

THE INFLUENCE OF ARTIFICIAL INTELLIGENCE ON TWO VITAL SPHERES, RATHER EDUCATION AND MEDICINE

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Abstract

This paper investigates the influence of artificial intelligence on the most vital aspects of human life, rather education and medicine, providing real-based examples of its effect. Through case study, it outlines how AI is reshaping these two spheres, as giving a helping hand to teachers as well as students and its downsides, carrying out mind blowing surgeries and managing the patient data. The paper concludes by proposing effects of AI in the future, which can be detrimental if we do not take the precaution of it and how it can flourish if we implement it in the valid way.

Key words: Innovative, vital, learnable, digital, adaptive, efficient, automated, helpful, progressive, time saving.

1. Introduction

“Artificial intelligence” is such a new, but simultaneously such a common word among all of the people, starting from pupils ending up with elderly ones. But one thing is true, everyone defines this word differently. For some, it is just a piece of machine that permits technological gizmos to function intelligently. Some define it as the machine that replaces human labor which can work more effectively and faster leading to better result. Others claim that it is a system, which is capable of receiving external data and utilizing acquired knowledge and information to achieve certain goals through efficient modification. Despite the fact that there are a lot more definitions of artificial intelligence, the common understanding of AI remains the same to aid humankind tackle their issues and facilitate working processes. It is not a secret that AI influenced on almost every field of our life but two of the most impacted spheres which is education and healthcare are elucidated in this article.

2. Discussion and results

Healthcare improvements through AI.

Let's remember how medical services used to look like hundred years ago, there were no machine or any kind of tool to simplify the work of doctors, fortunately it is not the case now. People centuries ago, used to rely on their knowledge only, and it used to take much more time in ancient times to identify the illness, and there were some occasions where doctors were late or even worse than that there was a likelihood of them making a mistake which can lead to the death of the person, however now thanks to the development of technological gizmos, it has become a piece of cake to detect any kind of disease like cancer or heart diseases earlier and more accurately. Not only have doctors benefit from the usage of artificial intelligence, but also it brings a huge benefit to patients as well. To be more precise, AI manages patient data, schedules surgeries and so on simplifying the life of sick people. According to the Huo Junfeng, there was an occasion in China when Chinese doctors, together with experts from the United States, performed the world's first ultra-minimally invasive brain surgery using Human Connectome technology based on artificial intelligence (2023, January 1). In his interview, the surgery took place at Shanghai Donglei. A brain tumor was successfully removed from a 63-year-old patient during a 40-minute operation through a hole the size of a nail head. So this proves us that sometimes artificial intelligence is able to carry out such

surgeries that people are not capable of doing. But there is no escaping the fact that the implementation of artificial intelligence in medicine can have so many potential drawbacks as well. Giving as an example diagnostic errors, privacy concerns, over-reliance on AI and so on. In order to take the precaution of these issues we should have human-AI collaboration, rather to use AI as an additional tool, not a replacement, to enlarge teacher student interactions and personalized learning experiences.

According to the statistics given below, over the last 15 years, starting from 2005 ending up with 2020, the number of surgeries where AI have been implemented have raised almost in 62 times. As stated by habr, Such significant growth over the last five-year period can only indicate one thing: early technologies have brought some success, which has opened up opportunities for scientists to massively implement AI.(2022, August 18)

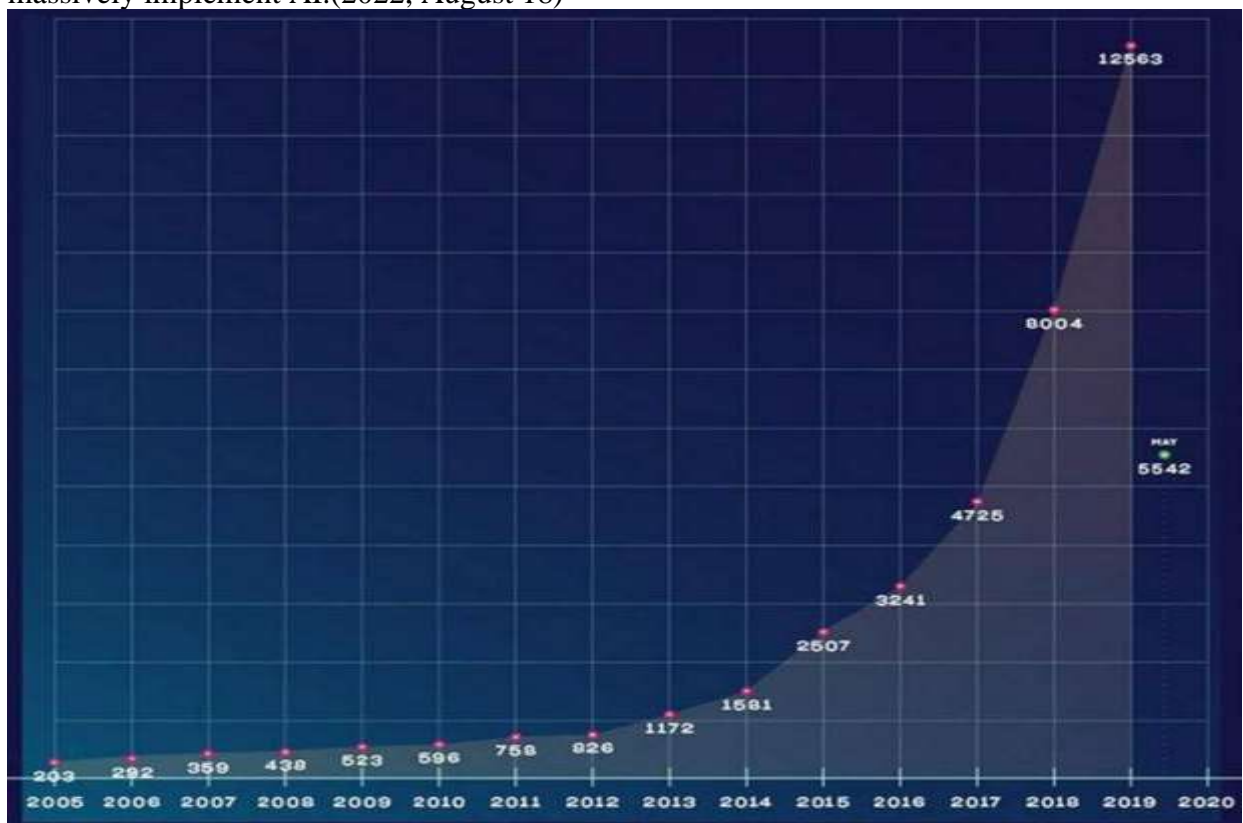


Figure 1. How rapidly the use of artificial intelligence has developed over the years.

The influence of AI specifically on the sphere of education.

It would be unfair if we did not mention the major effects of AI on education as it has always played an integral role since its creation. It is an undeniable fact that currently, a significant number of people are accustomed to using AI for almost every sphere of education, ranging from math all the way to other fields of science. Nevertheless, back in the past when our ancestors did not have access to these cutting-edge technologies, they used to depend completely on their own knowledge and expertise, meandering a huge amount of time searching for one piece of information with the help of books. Thanks to AI, now the thought of going to libraries and seeking one data for a long time has become obsolete, helping students have more time. Further and more

importantly, AI provides learners with access to personalized teaching, meaning that those instructions, in the majority of cases, could be a huge factor for students strengthening their academic skills. It could also be beneficial inasmuch as the students can learn at their own pace without having to rush.

Despite the benefits AI has to offer in education, there is no escaping the fact that its primary negative impacts had better be taken into account, otherwise it could be responsible for some repercussions. First thing first, over dependence on AI for education could significantly reduce face-to-face interaction, which is a crucial skill for boosting emotional intelligence. In most of the cases, the pupils would rather do research or make a presentation by themselves with the assistance of AI without having any desire to discuss with their friends. This kind of behavior could lead to isolation, making them reliant only on themselves, and at times causing depression, as well as stress. Moreover, we cannot overlook the fact that not all the information AI provides us with is reliable. What I mean by this is that the vast majority of data available online is not trustworthy, making most of the students confused and concerned. This means AI should be trained with high-quality, reliable information, otherwise it can spread tons of misinformation, not to mention inaccuracies.

As reported by Hendrik Haverkamp, they had an experiment to identify whether the implementation of AI is going to be successful for students or it is going to work against them. (2023, March 1). He says: "Artificial intelligence exams led to an important result: not a single student relied blindly on AI texts. Moreover, those who did not know how to construct and write an argument before the test and had no experience failed when working with AI texts, uncritically accepting incorrect information and not benefiting from the proposed reasoning."

1. Conclusion

Having taken all the highlighted aspects mentioned above into account, I concluded that AI is undeniably revolutionizing almost every aspect of humanity, fundamentally reshaping many people's perceptions from the way they interact to the way they perceive the world. However, among the myriad areas affected by Artificial Intelligence, I believe the field of medicine and education to stand as particularly 2 predominant influences. It is also vital to bear in mind that the effects mentioned in body paragraphs can also be detrimental if not used properly. Therefore, from my humble opinion, I would suggest that it be monitored carefully with the right approach prior to being utilized, or else it can serve as a negative tool.

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