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"Development of Post Pandemic Education to Face the Social Era 5.0"

Readiness of Mathematics Education Students UIN Syekh Ali Hasan Ahmad Addary Padangsidempuan Facing Society Era 5.0

Nurhidayah Ritonga¹, Elvika Rahmi Hasibuan², Hamid Hanafi Harahap³

^{1,2,3} State Islamic University Syekh Ali Hasan Ahmad Addary Padangsidempuan, Indonesia

e-mail: *¹nurhidayahritonga2002@gmail.com, ²elvikarahmihisibuan10@gmail.com,
³hamidhanafi281@gmail.com

Abstract

Information technology has now entered the era of society 5.0, where the era of society 5.0 allows humans to take advantage of AI (Artificial Intelligence) technology. AI (Artificial Intelligence) is artificial intelligence that is currently a trend and much discussed, which in the era of society 5.0 makes it possible for humans to work with robots or other artificial intelligence. In the field of education, we have also encountered many kinds of AI that make it easier for students to get a problem, whether it's about assignments or various other learning needs, which can be done easily with the help of AI (Artificial Intelligence) technology. even in the 4.0 revolution era there were still many who did not understand technology, which in the 4.0 revolution era was the application of data literacy, human literacy, and technology literacy. Especially in Indonesia, we encounter many people who do not understand technology. Especially in Indonesia, we encounter many people who do not understand technology. And now the era of society 5.0 has emerged which allows robots to substitute for humans in various jobs, be it teaching, designers, editors and various other AI. All jobs can be easily completed. However, will this have a negative impact or even a very positive impact, especially in education? All of them have their advantages and disadvantages, depending on how we can use them. Something positive can be negative if we use it negatively and vice versa.

Keywords: *era society 5.0; technology; 4.0 revolution; AI; Education*

INTRODUCTION

The Japanese government initiated the concept of society 5.0 which is defined as society 5.0, which enables humans to have the ability to face the modern era which develops AI-based science (Artificial Intelligence) or even robots. With the idea of this concept AI (Artificial Intelligence), robots are expected to be able to facilitate all easy jobs even to the difficult ones to be very easy in order to achieve a comfortable human life. This means that with modern technology like this, humans are predicted to coexist with AI (Artificial Intelligence), robots, etc. to do a lot of work in the future. Society 5.0 also solves manufacturing problems, social problems, and can even increase the productivity of something. The concept of society 5.0 collects big data that is on the internet and converts it into AI (Artificial Intelligence).

AI (Artificial Intelligence) Is a human-made intelligence that is able to do and complete many things that are currently very widely used in various human activities. AI (Artificial Intelligence) has also been used in the health sector and has shown very satisfactory results, for example, AI (Artificial Intelligence) has been able to detect a disease called Alzheimer's and is even able to detect it faster than the methods currently commonly used(www.suara.com, 2013). The use of AI (Artificial Intelligence) has also been widely used by various countries in the field of Education and has been implemented at various levels of Education from elementary school to tertiary level. Usually AI (Artificial Intelligence) is used as a source of teaching materials, references and even used as an evaluation in the learning system. AI (Artificial Intelligence) includes everything that can or is known to humans.

AI (Artificial Intelligence) has actually been used for a long time in various countries, but in Indonesia only a few use AI (Artificial Intelligence) technology to help all problems. therefore the author will try to discuss readiness in dealing with society 5.0 which uses AI (Artificial Intelligence).

METHOD

In this research we did we used qualitative methods to find out how many were ready to face the era of society 5.0, In collecting data we used the help of google forms and recorded responses from the samples we studied. And the sample we

used was 60 students of Tadris Mathematics UIN Syahada who were randomly taken from semesters 4-8

RESULT AND DISCUSSION

Mathematics Education in The Industrial Era 4.0

Mathematics education in the industrial era 4.0 is implemented with various implementations of various learning and innovation models, Blended learning is one of the learning strategies that we have used in the industrial era 4.0. The industrial era 4.0 has also been implemented in tertiary institutions in the independent learning curriculum. The concept of education that has a focus on developing skills and cognitive skills has been applied in "free learning" education where students who receive information or learning materials are expected to be able to think critically (Widodo, 2021).

Muhadjir Effendy (Mendikbud) said there was a need to increase Education to adapt it to the Indonesian Education curriculum in the 4.0 era, these improvements were in the form of:

- 1) Critical Thinking
- 2) Creative And Innovation
- 3) Interpersonal skills and communication
- 4) Teamwork and collaboration
- 5) Confident

And as time goes by, technology also develops and teaching methods in the industrial era 4.0 also make adaptations that make technology a teaching material. The technology is in the form of computers and various other software which now makes calculations and other assignments easier. Even blended learning is no stranger to us. Many also offer online learning, be it courses or schools that use online learning systems using software media.

We often experience blended learning, especially during the Covid 19 period. What is blended learning? "Blended" itself has a mixed meaning which is then followed by the word "learning" which means learning, so the concept of blended

learning is learning with mixed methods of conventional learning combined with online learning (Hussin, 2015).

The emergence of the Internet and automatic search engines quickly led to various positive and negative impacts, one of which was that students would become lazy to do assignments because if we use the internet we can find various solutions where the impact of learning in the industrial era 4.0 with the presence of the internet makes students become unstable. able to think critically and if the student is lazy. While the benefits are very diverse, such as we can use the internet as a means of digital literacy by getting various references very easily, quickly.

However, as we know, implementing this concept also requires government assistance in initiatives to introduce various technologies and development with sufficient and equitable facilities in schools. Especially in small village areas, we often encounter a lack of technology and many are still blind. with technology. Therefore it is necessary to equalize the implementation of technology-based learning throughout Indonesia.

The Urgency of Implementing Mathematics Learning Concepts in The 5.0 Era

Based on the information collected from 61 samples taken at random from all the Uin Shahada Mathematics Tadris batches, there are still many who have never heard of and do not even know what AI (Artificial Intelligence) technology is. About 24.5% of the 61 students did not know about AI (artificial intelligence) technology, even though as we know AI (artificial intelligence) technology has existed even since the industrial era 4.0 and has even been widely used abroad. Of the 61 samples taken, they had a high amount of interest in knowing what AI (Artificial Intelligence) technology was, reaching 83.3%, which means that those who did not know about AI (Artificial Intelligence) technology had a higher percentage but even though they did not know much who claimed to be interested in knowing and wanting to know about AI (Artificial Intelligence).

In the industrial era 4.0, especially during the Covid 19 period, the use of software really helped us in carrying out the learning process. The application of learning mathematics using software turned out to be quite effective in making the

learning process easier and simpler to do. Approximately 93.4% of the 61 samples stated that the use of software technology was very helpful in the learning process. But even so, there are still many who feel that the implementation of learning mathematics using technology is quite complicated, 68.3% of the 61 samples stated that the use of technology in learning mathematics is difficult and complicated to operate.

Therefore, now a trend has emerged and is being discussed about AI (Artificial Intelligence) technology which allows someone to operate something very easily without having to understand how to use it, this AI (Artificial Intelligence) is what is used in experiments to make robots, in the brain of the robot, AI (Artificial Intelligence) technology is used, which makes the robot capable of thinking and responding on its own.

And we, as writers, are curious about how well-prepared the students of Tadris Mathematics at UIN SYAHADA are with the arrival of the era of society 5.0, where everything uses the latest technology and uses a lot of AI (Artificial Intelligence). However, even though those who have an interest and who have heard about the use of AI technology (Artificial Intelligence) in learning have reached above 75% of the 61 samples, there are still few who have used this technology to complete learning, only 44.3% of UIN Mathematics Tadris students SYAHADA, who has used AI (Artificial Intelligence) in solving problems in mathematics, did not even reach half of it. And the use of technology in finding learning references has made it very easy for students, especially now that AI (Artificial Intelligence) is versatile in doing anything, even making papers, we can already use AI (Artificial Intelligence) technology, just by providing a topic of discussion. created, and later the paper will be created automatically according to the topic we provide.

So that the use of this technology is classified as effective and efficient in making it easier for us to go through the learning process. 93.4% of the 61 students of UIN SYAHADA's mathematics tadris believe that it is very important for us to understand the use of various technologies and AI (Artificial Intelligence) so that later our learning will feel more efficient, especially mathematics which is known to be complicated.

The average student of Tadris Mathematics at UIN SAYADA does not agree that the use of AI (Artificial Intelligence) technology has a bad impact on its use and 91.8% out of 61 stated that they are ready to enter the era of society 5.0 with the explosion of discussions about AI and robots. Humans are also predicted to live side by side with robots, and many human jobs will be replaced by robots.

CONCLUSION

We have entered the era of society 5.0 where in this era there are many technologies that are competing so that many jobs that should be done by humans can be done by technology, for example with the emergence of AI (Artificial Intelligence). Humans are predicted to coexist with robots. Therefore, the implementation of the era of society 5.0 in learning should have been prepared. But of the 61 samples taken, only 44.3% of students had ever used AI (Artificial Intelligence) technology in solving math problems. But along with the times the author believes in the use of AI (Artificial technology) the intelligence will be widely used, such as the use of Google, which has now become our daily routine in seeking various knowledge.

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