Vernacular Knowledge and Digital Citizenship: Integrating Local Wisdom in Contemporary Education

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A B S T R A C T

The progressiveness of technological developments brings about dynamic social changes in various aspects. The world of education is one of those that has received a significant impact on this phenomenon. This study aims to explore conventional efforts that still persist in the rapid development of technology that has recently become a trend in educational research. Qualitative data exploration becomes reliable data to explore research studies. For this reason, this study uses a qualitative approach with an exploratory method. Data collection is carried out by taking literature data as secondary data and inventorying factual data as primary data through limited interviews with purposive subjects. The results show that; 1) there is a conceptual and factual correlation between vernacular knowledge and digital citizenship to be structured as an educational model; 2) vernacular knowledge can be a solution to the wild progressiveness of irresponsible digital development; 3) the need for a practical integration model between vernacular knowledge and digital citizenship in the form of educational policies in an effort to optimize ideal contemporary education.

1. INTRODUCTION

The advancement of technological development has a significant influence on all elements and aspects of social life. Not wanting to transform, being afraid to transform, and being unable to transform into an attitude that cannot withstand the progressiveness of digital development (Cetindamar et al., 2021). This influence is felt to be a major social change and gives birth to societal ideas that are actually quite radical if we look at it from a traditional perspective. However, this condition is an inevitability that cannot be rejected as a manifestation of the flexible dynamics of change in society, and makes things easier and more effective (Fang & Liu, 2024). The increasingly developing contextual change is the process of digitalizing people's lives. This process brings many new paradigms in social life that color aspects of life to increasingly find new styles in their interactions. There are various points of view and scenario models that emerge as a result of this phenomenon. However, this condition should not be seen as a threat, but rather as a challenge that can be answered to bring about positive social change.

Various studies have shown the influence of digital transformation on the world of education (Kuol et al., 2024; Zhang et al., 2025). The trend shows a positive influence on the increasingly developing model of educational interaction, creating a new style in certain educational models. However, from the perspective of several other subjects of education, it is considered not in line with technological developments. Some subject matter that may have a negative correlation with technological developments, for example, are learning interactions, values and morals, and social life. From some perspectives, these materials are considered to require traditional conditions or principles that are more in favor of strengthening non-progressive values and tend to sort out technological developments as a form of challenge that needs to be watched out for.

From the two core studies, researchers see a gap between technological developments and local wisdom in education. This gap can be seen from the tendency of each concept to maintain its assumptions to influence the world of education. Digital transformation tends to focus on improving the quality of interaction in education that is faster and more responsive so that it can manage more current social issues and lead to progressive social development. Meanwhile, local wisdom tends to stick to basic values that in some situations are compared to the concept of digital transformation. This understanding is the basis for becoming a factual researcher in conducting studies on the possibility of a blending of each concept.

Vernacular knowledge, or local wisdom, is a form of knowledge that lives and develops in a particular community that reflects local cultural values, beliefs, practices, and understandings (Curk et al., 2025; Vaughan-Williams, 2025). According to him, this concept includes local ways of seeing the world, interpreting nature, and managing social relationships. This knowledge is usually passed down from generation to generation through daily life practices, folklore, myths, rituals, and oral traditions. In the context of education, vernacular knowledge can be an important source for instilling character values, ethics, and social responsibility.

The study of this is quite important to discuss because it will explain a paradigm of thinking in the concept of social education. it should be remembered that digital development will always be in an increasingly rapid direction towards development. At the same time, the trend of love for cultural values is also waning. Education as an effort to change behavior must still have values, especially education that is based on cultural concepts and social values. It is hoped that this research will bring a conclusion about how local wisdom can be used as capital in digital development.

2. METHOD

This study uses a qualitative approach with an exploratory method to deeply understand the relationship between vernacular knowledge and digital citizenship in the context of contemporary education. The qualitative approach was chosen because it is in accordance with the objectives of the study which are interpretive and meaning-oriented. Meanwhile, the exploratory method is used because the issue of integrating local wisdom into the concept of digital citizenship is a relatively new area of study and has not been systematically explored in educational studies in Indonesia.

The use of the exploratory method was deliberately used to ensure that the study brings a study that is rich in information obtained in practical ways. This model will bring research data that is increasingly rich with attractive data and in accordance with needs without requiring formal limitations that are too rigid. In data collection, this study uses two main sources: secondary data and primary data.

Secondary data was obtained from a literature study that includes relevant academic literature and policy documents, namely from several scientific articles that have previously reviewed this study. These literatures are used to build a conceptual framework regarding vernacular knowledge, digital citizenship, and the integration of local values in the curriculum. This literature study also plays an important role in identifying research gaps that are an important background for this research.

Primary data were collected through limited interviews using purposive sampling techniques, namely selecting subjects based on criteria of relevance to the research topic. The subjects interviewed included 1) teachers who have implemented a local culture-based approach; 2) curriculum developers; 3) digital education facilitators who are active in the non-formal education community. Interviews were conducted in a semi-structured manner to provide space for open interpretation, but still within a systematic question framework.

This purposive sampling technique was chosen to ensure that the information obtained came from parties who truly understand the empirical context of the integration of local wisdom and digital practices. The interview data were then analyzed thematically, by identifying emerging conceptual patterns, and grouping answers based on major themes such as local values, digital literacy, and curriculum integration. Through a combination of literature data and factual data from the field, this study compiles a conceptual mapping of the possibility of integrating vernacular knowledge in the development of a digital citizenship curriculum. The analysis was carried out with data triangulation to increase the validity of the findings.

3. RESULTS AND DISCUSSION

3.1 What is the Position of Vernacular Knowledge in the Concept of Digital Citizenship

The relationship between vernacular knowledge and digital citizenship is a burgeoning area of academic inquiry. The relationship between these two concepts brings a challenge because it attempts to unite concepts from different paradigms, each of which has a direct factual influence. Digital citizenship encompasses an individual's engagement within the digital realm as well as the implications of their digital interactions within various communities, including local and cultural contexts grounded in vernacular knowledge systems. To explain more practically how the correlation between the two concepts is, below we will explain the results of a review of various literature on the two concepts which were then analyzed according to the text analysis process.

To meet the needs of comprehensive research, defining each concept studied is important to do. Among the concepts that are quite important to explore is the concept of digital citizenship. In its development, this concept has been studied from various perspectives and has always been a concept whose development is quite progressive. Digital citizenship encapsulates competencies required for responsible engagement in digital environments. As digital platforms increasingly mediate social interactions, (Dass and MPM, 2024) highlight that understanding social media competence is crucial for effective digital citizenship among college students. Their findings suggest a gap in societal education around digital practices, which can be analyzed through the lens of vernacular knowledge—localized understandings and uses of technology.

Investigating specific educational contexts, (Fajri et al., 2022) emphasize that comprehensive educational strategies are necessary to improve students' understanding of digital citizenship, arguing that this understanding should be embedded within curricula, reflecting the vernacular knowledge of communities and contextualizing digital practices within culturally relevant frameworks. Therefore, vernacular knowledge can be viewed as a concept that tends to strengthen cultural values so that they can be involved in an individual's thinking process. Similarly, research by (Althibyani & Al-Zahrani, 2023) demonstrates that students' knowledge of digital laws, which can be interpreted as a form of vernacular knowledge regarding digital engagement, positively influences their ability to prevent cybercrime, suggesting that localized knowledge aids responsible digital behaviors.

To provide more complex recommendations, researchers then conducted in-depth exploration to identify citizenship science in answering this problem. In an explorative study, (Fry, 2023) discusses how urban fox sightings were documented through citizen science initiatives, which capture local experiences and narratives, thereby affirming how vernacular knowledge intertwines with digital practices. This concept has broader implications for understanding how various community narratives shape digital citizenship, portraying an everyday context where digital participation embodies elements of localized understanding.

It turns out that the discussion of this study has been fulfilled by several previous research studies. Moreover, research by (Alakuş and Göksu, 2025) indicates that prospective teachers' levels of digital citizenship are significantly influenced by their understanding of community norms and values rooted in their vernacular surroundings. This relationship suggests that a deeper engagement with cultural and community-

specific knowledge enhances digital citizenship education and encourages responsible participation in digital spaces.

Furthermore, several studies also announced comparative results between cultural values and technology. As (Hawamdeh et al., 2022) present, a comparative analysis of technology use across universities demonstrates that digital responsibilities are shaped by varied cultural contexts, highlighting how local practices influence digital citizenship behaviors. This supports the idea that digital citizenship should not be treated as a monolithic construct; rather, it should be understood as a complex interplay of vernacular knowledge and digital engagement. Finally, the work of (Peart et al., 2023) underscores that young people's perceptions of digital citizenship are shaped by their socio-cultural backgrounds. Such insights reveal the importance of integrating local knowledge systems into broader digital education frameworks to facilitate meaningful and context-specific understandings of digital citizenship.

The data as described above was then analyzed by researchers according to the method explained in the previous section. Analytically, we can identify the correlation between the two concepts after we understand each definition of each concept fundamentally. Vernacular knowledge has a tendency to bring knowledge to survive as a basis for taking all actions. This shows the contribution of the concept of local wisdom to continue to grow and develop as a social capital. On the other hand, digital citizenship is also a concept that was born from efforts to organize community programs for the nation and state in a modern way, but still carries the values of state ethics that remain strong (Görög & Udvari, 2023; Sharma et al., 2022). Thus, the study of this concept has the capital to tend to correlate with each other.

This explanation is actually in line with various studies that have looked in this direction. This is in line with the findings of the interview which provided information that teachers and education facilitators have a tendency to unite local wisdom in implementing learning programs. Irresponsible progressiveness has the potential to lead to a meaningless atmosphere. Local wisdom can be assessed as capital that still needs to be maintained to suppress digital developments that are still directed within a firm moral corridor. This integration can be formed with the existence of a digital citizenship model that is implemented proportionally.

3.2 Vernacular Knowledge as a Solution from 'Wild Social Progressivity'

The title above expresses optimistic progress in viewing vernacular knowledge that can be suspected as a solution to irresponsible social development. However, the thesis is still scientifically proven. For that, the researcher conducted an exploratory study in order to examine the level of validity of the sentence stated in the title. The exploration of vernacular knowledge as a potential solution to the challenges posed by negative digital development is a critical area of inquiry that merges discussions around cultural sustainability and digital citizenship. This literature review synthesizes findings from various sources to better understand the impact of vernacular knowledge on digital landscapes, emphasizing its significance in addressing contemporary digital dilemmas.

Thus, this research has shown that there is an opportunity for the vernacular concept to influence an individual to be involved in decision making. Concerns regarding digital development often arise from a disconnection between standardized technological

solutions and local practices. This gap highlights the potential utility of vernacular knowledge. For instance, (Çoklar & Tatlı, 2020) argue that awareness of digital citizenship is essential, particularly among educators who play pivotal roles in shaping digital literacy among students. They contend that integrating local knowledge and experiences can enhance information literacy and digital engagement, suggesting that vernacular approaches may foster more contextually relevant and responsible digital citizenship.

Furthermore, effective participation in online communities hinges on an understanding of digital citizenship, which must include awareness of cultural practices and norms (Elenurm, 2022). The author posits that vernacular knowledge can enrich the perception of digital conduct, promoting individuals towards more responsible behaviors in online environments. Moreover, the incorporation of vernacular languages and traditions into digital frameworks can enhance user engagement and promote inclusivity. Turnbull et al. advocate for utilizing technology, such as augmented reality, to support vernacular language contexts in education (Turnbull et al., 2023). This aligns with the notion that vernacular knowledge is not merely a repository of past practices but a dynamic component that can inform innovative technological applications, thus bridging gaps between technology and culture.

In infrastructure concepts, for example, vernacular knowledge is also often involved as a value that often has special values. Digital platforms also emerge as spaces where vernacular knowledge can thrive and address issues of cultural preservation while enhancing social connectivity. O'Neill contend that social media serves as a venue for vernacular expressions, indicating that such platforms can be harnessed for constructive dialogue about pressing social issues, including cultural representation (O'Neill, 2022). Their examination of vernacular practices underscores the agency of local narratives in shaping broader discourses in digital spaces.

The findings based on findings from educational facilitators show that the local context brought into learning helps students to be wiser in responding to digital issues. In some learning issues, for example, discussing the practice of values and morals can bring this issue to a study of modern responses from students to become wise digital citizens and in accordance with social morals. This is certainly important to ensure that the concepts of moral citizenship remain in the increasingly rapid phenomenon of social progress. In addition, vernacular knowledge can also be the basis for more contextual digital literacy policies. By incorporating local values into technology usage guidelines, policies are not only technical, but also ethical and cultural. This allows for the birth of a healthier and more civilized digital ecosystem. Thus, local wisdom acts as a 'cultural brake' that is able to control the speed of digital progress so that it remains on an ethical, responsible, and beneficial path for the wider community.

3.3 Integration of Vernacular Knowledge and Digital Citizenship in Education Policy

Not only defining research concepts to stand alone, this research aims to determine how the correlation between the two concepts can provide a positive impact. These efforts tend to be carried out to create an educational policy. The integration of vernacular knowledge within educational policies aimed at fostering digital citizenship represents a progressive approach to addressing the complexities of contemporary

digital landscapes. By incorporating local cultural understandings and practices, educational policies can more effectively engage students in becoming responsible and active digital citizens.

A starting point for this discussion is the notion of digital literacy as a social practice. (Pangrazio et al., 2020) argue that recognizing digital literacy through the lens of students' everyday experiences and accumulated knowledge forms a vital foundation for cultivating digital citizenship. This concept simply defines how a possible relationship can be formed between the concepts of traditionality and modernity. When students see their vernacular knowledge reflected in digital literacy education, they are better positioned to connect academic learning with real-life applications. This connection fosters a greater sense of responsibility and initiative within digital spaces, as learners are likely to engage actively with content that resonates with their cultural backgrounds. Similarly, (Martinelle et al., 2024) highlight the importance of integrating local contexts in education, suggesting that effective citizenship learning can be significantly enhanced by understanding local environments. This perspective underlines the potential for geography education to incorporate vernacular knowledge, equipping students with tools to navigate both physical and digital spaces effectively.

Moreover, examination of the genealogy of the digital citizen (Rahm, 2023) provides insightful perspectives on the historical evolution of citizenship in the digital age. By considering how local practices and historical contexts shape perceptions of digital citizenship, policymakers can better design curricula that reflect these dynamics. Such curricula could blend historical and vernacular knowledge with digital literacy training, allowing students to appreciate their heritage while navigating the digital landscape.

(Chusniyah ang Makruf, 2025) advocate for interdisciplinary approaches within higher education, emphasizing the need for students to develop critical thinking and reflective capabilities. Integrating vernacular knowledge into educational policies, particularly in sustainability education, can encourage students to think critically about digital technologies and their implications for local and global issues. Additionally, (Lü et al., 2023) draw attention to the role of digital participation, which reflects the ability of individuals to engage meaningfully within digital communities. By embedding vernacular knowledge into educational policies, institutions can support students in understanding their roles as digital citizens. This understanding is essential in building a networked nation where diverse voices are acknowledged and valued.

It is undeniable that the integration model between the two traditional and modern concepts is difficult to form. However, the situation has proven its urgency to maintain the stability of technological development within local moral standards. This integration model must be able to combine substantial aspects of vernacular knowledge such as togetherness, mutual cooperation, local spirituality, and respect for the environment, with the main components of digital citizenship such as cybersecurity, netiquette, digital participation, and information literacy. These two domains have so far been considered separate in the education system, even though they have a very important meeting point in forming the character of students who are cultured and ready to face global digital challenges. To realize this, a curriculum transformation is needed that adopts local values as a source of learning across subjects, especially in civics lessons and technology learning. Collaboration between cultural communities, education, and

technology activists is important to establish so that the realization of vernacular knowledge is truly formed in real terms and becomes a practical application. Collaboration between schools and traditional figures, local artists, or digital literacy actors in the community will enrich learning resources and ensure the relevance of the learning context. This also expands the education ecosystem to be more participatory and community-based.

4. CONCLUSION

This study emphasizes the importance of integration between vernacular knowledge (local wisdom) and digital citizenship as a strategic approach in building a contextual, adaptive, and culturally rooted education system amidst the rapid development of information technology. In an era where digital transformation has become a dominant force in shaping social and cognitive behavior, education can no longer focus solely on mastering technology or digital literacy. It must remain based on local cultural values that have been proven to shape the character and values of Indonesian society for a long time. At least, the results of the study can be described with the following points. First, there is a conceptual and factual correlation between vernacular knowledge and digital citizenship to be structured as an educational model; Second, vernacular knowledge can be a solution to the wild progressiveness of irresponsible digital development; Third, the need for a practical integration model between vernacular knowledge and digital citizenship in the form of educational policies in an effort to optimize ideal contemporary education.

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