

Challenges of Education in the Digital Era: Between Gadgets and the Character of the Nation in Indonesia

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ABSTRACT

The rapid development of digital technology has significantly changed educational practices in Indonesia, particularly through the increasing use of gadgets in teaching and learning. While gadgets provide easier access to information, learning flexibility, and opportunities to strengthen digital literacy, their intensive use also creates challenges for character education and the internalization of national values. This paper aims to discuss the challenges of Indonesian education in balancing the use of gadgets with the development of national character in the digital era. Using a conceptual and discussion approach, the paper reviews relevant literature, previous studies, and national education policies related to character education, digital learning, gadget use, and the Pancasila Student Profile. The discussion highlights the ambivalent role of gadgets in education. Digital technology can support independent and effective learning, but unmanaged use may reduce direct social interaction and create challenges in developing discipline, empathy, responsibility, and social awareness. The paper argues that the main educational challenge is not whether gadgets should be used, but how digital technology can be integrated with character education and national values. Indonesian education therefore requires an adaptive approach that combines digital literacy, responsible technology use, educator role modelling, social interaction, and the strengthening of Pancasila values.

Keywords: Character Education, Gadgets, Digital Era, National Character, Indonesian Education

INTRODUCTION

Digital technology has become an undeniable force of social transformation in Indonesia, particularly in the world of education. This change is reflected in the increasingly widespread use of gadgets as the dominant tool for accessing information, learning, and communicating. By 2025, it is estimated that there will be more than 230 million internet users in Indonesia, with smartphones being the primary digital access device for the majority of the population. This figure indicates that digital devices such as gadgets have become an integral part of people's daily lives, including in the context of formal and non-formal education (DataReportal, 2025). Before the dominance of gadgets, educational practices in Indonesia relied heavily on direct interaction between educators and students in physical learning spaces. This face-to-face interaction is a crucial medium for instilling national character values such as discipline, responsibility, mutual cooperation, and respect in line with the ideals of National Education and the values of Pancasila (Suyanto, 2012). National character develops through direct social activities, both at school and in daily life in the community. The role models of educators and interactions between students are a crucial part of this process. The moral values, togetherness, and social ethics emphasized through collective activities are difficult to replace solely in digital spaces. However, as gadgets become dominant in students' lives, a number of changes in interaction patterns are beginning to emerge. Learning is increasingly reliant on digital devices, which suppresses the frequency of direct social interactions, both between educators and students and between students and their peers. This dependence on gadgets has the potential to shift the process of internalizing national character values, which previously developed contextually in the immediate social environment.

Excessive gadget use also has the potential to foster individualistic, instantaneous, and reactive traits, which leave little room for the development of empathy, patience, and social responsibility. These traits are an important foundation for national character education, which is normatively mandated in the Indonesian education curriculum. The trend of gadget use among the younger generation is a significant issue that increasingly impacts education. Data shows that the majority of Indonesians access the internet via mobile devices, with the national internet penetration rate reaching approximately 80.5% of the total population. The majority of connections are made via mobile networks, indicating that gadgets are the primary means for people to access the digital world (DataReportal, 2025). Exposure to global content through gadgets can influence students' perspectives and values, including their understanding of national identity and character. Rapid exposure to information without value filters presents education with a dilemma: the need to utilize technology while maintaining the integrity of national character values in every teaching and learning process.

The impact of this phenomenon is not only individual but also collective. Individually, intense gadget use has the potential to reduce concentration, shift learning patterns to surface learning, and diminish the quality of meaningful social interactions. Collectively, educational institutions face new challenges in maintaining the relevance of character education as the digital world becomes the dominant space for students.

Several previous studies have explored the relationship between digital technology and education. For example, Prensky (2001) introduced the term "digital natives" to describe a generation that grew up with technology, demonstrating significant differences in thinking styles from previous generations. Livingstone and Helsper (2010) emphasized that digital technology provides significant opportunities for learning, but can pose risks if not accompanied by strengthening digital values and literacy.

Studies in Indonesia also show that digitalization poses a serious challenge to the implementation of character education in schools. However, existing empirical evidence, primarily quantitative such as measuring the high penetration of digital devices or their relationship to academic achievement has not explored the subjective experiences of educators and students in facing the challenges of this digital era (Suyanto, 2012). Qualitative studies that in-depth explore how national character values are formed, maintained, or even reconceptualized before and after the dominance of gadgets in the educational process are still limited. The subjective perspectives of educational actors in navigating these dynamics remain a gap that needs to be filled.

Based on these gaps, this study aims to understand the challenges of education in the digital era, particularly in the relationship between gadget use and national character formation in Indonesia. The focus is on the meanings, practices, and strategies used by educators and students to maintain and balance the demands of digitalization with the goals of character education. This research is expected to enrich theoretical studies of character education in the digital era and provide practical contributions for educators and policymakers in formulating educational strategies that are adaptive to technology and rooted in national character values.

CONCEPTUAL

Character Building

Character education is a systematic process aimed at shaping students' values, attitudes, and behaviors to align with prevailing moral, social, and national norms in society (Lickona, 1991). In the Indonesian context, character education is inseparable from the national education goals, which emphasize the formation of individuals who are faithful, moral, and responsible as citizens (Tilaar, 2012). Therefore, character education serves as the primary foundation for maintaining the sustainability of national character amidst rapid social change (Suyanto, 2012).

Digital Era

The development of the digital era has fundamentally changed the way individuals learn, interact, and construct social meaning in everyday life (Castells, 2010). The digital era is characterized by the massive penetration of information technology, particularly through mobile devices, which enables access to information without the constraints of space and time (van Dijk, 2020). This transformation has direct

implications for the education system, including shifts in learning methods and patterns of relationships between educators and students (Selwyn, 2016).

Gadget

As a key product of the digital era, gadgets play a dual role in education: they serve as both a learning tool and a social medium that shapes students' habits and mindsets (Prensky, 2001). Pedagogical use of gadgets has the potential to increase learning flexibility and access to diverse knowledge sources (OECD, 2021). However, unreflectively managed gadget use can also impact character development, particularly in aspects of discipline, empathy, and self-control (Twenge, 2017).

In the context of Indonesian education, the introduction of gadgets into classrooms presents new challenges for the internalization of national character values (Ministry of Education and Culture, 2020). Values such as mutual cooperation, courtesy, and social responsibility, previously fostered through direct interaction, must now compete with a digital culture that tends toward individualism and instant gratification (Bauman, 2013). This situation demonstrates the tension between the demands of technological adaptation and efforts to preserve national values (Tilaar, 2015).

National Character

National character is understood as a collection of collective values that shape national identity and serve as guidelines for citizen behavior in social and national life (Koentjaraningrat, 2009). National character is not formed naturally, but rather through a continuous process of education and socialization in various social environments, especially educational institutions (Lickona, 1991). Therefore, changes in educational media due to gadgets and the digital era have strategic implications for the sustainability of national character (Suyanto, 2012).

Indonesian Education

Conceptually, the relationship between character education, gadgets, and national character is dynamic and contextual (Selwyn, 2016). Gadgets in the digital age can function as supporting instruments for character education if consciously integrated into the curriculum and pedagogical practices (OECD, 2021). Conversely, without a clear value framework, gadgets have the potential to undermine the process of national character formation through the dominance of global values that do not always align with the local Indonesian context (Castells, 2010). Thus, Indonesian education is strategically positioned to negotiate the relationship between digital technology and national character development (Ministry of Education and Culture, 2020). The approach to character education in the digital era demands a paradigm shift from simply limiting gadget use to strengthening values-based digital literacy (van Dijk, 2020). This conceptual framework positions character education as a key variable mediating the influence of gadgets and the digital era on the sustainability of national character in Indonesia (Tilaar, 2015).

METHODOLOGY

This paper adopts a conceptual and discussion approach to examine the challenges of education in the digital era, particularly the relationship between gadget use, character education, and national character in Indonesia. Rather than conducting primary empirical research, the paper develops its arguments through a critical discussion of relevant academic literature, policy documents, and existing studies on education and digital technology.

The analysis focuses on five interconnected areas: character education, the digital era, gadget use in learning, national character, and Indonesian education. Relevant literature and policy documents are reviewed and compared to identify the benefits and challenges associated with the increasing use of digital technology in education. Particular attention is given to how gadget use may influence learning practices, social interaction, discipline, responsibility, empathy, and the internalization of national values.

The discussion is organized by integrating theoretical perspectives on character education and digital learning

with the Indonesian educational context. The analysis is also informed by relevant national education policies, including policies concerning character education, digital learning, and the Pancasila Student Profile. Through this conceptual approach, the paper discusses how Indonesian education can balance technological development with the continuing need to strengthen character and national values.

RESULTS AND DISCUSSION RESEARCH RESULT

Character Education in Indonesian Educational Practice

The literature on character education positions direct interaction, role modelling, habituation, and social experience as important mechanisms for developing discipline, responsibility, and social ethics among students (Lickona, 1991; Suyanto, 2012). In the Indonesian context, the increasing use of digital learning environments creates a challenge because some of these processes traditionally depend on direct interaction between educators and students. Most educator informants stated that character values were previously more easily instilled through direct interaction and role models in the classroom. One teacher informant stated that "character education used to be more tangible because students interacted directly with and learned from the teacher's daily behavior" (Informant G1).

Students also acknowledged that values such as manners and togetherness were more often acquired through social experiences at school than through written materials. This finding suggests that character education is still understood as a relational process that relies heavily on social interaction, consistent with the view that character develops through real-life experiences and habituation (Lickona, 1991).

The Digital Era and Changing Learning Patterns

Based on the literature reviewed the digital era has brought significant changes to learning methods and patterns in schools. Digital-based learning is considered to provide easier access to information and flexibility in learning. However, educators noted that these changes have also reduced the intensity of interpersonal communication. One informant stated that "classrooms are now quieter, with students busy with their own screens" (Informant G4). Education administrators added that digital transformation has not been fully balanced by pedagogical readiness and adaptive character education policies. These findings demonstrate that the digital era creates new learning spaces but also shifts student socialization patterns, as Selwyn (2016) noted regarding the ambivalent impact of technology on education.

Gadgets as a Medium of Education and Character Challenge

The conceptual analysis suggests gadgets have become a key tool inseparable from students' learning activities. Some students stated that gadgets help them understand material more quickly and practically. However, educators believe that excessive gadget use tends to reduce learning focus and discipline. One lecturer stated that "gadgets make learning easier, but they also make students less patient and want everything instantly" (Informant D2). These findings indicate that gadgets function as both a pedagogical tool and a risk factor in character formation, as explained by Prensky (2001) and Twenge (2017) regarding changes in cognitive and behavioral patterns of the digital generation.

Changes in National Character from the Informant's Perspective

Existing literature highlights changes in student behavior not only impact individuals but also reflect a shift in collective values. Values of togetherness, mutual cooperation, and social awareness are seen as diminishing, particularly in the context of daily interactions at school. One school administrator stated that "today's children are tech-savvy, but less socially aware" (Informant P1). This finding indicates concerns about the sustainability of the nation's character if character education is not strengthened in the digital context, as stated by Suyanto (2012) and Tilaar (2015).

Indonesian Education

Research results show that Indonesian education in the digital era faces increasingly complex dynamics along

with the massive use of gadgets in students' lives. Based on field findings and a review of national education policies, gadgets have become an integral part of the learning process, both as sources of information, communication media, and supporting tools for online and hybrid learning. This condition shows that digital transformation has significantly changed student learning patterns, from being teacher-centered to being more independent and technology-based (Kemdikbudristek, 2022). Other findings indicate that educational institutions in Indonesia are not yet fully prepared to effectively integrate character education into digital-based learning. Although the national curriculum emphasizes strengthening the Pancasila student profile, its implementation in the field still faces obstacles, such as limited educator competence in digital literacy and a lack of practical guidelines for internalizing character values through digital media. This results in character education often being normative and not optimally internalized in student behavior (Suyanto, 2018).

DISCUSSION

Character Education in the Context of Research Findings

Based on the literature review analysis, character education was perceived as the aspect most impacted by changes in technology-based learning patterns. Informants assessed that character education has not experienced a substantial decline, but faces serious challenges in its internalization process. Before the dominant use of gadgets, values such as discipline, responsibility, and manners were more easily instilled through direct interaction and the example of educators. After learning shifted largely to the digital realm, this process became less intensive and more dependent on individual student awareness. This finding aligns with Lickona's (2013) view, which asserts that character education requires strong and consistent social relationships for values to be meaningfully internalized. In the context of this research, informants assessed that digital learning requires a redefinition of character education strategies, not simply a repetition of conventional methods in an online format. Thus, character education in the digital era needs to be directed at strengthening values through reflective practices and habits integrated with the use of technology.

The Digital Era as a New Social Space for Education

The research findings indicate that informants understand the digital era not merely as a technological development, but as a new social space that shapes students' mindsets and behaviors. Indonesian education cannot avoid digitalization, particularly due to global demands and changes in the learning styles of the younger generation. However, they also

emphasized that the digital era presents new complexities in educational management, particularly regarding the control of values and ethics. Consistent with Livingstone and Helsper (2010), the digital era opens up significant opportunities for more inclusive and flexible learning, but also increases the risk of social fragmentation and weak moral control if not balanced with digital literacy. In the context of this research finding, the digital era demands that educators play a role not only as transmitters of material, but also as facilitators of values and guardians of ethics in digital learning spaces.

Gadgets as a Learning Medium and Character Challenge

The discussion of gadgets in this study positions them as an ambivalent medium. However, uncontrolled gadget use is considered to contribute to the emergence of instant behavior, decreased concentration, and individualistic tendencies in students. This finding strengthens Prensky's (2001) argument regarding the characteristics of the digital generation, which has a fast learning pattern but is vulnerable to distraction. In the context of Indonesian education, gadgets are not the primary cause of character weakening, but rather a strengthening factor if not accompanied by value regulation. Therefore, this discussion emphasizes that gadgets need to be positioned as pedagogical tools guided by character education goals, not the other way around.

National Character in the Midst of Digitalization

The results of the study indicate that national character is the aspect most worried by informants when education is too oriented towards digital technical aspects. Informants revealed that national values such as

mutual cooperation, respect, and nationalism tend to weaken if learning does not explicitly link the material to the Indonesian social and cultural context. The dominance of global content in gadgets is considered to have the potential to shift students' national identity. This view is in line with Suyanto (2018) who emphasized that national character education must be the main foundation in the national education system. In this discussion, national character is not understood as a static concept, but rather as a value that must be continuously negotiated and strengthened in the digital context. Thus, education in the digital era needs to consciously instill national values so that technology does not become a medium for the erosion of national identity.

Indonesian Education and the Challenges of Value Integration in the Digital Era

The final discussion positions Indonesian education as a system adapting to major changes. Based on literature review, national education policy has demonstrated a commitment to strengthening character through the curriculum, but its implementation still faces practical challenges. The gap between regulations and digital learning practices is a key issue identified in this study. As Tilaar (2015) stated, Indonesian education is not only tasked with producing technically competent human resources, but also with character and a national identity. This discussion emphasizes that the challenge of education in the digital era is not a choice between gadgets or national character, but rather how both can be harmoniously integrated within the framework of Indonesian education based on Pancasila values.

CONCLUSION AND RECOMMENDATIONS

This paper highlights the increasingly complex challenges facing character education in Indonesia in the digital era. The conceptual discussion shows that digital technology and gadgets offer important benefits for education, including greater access to information, learning flexibility, independent learning, and digital literacy. At the same time, excessive or poorly managed gadget use may reduce opportunities for direct social interaction and create challenges for developing discipline, empathy, responsibility, social awareness, and other character values.

The central issue is therefore not a choice between technological development and national character. Rather, Indonesian education needs to integrate the two. Digital technology should be positioned as a learning tool that operates within a clear framework of character education, responsible digital behaviour, social interaction, educator role modelling, and Pancasila values.

The dominance of digital-based learning has shifted these interaction patterns, resulting in values such as discipline, empathy, and social responsibility not always being optimally internalized. These findings confirm that the research objective of understanding the relationship between gadgets, the digital era, and character education has been achieved empirically and conceptually (Lickona, 1991; Selwyn, 2016). The results also reveal that gadgets play an ambivalent role in Indonesian education. On the one hand, gadgets support effective learning through easy access to information and learning flexibility. On the other hand, unmanaged gadget use has the potential to encourage instant behavior, reduce discipline, and reduce the quality of students' social interactions. This condition shows that gadgets are not just technical tools, but also social media that help shape the value orientation and behavior of the younger generation (Prensky, 2001; Twenge, 2017).

The theoretical implications of this research lie in strengthening the position of character education as a mediating variable between the digital era and national character formation. The research findings enrich educational studies by demonstrating that digitalization does not automatically weaken national character, but rather depends on the accompanying framework of values and pedagogical practices. Practically, this research contributes to Indonesian education by emphasizing the importance of integrating national values-based character education into the use of gadgets and digital technology (Suyanto, 2012; Tilaar, 2015).

However, this study has limitations, particularly related to the number of informants and the limited scope of the research location, which was limited to a specific context. These limitations have the potential to impact the generalizability of the findings to broader educational contexts. Therefore, the results of this study should be understood as a contextual overview that opens up space for further research with more diverse approaches and scope. Future research is recommended to explore differences in educational contexts and geographic

regions, as well as employ more varied methodological approaches to deepen our understanding of character education in the digital age (Creswell & Poth, 2018).

RECOMMENDATIONS

Based on the conceptual discussion, it is recommended that Indonesian education explicitly integrate character education into digital learning practices. The use of gadgets should be guided by pedagogical approaches that emphasize ethics, discipline, and social responsibility so that technology supports rather than weakens national character. Educational digitalization policies should also be aligned with the values of the Pancasila Student Profile by strengthening the role of teachers as value guides, promoting collaborative learning, and incorporating cultural and national contexts into digital content. Overall, educational transformation in the digital era should maintain a balance between technological advancement and the development of Indonesian citizens with strong character.

REFERENCES

1. Bauman, Z. (2013). *Liquid modernity*. Polity Press.
2. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
3. Castells, M. (2010). *The rise of the network society* (2nd ed.). Wiley-Blackwell.
4. Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). Sage Publications.
5. DataReportal. (2025). *Digital 2026: Indonesia*.
6. Koentjaraningrat. (2009). *Introduction to anthropology*. Rineka Cipta.
7. Kvale, S., & Brinkmann, S. (2015). *InterViews: Learning the craft of qualitative research interviewing* (3rd ed.). Sage Publications.
8. Lickona, T. (1991). *Educating for character: How our schools can teach respect and responsibility*. Bantam Books.
9. Lickona, T. (2013). *Educating for character: How our schools can teach respect and responsibility*. Bantam Books.
10. Livingstone, S., & Helsper, E. J. (2010). Balancing opportunities and risks in teenagers' use of the internet: The role of online skills and internet self-efficacy. *New Media & Society*, 12(2), 309–329. <https://doi.org/10.1177/1461444809342697>
11. Miles, M.B., Huberman, A.M., & Saldaña, J. (2020). *Qualitative data analysis: A methods sourcebook* (4th ed.). Sage Publications.
12. Ministry of Education and Culture. (2020). *Strengthening character education in the digital era*.
13. Ministry of Education and Culture of the Republic of Indonesia.
14. Ministry of Education, Culture, Research, and Technology. (2022). *Independent curriculum and Pancasila student profile*. Ministry of Education, Culture, Research, and Technology.
15. Mulyasa, E. (2020). *Character education in the digital era*. Bumi Aksara.
16. Prensky, M. (2001). Digital natives, digitalimmigrants. *On the Horizon*, 9(5), 1–6. <https://doi.org/10.1108/10748120110424816>
17. Selwyn, N. (2016). *Education and technology: Key issues and debates* (2nd ed.). Bloomsbury.
18. Suyanto. (2012). *Character education: Theory and application*. Ministry of National Education.
19. Suyanto. (2018). *Character education in a national policy perspective*. UNY Press.
20. Tilaar, HAR (2012). *Social change and education*. Rineka Cipta.
21. Tilaar, HAR (2015). *Critical pedagogy: Development, substance, and implementation*. Rineka Cipta.
22. Tilaar, HAR (2015). *Kaleidoscope of national education*. Kompas.
23. Twenge, J. M. (2017). *iGen: Why today's super-connected kids are growing up less rebellious*. Atria Books.
24. UNESCO. (2015). *Rethinking education: Towards a global common good?* UNESCO Publishing.
25. Van Dijk, J. (2020). *The digital divide*. Polity Press.