

Olha Syviuk

*Kyiv National University of Technologies and Design
(Kyiv, Ukraine)*

Liudmyla Roienko

*Kyiv National University of Technologies and Design
(Kyiv, Ukraine)*

DIGITAL TRANSFORMATION AS A FACTOR OF STRUCTURAL CHANGES IN THE ECONOMY AND EMPLOYMENT

The digital economy today is rightfully regarded as one of the primary driving forces behind economic growth, technological progress, and social transformation in the 21st century. It has fundamentally altered the way goods and services are produced, distributed, and consumed, reshaping traditional economic models and opening up unprecedented opportunities for development. To truly grasp the full scale of this phenomenon and understand the direction of its further advancement, it is essential to trace the entire path of the digital revolution from its modest beginnings to the current state of global transformation.

The emergence of the digital economy traces its origins to the earliest days of computing, when the first computers were designed to perform complex calculations and process large volumes of data. A true qualitative leap occurred in the 1990s with the emergence and rapid spread of the Internet. This was arguably the most revolutionary technological event in modern human history. The World Wide Web connected millions of people across the globe, broke down traditional geographical and time barriers, and enabled the instant exchange of information, knowledge, and resources in real time. The Internet fundamentally transformed the logic of doing business: companies gained the ability to interact with customers directly, bypassing numerous intermediaries, while information itself became one of the key economic resources (Dehtiarov, 2024, 76).

The next defining milestone was the emergence of the Web 2.0 concept in the mid-2000s, which radically transformed how people interact with the web. While the first generation of the Internet was one-way, with users primarily consuming pre-made

content, Web 2.0 transformed the web into a dynamic, interactive environment where anyone could be a reader, author, and publisher all at once.

The rapid growth of e-commerce has also become an integral part of the development of the digital economy. Companies quickly realized the enormous potential of online sales and began actively exploring this space. Consumers now have the ability to purchase goods and services at any time, from anywhere in the world, compare prices, read reviews, and make informed choices all without having to physically visit a store.

At the same time, the development of information and communication technologies has led to the emergence of new economic sectors, such as cloud computing, artificial intelligence, virtual reality, and blockchain. These technologies have revolutionized business operations, providing companies with more effective tools for managing their operations, analyzing data, and interacting with customers.

The digital economy also has a significant impact on the labor market and employment models. The rise of self-employment and online freelance platforms has enabled many people to work flexibly and utilize their professional skills. However, this has also raised questions about employment security, workers' rights, and social protection in the digital economy. The digital economy also has a significant impact on public policy and regulation. Governments around the world face the challenge of balancing the promotion of innovation with the protection of consumers, privacy, and security. Issues such as net neutrality, taxation of digital companies, and data governance have become the subject of global debate (Коваль, Лишак, 2024).

It is also worth noting that automation is one of the key areas through which digital innovations significantly improve production efficiency. Modern technological solutions, including industrial robotics, intelligent control systems, and artificial intelligence tools, have opened up vast opportunities for companies to improve production processes, boost productivity, and reduce labor costs. Routine and labor-

intensive operations that previously required significant human resources are now performed with much greater precision and speed, allowing staff to shift their focus to more complex, creative, and strategically important tasks.

Another key area where digital innovations have had a significant impact is the substantial expansion of capabilities in the fields of design and prototyping. Modern computer modeling and simulation tools enable engineers and designers to quickly test new concepts, develop prototypes, and refine product specifications even before they are brought to market. As a result, development cycles have been significantly shortened, and companies have gained the ability to implement innovative solutions more quickly and maintain their competitive positions in a rapidly changing market environment.

It is also important to note that, alongside new opportunities, the digital economy brings with it a whole range of serious challenges that cannot be ignored. Cybersecurity issues are becoming increasingly acute: the number of cyberattacks and cases of confidential data leaks is steadily rising, posing real threats to both businesses and ordinary users. Equally pressing is the issue of personal data protection and privacy, which is intensifying in proportion to the expansion of the digital space.

Regulating the digital economy has become a distinct and extremely complex challenge for governments. Governments are forced to strike a delicate balance between creating favorable conditions for innovative development and reliably protecting the rights and interests of consumers. In this context, it is crucial to establish a comprehensive legal framework that simultaneously supports competition, encourages technological progress, and ensures the security and transparency of all digital processes.

Overall, digital transformation requires significant investments of time, effort, and resources; however, it is an essential prerequisite for ensuring the country's sustainable innovative development and its full integration into the global economy. Achieving an adequate level of digital maturity and establishing oneself as a competitive player on

the international stage is possible only through a systematic approach that organically combines technological modernization, human capital development, and the improvement of the institutional environment.

REFERENCES:

1. Dehtiarov D.S. (2025) Modern challenges of digitalization of the global economic space: risks, barriers and opportunities. *Innovation economics*, Vol.2, 75–83. <https://doi.org/10.37332/2309-1533.2025.2.8>)
2. Коваль О. В., Лишак О. М. (2024) Характеристика цифрової трансформації економіки в умовах глобальних викликів. *Економіка та суспільство*. Вип. 66 [Електронний ресурс] URL: [Перегляд ХАРАКТЕРИСТИКА ЦИФРОВОЇ ТРАНСФОРМАЦІЇ ЕКОНОМІКИ В УМОВАХ ГЛОБАЛЬНИХ ВИКЛИКІВ](#)
3. Храпкіна , В. В. (2024) Цифрова економіка та її роль у забезпеченні сталого економічного зростання: інституціоналізація цифрових інновацій. *Академічні візії*. Вип. 29. [Електронний ресурс] URL: [content](#).

Valeria Tymoshenko

*Kyiv National University of Technologies and Design
(Kyiv, Ukraine)*

Kseniia Kugai

*Kyiv National University of Technologies and Design
(Kyiv, Ukraine)*

THE ROLE OF DIGITALIZATION IN SHAPING MODERN ECONOMIC SYSTEMS

Over the past few years, digital technologies have become a central driver of economic development and global transformation.

Their integration into various sectors has reshaped economic structures, redefined traditional business models, boosted productivity, and paved the way for innovation (Digital Economy Outlook, 2020). The rapid dissemination of digital solutions has also become a critical determinant of competitiveness for businesses and national economies in an increasingly interconnected global market.

The work explores the influence of digitalization on contemporary economic development, highlighting its key benefits, challenges, and future potential.