Learning in Digital Literation

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Abstract: Technological developments in the Industrial Revolution 4.0 era changed one's literacy culture into digital literacy. Digital literacy is a key skill in education today, so it is very important to apply it to every learning. The use of digital technology in learning can increase student interest and motivation in learning, improve the quality of the learning process and student learning outcomes. The role of educators must be prepared more thoroughly and renewed so that educational institutions in Indonesia are ready to face the industrial revolution 4.0.

1 INTRODUCTION

Indonesia faces the era of the Industrial Revolution 4.0, is expected to improve in preparing relevant needs to face the challenges ahead, especially in the field of education. Education 4.0 is an education characterized by the use of digital technology, a system that can make the learning process take place continuously without space and time limits. Success in facing the industrial revolution cannot be separated from the quality of the teaching staff, to master expertise, adaptability with new technological changes and global challenges. If educators do not make changes in learning strategies, they will experience great difficulties, namely facing students who are unable to be competent with technology, therefore educators must change in learning strategies (Rizki, 2019).

The digital revolution has started since the third Industrial Revolution, which at this stage, the world gained the internet with such fast interconnection, being able to surf or explore the virtual world using computers. Changes are different from the previous industrial revolution, industrial revolution 4.0 is marked by the development of the Internet of Things (IoT) followed by new technologies in data science, artificial intelligence, robotics, cloud and nano technology (Ghufron, 2018).

AR as an alternative medium of learning in the future. In the past, the limitations of AR technology are only used in one place cannot be moved around. (Fajarianto, 2018)

Quoted from Wikipedia, the 4.0 industrial revolution has four principles that enable each company to identify and implement a variety of industry 4.0 scenarios, including: Interoperability; the ability of machines, devices, sensors, and humans to connect and communicate with each other through the internet media for everything (IoT) or the internet for audiences (IoT). Information Transparency; the ability of information systems to create a virtual copy of the physical world by enriching digital factory models with sensor data. Technical support; the first is the ability of an aid system to help people collect data and make visualizations in order to make wise decisions. Second, the ability of the cyber-physical system to help humans perform a variety of heavy, unpleasant, or unsafe tasks for humans.

Independent Decree; the ability of the cyber-physical system to make decisions and perform tasks as independently as possible.

The development of Information and Communication Technology or abbreviated ICT that currently exists contributes to the development of education, especially in universities, including in the teaching and learning process. In education the use of the internet network is digital literacy, which is capable of reading, writing, understanding and responding critically to various forms of communication such as information from digital

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media (Cam & Kiyici, 2017). Digital literacy not only builds knowledge access skills but is also an indicator of achievement in education.

The new literacy movement is intended to focus on three main literacies, namely 1) digital literacy, 2) technological literacy, and 3) human literacy.

Utilization of technology has become an important instrument in the success of independent learning. The technology that can be utilized by students in learning success is digital literacy, which provides opportunities to access and sort out the information needed. Digital literacy learning activities must be supported by the ability to look critically at the information obtained, and the development of the ability to think critically is an important aspect for sorting, organizing, organizing and utilizing that information for learning. Learning with digital literacy can provide new experiences for students to develop their potential (Haliq & Riyanti, 2018).

Digital literacy is the interests, attitudes, and abilities of individuals using digital technology and communication tools to access, manage, integrate, analyze and evaluate information, build new knowledge, create, and communicate with others so that they can participate effectively in society.

Digital literacy is directed at the aim of increasing the ability to read, analyze, and use information in the digital world (Big Data), technology literacy aims to provide an understanding of how machines work and technology applications, and human literacy is directed at improving communication skills and mastery of design science (Aoun , 2017).

One of the concepts of digital literacy actions in learning is strategy, it is important to identify learning activities that can guide students in achieving learning goals. Definition of strategy According to Carl Von Clausewits is the use of battle to win the war ("the use of engagements for the object of war"). Rangkuti said that strategy is a means to an end.

Strategies are structured to build towards student learning achievement based on learning objectives. The use of technology is one of the important strategies, although it is recommended that students can find and find their own problems, it is very effective in learning and educators remain as facilitators (Muliawati & Badu Kusuma, 2019).

Educators are required to have high competence to produce students who are able to answer the challenges of the Industrial Revolution 4.0. educators are demanded to be able to innovate and be creative, because previous learning systems have not been accepted by students today and educators must be oriented towards the development of technology, information, and communication from the analog era to the digital era (Nasution & Nurhafizah, 2019)

The era of the industrial revolution 4.0 is a formidable challenge for Indonesian teachers. Quoting Jack Ma in the 2018 World Economic Forum annual meeting, education is a big challenge this century. If we don't change the way we educate and teach, the next 30 years we will experience great difficulties. Education and learning that is conditional on the content of knowledge overriding the content of attitudes and skills as currently being implemented, will result in students who are unable to compete with machines. The dominance of knowledge in education and learning must be changed so that in the future young Indonesians will be able to surpass machine intelligence while being able to be wise in using machines for benefit.

The impact of the 4.0 Industrial Revolution on Education in Indonesia in this modern era, information and technology have greatly influenced school activities. New information and knowledge spread easily and accessible to anyone who needs it.

In current technological developments the source of knowledge and information is very easily accessible. Digital literacy can help students understand the world through sources of various sciences, and students become more critical, active, and competent in learning in the current digital era. To take advantage of the presence of technology, the perception of educators and students must change, namely learning activities must be student-centered, and educators and students must collaborate with using technology to create a community that educates, encourages and supports the learning process.

2 RESEARCH METHODS

The method used in this article is the literature review method. The article aims to find out Learning in Digital Literacy. The data in the article was obtained based on literature studies, including from previous studies, books and articles.

3 RESULT AND DISCUSSION

Digital literacy trains students at each stage of learning activities, such as research stages, students

can use the internet as a source of information. For students who have not been trained in the use of digital literacy properly will have problems in finding keywords to get the information needed, communication stages, students are trained to communicate the results of the findings into spoken or written language. Students are trained to understand and communicate ideas, share ideas that have become ideas as they have obtained. Digital literacy in universities can be done with communication and collaboration in the form of active participation in digital networks for learning.

The implementation of digital literacy programs is expected to encourage students, educators and citizens of educational institutions to support digital literacy skills. The Four Cs of 21st Century Skills, namely (1). Critical Thinker, students are encouraged to think critically and be able to solve problems by being given problems in learning, provoked questions and trying to find solutions to problems by searching for various information via the internet, (2). Communicator, students are trained to understand and communicate ideas after understanding what is learned, students are encouraged to convey their ideas that have been obtained through literacy activities, (3). Collaborator, the ability to cooperate in doing work with others, with digital literacy of students trained to be able to collaborate with other students, other groups of other fields by sharing information through computer media, (4). Creator, the ability to be a creator is needed to produce high quality work. Digital literacy activities in the classroom or at school have now shifted from conventional literacy reading using print media to electronic media called digital literacy (Jayanti, Aryana, & Gunamantha, 2019).

Students faced by educators today are millennials, who are familiar with the digital world and are familiar with the flow of information and industrial technology 4.0. Seeing these challenges, mkaa educators must continue to learn by increasing competence so that they are able to face millennial generation students. Do not let the term term 4.0 students arise, learn in the 3.0 industry space and be taught by educators from industry 2.0 or even 1.0, and if this happens then our education will continue to lag behind other countries that are ready with changes in education 4.0 (Rizki, 2019)

4 CONCLUSIONS

Learning today has a difference with learning in the past. Educators must begin one step in change, namely changing learning strategies that are centered on educators into student-centered learning strategies.

The existence of the digital era can replace the role of educators, especially in the learning process that is based on the transfer of knowledge, technology and skills, but the role of educators remains irreplaceable because it also serves to develop learners' character, mentality, attitudes through noble cultural values.

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