Educating the External Conditions in the Educational and Cultural Environment

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Abstract

Educational and cultural development is strongly influenced by external conditions such as social, cultural, economic, technological, and political. So, there is a strong need to educate their effect. Some of the effects of external conditions on education and culture can be explained. a higher population puts Indonesia in an increasingly important position in the global arena. In Indonesia, this wonder happens in light of the fact that the procedure of statistic progress that created since a couple of years back was quickened by our accomplishment in diminishing fruitfulness rates, improving the nature of wellbeing and the achievement of improvement programs since the New Order time as of recently. Along these lines, Indonesia has a statistic reward which is a reward or opportunity (fateful opening) appreciated by a nation because of the huge extent of the beneficial populace (age extend 15-64 years) in the development of the populace it encounters. At that point a parameter called "reliance proportion", which is the proportion that shows the correlation among beneficial and non-gainful age gatherings. This proportion likewise shows what number of inefficient individuals whose lives must be borne by the gainful age gathering. The lower the dependency ratio of a country, the more the country is to get a demographic bonus as future development capital.

Keywords: educational, cultural environment, economic, technological, knowledge

1. Introduction

In every stage of life and in every strand of life, education can make us better of – as individuals, in organizations, and as a nation. They say that knowledge is power. Although academic skills remain an important aspect of one's development, they are not sufficient to foster thoughtful, productive and engaged citizens. Today, young people need to develop a greater breadth of skills to evaluate and apply knowledge in ways that are able to meet the new demands of our ever-changing social and economic landscape. That being said, how can we then ensure that schools today remain relevant in developing holistic 21st century youth, equipping them with the necessary life skills to thrive in a volatile and competitive market place (Norman 2016; Tran 2019).

Human dignity as a concept is vague and abstract in its characteristic, contested in its definition, problematic in its application, and might have some wide-ranging implications when used in a broad discourse on identity politics in a plural state (Gilabert 2019). Human dignity as concept which can instill unity within a group of people, inculcate solidarity between groups of people in a country, or promote equitability among the general world community. In actuality and from the macro perspective, human dignity is a universal concept on human rights which normally relates to the questions of identity and constitutional rights of humankind. From the micro perspective and in the context of Indonesia, human dignity is mainly related to several structural provision in which define the country's societal and socioeconomic order (Stocké et al. 2019; Di Palma et al. 2019).

Human dignity is the fundamental idea of the worldwide human rights system, 'a definitive worth' that offers intelligibility to human rights. The 1996 International Human Rights Covenants announced that these rights get from the inalienable respect of the human individual though the Vienna Declaration of the 1993 World Human Rights

Conference certified that every single human right get from the poise and worth characteristic in the human individual. Acknowledgment of the natural pride and of the equivalent and basic privileges of all individuals from the human family is the establishment of opportunity, equity and harmony on the planet. And the entirety of this can be followed back to the point of the United Nations, as expressed in the second passage of the Preamble of the Charter, "to reaffirm confidence in principal human rights, in the nobility and worth of the human individual, in the equivalent privileges of people and of countries huge and little." The all-inclusive affirmation and the idea of the poise of man were the foundation and the establishment of which the United Nations looked to remake the future worldwide request of humankind and of open life by and large. Human poise can mean the unique height of the human species, the uncommon possibility related with sane humankind, or the essential privileges of every person. We have to continuously safeguard our unity and resilience because this concept could be easily manipulated by people who perceive human dignity from a blinkered perspective aimed at creating unnecessary anxiety or fear within our plural society (Tan et al. 2019; Tateo 2019).

2. Social, Cultural and Environmental

Social, cultural and environmental conditions that influence the development of education and culture in the next five years are as follows (LeVine & White 2017; Dahama 2019; Tan et al. 2019):

a. Indonesia's HDI number is increasing from year to year but still below the majority of countries in Southeast Asia;

b. the high inequality between gender, between the rich and poor society, between urban and rural areas, between developed and underdeveloped region;

c. the low ranking of the Indonesian Gender Development Index, which ranks 93rd out of 177 countries (UNDP 2007/2008);

d. The change of consumptive lifestyle and low public awareness that has the potential to reduce environmental quality;

e. An imbalance environmental system due to pollution by industry, agriculture, and household;

f. The low utilization of biodiversity which can be an alternative resource including research that can potentially produce Intellectual Property Right (IPR); and

g. The low quality of Indonesian human resources to compete in knowledge-based economy era.

2.1 Economy

Economic conditions that influence the development of education and culture in the next five years include (1) high poverty and unemployment rates; (2) there is still a gap in economic growth between regions; (3) there are still many economic power bases that rely on cheap labor costs and exports of raw materials from the exploitation of non-renewable natural resources; (4) the increasing competitiveness of Indonesia that needs to be followed by an increase of the workforce ability; (5) the emergence of global economic giant threats such as China and India and the increasingly widespread free trade that threatens the competitiveness of the national economy; (6) the low optimization of the utilization of economic resources derived from natural resources; (7) Indonesia's relatively high economic growth, both ongoing and planned, needs to be supported by adequate workforce preparation; and (8) the threat of the entry of intermediate skilled workers and experts from other countries; and (9) economic growth, in 2014 it is projected that the State Budget will reach Rp1,678.4 trillion assuming economic growth reaches 8% and an inflation rate of 4.8%, so 20% of the education budget from the 2014 State Budget is estimated to reach Rp349.2 trillion (Bamigboye & Adeyemi 2016; Zhu et al. 2018). The detail about this can be seen in table 1 as follows.

Table 1. Projected Economic Growth and APBN towards the Education Function Budget for 2010-2014

Budget component of the education function	***Budget (IDR billion)***				
	2010*	***2011*** **	***2012***	***2013***	***2014***
Economic growth	5,5%	6,5%	7,0%	7,5%	8,0%
Inflation	5,1%	5,3%	5,0%	4,5%	4,8%
APBN	1.126.146,50	1.229.558,47	1.319.999,80	1.482.854,77	1.678.354,34
Education Function Budget	225.229,40 (20%)	246.272,10 (20%)	281.457,60 (21%)	312.163,90 (21%)	349.325,57 (21%)

Note: The estimation of the Education Function Budget for 2012-2014 is estimated numbers (baseline);

*) is APBNP year 2010; **) sourced from the 2011 APBN Law

2.2 Technology

Technological conditions that influence the development of education and culture in the next five years include (1) ICT literacy gap between regions, (2) the need for mastery and application of science and technology in order to face global demand, (3) the gap between technological development and mastery science and technology in educational institutions, (4) the increasing role of ICT in various aspects of life including in the field of education, (5) the increasing need to share knowledge by utilizing ICT, (6) the development of the internet which eliminates the boundaries of territory and time for communication and access to information, and (7) the development of the internet which has a negative impact on community values and norms and provides opportunities for the emergence of plagiarism and IPR violations (Bullock & Webb 2015; Prina et al. 2019).

2.3 Politics, Defense and Security

Political, defense and security conditions that affect the development of education and culture in the next five years include (1) political instability and defense and security that threaten the life of society and the state, (2) inconsistencies in laws and regulations that affect the implementation of education, (3) the need for political education to encourage public awareness in democracy, (4) the implementation of regional autonomy that encourages independence and the development of local wisdom, (5) the occurrence of irregularities in the implementation of regional autonomy, (6) the delay in issuance of derivative regulations that have an impact on education and culture field, (7) the threat of disintegration of the nation as a result of immaturity in democracy, (8) the ideology of the state as unifying nation and Indonesian as the language of unity, and (9) the commitment to fulfill education funding at least 20% of the APBN and APBD in accordance with the Constitution 1 945 Article 31 paragraph (4).

3. Education Transformation and Artificial Intelligence

In today's context. It is highly likely that traditional jobs will either be obsolete or aggregated, and eventually be replaced by technological advancements. While we welcome technological advancement, which continues to open more doors of opportunities economically, these are some questions we need to ask ourselves:

- Do we have the right skill sets to remain relevant?
- What are these critical skills?
- What kinds of students will be best prepared for the challenges of a 21st century economy?
- How can we ensure that we are providing them with effective education that prepares them for a rapidly globalizing world?

The concept of a 21st century education approach seeks to foster enhanced creative thinking skills and human values in our youth. This is to better equip them for the future amidst the ongoing industry 4.0 and the integration of artificial intelligence at workplaces locally and globally. Artificial Intelligence (AI) is a part of computer science which emphasizes the creation of intelligent machine that work as humans do. The purpose of AI is to solve the real-world problems (practical) and to understand the intelligence. AI is a part of computer science which emphasizes the creation of intelligent machine that work as humans do. In the 1950s scientists and researchers began to think about how to

make machines do several jobs as humans do. Alan Turing, a mathematician from England first proposed a test to see whether or not a machine was said to be intelligent. The test results are then known as the Turing Test, where the machine is disguised as someone in a game that can respond to a series of questions asked. Turing assumed that, if a machine could make someone believe that he was able to communicate with other people, then it could be said that the machine was intelligent, like humans.

AI is a relatively young field of science. AI was raised by a professor from the Massachusetts Institute of Technology named John McCarthy in 1956 at the Dartmouth Conference which was attended by AI researchers. At the conference also defined the main purpose of artificial intelligence, which is to know and to model the human thought processes and also to design the machines so they can imitate the behavior of these machines.

AI Some AI programs which began in 1956-1966 including:

- Logic Theorist, introduced at the Dartmouth Conference, this program can prove the mathematical theorems.
- Sad Sam, programmed by Robert K. Lindsay (1960). This program can find simple sentences written in English. It was able to provide answers to facts that are heard in a conversation.
- ELIZA, programmed by Joseph Weizenbaum (1967). This program can conduct therapy to patients by providing several questions and answers.

At the beginning of its creation, the computer only functioned as a calculation tool. However, moving along with the times, the role of computers increasingly dominates the lives of humanity. The ccomputers are no longer only used as calculators, but more than that, they are expected to be empowered to do everything that can be done by humans. Humans can be clever in solving all problems in this world because humans have knowledge and experience. The kknowledge is gained from learning. The more knowledge someone gets it is certainly expected to be better able to solve problems. But the provision of knowledge is not enough, humans were given the reason to make reasoning, drawing conclusions based on the knowledge and experience they have. Without having good reasoning skills, humans with a wealth of experience and knowledge will not be able to solve problems properly. Likewise, humans who have the ability to reason very well, if it is not equipped with the provision of adequate knowledge and experience, they also will not be able to solve problems properly.

The computers must also be equipped with the knowledge and must have the ability to reason so that the computers can act like and as good as humans. For this reason, artificial intelligence will try to provide several methods to equip the computer with these two components so that the computer can become a smart machine. To create an application of artificial intelligence two main parts that are needed, namely:

1. Knowledge Base

The knowledge base contains facts, theories, thoughts, and relationships between one another.

2. Inference Engine

Inference Engine is the ability to draw conclusions based on its experience. Or it can also be called reasoning.

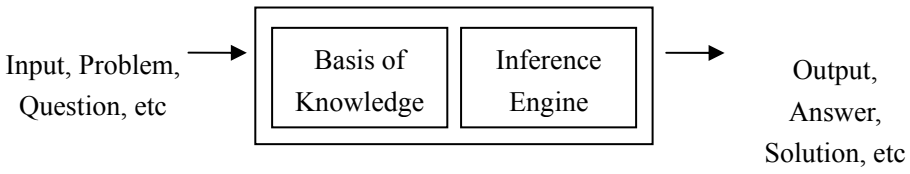

Figure 1. System that Uses AI

The definition of AI can be seen from several perspectives namely:

1. Intelligence Perspective

AI will make intelligent machines that able to do what humans do.

2. Research Perspective

AI is the study which emphasizes the creation of intelligent machine that work as the best humans do.

3. Business Perspective

AI is a collection of very powerful and methodological tools in solving business problems.

4. Programming Perspective

AI includes the study of symbolic programming, problem-solving and searching.

4. Conclusion

To continue advancing economically, we must ensure that the younger generation is fully equipped to excel in the future. Education is often referred to as the medium to increase one's innovation capacity. As such, today's young people need an education system that support and encourages their development in communication, collaboration, critical thinking, creativity, values and ethics. It is essential that key industry players continuously work in partnership and close collaboration with the people on the ground, such as school leaders and administrators, teachers, students, as well as parents, and the community to identify and implement ways of best achieving student goals. Furthermore, local and global best practices must be adopted for an effective education transformation. Through this approach, we will be one step closer to unlocking the potential in every learner to develop the necessary skill set that will give them the competitive edge to thrive in today's dynamic global environment.

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