ARTIFICIAL INTELLIGENCE INFLUENCE ON THE WORLD TRADE DEVELOPMENT

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The article considers the trends in artificial intelligence development and its influence on the processes occurring in the world trade. We consider various options at all levels of the value chain, assessing the impact from the introduction of such technologies. The analysis of cross-border data movement regulation against the background of data confidentiality exacerbation was carried out. Analytical assumptions about the possible impact of AI on the labor market in the near future are put forward.

Keywords: artificial intelligence, digital economy, machine learning, world trade, data confidentiality, labor market, regulation.

Introduction

Over the past 200 years, a huge number of technical innovations have occurred that have had a powerful impact on all spheres of human activity. One of the most relevant innovations in recent years is artificial intelligence (AI). The volume of TNC investments in AI technologies in 2016 amounted to an impressive $ 30 billion. The volume of startups in AI amounted to $ 9 billion in the same year. 20% of companies already use artificial intelligence on an industrial scale.

However, the degree of use varies by industry. So, a high degree of application of AI is observed in areas such as financial technology, the automotive industry, and telecommunications. The average degree of AI use is observed in retail, media and mass media and FMCG, and the low - in healthcare, education and tourism. Artificial intelligence applies to all parts of the value chain:
- at the design stage - making accurate forecasts and plans;
- at the production stage - cost optimization and production process;
- at the stage of product promotion - targeted marketing and market analysis;
- after-sales service - improving the quality of customer service and interaction with the client.

Like other innovations, the introduction of AI is likely to increase the well-being of people around the world. However, the negative consequences may be the growth of inequality, the disappearance of a number of professions and social exclusion.

Despite the fact that significant progress has been made in understanding the algorithm itself and the features of AI, humanity is not yet aware of the consequences of using this technology on a global scale. A number of countries are already negotiating AI regulation under international agreements. Until now, cross-border flows of data and information have been governed by WTO rules created before the spread of the Internet. Now countries are trying to regulate these issues in the framework of local and bilateral agreements.
Thus, the new NAFTA and CPTPP format (revision of the Trans-Pacific Partnership) contains separate parts devoted to the regulation of cross-border data flows, the privacy of user information, as well as directly to the regulation of artificial intelligence.

**Main focus of the study**

The EU is considered the leader in regulating the digital market. Within the union there is an agreement General Data Protection Regulation (will enter into force in 2018). Its goal is to harmonize data privacy legislation within an integration association. This agreement intersects with human rights law and security legislation, which brings the issue of data protection to a new level. At the same time, governments around the world are allocating huge amounts of money from state budgets to developing clusters involved in the development of new AI-based technologies, the purpose of which is to achieve a comparative advantage in the global economy (Waiyawassana, 2019).

Often this process takes place on too large a scale and well-intentioned results may conceal destructive consequences for the global economy (Lomakin, Samorodova, 2017).

The focus of discussions is the actions of the Chinese government aimed at protecting domestic IT giants that impede even giants such as Google or Amazon from entering the Chinese market. This has allowed China to make tremendous progress in the commercial use of artificial intelligence technologies. An example is the Baidu search engine, Alibaba's e-commerce platform, and the WeChat messenger company, which combines the functionality of Skype, Facebook and Apple Pay. Services are already gaining recognition abroad and are beginning to compete with existing leading companies, possibly in the near future, will be able to fully penetrate the US and EU markets.

The following trend is observed: among the companies that are leaders in market capitalization in 2017, almost all use AI technology to a high degree, or at least move in this direction. Artificial intelligence is defined as "the theory and development of computer systems capable of performing creative tasks that have traditionally been performed by humans." The concept of machine learning is associated with artificial intelligence, which allows computer systems to learn from examples and build new data processing algorithms on their own. In connection with the development of neural networks and deep learning technologies, the quality of data processing is increasing every year. How will artificial intelligence change world trade?

1. **Logistics.** One of the most obvious areas where AI will change is in the supply chain. The entire process from online ordering of goods to delivery to the final consumer is provided by data, to which machine learning technology can be applied. Such programs will be able to predict the likelihood of force majeure at certain stages of delivery, analyze consumer behavior to optimize warehouses and storage facilities. In addition, AI can build the fastest and most optimal delivery routes. In general, this technology will be able in the future to create a supply chain that is flexible and resistant to unforeseen circumstances.

2. **Compliance control.** One of the main tasks and problems of conducting trade in modern conditions is the observance of a huge number of contract terms, legislative acts and other regulations, which are constantly and rapidly changing. Companies need to monitor all these changes and exercise control over the entire process of delivery of goods to the final consumer. There is software that is used for these purposes, but it is not safe from possible errors. In this regard, it is often necessary to apply additional control by competent employees, which leads to new costs. The use of AI can increase the effectiveness of such programs and eliminate the need for human control of all business processes of the manufacturer.

3. **Smart contracts.** Doing business involves concluding a large number of contracts, which requires a huge amount of time and money. With the implementation of AI, these...
cost items can be significantly reduced, because conclusion of contracts is connected with legal issues, documentation and other parameters that AI using machine learning can automatically resolve and submit a finished document. It is also important that the interests of both parties can be equally respected in the competent work of artificial intelligence (Matveev, Sviridov, Aleynikova, 2008). This system can be integrated with the schedule of payments, deliveries, shipments from both the manufacturer and the buyer, which reduces the risk of disputes and litigation.

4. Ensuring access to trade finance. Another area where AI can be profitable is financing. Before issuing a trade credit to a company, the bank conducts a number of assessment activities to analyze the solvency and financial condition of the enterprise. Many of them do not receive loans due to non-compliance with the terms, contract terms and other problems. Banks, in turn, have to maintain a whole staff of analysts and compliance control specialists in order to avoid the risk of loan defaults. This task can be assigned to artificial intelligence, which will reduce costs for banks and reduce the time for consideration of applications for companies.

5. Classification of goods. Cross-border movement of goods requires the use of goods classification systems (for example, the harmonized HS system). For tax purposes, it is important for exporters and importers to properly classify the product and determine its code. This is done by highly qualified specialists in the description of the goods provided by the exporter. This process takes quite a long time. The use of AI in this area can significantly reduce costs and save time on passing mandatory trading procedures. This technology is already in use today.

So, 3CE has developed software that, according to the product description, determines the product code according to the harmonized HS1 system. Usually this task is performed by highly qualified specialists with a high level of wages. AI can well compete with this profession.

**Conclusion**

Generally speaking, the main advantages of introducing artificial intelligence technologies are centered around reducing production costs and reducing producer costs. Another important consequence is the simplification of general trading procedures and the reduction in the time required to complete them. In addition, progress can be made in the compliance control process, which is one of the key issues for manufacturers, suppliers, exporters and forwarders. It is important that all of the above benefits can be achieved without a systemic risk of “human nature” errors due to machine learning and deep learning technologies.

Nevertheless, it is widely believed that the widespread introduction of AI can lead to the collapse of the labor market, as all existing professions will be replaced by machines and software. However, often these ideas are too unrealistic. There is no doubt that certain changes in the labor market will occur, however, it is not a question of completely displacing a person from the labor market as such, but only of a consistent restructuring of the professional environment. Low-skilled workers will gradually leave the market, but there will be a huge demand for highly qualified professionals who could service and manage the new system. The tasks of the state in these conditions are to find a competent balance in the labor market, to provide support for specialists leaving the market, and to establish retraining programs.

**References:**


