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Abstract

This paper introduced the concepts of artificial intelligence. Various concept associated to it were explained and described. The paper x-rayed various functions of artificial intelligence among which are grading and assessing the learner and also facilitating the role of the instructor. It equally showed its disadvantages among which is inadequate preparedness of teachers and educational institutes especially in the third world countries. Based on the analysis and literature reviewed, the author recommends that artificial intelligence is good in many aspects but before using it for teaching in higher institutions, government must put up a guideline for its usage. The conclusion shows that no matter what we think artificial intelligence can do, it will never in any way take the position of humans since it is the invention of man and is being controlled by man.

Keywords: Philosophy, Artificial Intelligence and Digital Education

Introduction

Philosophy as a discipline is virtually applied in all field of learning and that may be the reason for a philosopher to be described as a lover of wisdom. Philosophy enables individuals to think correctly, analyse issues in the context such issues are situated. It will help us to critically analyse the issues of artificial intelligence and digital learning.

It is in the records of United Nations that the twenty-first century has posed many challenges to the new world order. The influence of artificial intelligence on higher education are two crucial areas, among many others worth studying¹. Artificial intelligence has been a topic of growing interest and investigation in various fields including higher education. Stanford Encyclopaedia of Philosophy states that artificial intelligence is a vast branch of computer science concerned with developing intelligent computers capable of doing tasks that typically need human intelligence². With this brief introduction, it is pertinent to define or describe the concepts involved here.

Definition/Description of Concepts

Artificial Intelligence: The concept of artificial intelligence as conceived by Akgun and Greenhow is about the combination of applications of machine learning, deep learning, algorithm production and natural language processing³. As at 1956 according to Zhengyu, Yingjia and Jimming, artificial intelligence was defined as a robot with the ability to simulate learning characteristics or intelligent characteristics that can be accurately described. Artificial intelligence education is a new form of education formed on the basis of artificial intelligence technology, which is integrated in concept, organisation, mode, resources and other aspects⁴. On their own part, Wolff, Gooch, Montaner, Rashid and Kortuem said that the term joins a long line of proposed literacies intended to symbolise the understanding of a particular technological construct like “media literacy” or “data literacy”⁵. A frequently cited definition of artificial intelligence literacy was developed by Long and Magerko, who defined it as “a set of competencies that enables individuals to critically evaluate artificial intelligence

technologies, communicate and collaborate effectively with artificial intelligence and use artificial intelligence as a tool online, at home and in the work place⁶. How then did some thinkers' define or describe digital education.

Digital Education:

According to Mcilwhan, the term digital education is increasingly used but often without clear understanding of what the term means. It is sometimes used interchangeably with technology enhanced learning and with e-learning or online learning, however arguably each of these terms reflects a different stage in the evolution of the discipline⁷. Allan perceives digital education as an umbrella term for any education that is conducted at least partly in, with or through digital technologies. This is a deliberately broad definition that could encompass the use of technology in traditional classrooms, blended learning (which combines online and face to face instruction) and education that takes place entirely online⁸.

In the 21st century, digital technologies are often an unseen part of daily life, from online banking, social media and streaming services to education or work-specific activities such as email, power point presentations, PDF handouts and others. However, when it comes to more overtly digital technologies such as the virtual learning environment, or creation or use of digital media resources, or adoption of pedagogical approaches especially related to digital education, things can feel a bit more daunting. Having seen the various definitions/descriptions of the concepts, we now look at the benefits of artificial intelligence.

Benefits of Artificial Intelligence

In Chin's conception, artificial intelligence has made it a present-day reality that imitates humans in many functions such as language translation, medical diagnostics and decision making. If humans interact, analyse, deduce, think logically and reason contextually, artificial intelligence performs these actions artificially based on powerful computers, high-speed internet connections, algorithms and extensive real-time data⁹.

There are various applications of artificial intelligence in the educational field including content design, delivery, assessment, feedback and support. Artificial intelligence can enable the designing of content which is friendly and flexible. Culican believed that artificial intelligence algorithms can scan large data to tap into the gaps thus creating content that is interesting and trendy¹⁰. It can be used for making content including textbooks, personalised learning materials and interactive courses according to the target audience. According to Mishra and Dweep, the benefits of artificial intelligence in assessment is that it can reduce human subjectivity and time taken for assessment. The ability to analyse large data with multiple sources, individual consideration and flexibility is one of the reported benefits of artificial intelligence. Artificial intelligence generally has the ability to provide quality content for students all over the world. It has the ability to provide personalised information to meet ones academic needs, it provides tailored learning environment as well as bears the responsibility of carrying out various repetitive tasks.

The emergence of artificial intelligence has reduced a lot of tedious and repetitive administrative work for teachers and for students, it promotes their independent learning

abilities, thinking abilities and expands their horizon and thinking mode. There are other benefits attributed to artificial intelligence such as making the traditional classroom more comprehensive, education scene will no longer be limited to the classroom, improving the quality of teaching. Again, the artificial intelligence system can provide each learner with personalized learning style, so that each student can learn in the most suitable way, accurately record the learning status of each student, assist teachers to achieve hierarchical teaching, precise teaching, and effectively solve the core problems of teaching and learning. The question then is: how does artificial intelligence improve students' learning enthusiasm? Many students cannot clearly understand their own learning status, which leads to more confusion when making learning plans. To solve this problem, artificial intelligence helps students to summarize test sites and make learning plans, so that students can have their own learning and review plans, which not only saves time and brings convenience to students, but also improves students' enthusiasm for independent learning.

According to Slimi, artificial intelligence has the potential to revolutionize education by personalizing teaching methods to suit individual student needs, providing prompt feedback and automating administrative tasks. It can also assist in grading and assessment, freeing educators to focus on developing curriculum and providing quality instruction¹¹. UNESCO maintained that artificial intelligence helped in fighting the virus and globally rescued jobs and educational systems. Ma and Siau are of the view that artificial intelligence will speed consistency and accuracy in curriculum and registration. Human sciences and liberal arts majors will become more popular because these areas of study are less vulnerable to the field of artificial intelligence than areas like accounting and finance¹².

Before the discovering of artificial intelligence, it took ages for a teacher to assess and grade papers and check for plagiarism. Today, with artificial intelligence, checking for academic integrity and language issues take minutes or less. For Jabar and Yousif, artificial intelligence offers various learners links about the topics required by the subject matter, eases and inspires both learner and tutor by addressing different learning styles such as autonomous learning, visual learning, e-learning, audio-visual learning and deep learning¹³. Equally, artificial intelligence enables the teacher to select and apply the learning method taxonomy that the learner needs and highlights the areas of improvements to be focused on. With these positive aspects of artificial intelligence, there is need to look at its negative aspects.

Negative Aspects of Artificial Intelligence

Artificial intelligence as literature has shown has many advantages to the modern world but it also has many negative aspects. Thus, Sawant, Sheth and Mahendrasiah stressed on a number of issues that are regarded as negative aspects of artificial intelligence. Such issues include: decrease in human interaction, unemployment of teachers, financial problems, lack of emotional intelligence, artificial intelligence addiction, artificial intelligence data problems, communication barrier, decrease in the thinking power of the students, maintenance problems and laziness in students¹⁴. There are other challenges that artificial intelligence may face in education. Such challenges relate to ethics. The ethical issues that can arise while using artificial intelligence in education are the issues of transparency,

fairness, privacy, morality and removal of bias. Garrett, Beard and Fiesler emphasised much on the above issues¹⁵. A relevant challenge of artificial intelligence in education is students' privacy. For Dignum, student privacy can be compromised if data captured by artificial intelligence based education systems lands in the wrong hands such as hackers¹⁶.

Another issue according to Awofiranye is that of inclusion and ease of accessibility. Many individuals do not have equal access to technology which can create a disadvantageous position for such individuals¹⁷. For example, many students in developing countries do not have access to a smart phone or internet connection which can put them in a disadvantageous position compared to those who have such facilities.

Another point is inadequate preparedness of teachers and educational institutes in general. Implementing artificial intelligence requires training a large number of teachers and educational managers to use the system which may not be an easy task. The educational system of many countries is not up to date to accommodate such change and thus it remains a challenge.

The next thing is the inability of students to explore their full potentials. This is because if students start depending too much on artificial intelligence based education, it will limit their critical ability including thinking, logic and memory which is a big draw back.

Another challenge is the cost factor related to artificial intelligence. For Adlawan, provision of the initial outlays for software and cloud support is very costly for educational system. Not only the costs for continuous employee training are expensive, but also ongoing training of the artificial intelligence system would be costly if organizational processes change¹⁸. Since there are several technology options, hence it is a difficult decision to restrict the potential options to a few.

In the same vein, Ma and Siau emphatically said that artificial intelligence is a threat to human civilization and support their argument with what experts think about artificial intelligence. It is questionable for any critical-thinking reader as further investigation remains possible and the truth is never absolute¹⁹. The question in mind is: how would artificial intelligence impact the learning and teaching processes? Thus; JLU and Laurie stressed that focusing on the learning and teaching process, no one would doubt that artificial intelligence is replacing the lecturer or teacher in many ways, such as blended learning and e-learning. The presence of an e-learning lecturer is limited as the learner interacts with a virtual classroom, whether on Blackboard, Moodle, Turnitin or any other platform²⁰.

Similarly, research conducted by Ma and Siau shows that within the next twenty years, around 47% of jobs in the United States of America and almost 54% in Europe are at risk due to artificial intelligence. These researchers at Oxford University forecast that artificial intelligence will write high-school essays by 2026, write best selling books by 2049, translate languages by 2024 and perform surgeries by 2053²¹. Again, higher education institutions should think of security and privacy issues. In the words of Zouhaire Slimi, when it comes to artificial intelligence, these burning issues despite the rosy promises of artificial intelligence, humans have to address this ethical issue. With intelligent systems monitoring our faces 24

hours a day with only a few elements of our private lives remaining untouched. Are there legal frameworks, policies or ethical codes to control the brutality of artificial intelligence? Moreover, we should consider robot cops and their ability to kill and hold them without human face²².

Although artificial intelligence has been developed for more than 60 years ago according to Zhengyu, Yingjia Wei and Jinming Zhang, it has great limitations in applied education. Education to some extent is a means of learning by which people communicate and inspire each other according to their own knowledge, but intelligent teaching system is far from reaching this level. Machines cannot communicate with students as humans can. Machines only judge students' input information and master students' learning situation which leads to people's wrong information receiving due to the data generated by "machine intelligence" ignoring the real situation²³.

Another defect is that artificial intelligence education system is made into a teaching module based on the data of knowledge level, cognitive abilities and learning styles provided by different students. Through the test results of this module, students are judged and their learning process is evaluated. The level of each student is different, if according to the formal teaching module teaching, rather than according to the specific situation of each student flexible teaching. This is not conducive to the personalized development of students. Even though the introduction of artificial intelligence into education conforms to the development of the times, it does not mean that all subjects are suitable for artificial intelligence. There are differences among various disciplines, which are mainly which are mainly reflected in the differences in research objects, theoretical framework, discipline thoughts, research methods and expression methods etc. These differences lead to the natural differences in teaching and learning of different disciplines.

Having described what the concept of digital learning is all about it is equally good to emphasise the challenges that are facing digital learning/education. According to Suleiman and Danmuchikwali, digital education is largely a result of the past few years, though it has already existed slightly earlier in various ways. It is obvious that modern equipment and means of transmitting information are important for its growth²⁴.

Sadiku, Shadare and Musa stated some of the challenges that face digital education.

1. It takes more time for a teacher to prepare an online course than the regular traditional face to face courses.
2. Most of the students are apprehensive of new technologies. They are not motivated to attend educational technology conferences or read books dealing with creative applications of digital technologies.
3. The third one border on assessment and the activity of measuring learning is a major problem in digital education. Course developers often use the simple multiple-choice items in their exams. This is quite inadequate for future leaders, managers, engineers and scientists.

4. There is the problem of accreditation. There has been a proliferation of colleges and universities offering online programs. Some of these are unwilling to obtain accreditation for their programs. Accreditation agencies never deal with the issues of quality. Online educators must not ignore such challenges²⁵.

Discussion

Since we have gone through the literature, a lot has been said about the positive aspects of artificial intelligence as well as negative aspects. Having seen the predictions by Ma and Siau that by 2053 through artificial intelligence, surgeries can be performed. If this happens, what is the essence of producing medical doctors? Will it be possible for machines to take the position of humans? We have seen from literature that it may not be possible from all ramifications. Thus; there are many disadvantages of artificial intelligence and that is why it cannot grow to the level of humans. Possibly, that could be the reason for Ma and Siau to say that although all the values stated about how artificial intelligence is creeping into the career world, criticize that when it comes to soft skills such as empathy, communication, collaboration, innovation, critical thinking, problem-solving and leadership, artificial intelligence is not as robust as human cognitive ability.

Recommendation

Artificial intelligence is good in many aspects but before using it for teaching in higher institutions, government must put up a guideline for its usage.

Conclusion

The author conclude by saying that although artificial intelligence can be used in grading and assessing the learner and facilitating the role of the instructor, a critical thinker as said by Zouhaier Slimi would not fail to pose the following questions: What about bias in marking reports? Who would guarantee that artificial intelligence is fair and objective? What about the human side of the learning process and assessment? Will artificial intelligence consider the psychology of learners grading or assessing a paper? These questions and many more may be raised but the fact remains that there will be never a time artificial intelligence will change into human beings. It will still remain garbage in and garbage out because it is mans invention and will continue to be manipulated by man.

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