

## THE ROLE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN THE DEVELOPMENT OF THE DIGITAL ECONOMY

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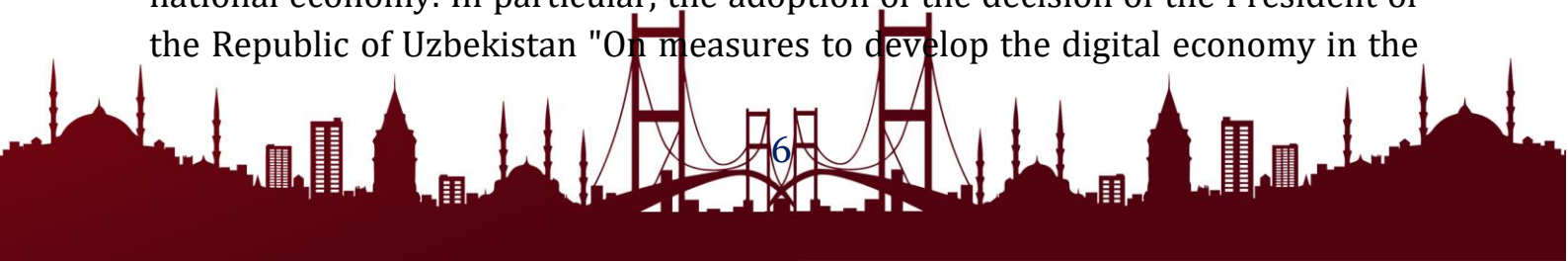
**Abstract:** The digital revolution, which is manifested as a new stage of economic and technological development, has rapidly changed human life, created wide opportunities, and started a period of further tightening of the international competition. The term "digital economy" was first coined as a separate concept in 1995 by Don Tapcott in *The Digital Economy: Promise and Peril in the Age of Networked Intelligence* conquered.

**Keywords:** digital economy, modern stage of development, various productions, technologies.

This publication highlights fundamental innovations (semiconductors, processors), key technologies (computers) and connecting infrastructures (internet and telecommunications networks) as the main components of the digital economy. The digital economy is used to represent two different concepts. First, the digital economy is considered a modern stage of development, characterized by the priority of creative work and information benefits. Secondly, the digital economy is a unique concept, the object of its study is the information society. In the conditions of today's rapidly developing global economy, the digital economy is in the initial period of its development, and the transition to the digital information stage of our time is only a few decades. In general, the digital economy is a digital economy that allows to significantly increase the efficiency of storage, sale and delivery of various productions, technologies, equipment, goods and services based on the use of the results of process analysis and the processing of large volumes of data. The information in the form is an activity that is considered the main factor of production. In the future perspective of modern development, technologies for working with large-scale data (Big Data), artificial intelligence, neurotechnologies, quantum technologies, Internet of things, robotics and sensors, digital electronic platforms, cloud and mobile technologies, virtual and augmented reality technologies, digital technologies such as crowdsourcing, blockchain technologies, cryptocurrencies and ICOs, 3D-technologies are becoming crucial. It is noted that the digital economy will cause incomparable changes in more than half of the existing industries. For example, according to



experts of the World Bank, a 10% increase in the number of high-speed Internet users allows to increase the gross volume of national economies by an average of 0.4-1.4% every year. The growth rate of the digital economy in the world is almost 20 percent per year. In developed countries, the share of the digital economy in the gross domestic product has reached 7%. They are already benefiting greatly from the introduction of the digital economy. In particular, the United States of America exports more than 400 billion USD of digital services per year. More than 5% of the country's gross domestic product is directly related to the Internet and information and telecommunication technologies. By 2025, the US will get an additional 20 trillion from the digitization of industry. dollar income is expected. It is noted that such economic efficiency is especially high in the production of consumer goods (\$10.3 trillion), the automobile industry (\$3.8 trillion), and logistics (\$3.9 trillion). According to the results of various studies, the weight of the digital economy in the world economy ranges from 4.5 to 15.5 percent. The United States and the People's Republic of China contribute almost 40 percent of the value added in the global information and communication technology sector and 75 percent of the patents related to blockchain technologies. The President of our country Sh.M. According to the statistics provided by Mirziyoyev at the event dedicated to the development of information technologies on February 13, 2020, the share of the digital economy in the gross domestic product in the United States is 10.9 percent, in China it is 10 percent, and in India it is 5.5 percent. In Uzbekistan, this figure does not exceed 2 percent. To appreciate the growing importance and influence of digitization, it is enough to look at the share of global market capitalization of several large technology companies and digital platforms in the last decade. In particular, according to the data of the UN Trade and Development Conference, this figure was 16% in 2009, and reached 56% by the end of 2018. In the course of such rapid changes and intensifying competition in the world community, it is a fact that we will not be able to sustainably develop our country's economy and ensure its competitiveness in the near and far future without the widespread introduction of innovations and digital technologies. in turn, it requires strengthening scientific and practical efforts. In this regard, a number of measures have been taken to introduce digital technologies into the socio-economic life and public administration system of our country within the framework of comprehensive reforms for the fundamental modernization of our national economy. In particular, the adoption of the decision of the President of the Republic of Uzbekistan "On measures to develop the digital economy in the



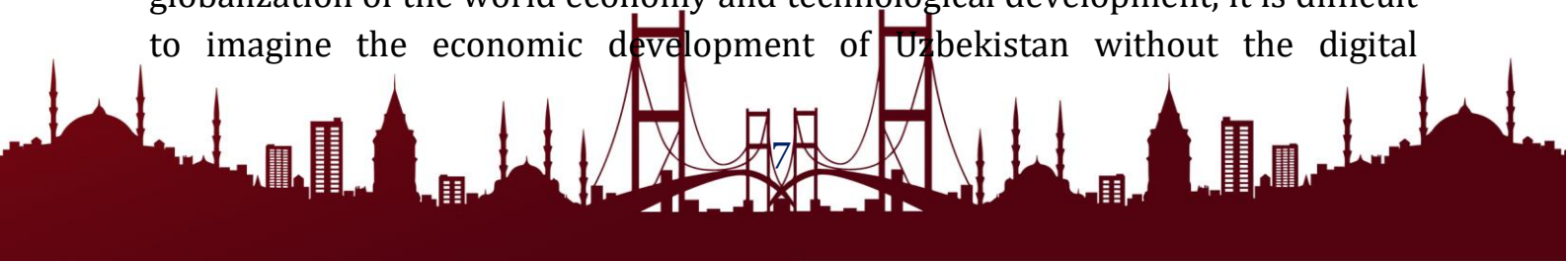
Republic of Uzbekistan" dated July 3, 2018 No. PQ-3832 is an important step in the development of the digital economy. The most important tasks for development have been defined, which include the following:

introduction of activities in the field of crypto-asset circulation, including mining, smart-contract, consulting, emission, exchange, storage, distribution, management, insurance, crowd-funding (collective financing) technologies in order to diversify various forms of investment and business activities;

in the field of development and use of blockchain technologies, training qualified personnel with a good understanding of modern information and communication technologies, with practical work skills, as well as attracting highly qualified foreign specialists;

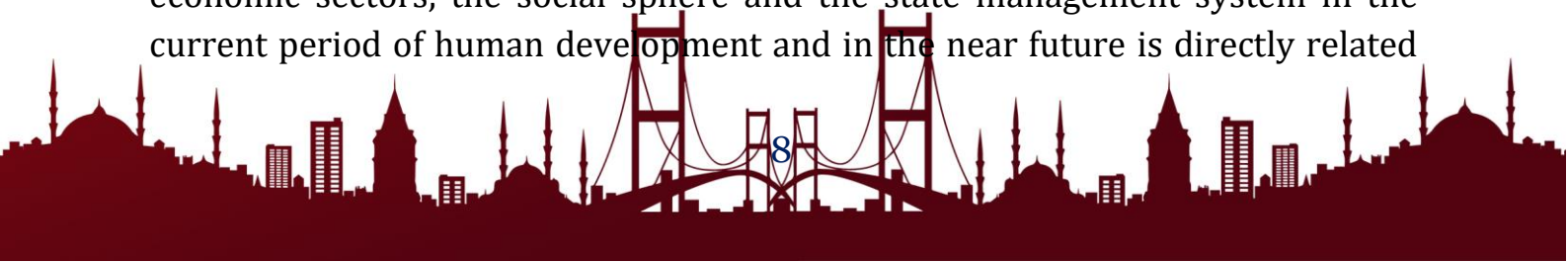
comprehensive development of cooperation with international and foreign organizations in the field of activities on crypto-assets and "blockchain" technologies, as well as creation of the necessary legal framework taking into account advanced foreign experience;

to ensure close cooperation of state bodies and business entities in the field of introducing innovative ideas, technologies and developments for the further development of the digital economy. For example, the introduction of the "Electronic Government" system in our country is an integral part of the development of the digital economy, and its main goal is to simplify the transition from administrative procedures and procedures, to increase the quality of life of the population, and to improve the investment and business environment. In order to implement the main tasks, as well as to achieve the goal of developing a digital society in our country, creating convenient opportunities for residents and entrepreneurs, and developing an effective and open public administration system free from bureaucratic barriers and corrupt factors, today all sectors of the economy the national concept of "digital economy" is being developed, which involves updating on the basis of digital technologies, and it is expected to create an opportunity to increase the volume of the gross domestic product by an additional 30% through the development of the digital economy. President of the Republic of Uzbekistan Sh.M. Mirziyoyev's Address to the Oliy Majlis dated January 24, 2020, the proposal to name 2020 as the "Year of Development of Science, Enlightenment and Digital Economy" literally confirmed the beginning of a historical turning point in the life of Uzbekistan in line with global development. In the conditions of globalization of the world economy and technological development, it is difficult to imagine the economic development of Uzbekistan without the digital



economy. According to the results of research, it is estimated that by 2022, a quarter of the global GDP will be in the digital sector. However, the fact that Uzbekistan occupies the 103rd place among more than 170 countries according to the international index of development of information and communication technologies indicates that there are still many issues that need to be solved in this field in our country. will give. The head of our state stated that "... our country has risen by 8 points in the international index of development of information and communication technologies in 2019, but it is still very far behind. It is also true that most ministries, agencies, and enterprises are far from digital technologies. Of course, we know very well that the formation of the digital economy requires the necessary infrastructure, a lot of money and labor resources. However, no matter how difficult it is, if we don't start today, when will we?! Tomorrow will be too late. Therefore, active transition to the digital economy will be one of our top priorities in the next 5 years. Digital technologies not only increase the quality of products and services, but also reduce excess costs. At the same time, they are also an effective tool in eliminating the scourge of corruption, which worries and bothers me a lot. We all need to understand this deeply. It is possible to widely introduce digital technologies in state and community management, social sphere, increase productivity, in a word, dramatically improve people's lives." It should be noted that some elements of the digital economy are already successfully operating in the life of our country. In particular, taking into account the mass transfer of documents and communications to digital means, authorization of electronic signatures and communication with the state are also being transferred to electronic platforms. According to UN Secretary General António Guterres, "the digital economy can create new risks, including threats to cyber security, facilitation of illegal economic activities, and violations of privacy." Making new decisions requires collaborative action by governments, civil society, academic groups, the scientific community, and the technology sector." In fact, it is necessary to strengthen international cooperation as much as possible in the expansion of the scale of the digital economy. At this point, it should be noted with pleasure that as a result of the effective measures being taken in the field of information security in Uzbekistan, in 2019, we rose by 41 places and took 52nd place in the Global Cyber Security Index.

In conclusion, it should be said that the qualitative development of economic sectors, the social sphere and the state management system in the current period of human development and in the near future is directly related



to the widespread introduction of digital technologies. The prospect of our country's development also depends on the development of the digital economy and the level of coverage of digital technologies. To achieve this, it is appropriate to list the following basic conditions and priorities for the development of the digital economy:

creation of an institutional environment and digital infrastructure for the stable operation of digital technologies, the provision of public services, the wide introduction of digital technologies in the real sector of the economy, health care, state cadastre and other areas, as well as the development of the territory of the Republic of Uzbekistan step by step to ensure as complete coverage as possible with the possibilities of connecting to the global Internet network at the level of countries;

expanding the scope of personnel training and training qualified programmers and engineering technicians with in-depth knowledge in these areas, teaching modern information technologies that fully meet international standards at all levels of the educational system, including foreign successful implementation of the "1 million programmers" project together with our partners;

strengthening the scientific-theoretical base in the field of digital economy and supporting scientific activities in this field with the purposeful use of the funds of the "Digital Trust" fund;

holding seminars, courses and other events in educational institutions in order to promote and expand "digital literacy" among the broad strata of the population, to involve them in mastering information technologies;

strengthening the legal framework in the field of digital economy and improving the legal documents, as well as creating the legal basis for the concept, activities and financing of "startups" through venture funds;

to organize a labor market that meets the requirements of the digital economy and to increase its mobility, to improve the qualifications of specialists for the rapid assimilation of new technologies;

strengthening international cooperation in the field of digital economy, implementation of joint projects with leading international technological companies, including the establishment of modern research and production laboratories for innovative developments.

International experience shows that today digital technologies are rapidly developing mainly in the scientific community and the private sector. Therefore,

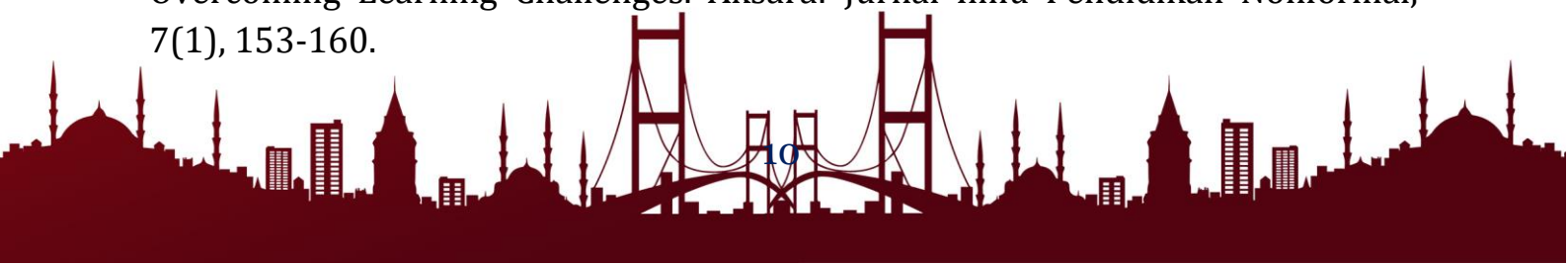


the state should create a favorable ecosystem by supporting innovative projects and IT companies in these areas.

Also, the state should support modern methods of digital education in the field of supporting the innovative and digital ecosystem, develop norms for effective regulation of innovative services, help in the development of new markets, and reduce risks arising from the deepening of technological processes. it is appropriate to take measures.

**References:**

1. Murodullaevich, M. N., & Sharifjanovna, Q. M. (2023). The role of information systems in the management structure. INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, IT, ENGINEERING AND SOCIAL SCIENCES ISSN: 2349-7793 Impact Factor: 6.876, 17(01), 18-21.
2. Murodullaevich, M. N., & Sharifjanovna, Q. M. (2023). STAGES OF INTRODUCTION OF ELECTRONIC GOVERNMENT. INTERNATIONAL JOURNAL OF RESEARCH IN COMMERCE, IT, ENGINEERING AND SOCIAL SCIENCES ISSN: 2349-7793 Impact Factor: 6.876, 17(01), 15-17.
3. Murodullaevich, M. N., & Sharifjanovna, Q. M. (2023). Methodological bases of educational process information. ASIA PACIFIC JOURNAL OF MARKETING & MANAGEMENT REVIEW ISSN: 2319-2836 Impact Factor: 7.603, 12(01), 29-31.
4. Маллабоев, Н. М., & Боқижанов, Д. Д. (2022). КОМПЬЮТЕР ЖИНОЯТЧИЛИГИ ТУРЛАРИ ВА ЙЎНАЛИШЛАРИ. Экономика и социум, (6-2 (97)), 500-504.
5. Mallaboyev, N. M., Sharifjanovna, Q. M., & Nodirbek, M. (2022, May). INTERACTION BETWEEN INFORMATION COMPLEXES IN ECONOMIC SPHERES. In Conference Zone (pp. 250-253).
6. Mallaboyev, N. M., Sharifjanovna, Q. M., Muxammadjon, Q., & Shukurullo, C. (2022, May). INFORMATION SECURITY ISSUES. In Conference Zone (pp. 241-245).
7. Bulturbayevich, M. B. (2021). Challenges of Digital Educational Environment. Academic Journal of Digital Economics and Stability, 4, 54-60.
8. Pulatova, X. X., Mallaboev, N. M., & Akbarov, B. X. (2021). CLASSIFICATION OF ECONOMIC MATHEMATICAL MODELS. Экономика и социум, (4-1), 293-295.
9. Bulturbayevich, M. B., Rahmat, A., & Murodullayevich, M. N. (2021). Improving Teacher-Student Collaboration And Educational Effectiveness By Overcoming Learning Challenges. Aksara: Jurnal Ilmu Pendidikan Nonformal, 7(1), 153-160.



10. Mallaboev, N. M., Pulatova, X. X., & Akbarov, B. X. (2021). APPLICATION OF MATHEMATICAL MODELING IN SOLVING ECONOMIC PROBLEMS. Экономика и социум, (4-1), 190-194.
11. Mamurova, F. T., Abdullayeva, N. K., & Mallaboyev, N. (2019). USING THE «ASSESSMENT» METHOD IN ASSESSING STUDENTS KNOWLEDGE. Theoretical & Applied Science, (11), 80-83.
12. Holmirzaev, I. A., & Mallaboev, N. M. (2019). JOINT EDUCATIONAL EDUCATIONAL WORK OF THE TEACHER AND STUDENT AND METHODS OF IMPROVING THE QUALITY OF EDUCATION. Экономика и социум, (6 (61)), 49-53.
13. Маллабоев, Н., & Шокиров, Д. (2018). Роль стандарта в производстве качественных и безопасных продуктов. Экономика и социум, (5 (48)), 773-775.
14. Abdullayeva, O., & Mallaboyev, N. (2018). PROCESS OF STUDENT SELF-EDUCATION AND ITS DESIGN. Scientific Journal of Polonia University, 27(2), 116-119.
15. Маллабоев, Н., Имамназаров, Э., & Абдуллаева, Н. (2018). Перспективы производства продуктов питания. Экономика и социум, (5 (48)), 770-773.
16. Маллабоев, Н., & Шокиров, Д. (2016). ИННОВАЦИОННЫЕ ТЕХНОЛОГИИ В ФОРМИРОВАНИИ КАЧЕСТВА КОНКУРЕНТОСПОСОБНЫХ ОДАРЕННОЙ МОЛОДЕЖИ. Теория и практика современной науки, (6-1), 838-842.
17. Маллабоев, Н., & Шокиров, Д. (2016). СПОСОБЫ ОБЕСПЕЧЕНИЯ ИНФОРМАЦИОННОЙ БЕЗОПАСНОСТИ. Теория и практика современной науки, (6-1), 826-830.
18. Маллабоев, Н., & Абдуллаева, Н. (2016). МЕСТО СИСТЕМЫ" ЭЛЕКТРОННОГО ПРАВИТЕЛЬСТВА" В РАЗВИТИИ МАЛОГО БИЗНЕСА И ПРЕДПРИНИМАТЕЛЬСТВА. Теория и практика современной науки, (6-1), 834-838.
19. Маллабоев, Н., & Шокиров, Д. (2016). СИСТЕМЫ ЭЛЕКТРОННОГО ПЛАТЕЖА. Теория и практика современной науки, (6-1), 830-834.
20. Fotima, N., Nosirjon, M., & Alisher, A. (2015). Development of an electronic educational-methodical complex and using in educational process. Austrian Journal of Humanities and Social Sciences, (1-2), 76-77.
21. Nurdinova, F., Mallaboev, N., & Anvarov, A. (2015). Development of an electronic educational-methodical complex and using in educational process. Austrian Journal of Humanities and Social Sciences, (1-2), 76-77.



22. Райимжанова, Н., Носиржон, М., & Алишер, А. (2015). Рекомендации по самопознание и саморазвитие для обеспечение духовного развитие студентов ВУЗа. *Austrian Journal of Humanities and Social Sciences*, (1-2), 74-76.
23. Anvarov, A., & Mallaboev, N. (2015). Methods for Effective education. *Scientific Journal Yan Kochanovski University, Poland*, 3(4).
24. Matlubahon, K., Mukarramxon, K., & Alisher, A. (2015). Role of the international cooperation in high education development. *Austrian Journal of Humanities and Social Sciences*, (1-2), 72-73.
25. Mallaboyev, N. M., & Sharifjanovna, Q. M. Elmurod G 'ayratjon o 'g, U., & Najmiddin Ulug 'bek o 'g, T.(2022, May). TRENDS IN THE SPEED OF INTERNATIONAL INFORMATION NETWORKS. In *Conference Zone* (pp. 246-249).
26. Anvarov, A. (2015). Recommendations on self-cognition and self development for ensuring spiritual development of students University. *Austrian Journal of Humanities and Social Sciences*, 1(1-2), 74-75.

