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Problems and Solutions of the Development of the Field of Information Technologies and the Digitalization of Public Administration

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Abstract: In this article, the role and importance of information technology and communication in the development of social society, the problems and solutions of the development of information technology and the digitalization of state administration, the analysis of the work carried out in Bukhara region in this regard, the introduction of innovative projects, the activities of software products and information technology technological parks development, information about the work being carried out to support start-up ideas suitable for socio-economic growth and their results is provided, and collaborative work in the field on a global scale is described.

Key words: scientific research, information technology, start-up ideas, computer literacy, science, economic growth, IT park, software product, management, digitization, transformation.

Introduction

Digital technologies have become so embedded in our lives that today it is impossible to imagine not only our daily activities, but also the development of social and economic spheres without them. In order for us to become equal to developed countries, first of all, it is necessary to take the shortest path to progress by acquiring knowledge in the field of advanced modern information and communication, internet and digital technologies. In our country, practical processes for digitalization of all sectors, including healthcare, cadastre, social protection, agriculture, and education, have begun and are soon bearing positive results.

In fact, the field of information technologies creates certain changes in society, in particular, its impact on working conditions is significant. In the conditions of digital transformation, the increase in automation processes, artificial intelligence, analytical systems working with huge data, and the increase in the use of robots serve as substitutes for labor resources. As a result, our work in all areas is improved and efficiency increases significantly. One of the important conditions for the development of information and communication technologies is to create favorable conditions for the provision of such software products and digital services, to bring them to the domestic and foreign markets, and to stimulate innovative developments.

Research methodology:

According to the President's decision "On measures to create conditions for the rapid introduction of artificial intelligence technologies", starting from March 1 of this year, at the Ministry of Information Technologies and Communications Development, Digital Technologies and Artificial Intelligence a scientific-research institute for the development of intellect was established. Organization of scientific research aimed at the comprehensive implementation of the "Digital Uzbekistan - 2030" strategy and the introduction of artificial intelligence technologies in economic sectors, social spheres and the state administration system; it will be of great importance in conducting fundamental and applied scientific research in this direction.

The decree of the head of our state dated May 24, 2023 "On measures to effectively organize public administration in the field of digital technologies within the framework of administrative reforms" and "Increasing the coverage and quality of digital services and digital transformation of sectors, networks and regions" new tasks for the development of the sector were defined in the decision on measures.

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In the experience of the countries of the world, great attention is paid to scientific research, IT technologies, startup ideas, computer literacy. We also need to realize that we can achieve economic growth only through the achievements of science and new technologies. IT-parks embody such goals and are a modern space for studying and working on promising projects, helping to enter the market of software products, widely attracting advanced young people of the future, and educating them with high potential. Today, thousands of startups are being worked on here, and millions of programmers are being trained.

India has expressed interest in creating an information technology park in Uzbekistan based on best practices in software development and acceleration of start-up projects together with information and technology companies of Uzbekistan. It can be noted that the IT park was created at the initiative of the President of the Republic of Uzbekistan to improve the startup ecosystem and startup projects and implement them in our country.

Main part:

As in all fields, scientific advances are rapidly entering the field of information technology and communication today. This encourages the introduction of innovative projects, the development of software products and information technology technology parks, the support of start-up ideas compatible with socio-economic growth, and increases competitiveness in the process of globalization.

We know that in the era of globalization of the economy and the development of information technologies, the development of the country cannot be achieved without the development of the digital economy. Of course, the development of the digital economy will lead to a significant increase in the standard of living of the population, and most importantly, corruption will be prevented.

In recent years, under the leadership of our head of state, consistent reforms have been implemented in our country in connection with the introduction of the digital economy, the development of modern information technologies and communications, the attraction of investment projects in the field, and the creation of new mechanisms for public bodies to communicate with the population.

Comprehensive work on the introduction of information and communication technologies is also being carried out in the Bukhara region. In particular, if we focus on the financial and economic indicators in this direction, the total volume of services provided in the region during 2023 is 15.8 trillion soums, of which the volume of information and communication technologies services is 620 reached 7 billion soums (3.9 percent), the growth rate was 121.9 percent (506.4 billion soums in the same period of 2021). At the same time, the volume of computer programming services amounted to 22.8 billion soums, and the growth rate was 106.7 percent. In order to develop the telecommunication infrastructure, 5,764 km of optical fiber communication lines were built during the past period of 2023, and their total length was increased to 16,348 km. An opportunity to connect to the high-speed Internet network was created for all social sphere objects through an optical fiber communication line. In order to develop the mobile communication network, 136 new antenna mast devices were built and 590 base stations were installed on them, as well as 338 existing base stations were modernized. As a result, 99% of settlements in the region were covered by mobile communication and 97% by broadband mobile internet services.

In the field of information technologies and communications, in 2023, 55 new enterprises were established in the field of computer programming in the region, and the total number of them in the field of information technologies increased to 355 (an increase of 124 percent), of which 74 are enterprises that develop software products.

Since the establishment of the "IT-Park" Bukhara branch, the number of its residents has reached 38 (135 percent growth), and the total domestic turnover of software products is 19.0 billion soums. Also, during 10 months of 2023, services worth 884 thousand US dollars were exported by residents, compared to the same period last year, these services amounted to 13 thousand US dollars.

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During the visit of the head of state to our region, Bukhara has long been a center of science. Today, there are many educated and ambitious young people. He emphasized that it is necessary to create a brand of Bukhara in the field of IT. In this regard, a number of works on the training of qualified personnel in the field of information technologies were carried out in the region. 64,527 young people across the region have registered under the "one million programmers" project, which was organized to attract young people to the field of information technology and teach programming. Of these, 41,274 people received participant certificates, and 31,531 people with graduate certificates received participant certificates. Today, more than 27,000 young people from Bukhara region have registered and successfully completed the Coursera online learning platform, which is a logical continuation of this project.

Within the framework of education development, in the first stage of the "Muhammad Al-Khorazmi Successors" project, in 2024, 4,200 7-11th grade students from 200 schools in Khorezm region are expected to be trained in IT and prepare them to receive international IT certificates. The 2nd stage of this project is planned to be implemented in Bukhara region in 2025-2026.

Today, "Prospective Future Team", "Technikolor pro" and "Infotek IT Services" in the region have established remote service centers in the field of transport logistics, programming and call centers, and 95 young people have been provided with work.

Within the framework of the "Digital Uzbekistan - 2030" strategy, in 2020-2022, based on the program of digital transformation of the Bukhara region, the "Electronic polyclinic", "Single electronic medical card" information system, and "Electronic hospital" model information systems are implemented in the health institutions of the region. done.

As part of the digitization of the water sector, 602 "Smart water" and automated monitoring devices were installed in 484 control wells, which allow real-time monitoring of the use of water resources. Also, a monitoring system for the activities of water resources, hydrometry and dispatching service was established.

In order to introduce modern digital technologies to the production processes of cotton-textile clusters in the field of agriculture, drip irrigation of cultivated fields belonging to "Bukhara Agrocluster", financial-economic, agro-transport vehicles and automation of agro-activities and SMART-MEP geo-information system was introduced for the purpose of monitoring.

As part of the Resolution of the President of the Republic of Uzbekistan No. 357 of August 22, 2022, 13 projects on digital transformation of the Bukhara region have been established. Today, 10 projects have been implemented, and the remaining 3 are being implemented. Also, within the framework of the decision No. 162 dated May 24, 2023, the implementation of 9 priority projects on digital transformation of Bukhara region in 2023-2024 was set as a goal. To date, 9 projects have been implemented, 1 is being implemented. As part of the implementation of this decision, the inter-departmental electronic document circulation system (edo.ijro.uz) was introduced in all district and city administrations of the region and in more than 300 enterprises and organizations.

More than 940,472,000 state services were provided in Bukhara region in 2023, of which more than 463,102,000 (49.2%) services were provided through the Unified interactive state services portal. The most used electronic state services in the region are obtaining a license to transport passengers and cargo on international routes, applying for a state subsidy for a mortgage loan, electronic power of attorney for individuals for the management of motor vehicles (sale, export to another country without the right) is being organized.

The services provided through the single interactive portal of public services will create convenience for residents, save money and time spent on road rent, and ensure transparency. Also, a memorandum of cooperation and an agreement was signed with the Acharya network of institutions of the Indian state

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regarding the organization of the "IT cluster" activity in the Karakol district, and Acharya University was established in the Karakol district.

Today, 300 students are studying in the field of information technology at the university. They are taught by more than 30 professors and teachers from countries such as India, Indonesia, Jordan, Philippines and Nepal.

Also, the 8-month foundation courses of Acharya University are organized, and in these courses, students of grades 7-11 are trained in English, mathematics and IT (programming) and are prepared to enter international universities. In particular, graduates of this course will have the opportunity to obtain at least B1 level certificates in English.

At the level of our province, in cooperation with the cyber security center and other interested ministries and agencies, effective propaganda activities aimed at protecting against cyber threats are being conducted among all layers of the population. In order to ensure that propaganda activities reach all levels of the population, the Cyber Security Center of the Ministry has launched weekly video podcasts on the types of cybercrimes and how to protect against them, starting from July 22 of this year. the practice of providing the necessary concepts was established. In order to prevent crime, full video surveillance cameras were installed in the territory of the Razzaq Khamroyev neighborhood of Bukhara, and an opportunity to control the area was created.

As for the priority tasks of 2024, a road map project for digitalization of Bukhara region has been developed. It is planned to introduce projects on digitalization of health care, transport, water management and development of IT education into this road map.

In 2024, the introduction of an automated payment system in public urban passenger transport, the establishment of contracts for the supply of water to agricultural clusters and farms, and electronic processing of water applications , projects with a specific mechanism for providing remote services and establishing export (IT-outsourcing) centers using information communication technologies have been introduced in the region. At the same time, in 2024, based on the experience of Bukhara, it is planned to develop the "E-social prevention" platform in order to digitize the activities of the preventive service of the regional internal affairs bodies. Accordingly, new projects are being developed in order to increase the social activity of young people, to further develop their creativity and creative abilities.

Conclusion

I think that these projects will play an important role in bringing their talents, inventions and ideas to life. It should be noted that in the age of technology and communication, people's worldview and opinion are changing day by day. Today, it is becoming more and more difficult to surprise them and develop projects that can completely change their way of life. One of the main reasons for this is their active use of modern information communications, their quick awareness of news and events happening in the world.

In conclusion, we have enough potential and opportunities to develop and implement projects on digitalization of our region in the future. In our country, programs for the development of the IT sector and the activation of advanced technologies and its consistent improvement are being developed and concrete steps are being taken. This will serve to educate invincible field experts and increase their intellectual potential in the future.

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