

REVOLUTION OF AI. THE THREATS OF USING AI IN MODERN SOCIETY

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Abstract. *In the contemporary of modern landscape, the one of the biggest advancements in the technological area is artificial intelligence (AI). Artificial intelligence started out as a field of study. It was created at a Dartmouth Conference where a group of researchers first coined the term “artificial intelligence.” They envisioned creating machines that could simulate human intelligence. In the following years, researchers focused on developing foundational concepts and techniques in AI. Alan Turing introduced the idea of machine intelligence. He also proposed the Turing Test, which tests a machine’s ability to exhibit behavior similar to human behavior, in 1950. Created in the earlier 1956 at a summer seminar at Dartmouth College (Hanover, USA), which was organized by four American scientists: John McCarthy, Marvin Minsky, Nathaniel Rochester and Claude Shannon. In nowadays AI is integrated in most of human industries starting from the entertainment moving to the education and IT area, like programming and machine learning.*

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Introduction

In the late 1950s and early 1960s, researchers Herbert Simon, Allen Newell, and Cliff Shaw developed symbolic reasoning approaches, such as the Logic Theorist and General Problem Solver. It created stronger mathematical models than human experts and further advanced the field. The Emergence of Connectionism and Neural Networks: 1980s - This later became the basis for neural networks. Eventually, researchers explored connectionism. Connectionism is an artificial intelligence approach to cognition, in which multiple connections between nodes (equivalent to brain cells) form a massive interactive network where many processes take place simultaneously. In 1989, researchers rediscovered the backpropagation algorithm. This discovery led to chain rule, an important advancement in the creation of neural networks. The 1990s saw a resurgence of AI research. Machine learning quickly gained popularity. Algorithms to support vector machines and decision trees widely gained in adoption. Applications like IBM’s Deep Blue defeated chess champion Garry Kasparov in 1997 and further demonstrated the potential of AI in specific domains.

How does AI influence on the education area?

Nowadays, in the 21st century artificial intelligence influence on the most of human industries. Education is one of the main human industries and one of the industries where artificial intelligence bring a lot of changes and advancements. On the one hand, it makes something easier and better, making work of education systems, work of teachers and professors a little bit comfortable, but with changes. However not everything is perfect in this question. Creation of AI and integration it in educational area bring a lot of threats with benefits in the same time. AI like chat GPT, Math-GPT, some neural networks to make texts, digital content, like videos, power point presentations change world of education upside down. It like a revolution in worlds of schools and universities. The use of artificial intelligence (AI) in school education presents both potential benefits and significant risks. While AI has the potential to enhance the educational

process, improve access to education, and personalize learning for each student, there is a need to be aware of and address certain risks that may arise during its integration into the school environment. One of the biggest threats of using AI in educational system is confidence of student's personal data, like location, personal documents. In modern educational systems is widespread online register with the list of students or online list with special data base which contains data of passport, location, diploma (at university) and same personal documents of student. On top of that use of AI in education often involves collecting and analyzing large amounts of data about students, including their personal information. Insufficient protection of this data can lead to information leaks, privacy violations, and even misuse of this information. In the case when system get bug or virus all data can be lost, wiped or just can be stolen.



Figure 1. Herbert Simon Figure 2. IBM's Deep blue

Another risk is the creation of a digital divide. The introduction of AI may widen the differences between schools or students who have access to advanced technology and those who do not. In modern educational systems society is moving from the physical technologies to the digital. And this is a significant problem, because not everyone can access to this technology and not everyone can make the same work better and comfortable. Integration of AI in education create some imbalance for some students who can't access just an internet, not to mention about use of AI. Somebody who can use AI to make work faster and better than others or somebody who can't make the same work harder and get the same mark like person who used AI in its work or even worse and get a lower mark. In this case integration create a huge imbalance between layers of the population. It is also important to pay attention to possible errors in AI algorithms. During the training of machine learning models, biases may arise, leading to unfair training or the making of unjustified decisions. For example, algorithms may favor some students over others due to differences in data, exacerbating issues of discrimination and injustice. Furthermore, there is a risk of losing the human element in education. The use of AI to automate educational processes may diminish the role of teachers and weaken interpersonal interactions in the classroom, which are crucial for the emotional and social development of students. Despite these risks, the proper use of artificial intelligence in the school environment can bring significant benefits. To minimize risks, it is necessary to develop strict data privacy policies, ensure equal access to technologies, conduct audits of algorithms for bias, and maintain a balance between the use of AI and human presence in the educational process. There are a lot of risks with benefits in the same time linked with integration of AI in education systems, starting from the just a little bug with loss of data moving to a wipe up of important data or loosing access.

Integration AI in human industries. Consequences

The AI integration in the human industries mean a start of a new era, it marks paradigm shift promising increased efficiency, innovation, and transformative potential. However, with these advancements come a set of consequences that demand careful consideration. Integration AI into human industries undoubtedly make work made by human hand and brain better and adapt new changes to the new requests. One of the primary consequences of AI integration is the

automation of repetitive tasks, leading to workforce transformations. While mundane tasks may be handled more efficiently by AI, the nature of work is likely to evolve, creating a demand for skills in areas such as AI management, data analysis, and algorithm development. By this consequence there is a possibility of disappearance of some professions. For example, jobs like teacher, programmers, administrators, drivers, financial analysts, customer service jobs can disappear in the soon future, because of integration AI. AI during the years developed its possibilities, algorithm and work in the best way, so in the soon decades it can replace a lot of people jobs, leaving many unemployed, thereby increasing the risk of unemployment. Of course, it is not a statement, but evolution of AI, neuro-networks, that can generate almost everything – voice, video, sound, pictures, algorithm. Creating autopilot allow using transport and delivery without physical person, it means that drivers like a job can disappear in the soon future. The same goes to program and application developers. AI can generate codes, applications and algorithm, so it makes programmers’ jobs a bit useless, because the same cod AI can generate and develop faster than human. Of course, it can’t completely and immediately erase human factor in IT area, but reduce demand for this job its easy, because AI demonstrate a huge potential in development different OS, applications or just some program algorithm.

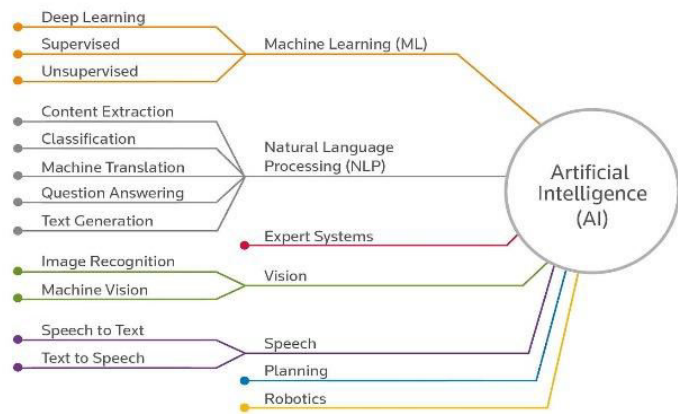
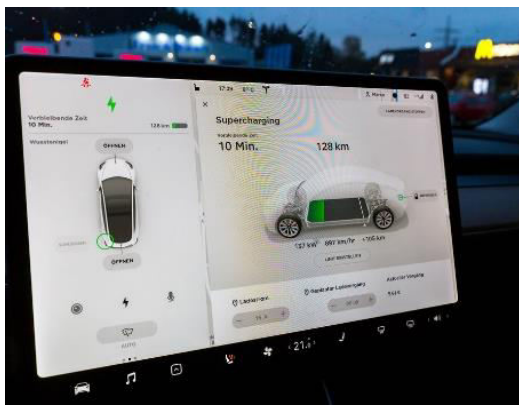


Figure 3. Tesla AI board computer Figure 4. AI paradigm

On top of that it also worth to mention that AI make human society dependent of digital technology, just a simple computer makes us dependent, but AI that witch brig a lot of possibilities and way to do some tasks automatically without any hard work give society a thought that to get something you should not do anything to create something, because exist technology which can do it instead of us. This ideology makes dependent people of gadgets to be even more dependent of online things, internet and techniques.

Conclusions

The integration of AI brings a lot of benefits for the human society. It changed world of technological industry up to down. Creation and development of artificial intelligence allow people to do some tasks and requests faster and more efficiently, it allow also to do different tasks in the same time. However, it not worth to rely only on work of AI, people need to understand that AI is only a tool, which can help and explain something, we need to do our work relying only on us, not to do everything with AI, in this case it is only degradation of human society.

References

- [1] www.shutterstock.com
- [2] Life 3.0. Being human in the age of artificial intelligence by Max Tegmark
- [3] Deep learning by Ian Goodfellow
- [4] medium.com - The Impact of Artificial Intelligence on Modern Society: Opportunities and Challenges
- [5] LinkedIn – Smiriti Mondal Kamal - Is AI a threat to the Society?
- [6] echtarget.com - 7 ways AI could bring more harm than good
- [7] YouTube – TED – AI is dangerous, but not for the reason you think|Sasha Luccioni
- [8] toda.org - Artificial Intelligence Is a Threat to Society
- [9] gh.bmj.com - Threats by artificial intelligence to human health and human existence
- [10] www.newsearchtoday.co - 12 risks of artificial intelligence