

# Exploring the relationship between Transhumanist and Artificial Intelligence in the Education Context: Particularly Teaching and Learning Process at Tertiary Education

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## ABSTRACT

This studied focus on the relationship between transhumanist and artificial intelligence in the Education Context; Particularly Teaching and Learning Process at private university in Makassar, South Sulawesi, Indonesia. Anchored by a qualitative analysis and participated by five teachers, the data were analyzed in-depth interview. It was designed to find out the type of artificial intelligence used in teaching and learning process. The result of the study showed that the types of Artificial intelligences are; Intelligence of tutoring system, Smart mentor virtual, Automatic assessment, Personalized system, and other finding that even though the artificial intelligence was very great tools can support teaching and learning process but the teacher roles can be not changed them, because teachers taught morality, how to respect each other, it is a role of teacher.

**Keywords:** Transhumanist, artificial intelligence, teaching and learning, education context.

## INTRODUCTION

Recently, some scholars conducting research pertinent to transhumanist such as Akdevelioglu et al., (2022) focused on wearable technologies, brand community and the growth of a transhumanist vision. Their finding was a highlight the social engagement mechanism, including motivating empowerment, friendly rivalry, and trusting engagement. Meanwhile, Mirenayat et al., (2017), focused on technological change within human life. The result of his finding to explore the human transformation, the transformation itself was categorized into three steps namely transhumanism, posthuman, and cyborg. Based on his perspective transhumanism will be defined as a transcendent version of a human, posthuman as a less or non-biological being, and cyborg as a machine-human.

The last, Khvastunova, (2020) focused on *The Educational Model of Transhumanism in the Context of Society Digitalization*, the resulted finding showed that digitalization, among other trends of the modern technological world, plays the role of a methodological principle and an integrated organization, according to proponents of transhumanism, will attract more creative, influential and intelligent leaders and entrepreneurs into it.

Unfortunately, this research didn't reveal the urgent of transhumanist address to technology in the education context, particularly in teaching and learning literature. They didn't explore how humans turn to technology to fulfill their educational needs particularly in teaching and learning, meanwhile now day is very needed mainly in education. It is the main reason to conduct this research to what extent the difficulties of transhumanist technology in Education context particularly in teaching and learning literature in tertiary education.

## LITERATURE REVIEW

### a. Transhumanist perspectives

The term transhumanist was first introduced by Huxley (1957), then later developed by Bostrom. Nick Bostrom is an expert in psychology, mathematics, computer neuroscience philosophy, and he is also the head of the world-class organization FHI (Future of Humanity Institute) as well as a professor at Oxford University. Bostrom was born in the Swedish city of Helsingborg. In his youth he did not like formal education. he then spent the last years of his high school studying various disciplines, including: anthropology, art, literature and science. In his teens, he was fascinated by many nineteenth-century German philosophers, especially the works of Nietzsche and Schopenhauer.

Bostrom (2005), argues that the improvement of human nature will affect the dignity of the human being himself by going through the use of sophisticated science and technology and other effective methods that allow human beings to legally change themselves and nature in line with their individual

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values and goals. For Bostrom this is one of the main reasons why it should support transhumanism. In addition, Bostrom states that transhumanism does not expect us to give preference to future human forms, such as transhuman (especially implants or biological and partial machines) and posthumans (most or all of the machine body), over humans, since humans are able to overcome many biological limitations.

In connection with the statement above, technological improvement is a dream that humans can pursue until this end, because the use of technology is needed in the world of education. Bostrom (2005) suggests this view would pose some danger of becoming a transhuman or posthuman in which humans must be prepared for the future. For example, some people think that cloning humans are part of transhuman would be very strange, irrational, and immoral. But what Bostrom said cannot be applied to a country that adheres to religion regarding the use of technology oriented towards the creation of colonized humans. Yet fanatic transhumanists like Bostrom think that creating human cloning is a desirable way to achieve immortality and to defeat death. There is no doubt that every human being likes to avoid aging and death like the dreams of transhumanists, so they focus on the creation of technology that can extend age. From this assumption, transhumanism seeks to transcend these human limitations so that humans are said to be perfect after surpassing them through three pillars, including: Super longevity, Super Intelligence, and Super Wellbeing, Vikoulov (2016).

This great idea is not without conceptual problems, one of the main currents of never-ending debates in the problem of transhumanism is morality. Transhumanism constructs the moral idea of the ideal as the ultimate goal which then ushers in endless serious debates. According to Philbeck, this vagueness is due to the metaphysical study in the form of its ontological and epistemological bases that do not delve deeply into the metaphysical ideas of transhumanism from both supporters and critics. Some other researchers such as Tamar Sharon et al., (2013) state that the transhumanist problem is rooted in a metaphysical foundation that is not strong so that it gives birth to various other problems that are not solved and stuck in moral relativity, even though the main goal of the transhumanist view is to achieve the ideal moral. But what Bostrom conveyed is very controversial and not in line with human nature as a creation of God that man will experience the vicissitudes of old life and death. Although the development of sophisticated science, death cannot be denied by humans as a created being. What Bostrom conveys in the transhumanist is just a mere dream to avoid death. Death is something that will absolutely happen that all beings experience. But I don't focus on discussing the understanding espoused by Bostrom in transhumanists. but the researcher discusses Bostrom's thoughts on advanced transhumanist technology that has

to do with learning in a university institution. Transhumanist technology that leads to learning orientation cannot be applied in total, for example, robots teach, because robots have an object that works based on a program of system.

How is it possible that a robot that teaches can change student behavior into discipline, teaching morals, the sophisticated robot technology cannot replace the role of the teacher in teaching, Blar et al., (2014). Teachers have a very important role in learning because teachers can have feelings that can work with humanity. Meanwhile, technology in learning is only a tool that can facilitate learning in the classroom. This is what is discussed in this study how transhumanist technology can be correlated with one of the parts of transhumanist, namely intelligent artifacts in learning so that it can provide optimal knowledge in the world of education.

### **A. The Artificial Intelligence and Transhumanist Relationship in the Education Context.**

Artificial intelligence is part of the transhumanist where the second is advanced technology that can be applied in the world of education. Artificial Intelligence (AI) is a field of computer science devoted to solving cognitive problems commonly related to human intelligence, such as learning, problem-solving, and pattern recognition, Chassignol et al., (2018). Artificial intelligence (AI) technology in learning methods is considered to be able to help the world of education achieve an effective learning process. Although it cannot replace the role of the teacher, this technology can help the work of teachers and can produce best practices in the world of education.

Today's technology is already part of the unstoppable passage of time. Technology not only changes people's lifestyles but also changes how we work, learn and interact with others, Susskind, R. E., & Susskind, D. (2015). Various kinds of innovations appear all the time, increasingly making our activities and work more practical and effective especially in learning. One of the technologies that has recently become a concern is Artificial Intelligence. This technology has an important role in facilitating various job functions, including in the field of education. John McCharty, (1956) Artificial Intelligence is the process of modeling the way humans think and designing a machine to behave like humans or another term called cognitive tasks, which is how machines can learn automatically from data and information that has been programmed.

In the world of education, artificial intelligence can play a role in various aspects. Benokraitis, N. V., & Feagin, J. R. (2019) believes Artificial intelligence can facilitate teacher performance, especially in administrative matters such as determining final grades based on the weight of assessments. Artificial intelligence (AI) can also make it easier for teachers in various other learning activities. Artificial intelligence (AI) is believed to help humans to learn better and achieve

educational goals more effectively, Sharma et al., (2021). So, it is not surprising that currently there are many innovations and breakthroughs based on Artificial intelligence (AI) that are being applied in supporting the literary learning process to be more practical and effective, especially in the university environment.

The use of Artificial Intelligence we have applied in everyday life. Many applications have implemented artificial intelligence as an advantage of applications used based on artificial intelligence such as video / music streaming, search engines, selfie features on smartphones, Global Positioning System (GPS), Video Games, social media, Tuten, T. L. (2020). However, this study only focuses on artificial intelligence which refers to learning in the classroom. How learning in the classroom can be supported by artificial intelligence so that learning can be carried out more effectively and efficiently.

The role of Artificial intelligences is often used to support learning, both on campus, schools for independent learning. For the future, learning activities will apply more artificial intelligence. Artificial intelligence (AI) can be used to present learning materials, conduct assessments, provide learning feedback. However, in reality there are still many teachers who experience obstacles faced related to the use of artificial intelligences in the teaching and learning process in the classroom which must be revealed in this study.

## B. The Implication of Artificial Intelligences in Teaching Process

The implication of using artificial intelligence in the learning process based on the 2021 digital literacy movement is that artificial intelligence (AI) in learning methods is considered to be able to help the world of education achieve an effective learning process. Although it cannot replace the role of the teacher, this technology can help the work of teachers and can produce best practices in the world of education. In the implementation of artificial intelligence, there are several aspects that support learning such as Intelligence tutoring system (ITS), Smart Mentor Virtual (SMV), Voice Assistant (VA), Automatic Assessment (AA), Self-Study (SS). From several aspects of artificial intelligence such as intelligence tutoring system (ITS) is an interactive application program that applies methods in artificial intelligence that can be used as a medium for sending information and as an evaluation medium in the learning process, Singh, et al., (2022).

*Intelligent Tutoring System* (ITS) or Smart mentor virtual (SMV), gives students the flexibility to apply their skills by carrying out tasks or doing exercises on certain lessons interactively, Virtual Smart Mentor (SMV) is artificial intelligence is currently widely applied to various educational technology platforms, especially online-based ones, such as virtual mentors Sepasgozar,(2020). Artificial Intelligence can provide feedback from learning activities and practice

about students, providing recommendations for material that needs to be relearned like a teacher or tutor. The application is widely used by professors/lecturers to publish notes, homework, quizzes, and tests that allow students to ask questions and assignments. Applications can also be used for assessments that can identify the reasons behind students' incomprehension and can offer solutions that have been released by lecturers and programmed in advance. This system Artificial intelligences will continue to learn and update information independently according to the needs and constraints faced by students, Zhang, C., & Lu, Y. (2021).

Meanwhile, the application of artificial intelligence to voice assistants has similarities with virtual mentors. It's just that *Voice Assistant* relies more on the function of voice as a center for interaction and communication in learning so that learning is more varied. *Voice Assistant* is also one of the most widely known artificial intelligence technologies and utilized in various fields, including learning. Examples of commonly known voice assistants such as *Google Assistant* (Google), *Siri* (Apple), *Cortana*, Winkler & Buchmann (2018).

*Voice Assistant* allows students to search for materials, reference questions, articles, and books by simply talking or mentioning keywords. Several *Edutech platforms* have also adopted *Voice Assistant* technology to help students find content and materials more quickly and practically, Dellaert (2020). Smart Content (SC) performed by teachers can spend hours preparing exercises and formative assessments for their students. Artificial intelligences can support them by creating Smart Content (SC). With Artificial intelligence various types of content can be created for classes such as study guides, and exercises.

Automatic Assessment (AA) is currently widely used for the purposes of automatic question assessment and correction *online*. The use of features like this makes it easier for teachers and tutors to prepare and hold quizzes and tests easily and practically. Teachers and tutors no longer need to make questions and correct questions manually, Le, E. et al., (2019). System Artificial intelligences will work alone according to the instructions that have been programmed and can learn according to the habits of the user or student.

Even Artificial Intelligences will provide recommendations for material that needs to be re-studied and others based on the results that have been obtained. This feature allows teachers to create quiz and test easily and practically. The teacher only needs to choose the type of subject, the level, the number of questions, the level of difficulty, and some other options. After that, the teacher only needs to share the quiz link with the students to be done directly online, Ullah, Z., (2018).

Therefore, the researcher formulates the problem as follows

1. What kinds of artificial intelligences supporting in teaching and learning process?

2. How are teachers' perspective in implementing of artificial intelligence in learning process?

## METHOD

This study Using an interview design, we recruited 5 teachers in five universities in Makassar south Sulawesi in Indonesia, those are consisting 3 male and 2 female, they were selected based on their experiences. They taught about 5 years used artificial intelligence in classroom. The informed consent and anonymity of the participants' identities were firstly given and explained prior to data collection. Then, we coded participants into T1, T2, until T5 respectively. Data collection was conducted using an unstructured interview conducted using participants' national language (Bahasa Indonesia). Each interview lasted between 45 minutes to 1 hour. This data elicitation method was employed to ensure that participants were involved in unrestrained responses with regard to their difficulties faced in artificial intelligences, also the contribution of artificial intelligences.

Consequently, follow-up questions were asked during the interview sessions. Participants' responses were audio-recorded and transcribed verbatim. Our interview questions started with a general inquiry related to what hampers the participants to use the artificial intelligences. In general, our data were analyzed using a thematic model as recommended by Creswell (2018). We read each transcript and did a careful examination of similar responses and included them in one emergent theme. We analyzed 5 responses from the participants. This analysis procedure is normally undertaken to figure out emerging themes from an interview study. To ascertain the data saturation, we did member-checking by inviting the participants to closely examine the transcripts and provide comments on the analyses.

## FINDING AND DISCUSSION

Based on finding the kinds of artificial intelligences benefit which is implemented in teaching and learning as following below

### a. Intelligence tutoring system (ITS)

Artificial intelligence in the context of learning is needed by students in the classroom because (TIS) is very helpful for students' learning when they are doing tasks, especially when doing Practice questions in class, (Gonzales, 2006) as described below;

T1; *"I think this is very effective for doing student assignments in class, especially when doing Exercises"*.

The excerpt above show that artificial intelligences especially in the element Tutoring system of intelligence is very useful in classroom learning, as stated by teacher 1 (T1).

The statement of teacher 1 (T1) is supported by Lewis (2002), contended that learning supported by (IT) especially

in features (TIS) makes students more enthusiastic so that it has the potential to increase motivation to learn in the classroom. Because the function (AI) which is currently quite widely applied to various educational technology platforms, especially online-based ones, namely as a virtual mentor, Briscoe, P. (2019).

T4; *"It is very interactive when used by students during learning, and I see that students are more enthusiastic about learning in class"*.

The same tone was conveyed by teacher 4 (T4) that the implementation of technology in learning in particular (AI) needs to be optimized because the feature (TIS) is very interactive which encourages students to study harder. This statement is supported by Kernan, et al., (2021) stated that tutoring intelligence of the system has the potential for students to increase learning motivation because the available features are very interactive.

T5; *"Its feature gives freedom for students when applying so that students feel happy learning in class"*.

The excerpt above as evidence that artificial intelligence (AI) is very helpful to students while studying in the classroom. Thus, students need to be given complete freedom in learning and TIS provides full service in providing teaching. Tutoring Intelligences System (TIS) is an intelligent computer application because it has artificial intelligence components (Sedlmeier, 2004; Gonzales, 2006) Some methods in artificial intelligence in ITS that are often used include Bayesian Network, Neural Fuzzy, Genetic Fuzzy (Millan, 2002).

The previous study Tuten, (2020) only explained the various types of features contained in the initial intelligence but did not explain the function of the features used by students during classroom learning. Meanwhile Singh, et al., (2022), focused on Artificial intelligence which explains only as a medium for sending information and evaluation in classroom learning. From the two previous studies, it shows differences with the results of these findings, namely that the results of these findings not only identify elements of artificial intelligence but identify the difficulties faced by teachers when teaching in the classroom because of the varying abilities of students. This is the obstacle faced by teachers when teaching. But in general, artificial intelligence is very effectively used in classroom learning, (Chounta, 2020)

### b. Smart Mentor Virtual (SMV)

The application is widely used by teachers to do homework, quizzes, and tests that allow students to ask questions and assignments. The application can be used as a virtual mentor, can identify students' incomprehensions and can offer solutions that have been released by the teacher and pre-programmed. This artificial intelligence system will continue to learn and update information independently according to the



needs and constraints faced by students, (yodeji et al., 2007). This proves that students are very enthusiastic as stated by the teacher (T2) as follows;

T2; *“Hmmm,, Students are very enthusiastic when using Artificial intelligence(AI) because it is more effective and efficient as a virtual mentor”.*

From the excerpt above, it shows that virtual smart mentors make students more comfortable and effective, efficiently used in the learning process as conveyed by teacher 2 (T2). The same tone was conveyed by teacher 3 (T3) however, he added that although the virtual smart mentor feature is very effective and can increase student learning motivation because the virtual smart mentor can provide feedback from learning activities and practice about students, providing recommendations for material that needs to be relearned like a teacher or tutor, Clark (2020).

However, the teacher when directing usually experiences obstacles in learning such as command features that are not familiar to students as conveyed by teacher 3 (T3) as follows;

T3; *“It is very efficient in learning but there are still obstacles to the ethics of students not understanding the features fully when used in the classroom”.*

However, teachers 5 (T5) argue that artificial intelligence is beneficial to students and can increase student motivation when studying in class as stated as follows;

T5; *“Hhmmm... It is very beneficial because it increases the motivation of students in learning in the classroom.”*

The previous study, Sharma et al., (2021) that the use of artificial intelligence is very effective and efficiently used in learning. However, Sharma added that there is a need for analysis and conceptual networks that are relevance with learning, so that students can understand optimally, from the previous study, there is no doubt about the difficulties that occur in the artificial use of intelligence. Meanwhile, the results of this study can identify elements of artificial intelligence and the difficulties experienced by teachers when teaching artificial intelligence.

Le, E. et al., (2019) the results of their research found that teachers or instructors no longer need to make questions and correct questions manually. Although the results of the study are in line with the findings of the previous study, there are differences between the two because this study reveals the obstacles faced by teachers in the classroom when using artificial intelligence.

### c. Voice Assistant (VA)

The application of artificial intelligence to voice assistants bears a resemblance to a virtual mentor. It's just that *Voice Assistant* relies more on the voice function as a center for interaction and communication, Nasirian, F., (2017). *Voice*

*Assistant* is also one of the most widely known and utilized AI technologies in various fields, including learning. Examples of commonly known voice assistants such as *Google Assistant (Google)*, *Siri (Apple)*, *Note voice (NV)*. The same tone conveyed by Polyakov, E. V., (2018) emphasizes that *Voice Assistant* allows students to search for material, question references, articles, and books by simply talking or mentioning keywords. Some Edutech platforms have also adopted *Voice Assistant* technology to help students find content and materials more quickly and practically, as stated by informants below;

T1; *Hmmm...it makes very easy for students to search for subject matter such as articles, books by only talking using keywords.*

From the excerpt above, it is shown that voice assistant makes it very easy for students to find various literature related to learning materials in class. Apart from being a voice assistant, it can also provide reminders based on time, place, or people, send emails and text messages, manage calendars and provide you with the latest information, create attendance and manage book lists according to needs, (Polyakov, 2018).

According to teacher 3 (T3) as an informant argues that voice assistants are very helpful in finding the source of the material to be studied by mentioning keywords as described by informants below;

T3; *VA is very helpful in directing students when searching for material sources by mentioning keywords*

The same tone is conveyed by teacher 4 (T4) that it is very easy for students to find the desired content during learning in class as stated below;

T4; *I think this is a great thing because the Edutech platform is complete and makes it easier for students to find the content that students want.*

Previous research, Benokraitis, N. V., & Feagin, J. R. (2019) believes artificial intelligence can facilitate teacher performance, especially in administrative matters such as determining final grades based on assessment weights. The results of this study are supported by previous studies that this artificial intelligence makes it very easy for teachers and students to find subject matter, using only voice assistants through keywords.

However, previous studies such as Benokraitis, et al., (2019) did not identify the type of Artificial Intelligence that supports classroom learning. Meanwhile this finding elaborated kinds of artificial intelligent can support learning process. This finding as evidences that artificial intelligence are very helpful for teachers in teaching and learning process. It was support by Li, X. (2017), that artificial intelligence with various features can increase student learning efficiency in accordance with the mastery of knowledge and student care at the time of learning.

#### d. Automatic Assessment (AA)

Artificial intelligence (AI) is widely used for the purposes of automatic online assessment and correction of questions. The use of features like this makes it easier for teachers and tutors to prepare and hold quizzes and tests easily and practically. Teachers and tutors no longer need to make questions and correct questions manually, Vajjala, S. (2018).

System Artificial intelligence (AI) will work alone according to the instructions that have been programmed and can learn according to the habits of students or users. Even the AI will provide recommendations of material that needs to be relearned and others based on the results you have already obtained, Subhash, S. (2020). As stated by all informants as follows;

*T1; I think it is very helpful to assess and correct the question material automatically.*

Teacher 2 (T2) said the same thing that artificial intelligence is very easy to use to correct questions automatically. This means that automatic assessments have significant impact on learning because this feature can have the potential to motivate students in the classroom, Bahar et al., (2021).

*T2; "This feature is very easy and practical to use to correct questions manually because this feature works automatically"*

The same tone was conveyed by teacher 4 (T4) that Artificial intelligence, especially in the automatic assessment feature, is very interactive and at the same time provides references automatically as conveyed by the following informant;

*T4; "This feature is very interactive because it provides references automatically if the exam results are not optimal".*

The previous study Dellaert (2020), explained that automatic assessment can provide convenience when looking for reference to subject matter that uses voice keywords. These findings are in line with the previous study, but the previous study focus on students at high school as a subject meanwhile this research focus on teachers at university level. Meanwhile Sepasgozar, (2020) focuses on artificial intelligence but does not explain the various features used by teachers in the classroom, while in this study it identifies elements or features used by teachers in the classroom as well as investigating problems faced by students in the classroom such as not understanding different features, but in principle artificial intelligence, especially automatic assessment, is very easy for students because the feature works automatically. This finding is supported by Grivokostopoulou, (2017) that automatic assessment can work automatically, only need to choose the type of subject, level, number of questions, level of difficulty, and several other options. After that, the teacher only needs to share the quiz link with the students to be done online.

#### e. Personalize Learning (PL)

*Personalized Learning* actually bears a resemblance to other examples of Artificial intelligence (AI) A technology. At its core, this AI technology allows students or users to get services like personal assistants, Canbek, et al., (2016). This is evident what is conveyed by teacher 1 (T1) that artificial intelligence learning is specifically personal learning like a personal assistant.

*T1; I think learning in this artificial intelligence system is personalized learning so that it increases the learning experience of students to be more motivated in learning. But keep in mind that children also need to be trained in their social interactions so that they can develop their interaction skills.*

The same tone is conveyed by teacher 3 (T3) as an informant that artificial intelligence can help students focus in improving the student's own experience, but preferably students' social interactions also need to be developed so that they can interact with their classmates.

*Q3: Hhhmmm: Artificial intelligence learning in this individual system shows that Artificial Intelligence can help and increase student focus, and although students learn to use artificial intelligence, students are also not individualized so that the student can socialize.*

Artificial intelligences (AI) have the ability to teach students individually and recognize the areas needed to find the right way of teaching, according to the abilities of the students themselves through said artificial intelligence, Kashive, et al., (2020). But the very important thing is that students should also be given the opportunity to socialize with their classmates so that they can cultivate a sense of morality, politeness, solidarity with their classmates, Bahar et al., (2022) As stated by the teacher (T5) as an informant.

*T5; It is very helpful because Artificial Intelligence can adjust the learning material according to the ability, way of learning, and learning experience of each student so that it is easier to understand the material and more effective in solving learning problems. But I feel that no matter how great artificial intelligence is, it cannot replace my position as a teacher, because the task is not only to teach but to educate them with good manners, morals, and behavior.*

The previous study, Chassignol et al., (2018) focused on Artificial Intelligence (AI) is a field of computer science devoted to solving cognitive problems commonly related to human intelligence, such as learning, problem solving, and pattern recognition. However, this study produced different findings, namely that it can identify kinds or artificial intelligence that supports learning in the classroom, as well as reveal the teacher's perspective on the implementation of artificial intelligence learning in the classroom. The results

of the study are supported by Chen, L., Chen, P., & Lin, Z. (2020), that artificial intelligence that supports learning for example; Intelligences Tutoring system (ITS), Smart Mentor Virtual (SMV), Voice assistant (VA), Automatic Assessment (AA), Personal learning (PL). and an interesting finding is that teachers cannot be replaced by technology such as artificial intelligence, because it not only teaches in the classroom but also educates how to be polite, morally good, socialize in the classroom so that they can develop their social interactions. This opinion is supported by Suhirman, et al., (2020) that students must also have polite behavior towards their teachers, as well as have good communication when interacting so that there needs to be a social development of interaction in the classroom, this is not replaced by artificial intelligence.

## CONCLUSION

Based on the finding that the kinds of artificial intelligence can support learning process were Intelligences Tutoring System (ITS), Smart Mentor Virtual (SMV) Voice assistant (VA), Automatic Assessment (AA) and the last was Personal learning (PL). Meanwhile the teacher's perspective in terms of artificial intelligence supporting teaching and learning process were using AI technology can have a significant impact in improving the quality and effectiveness of learning. But what should be underlined is that technology until whenever its function is only as a tool, it will certainly not be able to completely replace the role of a teacher. For example, with regard to affective and moral aspects that involve feelings and psychological, of course, it can only be done by the figure of the teacher. So that the existence of AI technology should be utilized optimally in accordance with its capacity and function, but on the other hand the role of teachers must still be prioritized so that humanist values in an educational process can continue to be maintained according to the essence of education itself, namely humanizing humans through manners.

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