature Review (SLR) approach to identify and analyze the relationship between digital literacy and character education in the context of the Society 5.0 era. This method was chosen because it provides a systematic, measurable, and transparent way to collect and assess the results of research that has been carried out previously. The SLR approach allows researchers to find patterns, trends, gaps, and conceptual recommendations that are relevant to strengthening character education through digital literacy.

The research stage begins with the identification of literature sources through online academic databases such as Google Scholar, ResearchGate, and accredited national journals. The search was conducted using a combination of relevant keywords such as digital literacy, character education, Society 5.0, character education, and digital literacy. Publication time limits are set between the last five years to ensure conformity with the latest developments in the Society 5.0 era. From the initial search results, a number of articles were obtained which were then selected based on eligibility criteria. The next stage is screening and final selection (eligibility). The article under consideration must meet certain criteria, namely: focus on digital literacy or character education issues, be relevant to the educational context in Indonesia or globally, and be published in an academically recognized scientific

journal. Articles that are opinion, news, or not through the peer review process are removed from the list.

After the screening stage is completed, a data extraction process is carried out on articles that have passed the selection. The data collected included basic information such as the author's name, year of publication, research objectives, methodological approaches, key findings, and implications for strengthening character education. The results of the extraction were then analyzed using a thematic approach, to group findings based on topics such as the role of digital literacy in character formation, integration strategies in the curriculum, and obstacles to implementation in the field. To maintain the validity and reliability of the results, this study follows the principles of transparency and repeatability. Every step from search to analysis is recorded in detail so that it can be reviewed by other researchers. Validation is carried out through peer review and cross-verification of the analysis results. With this approach, the research is expected to be able to provide a comprehensive overview of the position and role of digital literacy in strengthening character education in the Society 5.0 era.

3. Results

The results of the literature review show that digital literacy has a strategic role in shaping the character of students in the Society 5.0 era. Based on the results of the synthesis of various studies, it can be seen that the application of digital literacy not only emphasizes mastery of technology, but also fosters ethical, social, and spiritual awareness in the use of digital media. This is in line with the view that

Society 5.0 demands a balance between artificial intelligence and human intelligence, where technology must be directed to human welfare without eroding human values (Fukuda, 2020). Thus, good digital literacy skills act as a bridge between mastery of technology and character building.

Various studies show that character-based digital literacy can help students develop critical thinking skills and social responsibility. In this context, character education is no longer enough to be taught through lectures or memorization of grades, but through hands-on experience in a challenging and dynamic digital environment (Ningsih et al., 2021). Through digital project-based learning activities, students are trained to sort information, communicate ethically, and make decisions based on moral considerations. Activities like this have been proven to reinforce the values of integrity and responsibility, which are two of the five main values of national character education.

The results of the study also show that teachers have a very important role in integrating digital literacy into character education. Teachers function as facilitators who direct students to be able to utilize technology productively and ethically. According to research by Yuniarto and Yudha (2021), teachers must have a good understanding of the concept of Society 5.0 in order to be able to balance technological aspects with human values. They emphasized that teachers' digital literacy skills can be the basis for the formation of students' character in the virtual world and in the real world. In this case, teachers not only serve as teachers, but also as moral role models in the use of digital media.

Several studies have identified that the use of social media and digital platforms as a means of learning can strengthen character education if properly controlled. When learners are given space to collaborate and communicate in a digital environment, they learn about responsibility, empathy, and discipline. However, without supervision and ethical guidance, digital activities can actually give birth to negative behaviors such as cyberbullying, the spread of hoaxes, or misuse of information (Fitriarti, 2019). Therefore, every digital literacy program in schools needs to be accompanied by planned and consistent moral coaching.

The results of the literature synthesis also show that digital literacy can be a means of strengthening Pancasila values in the educational environment. With good digital skills, students can actively participate in the digital public space responsibly and democratically. According to González-Pérez and Ramírez-Montoya (2022) research, character education rooted in national and humanitarian values needs to be adapted into digital form to remain relevant to the times. This includes the ability to think critically about online content, foster a sense of tolerance in virtual communication, and maintain personal integrity in the midst of a fast and open flow of information.

Another interesting finding is the role of families and communities in strengthening digital literacy with character. Although schools are the main centers of formal education, the formation of digital character cannot be separated from supervision and habituation in the home environment. A study conducted by Purandina and Winaya (2020) shows that parental involvement in supervising children's online activities contributes to increasing digital ethical awareness. Parents

who understand the values of digital literacy can help children internalize a sense of responsibility, respect privacy, and avoid impulsive behavior on social media.

In addition, research from Özdemir and Hekim (2018) shows that the successful implementation of Society 5.0 is highly dependent on the readiness of human resources. A society with strong character and digital skills is the main foundation in realizing a balance between technological progress and human values. In the context of education, this requires a curriculum design that is adaptive to technological changes as well as oriented towards strengthening moral values. In other words, learning in the era of Society 5.0 must teach students to not only be users of technology, but also value creators through technology that is used wisely.

However, the challenges in implementing digital literacy with character are still quite large. A number of studies show that there is still a competency gap between teachers and students in integrating character values with digital skills (Anthonysamy et al., 2020). Many teachers still view technology as a teaching tool, not yet as a medium for character building. In addition, the availability of digital infrastructure in several schools is also an obstacle to the implementation of digital literacy programs evenly. Another challenge is the lack of ongoing training and mentoring for educators to develop character-based learning in the digital space.

On the other hand, there is also an optimistic view that Society 5.0 actually provides great opportunities for character education. Through the use of technologies such as artificial intelligence and big data, educators can design more personalized, interactive, and contextual learning. Technology enables a learning process that accommodates different learning styles of students while instilling

ethical values through digital simulations and interactive learning media. With this approach, character formation is no longer done verbally, but through digital experiences that are meaningful and relevant to students' lives (McDougall et al., 2018).

Conceptually, the results of this study confirm that digital literacy with character has four main dimensions, namely cognitive, affective, social, and ethical. The cognitive dimension is related to the ability to understand and manage digital information. The affective dimension includes a positive attitude towards the use of technology and a sense of responsibility for its social impact. The social dimension includes the ability to interact and collaborate healthily in the digital space, while the ethical dimension relates to moral awareness and compliance with legal norms and digital culture. These four dimensions need to be integrated into the educational curriculum so that character formation can take place holistically.

The results of the literature synthesis also found that the effectiveness of digital literacy in strengthening character is highly dependent on the pedagogical approach used. Value-based learning and reflective approaches are considered the most effective for internalizing moral values in a digital context (Leaning, 2019). Teachers can encourage students to reflect on their online behavior, evaluate the impact of actions on social media, and relate them to the values taught in school. This reflection process is important to foster self-awareness and social responsibility in the digital ecosystem.

Based on these findings, it can be concluded that the integration of digital literacy in character education has a significant positive impact on the moral, social,

and intellectual development of students. The success of its implementation requires collaboration between schools, families, and the government to ensure that technology is not only a learning tool, but also a means of forming the nation's character that is ethical and globally competitive. Efforts to strengthen character through digital literacy will be the main foundation in building a generation of Society 5.0 that is intelligent, creative, and noble in character.

4. Conclusion

This research confirms that digital literacy has an important role in strengthening character education in the Society 5.0 era. The accelerating digital transformation demands that the world of education not only produce technologically capable individuals, but also have strong personalities, morality, and social responsibility. Digital literacy is no longer understood as limited to the ability to use devices, but also includes ethical awareness, critical thinking skills, and sensitivity to the social impact of technology use.

The integration of digital literacy in character education has been proven to foster values such as honesty, discipline, responsibility, tolerance, and empathy. Digital literacy-based learning encourages students to actively participate in the learning process, manage information wisely, and interact with the digital environment positively. Teachers, families, and the community have a collaborative role in ensuring that this process runs consistently and sustainably.

In addition to opening up innovation opportunities in learning, the Society 5.0 era also presents new challenges in the form of technology abuse, digital divides,

and weak moral control in cyberspace. Therefore, strengthening character through digital literacy must be a priority in national education policy. Schools need to design curricula that are adaptive to technological developments, emphasizing a balance between digital intelligence and emotional intelligence. With this step, Indonesian education will be able to produce a generation that is not only intellectually superior, but also ethical, creative, and socially conscious to face the dynamics of Society 5.0 civilization.

References

Anthonysamy, L., Koo, A. C., & Hew, S. H. (2020). Self-regulated learning strategies in higher education: Fostering digital literacy for sustainable lifelong learning. *Education and Information Technologies*, *25*(4), 2393-2414.

Fitriarti, E. A. (2019). Urgensi literasi digital dalam menangkal hoax informasi kesehatan di era digital. *Metacommunication; Journal of Communication Studies*, *4*(2), 234-246.

Fukuda, K. (2020). Science, technology and innovation ecosystem transformation toward society 5.0. *International journal of production economics*, *220*, 107460.

González-Pérez, L. I., & Ramírez-Montoya, M. S. (2022). Components of Education 4.0 in 21st century skills frameworks: systematic review. *Sustainability*, *14*(3), 1493.

Leaning, M. (2019). An approach to digital literacy through the integration of media and information literacy. *Media and communication*, *7*(2), 4-13.

McDougall, J., Readman, M., & Wilkinson, P. (2018). The uses of (digital) literacy. *Learning, media and technology*, *43*(3), 263-279.

Ningsih, T., Yuwono, D., Sholehuddin, M., & Suharto, A. (2021). The significant of e-assessment for Indonesian literacy with character education in pandemic era. *Journal of Social Studies Education Research*, *12*(4), 231-256.

Özdemir, V., & Hekim, N. (2018). Birth of industry 5.0: Making sense of big data with artificial intelligence,"the internet of things" and next-generation technology policy. *Omics: a journal of integrative biology*, *22*(1), 65-76.

Purandina, I. P. Y., & Winaya, I. M. A. (2020). Pendidikan karakter di lingkungan keluarga selama pembelajaran jarak jauh pada masa pandemi COVID-19. *Cetta: Jurnal Ilmu Pendidikan*, *3*(2), 270-290.

Sukasni, A. (2019). The implementation and discovery of best significant indicators of high school quality particularly both quality process and output. *Science*, *2*(3), 128-147.

Yuniarto, B., & Yudha, R. P. (2021). Literasi digital sebagai penguatan pendidikan karakter menuju era society 5.0. *Edueksos Jurnal Pendidikan Sosial & Ekonomi*, *10*(2).