

ARTIFICIAL INTELLIGENCE (AI) IN EDUCATION AI-POWERED EDUCATIONAL RESOURCES

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ABSTRACT :

The teaching and learning process needs to be innovative and creative in response to shifting educational demands. Artificial Intelligence (AI) has emerged in the realm of education to assist in processing day-to-day educational tasks. Investigating artificial intelligence (AI) in education, particularly in the teaching and learning process, is the aim of this study. AI has been extensively used in a variety of educational technology platforms, including 1) Digital Mentors, 2) Voice Assistants, such as Google Assistant (Google), Siri (Apple), Alexa (Android), and Cortana (Microsoft), according to the results analysis. 3) Smart Content, 4) Automatic Translation for Presentation. 5) Globalized Program, such as Coursera, Google AI, Swayam, MOOCs, etc. 6) Automated Evaluation; 7) Artificial Intelligent Tutor (AIT). So, when compared, between the two will never have an equal position.

KEY WORDS: TEACHING AND LEARNING, CREATIVITY, ARTIFICIAL INTELLIGENCE, CREATIVE MINDS.

INTRODUCTION:

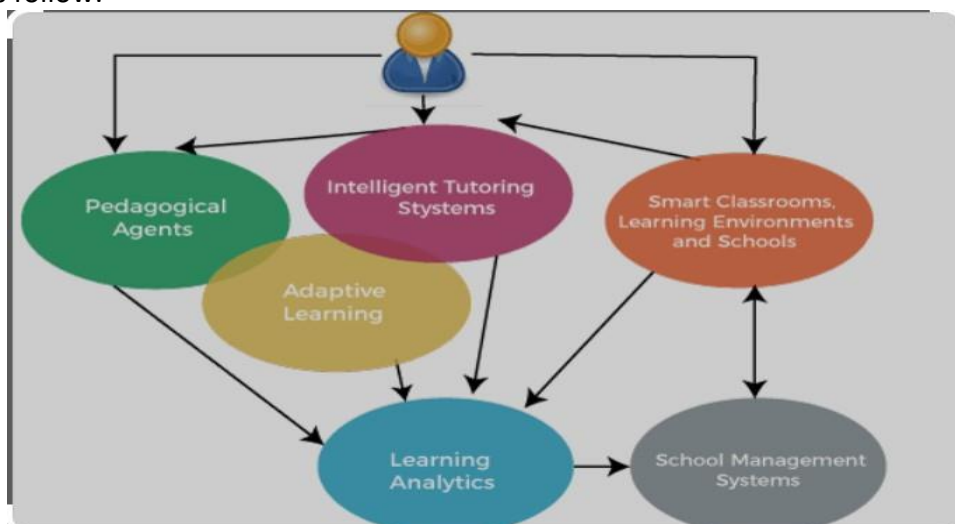
These days, technology has become an inevitable aspect of time. In addition to altering people's lifestyles, technology has also altered how we communicate, work, and learn. Innovations of all kinds are always emerging, which makes our job and activities more useful and efficient. One of the more recent technological developments is the introduction of the phrase artificial intelligence, or AI for short. By improving individualized instruction and expediting administrative duties, artificial intelligence (AI) is revolutionizing education. AI systems use student data analysis to customize learning materials to meet the needs and preferences of each individual learner. Catboats and virtual tutors provide round-the-clock assistance, responding to questions and offering further materials. Interactive movies and quizzes produced by AI increase student engagement. The aid of predictive analytics. AI is used to make things easier for humans to do. Several technology companies have implemented AI including Google , Facebook, Amazon and Microsoft.

METHODOLOGY

By relying on pre-existing ideas and concepts to be interpreted based on the writings that led to the discussion, this study applies teaching and learning research to further highlight the strength of the analysis of existing sources and data (Sari, 2021). In this case, teaching and learning research is the only way to address the research problem, and field research and data may not be expected by anyone (Zed, 2004). Documents are used in the data collection process. When the information required to address the research question is found in documents or materials, the data gathering operations are referred to as documents (Adi, 2021). In order to support the research, the documents may include written documents, images, and electronic records. The sample document that was utilized.

FINDINGS AND DISCUSSION

Findings Artificial intelligence has been widely applied to various educational technology platforms as follow:



a. Digital Mentor

The function of AI which is currently quite widely applied to various educational technology platforms, especially those based online, is as a virtual mentor. Mentoring is a process in which a more knowledgeable person (the mentor) assists a less-knowing person (the mentee) in achieving a learning objective (Klamma et al., 2020). AI can provide feedback on students' learning activities and practice questions, then provide recommendations for material that needs to be re-studied like a teacher or tutor. Zhang (2016) states that Digital Mentor (VM) is a multimedia-integrated e-Learning environment that stresses interaction, personalization, and intelligence. One example is Blackboard (<https://www.blackboard.com/teaching-learning/learning-management/mobile-learning-solutions>) which is an application that is widely used in universities in Europe and America. Professors/lecturers widely use this AI tool to publish notes, homework, quizzes, and tests that allow students to ask questions and assignments for the assessment process. Applications are 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 assessment/assessment. This application can identify the reasons behind students' misunderstanding and can offer solutions that have been released by the lecturer and programmed beforehand.

b. Voice Assistant

This AI technology has similarities with virtual mentors. It's just that Voice Assistant relies more on the voice function as a center for interaction and communication. Voice assistants incorporate AI using cloud computing and can communicate with the users in natural language (Terzopoulos & Satratzemi, 2019). Several EdTech platforms have also adopted Voice Assistant technology to help students find content and materials more quickly and practically. Voice Assistant is also one of the most widely recognized and used AI technologies in various fields, including education. Examples of commonly known voice assistants are Google Assistant (Google), Siri (Apple), Alexa (Android), Cortana (Microsoft), and others. Voice Assistant allows students to search for materials, reference questions, articles, and books by simply speaking or mentioning keywords. Furthermore, the VA will display the information you want to search for according to the keywords mentioned. In addition to presenting information in the form of text and images, Voice Assistant can also speak and explain the information you need like a personal assistant. Canbek & Mutlu (2016) states that

AI assistants such as the ones described facilitate human-computer connection by using natural language in digital communication. The general goal of this research is to look at the possible usage of Intelligent Personal Assistants (IPAs) that learn using advanced cognitive computing technologies and Natural Language Processing (NLP).

Voice Assistants allow interaction with various learning materials without communicating with the teacher. As a result, the educational platform can be used anywhere and anytime. That way, the students can learn independently without worrying about getting confused even without a teacher/tutor, because by using VA, everything and information that is not understood can be presented only by voice. The application of artificial intelligence to voice assistants has similarities to virtual mentors. It's just that Voice Assistant relies more on the voice function as a center for interaction and communication. Voice Assistant allows students to search for materials, reference questions, articles, and books by simply speaking or mentioning keywords.

c. Smart Content

Smart Content is an AI technology that functions to share and find programmable digital book and material content more easily and quickly. Common examples of the application of this technology are found in various digital libraries today, both in schools, universities, and public libraries. AI can find and categorize the books we are looking for quickly and structured. We will even be given book recommendations and other content relevant to what you are looking for. Smart Content is a summary of various learning materials, from digital textbooks to interfaces that can be tailored to our needs.

d. Automatic Translation for Presentation

AI presents many opportunities to share knowledge around the world. Using Artificial Intelligence solutions, students can study various courses and training programs. There are many platforms with interactive learning materials from the best tutors. AI also provides opportunities for students who speak different languages or have vision or hearing problems. For example, Automatic Translation for Presentation is an AI-based solution that renders subtitles in real-time mode. With AI Speech Recognition, students can hear or read in their native language. This technology has similarities to Voice Assistant, which relies on voice to carry out its functions. It's just that Presentation Translator has a usability specification to explain or present a text from a different language into the language you want. So users only need to listen to various kinds of speech texts, articles, or digital books without the need to read. So with AI Speech Recognition, users can hear in their native language. We can read and understand journals, articles, or books from any language more easily and quickly. This technology also has an important role for those who have limitations in terms of language and vision, so that this technology has been widely adopted for various needs. It has become one of the features that are always present on smartphones today, namely 'Voice Control'. Even today we can also type using only voice (voice typing), so this can be a solution for those of us who have problems typing long text. We just need to speak and then the sentence will be written into text automatically in the app.

e. Global Education Program

This AI technology has been widely applied in various fields, including education. Simply put, Globalized Curricula users or students can search for and take online courses from all over the world. The course platform can recommend your interests and interests according to the keywords you have previously entered. There are various free and open courses that you can try right now with a variety of interesting, interactive, and structured features and content. Examples

of courses that have implemented AI technology include courses on MOOCs, SWAYAM, Google AI, Coursera, and others (Zhang, 2021). The hallmark of courses that already use AI technology is that there is a personalization feature that allows us to be notified about course progress, material that needs to be studied, test accumulation, total scores, relevant course recommendations, and various other features. AI-based solutions will help schools and universities that have international programs to create classes based on the curriculum and customize learning experiences that are tailored, for example, to the student's area of origin so that the subject matter provided is also adapted to the student's cultural background. Then the language is translated and automatic subtitles will allow teachers and students to communicate without any problems.

f. E-Assessment

AI is widely used for online e-assessment and question correction purposes. The use of features like this makes it easier for teachers and tutors to prepare and conduct quizzes and tests easily and practically. Teachers and tutors no longer need to make questions and correct questions manually. The use of features like this makes it easier for teachers and tutors to prepare and conduct quizzes and tests easily and practically. Teachers and tutors no longer need to make questions and correct questions manually. One example of the application of E-Assessment is the quiz creation and automatic correction features provided by the Kejarcita platform (<https://kejarcita.id/>). This feature allows teachers to easily and practically create quizzes and tests. Teachers 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 do it directly online. This feature allows teachers to easily and practically create quizzes and tests. Teachers 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 do it directly online. Student quiz results can be directly accepted automatically on the teacher's account. There is a score, a list of wrong questions, correct questions, and discussion. Just imagine that teachers no longer have to bother manually correcting and assessing the results of quizzes and student tests. Everything has been done by the programmed AI system. AI technology can ease the burden on teachers/educators in handling repetitive administrative tasks, such as preparing lesson plans, assessing exams, checking student homework, and others. Automation of these processes will give teachers more time to monitor student progress and focus on improving teaching techniques.

g. Individualized Learning

There are several similarities between individualized learning and other AI technology instances. Essentially, this AI technology enables consumers or students to receive personal assistant-like services. AI technology significantly improves quality and makes learning patterns more useful and efficient. Numerous studies and implementations by different Edutech platforms have also demonstrated this, and it is true that utilizing AI technology can significantly improve the calibre and efficacy of learning. This technology is used pretty frequently. There are several similarities between individualized learning and other AI technology instances. Essentially, this AI technology enables consumers or students to receive personal assistant-like services. The ones that have been put into practice are instances of the use of individualized learning.

h. AI Tutor (AIT)

Artificial Intelligent Tutoring (AIT) commonly known as Intelligent Computer-Aided Instruction is a system to provide teaching that can adapt to students' abilities. AIT is one of the developments of an expert system on artificial intelligence in the field of learning. AIT Based on Augmented Reality

(AR) for Dimensional Geometry Material, Intelligent Tutoring System for Nun Sukun or Tanwin law learning, Artificial Intelligent Tutor(AIT) for circular learning, and various other AIT. (Abu Ghali et al., 2018) states that The Artificial Intelligent Tutor(AIT) is a computer program that provides students with personalized education and feedback without the need for human intervention. The system adjusts to each student's unique characteristics and progresses them from an easier to a more difficult level. The intelligent tutoring system was provided to a group of students of all ages to test out and observe how it affected them. (Alhabbash et al., 2016) states that the creation of an Artificial Intelligent Tutor(AIT) for teaching English grammar to aid students in learning the language quickly and simply. The system covers all areas of English grammar and automatically produces a series of questions for students to answer for each topic. The system adjusts to each student's unique characteristics and progresses them from an easier to a more difficult level. The intelligent tutoring system was provided to a group of pupils of all ages to test it out and see how it affected them. The findings revealed that the pupils were pleased with the system.

DISCUSSION

Learning is only one aspect of education. Education is a complicated process in which we not only study different concepts but also develop the social skills necessary to use them in our everyday lives. Empathy, sympathy, and other emotions that are crucial to the formation of our personalities cannot be taught by machines. This implies that the role of instructors and educators cannot be replaced by AI, regardless of how advanced the technology is or how many applications it has. AI's role is restricted to assisting and enabling educators to make learning enjoyable for pupils. IT is frequently used to support learning, whether in classrooms or for individual study. In the future education

CONCLUSION

The existence of artificial intelligence may be able to provide knowledge to students, but developing character cannot be done. That is an educator's job. How to inspire, motivate, make students become good students." So the role of the teacher in providing motivation, inspiration, and developing character are what AI cannot replace because AI is not given feelings and emotions like humans in general. In the end, if we look at technological developments, we must be able to adapt as technology advances. If we do not adjust, we are an educator (teacher/lecturer) may be replaced by technology.

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