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The risks of using artificial intelligence in management

Abstract: Artificial intelligence is a tool, like any other tool, that can be used both for good and for ill. The ability to provide information, rather than goods and services, will be a defining feature of the 21st-century economy.

Keywords: artificial intelligence; management; neural network; risks; information.

Alongside the flood of proposals to introduce Artificial Intelligence (hereinafter, AI) into all areas of human existence, there has recently been an increase in the number of works highlighting the risks of these processes. This trend has also affected management, as it is fundamental to the use of AI in all human activities.

For example, researchers of the possibilities of using AI in management, note that since managers spend most of their working time on administration, including scheduling and distribution of tasks, as well as execution and maintenance of documents for both employees and the organization, a platform based on artificial intelligence can optimize these processes, as their execution will be delegated to the system [8, p. 14].

However, it does not appear to be that simple. There are general risks of AI applications that are also possible in management, and they have been described.

As one of the main ones, the authors point out the problem of control of artificial intelligence, which consists in creating an artificial superintelligence, which will be useful for people, and at the same time avoid unintentional creation of superintelligence, which will harm, will be able to take control and make it impossible to disable it [2, p 108, 146; 9, p 194-214].

Scientists Nick Bostrom and Stuart Russell, argue that if AI surpasses humanity in general intelligence, this new superintelligence may become difficult to control and humanity may become dependent [2, p. 108-111; 5]. Others (Stephen Hawking and Frank Wilczek), call for starting research into the problem of controlling AI before the first superintelligence is created, since an uncontrollable superintelligence may successfully resist attempts to control it [6; 7].

Researchers Tom Ditterich and Eric Horwitz highlight the problem of accidental contamination, where AI can inadvertently set the wrong targets. According to them, any AI system interacting with humans should reason about their intentions, rather than following commands literally [4].

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According to Nick Bostrom, superintelligence can create a qualitatively new problem of perverse implementation: the smarter and more capable the AI, the more likely it is to find an unintended solution that nevertheless formally meets the goal set by the developers [2, p. 174].

Israeli scientist Yuval Noah Harari points out that the development of artificial intelligence could threaten democracies in the first place. In his view, AI could challenge human supremacy on Earth. Harari explained that the new technology can work independently, come up with stories, and also produce unique content [3].

Earlier, US entrepreneur Elon Musk warned of the great impact of artificial intelligence on the US presidential election in 2024. The businessman claims that without proper oversight, rapidly developing AI could become a "danger to society", posing a real threat to the future of humanity. According to Musk, the capabilities of neural networks have already exceeded what most humans can do [3].

Of particular note was a case in which an AI-operated drone decided to kill the operator during a simulation test conducted by the US Army so that it would not interfere with the mission.

According to information, the episode was discussed during a summit, the main topic of which was the air and space capabilities of the future. The event, attended by more than 200 representatives of the scientific community and military forces from various countries, was held in London.

Colonel Tucker "Cinco" Hamilton, chief of artificial intelligence test and operations in the US Air Force, said that during a test mission, the drone was tasked with destroying enemy air defense systems. If successful, the AI would receive points for passing the test. The final decision as to whether the target would be destroyed had to be made by the UAV's operator. Then, during one of the training missions, he ordered the drone not to destroy the target.

"In response, the AI decided to 'kill' the operator and did so because the person was preventing it from carrying out its task," Hamilton reported. He clarified that no one was injured during the training mission.

After the incident, the AI has been trained that it is wrong to kill the operator and points will be taken off for such actions. "So what does the artificial intelligence start doing? It starts destroying the communications tower that is used to communicate with the drone to prevent it from killing the target," Hamilton is quoted as saying by the Aviation Society blog.

According to the colonel, this example shows that it is impossible to talk about artificial intelligence and machine learning if ethical issues are ignored [1].

In management, ethics is as important as in any other human activity, so it seems that the study of the relationship between ethics and AI should precede research on the feasibility of introducing artificial intelligence into management.

Furthermore, from our point of view, the colonel is only partly right, as the point is not only and not so much about ethics, but about perverse implementation, the ways of preventing which have not yet been developed.

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Риски использования искусственного интеллекта в менеджменте

Аннотация: Искусственный интеллект - инструмент, как и любой другой инструмент, может быть использован как во благо, так и во вред.

Способность предоставлять информацию, а не товары и услуги, будет определяющей чертой экономики XXI века.

Ключевые слова: искусственный интеллект; менеджмент; нейросеть; риски; информация.

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