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Analysis of digital literacy skills of 2nd semester students at Citra Bangsa University in facing the challenges of the Society 5.0 era

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Abstract
This study aims to evaluate the digital literacy skills of second-semester students at Universitas Citra Bangsa in addressing the challenges presented by the Society 5.0 era. In this era, individuals are expected not only to utilize technology effectively but also to think critically, act ethically, and adapt to the continuously evolving digital ecosystem.The research employed a descriptive quantitative method, focusing on five key areas of digital literacy: the use of information and communication technology (ICT), access to digital information, communication through digital media, critical thinking related to digital content, and ethical behavior in digital environments.The findings indicate that most students demonstrated moderate to high levels of digital literacy, particularly in ICT utilization and digital communication. However, weaknesses were identified in critical thinking and ethical application of technology.These results highlight an urgent need to improve the curriculum and implement more targeted digital literacy programs to equip students with more comprehensive digital competencies. Developing these skills is crucial to preparing students for a highly connected, technology-driven higher education environment in the Society 5.0 era.

Keywords: digital literacy, Society 5.0, higher education, critical thinking, ethical technology use

INTRODUCTION

The development of digital technology has had a huge impact on many aspects of human life, including the economic, industrial, and government sectors. However, the field most affected by this digital change is education. The shift from traditional learning methods to approaches that rely on information and communication technology (ICT) has created various opportunities and challenges for educational institutions and all related parties. The digital era requires not only technical skills in using devices, but also critical, collaborative and creative thinking skills to respond to the flood of information that is easily and limitlessly available.

Along with the emergence of the industrial revolution 4. 0, the idea of Society 5. 0 emerged as a forward-looking vision for a society that focuses on the use of advanced technology to improve the overall quality of human life. Unlike the mechanistic approach of the previous industrial revolution, Society 5. 0 puts humans at the center of innovation, while technologies such as artificial intelligence, the Internet of Things (IoT), and big data serve as tools to address various social problems. In the context of education, Society 5. 0 emphasizes the importance of combining human values with digital literacy, so that students are not only users of technology, but also drivers of change who are able to use technology wisely and responsibly.

Digital literacy has become a key skill in the 21st century. This concept encompasses more than just the technical ability to use digital tools, but also involves the ability to search, evaluate, create, and manage digital information in an effective and ethical manner. Individuals with good digital literacy can understand the risks and benefits of technology, be critical of digital content, and actively contribute to a positive digital environment. In the context of higher education, digital literacy is no longer an option, but an urgent need that students must have as future professionals.

College students, who are a generation that grew up in the digital era, are often assumed to automatically have technological skills. However, various studies show that their abilities are often limited to basic use of technology, such as social media or entertainment applications, and do not always reflect comprehensive digital literacy skills. This is a particular concern for higher education institutions, including Universitas Citra Bangsa,

which has the responsibility to prepare graduates who are not only academically outstanding, but also able to adapt to global technological advances.

This study specifically focuses on 2nd semester students at Citra Bangsa University. The selection of this group is based on the assumption that students who are in the early stages of college are in the process of transition and adaptation to a new academic environment, including in terms of the use of technology in the learning process. By evaluating students' digital literacy levels from the start, universities can design more appropriate competency development strategies, both through curriculum learning and training programs outside the curriculum.

Therefore, this study has high relevance in supporting the development of an education system that is responsive to the demands of the Society 5.0 era. It is hoped that the results of this study can contribute to the development of more adaptive academic policies and encourage the creation of a young generation that is not only proficient in technology, but also has strong digital integrity.

METHOD

This study applies a descriptive quantitative method with a survey approach. This method was chosen to obtain an objective view of the level of digital literacy in 2nd semester students at Citra Bangsa University. The population studied included all 2nd semester students from the Informatics Education Study Program. Sampling was carried out using a simple random method.

The data collection tool used was a closed questionnaire consisting of 20 statements with a Likert scale of 1–5. This questionnaire was created based on five main aspects of digital literacy, namely: (1) utilization of information and communication technology (ICT), (2) access to digital information, (3) digital communication, (4) critical thinking about digital information, and (5) ethics in the use of digital media. Before the instrument was distributed, validity and reliability testing were carried out first.

The data obtained were analyzed using descriptive statistical techniques. Each aspect was analyzed to determine the frequency, percentage, and average. The results of this analysis were used as a basis for drawing general conclusions about the level of digital literacy among respondents.

RESEARCH RESULT

Based on the digital literacy evaluation of students in the second semester at Citra Bangsa University, it was revealed that in terms of utilizing information and communication technology (ICT), students demonstrated the ability to use productivity devices and applications with an average score of 4.2, which indicates a high category. Regarding the aspect of accessing information, students' ability to search, select, and assess information sources obtained an average score of 3.7, which is categorized as moderate. Furthermore, regarding the aspect of digital communication, students utilized various platforms to collaborate and discuss, resulting in an average score of 4.0, which is also included in the moderate group. However, in terms of critical thinking, especially fact resolution and filtering false information, students only got an average score of 3.3, which is still in the moderate category. Meanwhile, in the digital ethics sector, which includes an understanding of ethics in sharing and using content in cyberspace, students pocketed an average score of 3.5, which is also classified as moderate.

Analysis of the overall distribution of digital literacy levels shows that 35% of students are in the high category (with an average score between 4.1 and 5.0), another 55% are in the medium category (with a score between 3.0 and 4.0), while 10% of students are still in the low category (with a score below 3.0). This shows that most students have moderate digital literacy, even though they have demonstrated abilities in technical aspects such as the use of ICT and digital communication. However, there is a need for improvement in critical thinking skills and knowledge of digital ethics among students.

DISCUSSION

Findings the results of this study revealed that second-year students at Citra Bangsa University have moderate to high digital literacy skills. This shows that they are quite familiar and accustomed to utilizing information and communication technology, both in everyday life and in the teaching and learning process.

However, indicators of critical thinking and digital ethics still show results that require more

attention. Students tend not to be fully able to recognize information that is reliable and not. In addition, unethical actions such as plagiarism and spreading information without checking the facts still occur. This situation is in line with research findings from UNESCO (2018) which states that the main obstacles to digital literacy lie in the aspects of cognitive understanding and ethics.

Therefore, higher education should not only focus on improving technical skills in using technology, but should also emphasize the importance of critical, evaluative, and ethical thinking in utilizing digital sources. Universities should develop comprehensive and integrated digital literacy programs in their curricula. The implementation of project-based learning methods, media education, and training in the use of credible information sources are expected to improve students' understanding of critical thinking and digital ethics. In addition, it is important to provide students with a deep understanding of the consequences of their actions in cyberspace. This will help them understand the importance of choosing the right and ethical information when interacting in a digital environment. Regular training programs on digital ethics learning can also be implemented to build awareness of the responsibilities that each individual has in the digital world. Building an environment that supports critical thinking and ethics in the learning process is an important step in creating a generation that is not only technically skilled but also has a responsible attitude in using information technology.

CONCLUSION

From the research results, it can be stated that second semester students at Citra Bangsa University have a digital literacy level that is in the medium to high category. This shows that in general, students already have good basic skills in using information and communication technology, including in operating productivity applications and utilizing digital platforms to communicate and collaborate online.

Although these technical skills have been mastered quite well, there are still significant weaknesses in critical thinking and digital ethics. Students seem to have difficulty in sorting valid information, verifying the accuracy of data, and are often less careful in spreading information that has not been proven to be true. In addition, awareness of ethics in the use of technology, such as respecting copyright, avoiding plagiarism, and behaving responsibly in the digital space, still needs more attention.

To answer this challenge, it is hoped that Universitas Citra Bangsa can take strategic steps to improve students' digital literacy as a whole. One way that can be done is by incorporating digital literacy into every course or academic activity through a contextual and practical approach. Training programs specifically designed to improve critical thinking skills, media literacy, and understanding of digital ethics are also very important to be implemented sustainably.

In facing the rapid development in the Society 5.0 era, where artificial intelligence-based technology, big data, and the Internet of Things (IoT) have been integrated into almost all aspects of life, digital literacy skills that are only technical are no longer enough. Students are required to not only be active users of technology, but also individuals who can think reflectively, responsibly, and ethically in a digital environment. Therefore, improving digital literacy as a whole is the key to producing graduates who are not only proficient in digital aspects, but also ready to face social, economic, and technological challenges in the future.

SUGGESTION

After conducting research on the level of digital literacy of 2nd semester students at Citra Bangsa University, the researcher provides several strategic recommendations for higher education institutions to improve the overall quality of students' digital literacy.

First, universities should incorporate digital literacy materials into the curriculum, not only in technology courses, but also across disciplines. Second, regular training to improve critical thinking and digital ethics is essential. Third, optimizing project-based learning methods and problem solving so that students are more skilled in information management. Fourth, it is important to conduct regular evaluations of students' digital literacy progress. Finally, collaboration between faculties and IT units needs to be improved to create a safe and responsible learning environment.

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BIBLIOGRAPHY

Alexander, B., Adams Becker, S., Cummins, M., & Hall Giesinger, C. (2017). Digital Literacy in Higher Education, Part II: An NMC Horizon Project Strategic Brief. The New Media Consortium.

Bawden, D. (2008). Origins and concepts of digital literacy. In C. Lankshear & M. Knobel (Eds.),

Buckingham, D. (2007). Digital Media Literacies: Rethinking Media Education in the Age of the Internet. Research in Comparative and International Education, 2(1), 43–55.

Digital Literacies (pp. 17–32). Peter Lang.

Eshet-Alkalai, Y. (2004). Digital Literacy: A Conceptual Framework for Survival Skills in the Digital Era. Journal of Educational Multimedia and Hypermedia, 13(1), 93–106.

Gilster, P. (1997). Digital Literacy. Wiley.

Hargittai, E. (2010). Digital Na(t)ives? Variation in Internet Skills and Uses among Members of the "Net Generation". Sociological Inquiry, 80(1), 92–113.

Martin, A., & Grudziecki, J. (2006). DigEuLit: Concepts and Tools for Digital Literacy Development. Innovation in Teaching and Learning in Information and Computer Sciences, 5(4).

Ng, W. (2012). Can we teach digital natives digital literacy? Computers & Education, 59(3), 1065–1078.

Prensky, M. (2001). Digital Natives, Digital Immigrants. On the Horizon, 9(5).

UNESCO. (2018). A Global Framework of Reference on Digital Literacy Skills. Paris: UNESCO.