UKRAINIAN SCIENTISTS' CONTRIBUTION TO THE DEVELOPMENT OF IT TECHNOLOGIES

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Introduction. Information technology has become an integral part of modern society, influencing economic, scientific and social development. Ukrainian scientists play an important role in the development of this sector. Thanks to their research and innovations, the IT industry is growing rapidly both in Ukraine and abroad.

Key achievements of Ukrainian scientists in IT. One of the most famous Ukrainian scientists who has made a significant contribution to the development of information technology is Serhiy Lebedyev. He developed the SECM (Small Electronic Computing Machine), the first electronic calculator in Europe. Built in 1951 at the Kyiv Electrotechnical Institute, the SECM was the world's first programmable electronic calculator and is considered to be one of the world's first programmable electronic computers. S. Lebedyev also developed the basic principles of computer architecture (Комп'ютерний геній, 2014).

Mathematician Borys Hniedenko made a significant contribution to probability theory and statistics, which are widely used in machine learning and data processing algorithms. His work has had a significant impact on the development of artificial intelligence (Institute of Mathematics, 2021).

Max Levchin is a Ukrainian-born entrepreneur who co-founded PayPal, a well-known payment system that revolutionized online commerce. Max Levchin was born in Kyiv but emigrated to the United States as a child. In 1998, he co-founded PayPal with Peter Thiel and Elon Musk, which quickly became a global leader in electronic payments. Volodymyr Mikhalevich is a programmer and scientist. His work in optimisation and systems analysis was applied to management information systems and logistics. His research helped to develop algorithms for efficient resource allocation and system optimization (Zomkovskyi, 2024).

Modern innovations and development prospects. Today, Ukrainian scientists continue to contribute to the IT sector, especially in such promising areas as artificial intelligence, blockchain and cybersecurity. The most well-known Ukrainian company conducting research in these areas is SoftServe (SoftServe, 2020). The company works closely with Ukrainian scientists and engineers to promote the development of new technologies.

Ukrainian startups in the IT sector that have gained popularity in the international market. For example, "Grammarly" is a product developed by Ukrainian programmers that uses artificial intelligence algorithms to improve written English. This innovative technology has helped millions of users around the world. It is a testament to Ukrainian engineering expertise. "Looksery" is a Ukrainian startup founded in Odesa in 2013 by Viktor Shaburov and Yuriy Monastyrshyn. The mobile app they developed allows users to apply effects and masks to video chats in real time (Єгорова, 2022).

Conclusion. The contribution of Ukrainian scientists to the development of information technology is significant and multifaceted. From the early stages of creating computers to modern developments in artificial intelligence and cybersecurity. The future of the Ukrainian IT sector directly depends on further support for science and technology and the integration of Ukrainian scientists into the global research process.

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