

## THE ROLE AND SIGNIFICANCE OF INNOVATIVE TECHNOLOGIES IN EDUCATION IN THE DEVELOPMENT OF DIGITAL TECHNOLOGIES

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### ASBTRACT

The article describes and analyzes the features of developing a strategy for introducing digital technologies and modern methods into the educational process in Uzbekistan. The structure of the activities of the country's communication networks and its analysis in a narrow and wide range is carried out. There are proposals for the development of the introduction of digital technologies and modern methods in the educational process in Uzbekistan.

**Keywords:** Digital economy, blended learning, flipped learning methods, e-learning model, cloud technology method.

### INTRODUCTION

In accordance with the Decree of the President on additional measures to introduce the digital economy, e-government and information systems in public administration, the e-government system, including public services, is aimed at simplifying the transition to administrative procedures, improving the quality of the life, investment and business environment, consistent measures for its modernization and development.

The development of the education system is a strategic goal. For the modernization of the country, socio-economic sustainable development, it is necessary to improve the quality of training of highly qualified personnel, develop human capital in accordance with the requirements of the labor market.

It is necessary to increase the level of enrollment in higher education, train highly qualified, creative and systemic thinking, independent decision-makers based on international standards, create the necessary conditions for the manifestation of their intellectual abilities and spiritual development. To introduce digital technologies and modern methods into the educational process, the following measures will be taken: on their basis, it is planned to organize a system for training highly qualified engineers and technicians for the digital economy. A number of decisions and laws have been adopted in our country to ensure the strong integration of modern information and communication technologies and educational technologies, creating additional conditions for the continuous development of teachers' professional skills.

At home, children independently study theoretical material, and in the classroom at school they perform practical exercises. Thus, students reinforce the material that they studied at home. For those who want to use flipped learning but have doubts, we have compiled the advantages and disadvantages of this method.

It is necessary to widely introduce an electronic library system that allows remote use in the country's education system, to expand students' opportunities for continuous professional development through the use of library collections, databases after graduation.

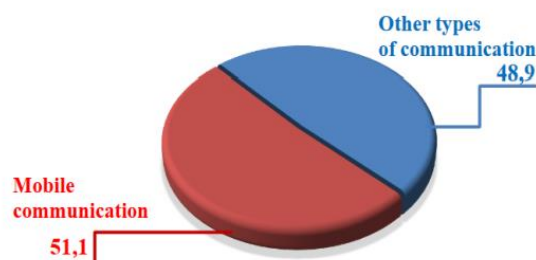
In order to accelerate the creation of national e-learning resources, organize the translation of foreign e-learning resources, gradually increase the share of electronic resources in the

educational process, create electronic textbooks, and place information on electronic media. resources in libraries using QR codes must be created.

In advanced digital economies, both the gross domestic product (GDP) and the share of GDP per capita are high. In this regard, the views of the head of our state on this issue at the state level are aimed, firstly, at improving the living standards of the population, and secondly, at increasing the real incomes of the population. The question arises of how communication services are organized in the country, especially Internet services.

In this regard, below I analyzed the activities of telecommunications companies in our country in a narrow and broad sense. The basis of the digital economy is high-quality communication services.

**Communication services structure, %**  
*(for January-March 2021)*



**The structure of income of communication enterprises from the provision of communication services, in %**

Table -4

|  | 2019  | 2020  | 2021  |
|--|-------|-------|-------|
| Communication network                        |       |       |       |
| - Total                                      | 100,0 | 100,0 | 100,0 |
| including:                                   |       |       |       |
| Mail   | 2,4   | 2,9   | 3,1   |
| telegraph                                    | 0,02  | 0,02  | 0,02  |
| personal communication                       | 0,1   | 0,1   | 0,1   |
| telephone in urban and rural areas           | 16,1  | 14,2  | 10,8  |
| RF recording, control and protection         | 1,2   | 1,4   | 1,8   |
| mobile                                       | 1,3   | 1,4   | 2,2   |
| Internet"                                    | 49,0  | 43,0  | 45,7  |
| data network                                 | 22,9  | 26,0  | 27,2  |
| transmission and reception of TV programs    | 4,8   | 8,5   | 8,1   |
| transmission and reception of radio programs | 1,6   | 1,6   | 0,8   |
| other areas of the communication network     | 0,2   | 0,2   | 0,2   |

Analyzing the data of the above table, we found that the composition of income from telecommunication services of the republic's telecommunications companies (in%) changed as follows. According to 2019 data, the largest share in the structure of communication services was occupied by the Internet - 49% and data networks - 22.9%. However, the lowest share was 0.02% for private networks and 0.1% for long-distance and international telephone networks.

The above sectors occupied the largest and lowest shares in 2019-2020. In connection with the pandemic situation in the country in 2020, there was a decrease in the share of communication networks. In particular, the share of the Internet in the total volume of communication networks decreased by 3.3% compared to 2019.

Compared to the corresponding period of 2020, mobile services increased by 3,2%, and services to the population - by 6,6% (in actual prices).

Communications, as of April 1, 2021, amounted to 26 099,4 thousand units, including among the population – 23 941,0 thousand subscribers. The provision of the population with mobile communications per 100 people reached 69 units. As of April 1, 2021 (according to the Ministry for the Development of Information Technologies and Communications of the Republic of Uzbekistan), the number of business entities licensed to provide Internet access services amounted to 258 units. Compared to January-March 2020, the throughput of international data transmission channels remained at the same level – 1200,0 Gbps.

Providing the population with mobile communications (per 100 permanent residents)

|             | 2019        | 2020        | 2021        |
|-------------|-------------|-------------|-------------|
| Total       | <b>66,6</b> | <b>71,0</b> | <b>73,0</b> |
| including:  | x           | x           | X           |
| individuals | 64,0        | 68,7        | 70,1        |

The digital economy is an implementation system based on the use of digital technologies in economic, social and cultural relations. Sometimes it is also expressed in terms of the internet economy, the new economy, or the internet economy. The digital economy is changing the face of modern national economies, increasing their efficiency and transparency. Today it is the engine of the world economy, one of the signs of development. The digital economy is not some other economy that needs to be created from scratch. This means translating the existing economy into a new system by creating new technologies, platforms and business models and applying them to everyday life.

Based on the above data and analysis, it is advisable to take the following measures to improve the efficiency of research in higher education, the wide involvement of young people in scientific activities, and the formation of an innovative science infrastructure:

1. Creation of subsidiaries and subsidiaries involved in the implementation of research results in higher education institutions by creating new products and technologies with high commercial potential based on start-up projects at the expense of additional budgetary funds.  
Business development
2. Creation of "spin-off" and "spin-out" enterprises involved in the implementation of research results in higher education institutions by creating new products and technologies with high commercial potential based on extra-budgetary start-up projects, development of academic entrepreneurship.
3. Ensuring the development of science in accordance with the latest achievements based on the analysis of research results in the world with the help of the international information and analytical system SsiVal.
4. The development of innovative scientific research, the preservation of existing scientific schools and the creation of new ones, the strengthening of their human resources while ensuring the wide involvement of talented youth in science.

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