

# DIGITAL ECONOMY AND INNOVATIVE TECHNOLOGIES

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<https://doi.org/10.5281/zenodo.10467668>

Key words: digital economy, development of digital economy, human resources, labor market, education.

**Abstract:** Nowadays, the concept of digital economy has appeared in the economic theory and practice of a number of countries. It was characterized by the rapid development of digital technologies, the revolution in the information sector, and the acceleration of the globalization of the economy. At the current stage of social and economic reform of society the environment causes specific features of the institutional structure of society and the need to form new concepts and approaches on this basis.

## INTRODUCTION

An important condition for the effective development of the main areas of human activity in the digital economy is the formation of an institutional environment suitable for it. In the program for the development of the digital economy of the Republic of Uzbekistan, the personnel and education system should be included among the main institutions that create conditions for the development of the digital economy, and a separate section should be devoted to it.

The following main directions related to personnel and education should be defined in the program: creation of basic conditions for the training of digital economy personnel; further improvement of the education system, which should provide personnel with deep knowledge of the digital economy; to establish the training of highly qualified specialists needed for the digital economy in secondary and higher education institutions; to aim to create modern scientific and practical literature in Uzbek, which is necessary for the digital economy; development of mechanisms for organizing the labor market, which should be based on the requirements of the digital economy; establish the training of programmers and technical personnel to acquire the necessary in-depth knowledge; creation of a system of financing and motivating the participation of personnel in the development of the digital economy of Uzbekistan.

Taking into account that the educational system should be oriented to the current state of the labor market and its changes associated with the introduction of digital technologies, we will begin the problems related to personnel by considering the

place of each personnel potential in the digital economy, as well as analyzing the labor market.

In accordance with the Strategy for the development of the information society in the Republic of Uzbekistan in 2019-2022, the main production factor of the digital economy is information in digital form, taking into account the needs of citizens and society to obtain quality and reliable information, the formation of an information space, the development of the information infrastructure of the Republic of Uzbekistan, the national information should represent the activity of digital economy, which serves to create and apply telecommunication technologies, as well as to form new technological foundations for social and economic spheres.

There is no doubt that digital technologies allow to reduce the time spent on communications and speed up all economic processes, but what will happen in a specific area as a result of the acceleration of these processes - whether the economy will flourish or decline - will depend on the vector of human capital development. It can be seen that the main factors of production traditionally separated for all stages of human development - land, labor and capital - are undergoing fundamental changes in the era of digital transformation of the economy, while the value of goods, services and information is growing rapidly.

In the digital economy, the main asset of countries will be human capital. However, the main asset is not a person at all, but concrete people who have deep knowledge in the field of new technologies, are able to apply them to life, and can improve old things. Not even a specific person, but a group of people who are able to integrate and activate individuals with deep knowledge into a common

collective intelligence, is beginning to be considered the main asset of states.

In this regard, it can be recognized that in the economy of the future, human and informational capital will be the main factors of production, and human capital will be the main factor and driving force.

Klaus Schwab, the founder and president of the Davos Economic Forum, justified this point of view by saying that the main factor of production in the digital economy is still not capital, but human resources.

He argues that the future world will see the emergence of new specializations and professions driven not only by the fourth industrial revolution, but also by non-technological factors, including demographic challenges, geopolitical changes, and new socio-cultural norms.

For this reason, it is not the availability of capital, but rather the shortage of skilled personnel that limits innovation, competitiveness and growth.

According to Schwab, the indicated problems "force us to reconsider the concept of high qualification itself from the point of view of the fourth industrial revolution." Traditional definitions of skilled labor are based on the availability of a high level of education or specialized knowledge and the possession of a defined set of characteristics within an area of expertise or occupation. Given the rapid development of technologies, the fourth industrial revolution emphasizes the continuous adaptation of employees and the acquisition of new skills and approaches from different perspectives.

## Analysis and results

We would like to emphasize that although this process is painful, it is an inevitable accompaniment to the development of the digital economy. This requires major changes in the structural restructuring of the economy, in the functioning of various systems, including social protection, taxation and education.

We also cite data from The Future of Jobs study published by the World Economic Forum, according to which, by 2022, "2 million jobs will be added to the global labor market, but 7.1 million jobs will be lost." Jobs will appear in intellectual and high-tech fields, and will decrease in the real sector of the economy and in the fields of administrative work.

According to the reports of authors, "by 2022, big data technology will increase the number of jobs in mathematics and computing by 4.59%, in

management by 1.39%, in finance by 1.34% and in sales by 1.25%. But the same big data area will reduce the number of office staff jobs by 6.06%.

Meanwhile, the Internet of products led to a 4.54% increase in employment in computer majors and a 3.54% increase in design and engineering. But this factor alone reduces the employment of specialists in technical maintenance, repair and installation of equipment by 8%, and office workers by 6.2%.

Employment in industry is strongly influenced by manufacturing technologies and 3D-printing (the number of jobs decreases by 3.6% per year) and to a lesser extent by the development of robotics and automatic transport (a decrease of 0.83%).

## Conclusions

In general, the analysis of the data shows that employment grows in places where the management of complex technological processes is required, and falls in places where the share of daily boring and unskilled labor is high.

The economy and society are currently suffering from digital transformation, according to the "OECD Digital Economic Outlook 2017" report: on the one hand, automation will reduce employment in certain professions and at the same time increase the number of non-standard, i.e. short-term, part-time or low-paid jobs and may slightly widen the gender gap in the workplace.

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