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IS ARTIFICIAL INTELLIGENCE A BENEFIT OR A THREAT TO HUMANITY?

Abstract: *the article is devoted to a topical topic today – the use of automated machines in everyday life. This article examines the problem of introducing and using robots in all spheres of society, and identifies the positive and negative aspects of superintelligence. Special attention is paid to the impact of robots on the economic sphere of society.*

Keywords: *artificial intelligence, automated machines, technology, superintelligence, benefits and harms.*

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ИСКУССТВЕННЫЙ ИНТЕЛЛЕКТ: УГРОЗА ИЛИ ВЫГОДА?

Аннотация: *статья посвящена актуальной проблеме - использованию автоматизированных машин в повседневной жизни. В работе изучена проблема внедрения роботов во все сферы общества, а также определены плюсы и*

минусы сверхинтеллекта. Особое внимание уделено влиянию роботов на экономическую сферу общества.

Ключевые слова: *искусственный интеллект, автоматизированные машины, технологии, сверхинтеллект, плюсы и минусы.*

Introduction.

Until recently, people could not even imagine that humanity is able to create an «alternative» individual who can think, solve problems of various levels of complexity, perform physical work, and recognize human voices and faces. And now no one is surprised by the presence of Siri, the «Smart home», a built-in Navigator in a smartphone that determines our location and helps us find the object we need anywhere in the world, set a route and get to it. But did you know that all these things that we use every day, even our banal smartphone, which is almost every second inhabitant of the planet, is artificial intelligence? And should we be afraid of it, or does artificial intelligence only benefit people?

Artificial intelligence is a digital computer or automated robot that can solve problems that only the human mind can solve, and also surpass humans in any cognitive work in the future. The idea to create automated machines that could solve mental problems appeared in Ancient Greece. But the ability to create programs for machines appeared only after the end of world war II in the 1945–1950-ies, when modern computers were already invented. Turing conducted a study and determined that the brain is a neural network, and it can be represented in the form of digital technologies. The appearance of the term «artificial intelligence» is associated with the name John McCarthy. What's interesting: until now, scientists have not been able to accurately define this term, and each scientist interprets the term differently. But to date, scientists have agreed that artificial intelligence should be divided into three types:

– artificial limited intelligence (ArtificialNarrowIntelligence) is an intelligence that lags behind human intelligence. It is programmed to solve simple problems (for example, a game of chess), but it will not be able to solve complex problems or answer those questions that a person would have coped with without difficulties;

– artificial General intelligence (ArtificialGeneralIntelligence) is the second type of intelligence that is equated to human intelligence. He can do all the tasks that a person can solve;

– artificial super intelligence (ArtificialSuperintelligence) is the most developed third type of intelligence. Human intelligence cannot compare with this «giant», significantly losing to it.

Leading world powers, as well as developed countries, Finance research in the field of artificial intelligence, its production and wide application in many areas of society. Russia is no exception, and in 2019, President Vladimir Vladimirovich Putin identified one of the tasks for this year as significant funding for research in the field of artificial intelligence, he also noted: «If someone can secure a monopoly in the field of artificial intelligence, the consequences are clear to all of us – they will become the ruler of the world." But, like any technology, artificial intelligence can become both an assistant to a person and a threat to all of humanity.

The benefits of artificial intelligence.

1. Freeing a person from routine work.

Scientists believe that with the advent of robots, people will no longer need to do mental work – this will be done by artificial intelligence. In this regard, the need for creative people will increase: poets, musicians, composers, as well as specialists in the development of artificial intelligence, creating programs for automated machines. There is also another advantage of getting rid of routine work – people do not have to work 8–9 hours a day, as is happening now. Scientists believe that as soon as robots take over the mental work, it will be enough for people to work 3–4 hours a day, and the rest of the time can be devoted to the spiritual development of their “I”.

2. To minimize errors in the work.

As you know, everyone has the right to make a mistake. But sometimes these mistakes lead to irreparable consequences. The programmed machines will be directed to ensure that the work is performed as accurately and carefully as possible. This also applies to self-driving cars. According to statistics, more than 1,300,000 people become victims of road accidents during the year. The cause of an accident is often

inattention, ignorance of traffic rules, negligent attitude of the driver, etc. Unmanned vehicles also exclude such errors, since they do not need a driver.

3. Performing work in a short time.

As you know, robots work much faster than people. These words are confirmed by an experiment conducted by the financial Times newspaper in 2016. The newspaper's editors set a task for a journalist working for the newspaper and a robot named Emma to write a text following statistics on unemployment in Britain. After completing the work, both texts were presented to the editor – in-chief, and his task was to determine which text was written by a robot and which was written by a living person. The journalist admitted at the beginning of the experiment that she was sure that she would lose to the robot in terms of writing speed, but she hoped that her text would still be better. And so it happened: the robot finished working after 14 minutes, and the girl took almost 2 times more time – 35 minutes. In fact, it was not difficult to determine who a particular text belongs to: the text from the robot Emma was written a little clumsily, but everyone was struck not by the style of writing the text, but by the fact that the robot was quite adept at working with facts and the text contained arguments in numerical and numerical values, which is important for the editors of the newspaper financial Times.

4. Reducing the number of crimes.

At the moment, there are already technologies that can determine a person's personality by their face. Scientists say that in the future, technologies will be improved to such an extent that they will be able not only to determine the person's face, but also to determine what a person is thinking, what they need, their emotional state and the level of danger this person has for other people. It is the last point that will help in the future to reduce the number of crimes or to make a faster and more accurate, fair decision of the court when committing an illegal act.

5. The impact of artificial intelligence on the economy.

The impact of artificial intelligence on the economy is huge. Many companies are already convinced of the reliability of robots: you do not need to issue salaries, which significantly reduces the organization's costs, the robot does not get tired and it does

not need a vacation or sick leave. One of the most striking examples is the bot's help in technical support. Most often, consumers have the same type of questions, so companies decided that a robot can handle this kind of work. One of these companies and retail chain for food delivery «Coswell». The bot offers various rations, notifies customers about innovations and discounts. According to research, people do not mind communicating with a robot, they believe that they get the information they need. The robot receives about 4,000 praising reviews a month from consumers.

In 2016, a completely new project was released on the market – the robot «Vera». A robotic recruiter, which deals with the selection of personnel for the company. Its work includes: searching for suitable resumes on the Internet, interacting with applicants and conducting initial interviews. The Vera robot is able to conduct interviews with 1,500 candidates in 9 hours of operation. An ordinary person would have managed this amount of work in just 9 weeks. Just think about such a huge difference! The robot's work has already been evaluated by several Russian companies: PepsiCo, Rospatriotcenter, MTS PJSC, IKEA and many others.

Another positive impact of artificial intelligence on business was shown to the world by Gartner, a research and consulting company specializing in information technology markets. In 2017, thanks to an experiment with the introduction of artificial intelligence, the company earned almost \$ 700 billion. The exaggeration of revenue is due to the fact that robots reduce the company's costs, increase revenue due to improved customer service, which keeps customers who already use the company's services and attracts other consumers. Similarly, analysts have calculated the company's approximate revenue over the next years if the organization continues to use artificial intelligence in its work (table 1). In addition, Gartner is going to improve artificial intelligence and programs for machines.

Table 1

Forecast for the total revenue of companies generated by artificial intelligence,
Gartner data

	2017	2018	2019	2020	2021	2022
Business Value	692	1,175	1,901	2,649	3,346	3,923

Growth (%)		70	62	39	26	17
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In the case of robots, the principle of «two sides of the same coin» works, and in parallel with each plus, scientists today see the disadvantages of artificial intelligence.

The dangers of artificial intelligence.

1. Job cuts.

Due to the fact that robots will be responsible for all routine work, and in the future it is possible for a person to create an artificial superintelligence, whose abilities are incomparable with the physical and mental abilities of a person, humanity already needs to think about retraining, and this will affect almost all areas. Already on the Internet, you can find a large number of sites that are full of such headlines as» These professions have 5–10 years to live «or»List of professions that will soon disappear». In the lists, you can often see such specialties as: accountant, sales Manager, legal consultant, translator, designer, drivers, recruiters. The list goes on and on. GoldmanSachs, one of the largest investment banks that deals in securities and other financial services, left only two out of 600 traders in 2018. The rest were replaced with robots, which is almost 99%.

2. For robot accuracy is important.

You need to understand that a robot is not a person, and accordingly, requests addressed to the robot must be formulated clearly and clearly, there is no right to make a mistake. If you get into an unmanned taxi and ask to go faster, because you are late for work, it is very possible that you can get there together with a patrol car that will chase your vehicle for speeding. There is another example that can more accurately explain this problem of artificial intelligence. If your goals do not coincide with the goal that was originally programmed, your attempts to intervene and correct any of the robot's work may be considered by the robot as an error that needs to be corrected, which may lead to irreparable consequences.

3. Errors in the operation of the robot.

As mentioned above, accuracy is important for the robot. However, there may be cases when the robot will need to recognize text written by hand or a person in a photo

that was not taken clearly and the photo itself is smeared. The robot may end up recognizing the text differently than it actually is (figure 1), or it may recognize the wrong person in the photo. If the robot is introduced into the judicial industry, then at the slightest mistake of the robot, the result of the investigation can break the life of an innocent person and leave the person who is actually guilty at large.

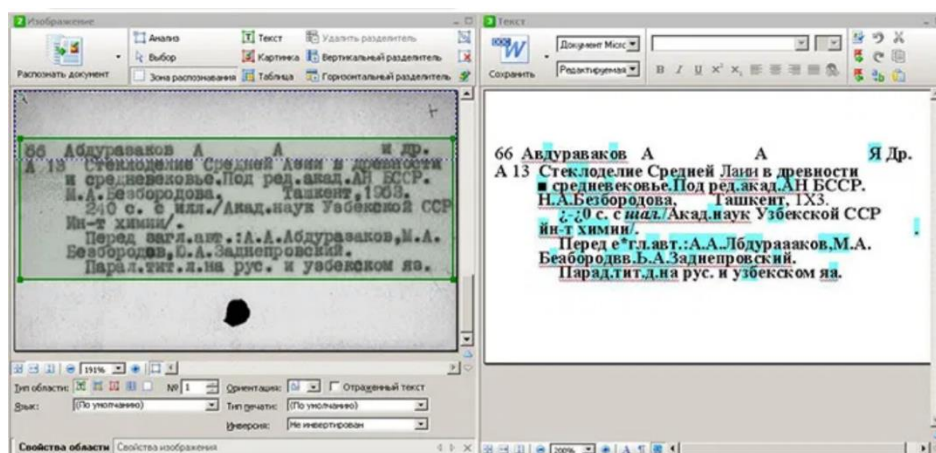


Figure 1. OCR ten-twenty years ago

4. Robot program can be hacked.

Scientists suggest that robots will be able to calculate what a person is thinking, what they need, and what mood they are in. On the one hand, this will reduce the level of crime in the country, but on the other hand, can we then talk about the presence of personal space and whether it would be fair to introduce such a «strong» robot into our lives if there is an article on freedom and personal integrity? Also, in the modern world, we often encounter news when unknown people skillfully hack various programs: starting with social networks of ordinary people, and ending with Bank accounts, sites of Federal significance that contain state secrets. In this case, the possibility of hacking robots in the interests of a certain group of people is not excluded. And if in the near future the whole world switches to digital technologies and robots are introduced into all spheres of society, will this not lead to chaos, which will be caused by people's desire to earn «easy money», revenge or just human interest? Also, humanity is considering the idea of creating «weapons of the future», which will also be programmed, respectively, the effectiveness and accuracy of such weapons will be high. But what happens if such weapons are hacked by terrorists? This is a great opportunity for them to keep at Bay not only a certain circle of people, but also certain countries, and

possibly the whole world. It is also possible that artificial superintelligence in the future, doing household chores in the owner's house, can collect important information about working relationships, business in the company and ideas belonging to a particular organization, and sell to competitors. Even now, on many sites in the Google-Chrome browser, before opening a site, you need to pass a check: are you a robot or not? The check includes either text recognition, or entering the numbers that are specified, or you need to select certain images that contain a particular object. This is due to Google's concern with its own information, as well as to protect its users and protect their information.

5. The problem of ethics.

In the history of mankind, there have been wars caused by racism, nationalism, and religion. Scientists do not exclude the fact that in the future there will be a problem of a global scale as the non-recognition of the robot as a full-fledged member of society. Researchers are also debating how to instill ethical values in automated machines. After reading dozens, hundreds, or even thousands of books, manuals, and textbooks on the subject of moral norms, can you really understand their importance? After all, this question is not about neural networks, digital technologies, or applied computer science, but is directly related to philosophy. How should a robot react in a given situation, can it offend a person or Vice versa-a person offends an automated machine? And what happens in the end? For scientists, this is one of the most pressing issues that has long caused heated discussions and discussions, but the answer has not been found to this question.

Conclusion.

Artificial intelligence is not fiction, not a movie, or an image described in a book. Artificial intelligence has already broken into our lives and affects people in both positive and negative ways. There are still many questions that scientists and researchers are interested in. One of the most important – what will happen next? As you know, the main being in the world is a human, because it has the strongest mind, but what will happen if in the future artificial intelligence will have a superintelligence, which is difficult to compare even human? Will the “reins of power” go to the machines that

we created ourselves? You can argue on this topic for a long time, but you can not deny the fact that artificial intelligence is already around us and is an integral part of our lives, and fortunately or unfortunately – time will tell...

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