The World is Changing Fast: Can AI Help Meet the Challenges?

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About a quarter of a century ago, humanity crossed the millennium mark. Everyone was looking forward to drastic changes. And these changes did not take long; they are already walking across our planet. However, it turned out that it is not all that simple.

First, the changes are related to technology. The scientific discoveries of the previous century served as a theoretical basis for technological advances. A list of the most recent modern discoveries that provide a technological breakthrough for today: space exploration, the creation of computer machines, and the development of global networks. This is far from a complete list [1].

The changes that are taking place today are speedy. The rapid development of technologies and the implementation of the strategy of relentless development were extensively damaged by the coronavirus pandemic, which significantly slowed down the pace of development of the world economy. However, on the other hand, the pandemic and quarantine restrictions contributed to the digitalization and the economy's transition to the online mode, which can be considered a positive phenomenon to some extent [2, 3].

The next civilizational challenge, the magnitude of the destructive effect that will only be evaluated later, was a full-scale war on the European continent. A universal criterion applies to the feasibility of implementing specific projects. A viable project must be in line with the deep opportunistic relationships that prevail in the universe. And the laws of nature are always grounded in perfection and harmony. Everything that does not comply with this universal law is eventually doomed to evolutionary death.

Always a productive outcome is the implementation in technical solutions of algorithms or models borrowed from the surrounding nature. One of the most productive ideas is the implementation of artificial neural networks that simulate the activity of the nervous system of living organisms. Based on clear mathematical models of synaptic connections and an understanding of their interaction in combination with powerful computational abilities, it has been possible to create what is known as artificial intelligence. The tools of artificial intelligence have created many prerequisites for the effective application of innovative technological solutions in all areas of human activity: from space exploration to agriculture, from medicine to managing the work of enterprises orevenentire industries.

Among the technological solutions based on neural networks, the improvement of existing and the development of new models and methods have been created, which ensure a high level of accuracy in solving the tasks of classification/prediction/forecasting.Allthisbecomespossiblethanks to artificial intelligence.

To come back to the question asked in the title, we can say that artificial intelligence is a powerful tool that will help solve many very complex tasks efficiently. However, AI is not a panacea either. There will always be problems that will require different approaches to solve. As for the intellect of artificial intelligence, in my opinion, this question remains open today.

References

1. Dronyuk I. "Information protection technologies on tangible media: a monograph, Lviv: Publishing House of the Lviv Polytechnic National University, (In Ukrainian) (2017): 200.

2. Shakhovska N., et al. "An Empirical Investigation of Pandemic Impact on IT Students' Educational Schedule". In: Byrski A., Czachórski T., Gelenbe E., Grochla K., Murayama Y. (eds) Computer Science Protecting Human Society Against Epidemics. IFIP Advances in Information and Communication Technology, Springer, Cham 616 (2021): 35-40.

3. Iryna Moiseenko., et al. "Social and Economics Aspects of the Pandemic Influence in Ukraine". Procedia Computer Science 198 (2022): 670-675.

4. Moiseienko I, Dronyuk I and Moyseyenko I. "Social Responsibility Diagnostics as the Sustainable Development Basis". In: Hussain C.M., Di Sia P. (eds) Handbook of Smart Materials, Technologies, and Devices. Springer, Cham (2021).

5. Roman Tkachenko., et al. "Recovery of Missing Sensor Data with GRNN-based Cascade Scheme". International Journal of Sensors Wireless Communications and Control 11.5 (2021): 531-541.

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