Digital Transformation in the Education Industry: Challenges and Opportunities

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ABSTRACT

Digital transformation is the profound transformation of business and organizational activities, processes, capabilities and models, maximizing change and opportunity in the technology mix, and making social impact a strategic and prioritized method to accelerate. This research is qualitative research, data collection using survey methods, interviews and literature review. The results obtained that this digital transformation is very influential in the world of education, because the digital transformation makes learning activities easy and flexible in its implementation. In addition, the demands of digital transformation have required the world of education to always adapt to technological developments in efforts to improve the quality of education, especially adjustments to the use of technology for the world of education, especially in the learning process.

Keywords: Transformation, Digital, Challenges, Opportunities.

INTRODUCTION

Technological developments continue with unnoticed happen, these developments cannot be avoided or even stopped. The passing of time requires us to continue to adapt to the advances brought by technological developments to all aspects of life. Therefore, existing developments require people to carry out digital transformation. This digital transformation is the beginning of creating something new with more efficient and effective way to replace the long-term process of doing things. This activity is carried out by utilizing or by using existing technology (Ainun dkk, 2022). Digital transformation is a metamorphosis of a business or organization, which includes several aspects, ranging from human resources, processes, strategies and structures through the adoption of technology to improve performance. (Royyana, 2018). The development of digital technology has changed almost every aspect of life. Small smartphones can connect us with people we know. In addition, this technology can connect us directly to online channels. In recent decades, the world of education has undergone significant changes brought by technological advances towards the era of digitalization. Digitalization in education is not the same as online learning, but is one of the characteristics of digital transformation in education..

Digital transformation is a major shift in business and organizational functions, processes, capabilities, and models that maximize change and opportunity in technology fusion and make social impact a strategic and prioritized path to acceleration. With digital transformation, infrastructure and technology are indispensable. It is clear that learning methods with improved technology require the right IT infrastructure and platform to implement them (Siswanto, 2022). Digital transformation can be understood as the process of using digital technology that is already available. Such as Cloud integrated with virtualization technology, mobile computers, and other media (Loonam et al., 2018). In addition, digital transformation is a process that aims to improve a business by causing significant changes to its characteristics through a combination of information technology, computing, communication, and connectivity (Vial, 2021). Digital transformation is both an opportunity and a challenge in the world of education. The rapid development of technology has made digital transformation a part of people's daily lives. Like it or not, humans have to evolve and adapt to technological advances.

This digital transformation is gradually changing old learning processes and habits into new ones that are more efficient and effective in the educational process. The presence of new technology that marks the beginning of this digital transformation brings fresh air to people's lives. Progress in an increasingly digital world, including in the field of education, is undeniable. This digital transformation has a major impact on the world of education. Digital change makes learning easier and more flexible. In addition, the demands of digital transformation require the world of education to always adapt to technological developments to improve the quality of education, especially the adjustment of the use of technology in teaching, especially in learning. This digital transformation also helps change people's behavior as teachers and students track, learn, document, and resume materials on demand. Looking at the current reality, it is undeniable that digital transformation brings opportunities and challenges to the world of education.

According to Triyatno (2020) Understanding the digital age goes a long way in ensuring that we build sustainable socio-economic relationships with technology and the advanced knowledge enabled by technology. The digital age is profoundly changing the way we live and work creating a knowledge-based society. Over time, the digital era will have the same impact on all areas of life, including education. Education is basically an attempt or process to educate man and instill in him an appreciation of himself. To be able to carry out education correctly and appropriately, a deep knowledge of how education should be carried out. The underlying science must be proven science, and this science can also be called educational science. With these developments, the world of education continues to change significantly, so it really helps change the way of thinking of educators, from a way of thinking that was originally common and rigid to more modern, and of course this has a major impact on the progress of education.

Mastery of technology can help adapt to the digital transformation that develops in education today. Mastery undoubtedly facilitates learning and improves the quality of education. Therefore, digital transformation has a significant impact on the development of the education community and the quality of education itself. In the digital age, it is crucial to understand and apply the wise use of technology to adapt to digital transformation. Technology is influencing the quality of education in these turbulent times. The ongoing industrial revolution seems to continue to encourage society to develop its skills in order to continue its progress (Bashori, 2018). The world of education is a world that allows many things, especially personal transformation, knowledge, character building and the realization of one's potential. To make it easier for educators to access learning content in the digital era, learning media become more diverse and optimally reflect the basic skills needed.

METHOD

This research is qualitative research. Data collection was conducted through surveys, interviews and literature review. The interview guide contains questions to gather information about the challenges and opportunities of the digital age, for example (1) What do you think about the current digital age? (2) What challenges do you face in educating characters in the digital age? (3) What opportunities are there in educating characters in the digital age? (4) How does digital transformation affect education? While literature review is a method of collecting information by reviewing various references and previous research results to arrive at a theory about the problem under study. This literature research is also carried out by studying various scientific literature, such as books, journals or articles, which can be used to assist in the preparation of research.

RESULT AND DISCUSSION

Technological developments continue from time to time, ranging from agricultural technology, industry, information to communication. This development has a major impact on the social life of the community and attracts the attention of the community to use and use it at every stage of development (Jannah dkk, 2023). In the 21st century, fourth-generation computers appeared, with the main computer called the microprocessor, which has a very high data processing speed and is constantly being improved. Digital communication is a combination of computing devices and the internet that creates technology with many benefits. One of its advantages is the ability to exchange information online and between individuals as well as receive information from different parts of the world. Especially with the help of this technology, work activities and other activities can be done online. Then the presence of smartphones with high-speed internet connections causes technology to advance. It allows access to the internet on small devices like mobile phones and makes it easy to carry with you wherever you go. As a complement to smart applications, smartphones can be used to manage work tasks

and things such as communicating through social media, online shopping and commerce, as well as other applications that support daily life. (Danuri, 2019).

The world of education today is developing and continues to develop and one of its biggest influences is technological development. In the digital era, Indonesia has implemented many developments, including Indonesian mass media that has changed the way information is delivered. Online media (Internet) replaced traditional media during this period. Even though Indonesia is almost a decade late in adopting communication technology, especially the internet. However, the digital culture of Indonesian people is very fast to accept the development of this technology. Globally, Indonesia engages in the digital culture necessary to achieve positive growth according to the times. Character education in the digital age should also include digital learning (Pachler, 2013). The application of digital transformation in education is also one way for students to get used to technology. Technology is constantly evolving and students must constantly adapt to stay competitive in this field. In this way, we can talk about education not only in terms of the content of the teaching materials offered, but also about the latent development and learning of new things that students encounter as they discovering knowledge of the world..

Challenges

Globalization has changed the way people live as individuals, societies and citizens. No one can escape the current of globalization. Every individual has two choices: position themselves and play a role as an actor in the current of globalization, or become a victim and be swept away by the rapid flow of globalization. According to Kunandar, there are several challenges of globalization that must be addressed by educators in prioritizing their professional abilities, such as:

1. The rapid and fundamental development of science and technology. With this condition, educators must be able to adjust responsively, wisely and wisely. Responsive means that educators must be able to master science and technology products well, especially those related to the world of education. Without good mastery of science and technology, educators become left behind and become victims of science and technology and become educators who are "isoku iki" (I can only do this)
2. The moral crisis that occurred in Indonesia. Due to the influence of science and technology and globalization, there has been a shift in values that exist in people's lives. Through education, educators have their own challenges to instill moral values in the younger generation.
3. Social crisis, such as crime, violence, unemployment, and poverty that occur in society. As a result of the development of industry and capitalism, social problems arise in society. Those who are weak educationally, access and economically will become victims. It is a challenge for educators to respond to this reality through education. Because, schools are formal educational institutions that have won the trust of the community, so they must be able to produce students who are ready to live in any conditions and situations.
4. Identity crisis as a nation and the State of Indonesia. Globalization has also diminished the national identity (nationalism) of our young generation. For this reason, educators as guardians of values, including nationalism values, must be able to provide awareness to the younger generation of the importance of nationalism in the life of the nation and state.

To overcome these problems and improve the quality of teaching, teachers must be able to develop the three basic intelligences of students. In particular, intellectual, emotional, and moral elements must be instilled in students as best as possible in order to remain attached to them. Another aspect that teachers should pay attention to is the spiritual dimension of students. Student intellectuals must be broad in order to adjust to the global era and not be outdated, let alone carried away by bad changes. In addition, the emotional and spiritual dimensions of the disciples must be properly trained, so that they can survive the tug-of-war between the demoralizing effects of the global age and their spiritual principles. Students should be taught to use technology and the internet effectively, creatively and wisely. They not only learn how to use it, but also when and why, with a sense of security, community, fairness, and responsibility. Students learn how to use technology and the Internet safely and responsibly. Schools should provide a safe environment that encourages mutual respect and encourages students to learn and act responsibly in local and online communities. Education is a shared responsibility of the student's home, school and community.

Opportunities

Digital transformation has become an important topic in various fields, including education. As one of the fields of education, it is no exception in facing the changing times that are increasingly digital. The use of digital technology in the provision of education offers a good opportunity to improve the effectiveness, efficiency and

quality of education. With the digital transformation in the world of education, now the transfer of information becomes easier anywhere and anytime. One of them is a webinar which stands for web seminar held through online applications such as Zoom, Google Meet and others. The existence of this webinar allows information to be conveyed without space and distance restrictions. Figure 1 shows the positive impact of digital learning on students.
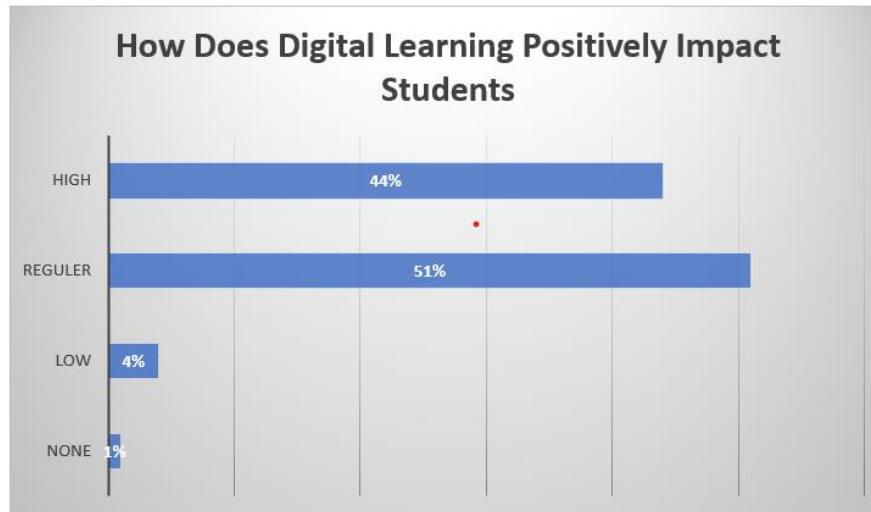

Figure 1 The Positive Impact of Digital Learning for Students

Thanks to the presence of digital technology, it offers many advantages and many possibilities that we ter without unprecedented limits, enriching and with the presence of many possible applications created to change the world in administrative systems and learning systems. and multimedia systems that can support changes in classical education systems with web-based learning systems, e-learning and virtual meeting models. In addition, Information and Communication Technology (ICT) is an important tool to promote equitable and inclusive education, bridge learning gaps, open new perspectives for teachers and their professions, improve the quality and meaning of learning, and educational governance and governance. Digital learning offers an excellent opportunity to succeed in character education. Digital learning offers many opportunities compared to traditional learning.

1. Digital learning can mitigate many broad geographical constraints. Students can now access online videos that provide instruction on a variety of topics at different skill levels, and participate in video conferences with educators located in different places.
2. Technology can help enrich the learning experience and help students to understand the material better. For example, technology can be used in the form of multimedia, simulations, or interactive games that can make learning more interesting and easier to understand and understand.
3. The use of technology can also help in curriculum development. In curriculum development, technology can make it easier for education managers to make adjustments and changes to the curriculum quickly and responsively to student needs. In this case, technology can also help education managers to speed up the curriculum evaluation process and make the right decisions related to curriculum development.
4. The next thing about artificial intelligence technology now allow educators to differentiate ways of teaching, providing extra support and developmentally appropriate materials to students whose knowledge and skills are far below or above grade-level norms. The latest "intelligent" tutoring systems are not only able to assess students' current weaknesses, but also diagnose why students make certain mistakes. The technology could allow educators to better reach students who are far from average in their classrooms, potentially benefiting students with weaker academic ability.
5. The existence of touch screen technology has allowed very young children to engage in teaching with the help of technology. Before tablets, it was difficult for preschoolers, kindergarteners, and even early elementary students to learn with educational software because they needed to use a mouse or keyboard. There are now hundreds of apps that can effectively expose children to early literacy and numeracy skills.

Digital Transformation Greatly Affects the World of Education

Education is actually the largest investment field in developing and forming complete human resources (Ainun dkk, 2022). Education is believed to be able to form civilized and quality human resources. Therefore, the world of education must be able to adapt to the times, especially in the current era of digital revolution, and teachers and students must be able to adapt to survive and be competitive. As the spearhead of national development, education must be oriented to the development and dynamics of the modern global world or be able to adapt to the demands of the times. This of course must be done to answer the dynamics of the rapid development of the times. Mastery of technology can help adapt to the digital transformation that is currently underway in the world of education. The monitoring technology certainly facilitates learning and can improve the quality of education. Digital transformation has a major impact on the development of the world of education and the quality of education itself. It is very important to understand and apply the use of technology wisely to adapt to digital transformation, especially during the current pandemic and in the midst of a pandemic. demanding and fast. technological developments, which certainly have a significant impact on the quality of education..

This digital transformation has a significant impact on the world of education, because digital transformation makes the implementation of learning activities easier and more flexible. In addition, the demands of digital transformation require the world of education to always adapt to technological developments to improve the quality of education, especially adjusting the use of technology in the classroom, especially in learning. This digital transformation can also be useful in changing people's behavior, including teachers and students, in tracking, researching, documenting, and reopening classroom materials when necessary. In today's reality, it is undeniable that digital transformation brings opportunities and challenges to the world of education.

Positive and Negative Impact of Digital Transformation Era

Of course, in this digital era, the development of digital technology has many implications, both positive and negative. The positive effects of the digital era include, among others: the necessary information is available faster and easier, the growth of innovation in various fields oriented to digital technology that facilitates our work process, the emergence of digital mass communication, especially electronic media as a source of science and information. To improve the quality of human resources for society through the development and use of information and communication technology, the emergence of various learning resources such as online libraries, online learning environments, online discussions that improve the quality of education, and electronic commerce, such as . Online Store that offers a variety of necessities and facilitates their acquisition.

There are negative impacts of the digital era that must be anticipated and solutions sought to avoid loss or danger, including: The threat of violations of Intellectual Property Rights (IPR) due to easy data access and causing plagiarism to commit fraud, the threat of short-sighted thoughts where children are trained to think short and lack concentration, the threat of misuse of knowledge to commit criminal acts such as breaking into the banking system, and others (declining morality), and not making information technology effective as a medium or means of learning, for example such as in addition to downloading e-books, but also printing them, not only visiting digital libraries, but also still visiting library buildings, and others.

CONCULISION

Digital transformation in the world of education raises opportunities and challenges felt by the community, especially educators and students. There are many factors that influence the opportunities and challenges of digital transformation in education. One of them is geographical factors that cause people in some parts of Indonesia to find it difficult to follow the ongoing digital transformation and there are some people in Indonesia who benefit greatly from the running of digital transformation in the world of education. The changes brought by this globalization, willingly or unwillingly, are also experienced by the world of education with educators as practitioners. There are several challenges faced by educators in the global era by having to prioritize their professionalism. Such as the rapid and fundamental development of science and technology; moral crisis that hit Indonesia, social crisis and identity crisis as a Nation and State of Indonesia. There are also several opportunities in digital learning including the use of technology, technological advances and the existence of technology. This digital transformation is also very influential in the world of education, because digital transformation makes learning activities easy and flexible in their implementation.

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