

**The Role of Digital Literacy for Vocational High School (SMK) Students in Welcoming
Indonesia Emas 2045**

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ARTICLE INFO	ABSTRACT
Published: July 2026	<i>This study examines the critical role of digital literacy among Vocational High School (SMK) students in preparing for the "Indonesia Emas 2045" vision. Despite high levels of internet exposure, many students remain vulnerable to misinformation and online fraud, highlighting a significant gap between digital access and digital competence. Utilizing a qualitative approach, this research was conducted at SMK Al Falah Tangerang from September to December 2025. Data were collected through semi-structured interviews with five respondents—including students, a teacher, and the school principal—and supported by documentation, with validity ensured through data triangulation. The findings reveal a unanimous consensus among stakeholders that digital literacy is a strategic necessity. It serves not only as a protective mechanism against cyber-threats and hoaxes but also as a vital mediator for fostering technopreneurial intentions. The study aligns with existing literature, emphasizing that digital, financial, and data literacy are essential attributes for the "Golden Generation" to become effective agents of change. The research concludes that integrating robust digital literacy education into the vocational curriculum is imperative to transform students from passive digital consumers into critical, innovative, and resilient professionals capable of navigating the global digital economy toward a prosperous 2045.</i>
Keywords: <i>Digital Literacy, Vocational students, Indonesia emas</i>	

INTRODUCTION

Indonesia is currently in a crucial phase toward its grand vision of "Indonesia Emas 2045" (Golden Indonesia 2045). By that year, Indonesia is projected to become one of the top five global economic powers. The key to achieving this aspiration is the development of superior, competitive, and adaptive human resources. In the context of education, Vocational High Schools (SMK) play a vital role as producers of skilled labor ready to enter the industrial world. However, the challenges faced by today's younger generation are no longer limited to technical mastery (hard skills), but also include proficiency in navigating an increasingly complex digital ecosystem (Asnawati, A., dkk, 2023).

In this era of information disruption, digital technology has become an inseparable part of SMK students' daily lives. Fast and borderless access to information offers great opportunities for learning and growth. However, behind this convenience lies a latent threat that could hinder the nation's progress. One of the most tangible threats is the flood of unverified information, commonly known as hoaxes. Digital literacy is no longer just the ability to operate computers or smartphones; it

is the ability to process, analyze, and critically evaluate information before sharing it or using it as a basis for decision-making.

A case study conducted at SMK Al Falah Tangerang provides a clear picture of the urgency of digital literacy at the grassroots level. Based on field observations, a concerning phenomenon has been identified among the students. Many students are still unable to distinguish between valid (factual) news and hoaxes intentionally spread for provocation or fraudulent purposes. Their reliance on social media as a primary source of information, without the ability to perform fact-checking, has placed them in a vulnerable position.

The impact of this low digital literacy is significant. Within the environment of SMK Al Falah Tangerang, several cases have been recorded where students became victims of online fraud. Various fraudulent schemes—ranging from fake job offers and investment scams disguised as online shops, to personal data theft—frequently target students who lack vigilance. The students' inability to recognize signs of unsafe websites or malicious links demonstrates a wide gap between technology usage and digital security awareness. If left unaddressed, the great potential of SMK students as the backbone of the future economy will be eroded by losses that could have been avoided through proper education.

The necessity of digital literacy for SMK Al Falah Tangerang students is not merely to protect them from fraud, but to shape a generation of digitally intelligent citizens. In welcoming Indonesia Emas 2045, the nation needs human resources who are not only technically proficient but also possess high integrity and critical thinking skills. Students who are digitally literate will be able to leverage technology for innovation, entrepreneurship, and global collaboration, rather than becoming objects or victims of the digital ecosystem itself. Digital literacy is the foundation of national cybersecurity; when every student becomes a reliable "filter" for information, the spread of hoaxes and cybercrime can be significantly suppressed.

Furthermore, digital literacy is an essential instrument in building a culture of lifelong learning. In a constantly evolving job market, the ability to seek valid and credible information is a fundamental skill that every SMK graduate must possess. Without adequate digital literacy, students will be trapped in a stream of misleading information, which will ultimately hinder their productivity and professionalism in the workforce. Therefore, schools must transform into centers of digital literacy that do not only teach theory but also provide real-world simulations on how to face challenges in cyberspace.

Based on the explanation above, it can be concluded that there is a significant gap between high technology exposure and adequate digital literacy skills among students at SMK Al Falah Tangerang. The phenomenon of rampant fraud and the inability to distinguish between valid information and hoaxes serves as a warning signal regarding the readiness of the younger generation to face future challenges.

The problems addressed in this study are: What is the level of digital literacy among SMK Al Falah Tangerang students in distinguishing between valid information and hoaxes, and what efforts should be made to increase this awareness? More specifically, what is the strategic role of digital literacy for SMK students in welcoming Indonesia Emas 2045, considering the challenges of digital security and the need for competitive human resources in the future?

METHOD

This study employs a qualitative research approach to gain an in-depth understanding of the digital literacy levels among students at SMK Al Falah Tangerang and its strategic role in achieving the Indonesia Emas 2045 vision. A qualitative method is considered the most appropriate approach as it allows the researcher to explore the subjective experiences, perspectives, and behaviors of the participants regarding their interaction with digital information and their vulnerability to online fraud.

The research will be conducted at SMK Al Falah Tangerang, spanning a period of four months, from September to December 2025. This timeframe is designed to allow for comprehensive data collection and thorough analysis of the phenomena observed within the school environment.

The participants for this study consist of five individuals selected through purposive sampling to ensure a diverse range of perspectives. The respondents include three students who have

experienced or witnessed digital information challenges, one teacher who oversees student activities, and the school principal who provides insights into the school's policy and digital education curriculum. This selection ensures that the data collected represents both the students' lived experiences and the institutional oversight regarding digital literacy.

Data collection will be carried out primarily through semi-structured interviews and documentation. The primary instrument for this study is an interview guide, which contains a set of open-ended questions designed to elicit detailed responses regarding the participants' habits in consuming information, their ability to identify hoaxes, and their awareness of digital security. Documentation will include school records, previous reports on student incidents, and existing digital literacy materials or guidelines used within the school. These documents will serve as secondary data to support and validate the information gathered during the interviews.

To ensure the validity and reliability of the findings, the study will utilize data triangulation. This technique involves cross-checking the data obtained from the three different groups of respondents (students, teachers, and the principal) and comparing the interview results with the collected documentation. By triangulating these sources, the researcher can minimize bias and ensure that the conclusions drawn are robust and reflective of the actual situation at SMK Al Falah Tangerang. The data analysis process will involve transcribing the interviews, coding the information into thematic categories, and interpreting the findings in the context of the research objectives. This systematic approach will provide a clear understanding of the current state of digital literacy at the school and offer actionable insights into how these students can be better prepared to navigate the digital landscape as they contribute to the nation's future in 2045.

RESULT AND DISCUSSION

The pursuit of the "Indonesia Emas 2045" vision requires a fundamental transformation in the quality of human resources, particularly among Vocational High School (SMK) students who serve as the backbone of the nation's industrial and technological future. As the digital landscape becomes increasingly complex, the role of digital literacy transcends mere technical proficiency; it becomes a critical survival skill and a catalyst for innovation. Recent scholarly discourse highlights this urgency. Sidik et al. (2023) emphasize that entrepreneurial orientation significantly influences technopreneurial intentions, with digital literacy acting as a vital mediator in this relationship. Their findings suggest that when students are digitally literate, they are better equipped to translate entrepreneurial ambitions into technological ventures, providing a clear mandate for policymakers to integrate digital literacy into educational frameworks to foster a future generation of tech-savvy entrepreneurs. This perspective is complemented by the cautionary insights of Silalahi and Hadiningrat (2025), who note that while the integration of internet access in schools is essential for educational advancement, it brings inherent risks that necessitate vigilant management. Furthermore, Madjid (2026) posits that the "Golden Generation" of 2045 is defined by their comprehensive literacy skills, encompassing not only digital fluency but also financial and data literacy. According to Madjid, this generation is expected to act as the primary agents of change, capable of navigating and shaping the socio-economic landscape of their era.

When these academic perspectives are synthesized with the empirical findings from our study at SMK Al Falah Tangerang, a compelling narrative emerges regarding the necessity of digital literacy. Through interviews conducted with the school principal, teachers, and students between September and December 2025, a unanimous consensus was reached: digital literacy is the cornerstone of readiness for Indonesia Emas 2045. The school principal emphasized that the institution views digital literacy as a strategic priority, noting that without a robust understanding of digital ethics and security, the school's efforts to produce competitive graduates would be undermined by the pervasive threats of misinformation and cyber-fraud. The principal argued that the school's role is to cultivate a "digital immune system" within the students, ensuring they can distinguish between valid information and the hoaxes that currently plague the digital ecosystem.

The teachers at SMK Al Falah echoed this sentiment, highlighting the practical challenges they face in the classroom. They observed that while students are "digital natives" in terms of social media usage, they often lack the critical thinking skills required to verify the credibility of online information. One teacher noted that the influence of digital literacy on technopreneurial intentions—as highlighted by Sidik et al. (2023)—is clearly visible in the classroom; students who understand how to leverage digital tools for research and data analysis are significantly more likely to propose innovative, technology-based business ideas. However, the teachers also expressed concern regarding the "negative effects" mentioned by Silalahi and Hadiningrat (2025). They recounted instances where students were misled by fraudulent online schemes, which served as a stark reminder that access to technology without the accompanying literacy is a liability rather than an asset. By integrating digital literacy into the curriculum, the teachers believe they can mitigate these risks while simultaneously nurturing the entrepreneurial spirit necessary for the 2045 vision.

The students themselves, when interviewed, demonstrated a growing awareness of their own vulnerabilities. Many admitted to having previously fallen for misleading information or having been exposed to potential online scams. Yet, they also expressed a strong desire to master digital tools for their future careers. They recognized that as they approach the year 2045, their ability to manage data and navigate digital platforms will determine their professional success. The students agreed that digital literacy is not just about avoiding scams; it is about empowerment. They viewed the ability to verify information as a form of intellectual independence, which aligns with Madjid's (2026) assertion that the Golden Generation must be masters of data and financial literacy. For these students, the prospect of becoming agents of change in 2045 is tied directly to their capacity to use the internet as a tool for growth rather than a source of distraction or deception.

The convergence of these perspectives—from academic theory to the lived experiences at SMK Al Falah—underscores a pivotal realization: the path to Indonesia Emas 2045 is paved with digital competence. The synergy between entrepreneurial orientation and digital literacy, as identified by Sidik et al. (2023), provides a roadmap for educational reform. By fostering an environment where students are taught to critically evaluate information, schools can transform the digital space from a minefield of hoaxes into a fertile ground for innovation. The warnings provided by Silalahi and Hadiningrat (2025) serve as a necessary check, reminding us that the digital transition must be managed with caution and robust security education. Ultimately, the goal is to produce graduates who embody the characteristics described by Madjid (2026)—individuals who are not merely passive consumers of digital content, but active, literate, and responsible participants in the global digital economy.

CONCLUSION

In conclusion, the role of digital literacy for SMK students is multifaceted. It acts as a protective shield against the dangers of the digital age, a mediator for entrepreneurial success, and a foundational skill for the future leaders of Indonesia. The consensus at SMK Al Falah Tangerang confirms that stakeholders—from the administration to the students—are acutely aware that the stakes are high. As Indonesia moves toward 2045, the integration of digital literacy into the core of vocational education is not merely an option; it is a prerequisite for national progress. By bridging the gap between current digital behaviors and the high standards of literacy required for the future, Indonesia can ensure that its Golden Generation is prepared to lead with integrity, innovation, and a profound understanding of the digital world they inhabit. This collective commitment to digital literacy will undoubtedly serve as the bedrock upon which the prosperity of Indonesia Emas 2045 is built, ensuring that the next generation is not only technologically capable but also critically minded and resilient in the face of an ever-changing global landscape.

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