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THE ERA OF CONNECTIVITY: THE ROLE OF EDUCATION IN SHAPING ADAPTIVE DIGITAL INTELLIGENCE

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Abstract

The era of growing connectivity demands the role of education in shaping adaptive digital intelligence for students. This research uses the literature method to find findings on the role of education in shaping adaptive digital intelligence. The findings show the importance of education in helping students develop adaptability, creativity and critical thinking skills in the face of technological change. The integration of technology into the education curriculum is necessary to facilitate learning that supports the development of adaptive digital intelligence. In addition, the role of educators in integrating adaptive digital intelligence into daily learning practices includes guiding students in the effective use of technology, facilitating collaborative learning, and providing challenges in a digital context. The importance of creating a learning environment that supports adaptive digital intelligence is also an important finding in this study. Adequate technology facilities, collaboration between students in technology exploration, and support for experimentation and innovation are important factors in helping students face the era of connectivity. However, this study also provides an important note about expanding digital literacy to deal with digital risks such as cyberbullying and digital injustice.

Keywords: Era of Connectivity, Role of Education, Adaptive Digital Intelligence.

Introduction

In the current era of connectivity, information and communication technology (ICT) has changed the world in various aspects of life. The digital era has brought connectivity that allows humans to connect easily, quickly, and efficiently (Sitopu et al., 2024); (Guna et al., 2024). This is reflected in various aspects such as communication,

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business, education, and entertainment. Technological developments affect the way humans interact, learn, work and create (Hairiyanto et al., 2024). In this context, adaptive digital intelligence plays an important role as an individual's ability to manage, understand, and utilize digital technology in smart, creative, and effective ways (Tubagus et al., 2023); (Aslan & Shiong, 2023).

Digital intelligence is crucial in enabling individuals to compete and succeed in this age of connectivity. The ability to understand, explore and use digital technologies wisely and effectively is an important aspect of digital intelligence (Vaerenbergh & Pérez-Suay, 2022). In addition, adaptability in the face of technological developments and changes is also one of the main characteristics of digital intelligence required. Individuals who have adaptive digital intelligence are able to adjust quickly to technological changes and make the best use of them to achieve personal and professional goals (Roanes-Lozano & Martínez-Zarzuelo, 2022).

This means that it is increasingly important to explore a deeper understanding of how education can play a role in shaping this adaptive digital intelligence. Education that is able to provide a learning environment that encourages the development of adaptive digital intelligence is one of the keys to facing challenges and optimally utilizing the potential of this era of connectivity (Peng, 2021); (Moustafa, 2022).

In the context of education, the important role of adaptive digital intelligence demands a change in the learning approach. Education must be able to provide learning environments that enable students to develop critical thinking, creative, and digital problem-solving skills (Martínez-Sevilla & Alonso, 2022); (Moustafa, 2022). Teachers need to be trained to become learning facilitators who are able to guide students in developing adaptive digital intelligence. The education curriculum also needs to be adjusted to emphasize the development of digital intelligence as one of the main objectives of education in the era of connectivity (Nurdiana et al., 2023); (Haddar et al., 2023).

In addition, collaboration between education, industry and government is also key in ensuring that education can effectively shape adaptive digital intelligence (Pucciarelli & Cobo-Benita, 2022). Industry can provide input on the needs of digital competencies required in the world of work so that education can respond appropriately. The government also needs to be actively involved in creating policies that support the development of digital intelligence in schools and other educational institutions (Santos & Williamson, 2023).

Therefore, adaptive digital intelligence is an important requirement for individuals and society in this era of connectivity. According to some studies, digital intelligence can have a positive impact on a person, such as the ability to think critically, creativity, and problem-solving skills. Therefore, effective education that is able to shape adaptive digital intelligence is one of the focuses in this era.

However, the challenges faced in shaping adaptive digital intelligence through education in this era of connectivity are quite complex. Perhaps the biggest hurdle is our limited understanding of how education can effectively shape adaptive tendencies in the context of digital intelligence (Edison, 2020); (Samuel-Okon & Abejide, 2024). Therefore, a literature review that addresses the role of education in shaping adaptive digital intelligence in the era of connectivity is highly relevant and important.

Research Methods

The study conducted in this research uses the literature research method. The literature research method is a method carried out by analyzing and evaluating reading sources from various sources such as books, journals, papers, reports, and websites related to the research topic (Firman, 2018); (Suyitno, 2021). This method allows researchers to gain a comprehensive understanding of the topic being researched (junaid, 2018).

Results and Discussion

Digital Intelligence in the Age of Connectivity

Digital intelligence refers to an individual's ability to use digital technologies effectively, including in accessing, understanding, evaluating, and generating information. It encompasses a range of skills such as technological understanding, media literacy, digital creativity, problem solving, and critical thinking (Qiao & Fu, 2023). In an era of connectivity characterized by the rapid development of information and communication technologies, digital intelligence has become very important. Individuals who have good digital intelligence have the ability to adapt to technological change, utilize existing resources effectively, and participate actively in an increasingly digitally connected environment (Shafik, 2024).

The relevance of digital intelligence in the context of the era of connectivity is the need for individuals who are able to face the challenges and opportunities offered by digital technology. The ability to understand, use and adapt to digital technologies is becoming increasingly important in the world of work and everyday life (Narboux & Durand-Guerrier, 2022). Individuals with adaptive digital intelligence can access information easily, communicate effectively, solve problems creatively and participate in digital communities. In an increasingly online environment, digital intelligence also involves ethics and responsibility in using technology (Thakar et al., 2023).

In addition, digital intelligence also has a significant impact on education. Education must be able to provide a learning environment that allows students to develop critical thinking, creative, and digital problem-solving skills (Hašek, 2022). Teachers need to be trained to become learning facilitators who can guide students in developing adaptive digital intelligence (Sarsar & Çakır, 2020). The education curriculum also needs to be adjusted to emphasize the development of digital intelligence as one

of the main objectives of education in the era of connectivity (Tuhuteru et al., 2023); (Astuti et al., 2023).

Furthermore, digital intelligence also plays an important role in promoting digital inclusion amidst widespread connectivity. With the ability to access information and resources online, individuals with good digital intelligence can engage in educational opportunities, employment, and participation in social life more equally. This plays a key role in reducing the digital divide in society (Durampart et al., 2024).

Thus, digital intelligence has great relevance in the context of the current era of connectivity. Individuals who possess good digital intelligence are able to face technological challenges, take advantage of the opportunities offered by digital connectivity, participate actively in digital society, and play an important role in creating a digitally inclusive environment. Therefore, the development of digital intelligence in society and in education is becoming increasingly important to ensure that all individuals can harness the positive potential of these digital technological advancements.

The Role of Education in Shaping Digital Intelligence

Education has an important role in shaping students' adaptive digital intelligence. Here are some of the contributions of education in shaping adaptive digital intelligence:

First, Curriculum integrated with technology: Education can design a curriculum that is able to integrate technology in daily learning (Aslan, 2023). Utilizing technology in a relevant and meaningful curriculum can help students develop adaptive digital intelligence, such as problem-solving skills, digital communication skills, and collaboration skills (Aslan & Pong, 2023).

Second, adequate teacher training: Teachers are key in shaping students' adaptive digital intelligence. Therefore, education needs to provide adequate training to teachers in terms of technology utilization in learning. This includes technological understanding, media literacy and relevant pedagogical skills to integrate technology in the learning process (Trgalová, 2022).

Third, the development of critical thinking and problem-solving skills: Education needs to develop students' critical thinking and problem-solving skills through the use of technology. By engaging students in situations that require critical thinking and problem-solving abilities, education can help students develop the adaptive digital intelligence required in various situations in the age of connectivity (Gantzias, 2020).

Fourth, collaborative and creative learning: Education can encourage collaborative and creative learning supported by technology. Collaboration between students on digital projects as well as opportunities for students to use their creativity in producing digital content can help develop students' adaptive digital intelligence. It also creates an environment where students can learn from each other and adapt to technology independently (VOLKOVA & MARKOV, 2020).

With the contribution of education in shaping students' adaptive digital intelligence, it is hoped that students can become individuals who are able to face technological changes and challenges well, and utilize them effectively to participate and contribute in an increasingly connected digital society.

In the learning process of adaptive digital intelligence, collaboration between educators, students and the learning environment is essential. Teachers need to facilitate learning that allows students to actively interact with technology and develop adaptive digital skills. Meanwhile, students need to be actively involved in the learning process, take risks, and learn from failure (Azad & Kumar, 2024).

It is also important to create a learning environment that supports the development of adaptive digital intelligence, such as providing adequate computer access and internet connection, as well as providing space for students' exploration in using technology (Quaresma, 2022). Student-centered learning approaches, emphasis on project-based learning, and real-life experiences in authentic situations can also improve students' adaptive digital intelligence (Dana-Picard & Kovács, 2022).

In conclusion, education plays a key role in shaping students' adaptive digital intelligence. Through a technology-integrated curriculum, adequate teacher training, development of critical thinking and problem-solving skills, and collaborative and creative learning, education can help students develop the adaptive digital intelligence needed to face technological challenges in this digital era. Thus, the discussion and implementation of adaptive digital intelligence in education is becoming increasingly important to prepare future generations who are ready to face the dynamics of technology well.

Adaptability in the Context of Digital Intelligence

Adaptability in education refers to an individual's ability to adapt to change, adjust to new situations, and remain relevant in the face of challenges (Rodríguez, 2022). In the context of digital intelligence, educational adaptability emphasizes students' ability to learn and innovate by effectively using digital technologies. This adaptability involves students' ability to master rapidly changing digital skills, and being able to adapt to new technological developments (Moleka, 2023). Education that facilitates adaptability will help students to be more flexible, open to change, and able to overcome barriers that arise in an ever-evolving digital environment (Aizaz & Khare, 2023).

Student engagement in learning that allows exploration and experimentation, as well as the utilization of technology as a tool to solve problems, is one way to facilitate adaptability in education. Curricula that pay attention to technological developments and emphasize skills such as problem solving, creativity, and digital communication are also key in shaping students' adaptability in this digital era (Faragher, 2023). In addition, education needs to provide continuous training for

teachers to be able to facilitate learning that encourages student adaptability in the use of digital technology, and implement evaluation strategies that pay attention to student adaptability to technological developments (Font et al., 2022).

In addition, it is important to create a learning environment that supports the development of student adaptability in the face of digital technology development. This includes providing adequate access to technological tools, supporting collaboration between students in exploring new technologies, and creating spaces for experimentation and innovation (Adawiyah, 2023). Thus, the concept of adaptability in education and digital intelligence emphasizes the importance of developing students' ability to respond to technological change with flexibility, openness, and self-learning ability. With the right educational support, students can become individuals who are ready to face challenges in an ever-evolving digital era and are able to utilize technology effectively to contribute to an increasingly globally connected society (Jankvist & Geraniou, 2022).

In conclusion, the concepts of adaptability in education and digital intelligence are becoming increasingly important in the face of rapid technological change. Education needs to facilitate learning that enables students to develop adaptability in the face of digital technological developments, and create learning environments that support exploration, collaboration and innovation. Thus, students will be able to become individuals who are ready to face and utilize technology effectively in this digital era.

Conclusion

Research on the age of connectivity highlights the important role of education in shaping adaptive digital intelligence amidst rapid digital transformation. The research findings show that education plays a key role in preparing students for the increasing demands of digital technology and connectivity. Education can help students develop adaptability, creativity and critical thinking skills in the face of technological change. This points to the need for technology integration in the education curriculum to facilitate learning that supports the development of adaptive digital intelligence.

In addition, the research also highlights the important role of educators in integrating adaptive digital intelligence into daily learning practices. Teachers need to be equipped with the knowledge and skills to be able to guide students in using technology effectively, as well as facilitate learning that encourages exploration and innovation in the use of digital technology. The research findings show that project-based learning approaches, collaborative learning and providing challenges in a digital context can improve students' adaptive digital intelligence.

Finally, the research findings also emphasize the need to create a learning environment that supports the development of adaptive digital intelligence. Adequate technology facilities, collaboration between students in technology exploration, and

support for experimentation and innovation are important factors in helping students face the era of connectivity. Thus, the role of education in shaping adaptive digital intelligence lies not only with teachers, but also in providing an appropriate learning environment to support student development in facing the challenges of evolving digital technology.

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