

Quo Vadis of Indonesia's Education in Disruption Era: Teacher's Role in Value and Technology Perspective

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Abstract: The rapid development of science and technology in disruption era has led to emergence of various forms about learning technology-based education innovations that have made it easier for people to access various educational contents. This condition is characterized by the ease of gaining access to information, speed of connection in the global scope, and accuracy of data interpretation. Teachers as educators may not be able to compete with technology in terms of memorizing, counting, and searching for information quickly and accurately. On the other hand, technology is considered capable of doing this according to instructions of users that will be done by the system digitally. However, teacher's role is still needed in Indonesian education system regarding aspects of calling, character, and compassion for students where the role will not be replaced by technology. Referring to the description above, this paper aims to find out the quo vadis of Indonesia's education in disruption era relating to teacher's role in values and technology perspective. The research methodology used in article writing is descriptive qualitative using literature study data that is relevant to Indonesian education system and the latest learning technology innovations. This study result is expected to provide applicable recommendations for teachers in addressing use to appropriate learning technology without losing teachers role as educators.

1 INTRODUCTION

The rapid development of science and technology in disruption era has led to emergence of various forms learning technology-based educational innovations that have made it easier for people to access various educational contents. This condition is characterized by the ease of gaining access to information, connections speed in global scope, and data interpretation accuracy in learning process. The ease of access to these technologies will have a significant effect on teacher's role as educators, both now and in the future. This is different from teacher's role in the past, where technology has not developed massively as it is today, namely teachers it is still possible to teach conventionally, such as taking notes on the blackboard, using teaching aids manually, using learning literature that is still

limited to books availability in school library or delivering material directly to students without using creative and modern learning media. Referring to above, teachers as educators in Indonesian education context may not be able to compete with technology in terms of memorizing, counting, and searching for information quickly and accurately. Likewise using technology as a learning medium, both in the classroom and outside. On the other hand, technology is considered capable of conducting a variety of learning processes according to user instructions that can be done by the system digitally. This means that teacher will face major challenges when delivering learning material in the classroom or carrying out his role in relation to his profession as an educator. Referring to Jack Ma's statement at the World Economic Forum annual meeting 2018, education is a big challenge this century, if it does

not change the way of educating and teaching, then we will experience great difficulties in the next 30 years (Subagya, 2018). The great difficulty in question is challenge that will be faced by teachers in terms of implementing learning technology when delivering teaching materials to their students. In addition, teacher competencies are needed that are highly competitive to prepare students to have innovation and creativity power, where teachers are no longer the only source of knowledge, but rather act as inspirers (Ambarwati, 2018).

Both of the above indicate that teachers should prepare themselves to face the challenges of education in this disruption era, namely how teachers are able to compete in a healthy manner and adjust to changes that occur in various fields of public life, especially in communication technology and information systems (Chrismastianto, 2018). However, apart from the challenges faced, however, teacher's role is still needed in the Indonesian education system with regard to aspects calling, character, and social empathy for students where the role will never be replaced by any technological sophistication.

Referring to description above, this paper aims to formulate a quo vadis of Indonesian education relating to the role of teachers in the era of disruption in the perspective of values and technology. The results of this study are expected to provide applicable recommendations for teachers in addressing the use of learning technology effectively, without eliminating teacher's role as educators.

2 THEORETICAL FRAMEWORK

2.1 Definition and Characteristic of Disruption Era

The disruption era is an era of rapid development of information and communication technology that has the potential to disrupt the comfort and establishment of many old social institutions (Petuguran, 2018). One form of old social institutions in question is education, in this case teacher's role as an educator who experiences revolutionary change, which can be seen from the conventional teaching method towards the use of digital technology as a medium of learning and an indication transfer of teacher's role as a learning facilitator, not just transferring knowledge.

The emergence of this term disruption refers to the theory of disruptive innovation put forward by Clayton M. Christensen, a professor of business

administration at Harvard Business School, Harvard University (Lumowa, 2017). According to Clayton, disruptive innovation refers to a process in which products or services are rooted initially in simple applications at the bottom of the market and then without stopping moving to the market, eventually displacing established competitors (Silalahi, 2017).

Starting from an understanding of disruption era definition above, it implies a characteristic that can be explained that entering this era of technology disruption users are offered a concept of simplicity, convenience, accessibility, and affordability, including educational institutions in it, because the demands of this disruption era will affecting the future quo vadis of Indonesian education which are closely related to the education system that will be used, in this case directly related to the curriculum that will be applied in education sector. In line with the statement above, the Chancellor of the Bogor Agricultural Institute, Dr. Arif Satria, universities must move quickly to encourage innovation, facilitate students to become active learners by preparing a curriculum that meets the demands of the times according to the needs of the community (Sasongko, 2018).

Thus, the disruption era is an important study material to do with how educational institutions prepare human resources, in this case the teacher as an educator who is able to play a significant role in responding to the latest learning technology dynamics.

2.2 Quo Vadis of Indonesia's Education in Disruption Era

The current disruption era has undeniably brought major changes to the Indonesian education system. The education system that is still struggling on the cognitive, affective, and psychomotor aspects will continue to move towards other aspects that are relevant and contextual, for example the mastery of digital technology that produces creative innovation leads to artificial intelligence and machine learning. The above thought arises from understanding the function of education in reference to Law No. 20/2003 concerning the National Education System, which states that national education serves to develop the ability and shape of dignified national character and civilization in order to educate the lives of the nation, aiming to develop the potential of students to become faithful and fearful people of God, noble, healthy, knowledgeable, capable, creative, independent, and a democratic and responsible citizen (Wahyuni, 2015, p. 240).

Looking at the function above, it is very open to the possibility of revising the law by stating the phrase mastery of digital technology which aims to reinforce the direction of the curriculum used in the future in accordance with the dynamics of technological developments and civilization structures that will be built in the future. If at a glance look back at the history of the Indonesian education system as reflected in the curriculum products used since the post-independence era until the current disruption era, the direction of Indonesian education can be categorized systematically as follows: the period before independence or known as the people's school curriculum, the post-independence period covering, curriculum 1947 which was named lesson plan 1947, curriculum 1952 which was named the lesson plan decomposed 1952, curriculum 1964 which was named education plan 1964, curriculum 1968, curriculum 1975, curriculum 1984 called the curriculum for active student learning, curriculum 1994 and supplements curriculum 1999, curriculum 2004 or what is known as the competency-based curriculum, curriculum 2006 which is known as the education unit level curriculum, curriculum 2013, and curriculum 2013 which is refined as the curriculum used to date in the Indonesian education system (Wahyuni, 2015, p. 240).

Based on the study of the curriculum historicity above, how important it is to conduct a curriculum review used in relation to education sustainability based on quo vadis Indonesia's education in the future. The development of digital technology that is increasingly massive today should be balanced with improvements in educational curriculum and infrastructure related to human resources, in this case teachers as educators. If this is done simultaneously and consistently, Indonesian education is increasingly directed towards efforts to prepare students as millennial generation who are technologically literate, but remain firm in their calling, character, and social empathy as members of the whole community in the future.

3 RESEARCH METHOD

The research methodology used in article writing is descriptive qualitative using literature study data relevant to the Indonesian education system and the latest learning technology innovations. As for qualitative descriptive research aimed at gathering actual and detailed information, identifying problems, making comparisons or evaluations, and

determining what others do in dealing with the same problems and learning from their experiences to determine plans and decisions in the future (Suyanto, 2006) Thus, the research conducted was only to provide a response in the form of thought contribution to quo vadis Indonesia's education in disruption era related to teacher's role in values and technology perspective.

4 ANALYSIS

4.1 Teacher's Role in Value Perspective

Teachers as educators have a very strategic role in learning media development and implementing the learning process to achieve the educational goals set by the government according to their competencies. In general, teacher's role and competence in teaching and learning process includes many things as expressed by Adam and Becey in the basic principles of student teaching, including teachers as instructors, class leaders, mentors, regulators, environmental regulators, participants, expeditors, planners, supervisors, motivators and counselors (Khairunnisa, 2017).

This shows that how important the teacher's role in learning process is related to development of aspects of calling, character, and social empathy. Teacher's role referred to above certainly cannot be replaced by any sophisticated technology. Why is that? We will discuss it based on the approach to the three aspects that are subject to study in this article. The first aspect, namely the teacher's role in responding to his call as an educator not only helps students know the variety of knowledge and technology, but is also morally responsible for introducing God's truth in each student. This is closely related to efforts of students to respond to what limits them in behaving and behaving to build relationships with their environment.

Learning technology that allows the disruption of their personality to act immorally or justify any means to achieve an achievement. This is where the teacher as an educator plays a role in making students stay consistent in the path of truth by maintaining self-discipline so that they are not tempted to act outside the limits of regulations or norms that apply in the environment in which they live. The role in question cannot, of course, be replaced by technology, because technology is not able to understand a truth that is absolute in nature and a regulation that has been mutually agreed upon.

This shows that teachers play a role in the learning process more than just conveying information to their students, but continues to encourage them to dynamically grow in the community of truth (Palmer, 1998, p. 115). Thus, it is hoped that students can apply the concept of truth to serve God and love others in real life now and in the future.

The second aspect, teachers as educators should consistently shape the character of students so as not to get caught up in self-esteem because of the technological innovations they master, so that they can achieve the highest cognitive achievement in school. However, when the teacher is able to explain to students that the achievement achieved is the gift of God alone, where God has given an intellectual ability that is born from a family that stimulates intellectual development, but whatever the cause of ability to excel or succeed in any endeavor is ultimately from God himself (Bridges, 2008, p. 107). This shows how the teacher's role is so significant in terms of minimizing and even preventing the potential for student arrogance because of his competence when using technology.

The third aspect, in terms of social empathy, teacher as an educator plays a role to pay attention to students cognitive, affective, and psychomotor aspect development. The sophistication of learning technology may detect students' cognitive and psychomotor development, but it is not necessarily able to observe the development and growth of students from the affective side, because this domain is directly related to the emotions and behavior of students on a daily basis. In connection with this context, mentoring conducted by teachers is more as a facilitator of learning, both concerning the cognitive, affective, and psychomotor domains of students. In addition, the presence of advanced technology in learning allows students to lose their social empathy and their ability to work in group assignments because they feel they are able to work on their own with the help of technology without helping of their friends. If this is left unchecked, then in this disruption era students social relations will become disrupted and have a negative impact on students' developmental psychology.

This is where teachers play a role in keeping students' social relationships from getting stuck in individualistic behavior, but how they can share the skills they have with other students as part of a community where they socialize in the school environment with regard to their understanding of technology use as a tool to solve assignments instructed by the teacher.

4.2 Teacher's Role in Technology Perspective

The development of learning technology in disruption era cannot be denied its use in the education system in Indonesia. Learning and applied technologies such as machine learning, big data, and artificial intelligence are creative innovations that are claimed to be able to help facilitate human work, including when applied to the Indonesian education system. Of course, the technological innovations referred to above do not necessarily replace the teacher's role as educators. However, the technology found will provide many benefits for its users, especially when applied in the Indonesian education system. The presence of these technology products must be accompanied by an awareness that results in the thought that no technology in the world is found by experts who are not inspired by the wisdom of God who works in every human being as a scientist or inventor of technological innovation

Referring to Peter Van Inwagen, one of the foremost philosophers in the world, when he said that there were no discoveries in science that at least had a tendency to show that God was not exist (Zacharias, 2017, p. 67). Or in other words, every discovery in science or technology shows the greatness of God revealed over the entire universe as His creation. Thus, our admiration for technology does not shift the position of God as the creator, but instead makes us aware that reason is the uniqueness of God's creation that can be used for the welfare of all humanity in the universe. The statement above is further strengthened by the presuppositions stating that we must be in mind, but on reason itself as God's unique creation (Zacharias, 2016, p. 98).

Based on the above studies, it increasingly shows us that technology is an innovation that should not be rejected or avoided, but precisely with the technology invention, people are increasingly helped to access knowledge from various knowledge groups that support the achievement of significant improvements in education quality in the present and in the future, when the technology is used in the right way and understanding refers to the value of benefits while upholding human dignity as God's creation. If the above thinking is applied in Indonesia's education in disruption era, then the presence of learning technology is not a threat, but instead becomes an accurate, fast, and practical tool to support the learning process, both inside and outside the classroom. Likewise the teacher as an educator will be greatly helped in carrying out his duties to transfer his knowledge, without losing his

role as a learning facilitator which refers to aspects of calling, character, and social empathy as embodiments of four basic teacher competencies, namely professional, pedagogy, personality and social competence refers to Law No. 20/2003 concerning the National Education System.

5 CONCLUSIONS

Based on the study described above, it can be concluded that quo vadis Indonesia's education disruption era should accommodate a variety of technological innovations as learning media without negating the teacher's role in aspects of calling, character, and social empathy that are transformed to every student they educate in value and technology perspective. Thus, it is expected that Indonesia's education will be wiser in addressing the use of appropriate learning technology without eliminating the teacher's role as educators.

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