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SOME VIEWS ON IMPROVING THE SYSTEM OF NATIONAL INDICATORS FOR THE DEVELOPMENT OF THE DIGITAL ECONOMY IN UZBEKISTAN

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Annotation
This article presents some of the author's views on developing a system of indicators for the development of the digital economy in Uzbekistan. In particular, it discusses the importance of creating a comprehensive set of quantitative and qualitative indicators that can accurately reflect the progress and challenges of digital transformation in the country. By analyzing current trends, technological advancements, and institutional frameworks, the author emphasizes the necessity of adopting a systematic and evidence-based approach to measure digital economic growth. Such indicators not only help in assessing the effectiveness of digital initiatives but also serve as a strategic tool for policymakers to design targeted interventions and promote sustainable economic development in Uzbekistan.

Keywords
Digital economy, modernization, information and telecommunication systems, digital technology, patents, internet traffic, radiotelephone communication, content, system of indicators, indices of international institutions and organizations.

Introduction

In the second decade of the 21st century, various economic literature notes that an important aspect of achieving sustainable socio-economic development of the country and ensuring macroeconomic balance is the transition to a digital economy system. Therefore, at the present stage of socio-economic development, issues of digitalization of the economy of the Republic of Uzbekistan, the development of regulatory legal documents, the introduction of new technologies, the training of personnel in Information and communication technologies and the implementation of comprehensive work in a number of other important areas make this issue one of the top priorities, as part of important work to be carried out in our country.

It should be noted that in subsequent years, Uzbekistan has developed several regulatory acts on the development of the digital economy, which outlined a lot of work to be done.

For example, the Resolution of the President of the Republic of Uzbekistan, dated July 3, 2018 "On measures to develop the digital economy and the sphere of turnover of crypto assets in the Republic of Uzbekistan" PP-3832, the Resolution of the President of the Republic of Uzbekistan "On measures to approve the strategy "Digital Uzbekistan-2030" dated October 5, 2020 and its effective implementation" PP-6079 indicates that in the near future it is planned to carry out comprehensive measures for the active development of the digital economy in the republic, the widespread introduction of modern information and communication technologies in all sectors and spheres of the economy.

The development the digital economy in the Republic of Uzbekistan also involves the implementation of a number of important works within the framework of National Statistics, in particular, the development of a system of indicators for the digitalization of industries and sectors of the national economy, the formation of a database for this system, the development of special observations, surveys, and reporting forms.

Therefore, the development of a national set of indicators for the digital economy, which is considered one of the key areas in forming a system of indicators for the country's socio-economic development, is highly relevant in the context of the priority tasks of the National Statistical System. This served as the basis for selecting the research focus presented in this article.

Literature review

It should be noted that the list of literature devoted to the digital economy and its impact on the development of countries, spheres and sectors is quite extensive, summarizing, they can be divided into five groups: The first group covers the impact of the development of the digital economy on the development of the country. In the article, I. Nikonova and A. Dementiev's "Trends and prospects for the development of the digital economy in Russia" studied the impact of digitalization on the development and structural changes of the country's economy [19]. Carl Dahlman, Sam Mealy and Martin Wermelinger, in his article "Using the Digital Economy for Development", also explored the importance of digitalization in the economic development of the country [14].

The second group include articles that examined the impact of the digital economy on the development of industries and the production of industries. From the scientists of our country, academician S.S. Gulyamov's article on" digitization of the educational system in Uzbekistan" also covered issues related to the progress of digitization in a particular field (Education) [18]. The article by M.Vinogardova, V.Konstantinov, V.Prasalov, A.Lukyanova and I. Grebenkina "The role of entrepreneurship in the development of the information and communication system" also highlights the impact of the digital economy on the development of production and industries, in particular, on the education system [21].

The third group includes research on issues related to the development of certain elements or factors in the digital economy, as well as the progress of an entire system. This part includes article by R.M. Ustaev, V.N. Paraksina, E. Patrick, E.N. Novikova on the topic "Human capital in the digital economy: current trends and opportunities for innovative development." This article reveals the role of labor and intellectual

capital in the digital economy [20]. In the research work of Uzbek scientist Rakhmanov, problems in the digitalization of public administration were identified and measures were developed that needed to be implemented to solve them [13].

The fourth group include articles on digital technology issues, in particular, the impact of large databases, online sales of goods, blockchain, brain implants, cloud and quantum computing storage technologies on the country's economy. The article "Digital Economy" by Chris D'souza and David Williams, experts at the Canadian Department of Economic Analysis, discusses how firms, using a large database in analytical analysis and algorithms in forecasting, automate the production system, as well as identify the optimal solution in resource allocation [15].

The article "Digital Economy" by Jacob B. Desouza K. C. conducted a study on the effectiveness of using big data in the public sector [17]. The article by N.G. Viktorova and F.G. Shukhov "Digital Economy: the development of cloud technologies abroad and in Russia" also raised the problems of the development of new technologies in the national economy and issues related to their solution [8]. L.V.Lapidus' research is aimed at identifying the place of e-business and e-commerce in the digital economy [12].

The fifth group include articles and studies devoted to the assessment of the results of digitalization of the national economy, methodological approaches to the development of a system of indicators of the digital economy. They are the article by T.A. Kuzova, T.Y. Salyutina, E.G. Kukharenko "Methodological foundations of the integrated assessment of the digital development of society and the economy" [10] and the statistical collection by G.I. Abdurakhmanova, K.O. Vishnevsky, G.L. Volkova, L.M. Gokhberg and other authors "Indicators of the digital economy: 2018" [4].

The problem statement: It should be noted that the "system of indicators for the development of the digital economy" has not been fully developed by scientists in our country yet. The doctoral dissertation of the Uzbek scientist I.E. Zhukovskaya on the topic “Improving the methodology for using information and communication technologies in statistical activities in the context of the formation of the digital economy”, basic indicators were developed, consisting of a small number of indicators reflecting the formation of the digital economy in our country [9].

However, these indicators make up only a certain part of the existing system of indicators in world practice that reflect the development of the digital economy. Therefore, bearing in mind the relevance of the tasks of developing a methodology for empirical analysis of the results of digitalization of the national economy at the present stage of economic reforms, based on foreign practice, we presented some views on the formation and further improvement of the system of national indicators of the development of the digital economy within the framework of this article.

Methodology for the development of a system of indicators

While developing a set of national indicators for the development of the digital economy, an indicator system consisting of four large blocks was formed. They are: indicators of the country's position in international rankings; key indicators of the development of the digital economy in the regions; indicators of digitalization of business and industries; A system of indicators for the development of the ICT sector

that covers several indicators within its own boundaries; In the context of the digital economy, indicators of the qualifications of the population and human resources, as well as the digitalization of the social sphere and the mass media system are national indicators of the development of the digital economy.

Results and discussion

The main directions of development of the digital economy in Uzbekistan. Within the framework of the Digital Uzbekistan 2030 Strategy, the need to ensure the stability of the socio-economic development of the Republic of Uzbekistan, the accelerated digitalization of the national economy based on world experience is indicated: formation of the regulatory framework for the development of the digital economy; introduction of modern digital technologies in the modernization of all sectors and spheres of the national economy; acquisition and installation of machines and equipment based on the latest digital technologies and advanced training of local personnel for work in communications; development and implementation of personnel policy aimed at the development of the digital economy, from the preschool education system to the postgraduate education system.

The Resolution of the President of the Republic of Uzbekistan dated 09/11/2023 no. PP-158 “On the Strategy “Uzbekistan – 2030” sets a priority task for turning the country into a regional “IT HUB” through the development of digital technologies, the achievement of which requires the following issues: full coverage of all settlements with the Internet and an increase in its speed by 10 times, bringing the speed of connection to the international Internet to 5,000 Gbit/s, bringing the coverage of fiber-optic communication lines and broadband data transmission networks to 100 percent; Increasing the volume of exports of IT services and software products to 5 billion dollars; achieving inclusion in the top 30 of the UN E-Government ranking; Increasing the number of IT Park residents by 10 times, bringing the share of the services they provide in GDP to 2.2 percent and the number of jobs created in them to 100 thousand; Increasing the number of representative offices of foreign companies to 1,000 by creating an International Digital Technology Center for Foreign Companies in the IT Park; Development of the first (Unicorn) startup project to capitalize the national market by 1 billion dollars by supporting startup projects through the acceleration (development) program of the IT park; Launch of 300 priority projects within the framework of the Digital Government program, coverage of the city of Tashkent, the Republic of Karakalpakstan and regional centers with fifth-generation communication networks; Full provision of international highways with mobile Internet.

Also, above mentioned Resolution specifies the further popularization of the IT sector among young people and increasing the export of services in the field, providing employment to 300,000 young people in the IT sector, training school students in modern professions in demand on the international IT market, expanding the One Million Programmers project and training 15,000 of the most gifted young men and girls based on programs in accordance with the requirements of prestigious international companies.

It should be highlighted that within the framework of the main directions of the development of the digital economy in our country, the following important issues

related to the National Statistical System can be noted: implementation of digital technologies in the statistical system; The use of new, up to date software to improve the process starting from data collection to printing processes; development and formation of indicators related to the digital economy and their communication to the public administration apparatus, relevant ministries and departments for effective decision-making; staff skill development by training them in courses related to the digital economy, etc.

The Digital Uzbekistan 2030 strategy and the decree of the President of the Republic of Uzbekistan "On measures for further improvement and development of the National Statistical System of the Republic of Uzbekistan" dated August 3, 2020, PQ-4796, along with the main issues mentioned above, also set the task of developing indicators for the development of the digital economy.

It should be noted that the existence of a regulatory framework for the creation of a set of national indicators for the development of the digital economy has also become the basis for the development of a system of indicators.

Methodology for the development of a system of indicators. While developing a set of national indicators for the development of the digital economy, an indicator system consisting of four large blocks was formed. They are: indicators of the country's position in international rankings; key indicators of the development of the digital economy in the regions; indicators of digitalization of business and industries; A system of indicators for the development of the ICT sector that covers several indicators within its own boundaries; In the context of the digital economy, indicators of the qualifications of the population and human resources, as well as the digitalization of the social sphere and the mass media system are national indicators of the development of the digital economy.

When developing a system of indicators related to the country's position in the international ranking, a set of international indices I-DESI, IDI, EGDI, EPART, GCI, GII, SGI, WDCI and others were used. When developing a system of indicators for the use of digital technologies in business, along with indicators related to this area, indicators were also introduced that reflect the level of use of CRM, ERP, and SCM systems in organizations classified by type of economic activity. Also, when developing the main indicators for the development of the digital economy in the regions, the features characteristic of rural or urban areas, as well as factors directly affecting the process of digitalization, related to the development of industries or sectors, were taken into account. The system of indicators typical for the development of the ICT sector combines indicators - the activity of the ICT sector, research and development in the ICT sector, telecommunications, the use of e-government services, information security, and indicator systems related to the use of digital technologies.

The fifth block of the system of national indicators for the development of the digital economy also includes indicators such as human potential in the digital economy, population, digitalization of the social sphere, population in digital reality, and performance indicators of organizations in the content and media sectors.

When developing a system of national indicators for the development of the digital economy, an inductive-deductive (transition from the particular to the general, from

the general to the systemic and vice versa), a methodological approach based on cause-and-effect relationships, a systematic approach, a strategic goal, indicative planning, optimal choice, methods of integrated assessment, as well as a structural and functional model are used.

A system of indicators reflecting the development of the digital economy. In our opinion, the system of national indicators representing the development of the digital economy, which is formed based on the study of world experience in the formation of a set of statistical indicators of the digitalization of national economies, should acquire the following complex form and classification.

Key indicators of the digital economy development: The country in the international rankings; Research and development in the field of ICT; Digital economy personnel; Telecommunications; The ICT sector; The Content and Media sector; The population in digital reality; Digital technologies in business; Digitalization of the social sphere; E-government; Information security; Key indicators of the development of the digital economy in the regions; Digital technologies.

Proposals for further improvement of the system of national indicators for the development of the digital economy. The introduction of additional significant indicators directly or indirectly related to the development of ICT and the digital economy in the block of "indicators of the country's place in the international ranking" in the system of national indicators of the development of the digital economy developed above will provide an opportunity to more accurately determine Uzbekistan’s place in the near future in global development.

In our opinion, including the following international institutions and organizations in the system of national indicators for the development of the digital economy in the future will ensure its further prestige and expand its coverage:

- Telecommunication Infrastructure Index – TII;
- Networked Readiness Index (NRI) – (The World Economic Forum);
- Knowledge Economy Index, KEI – (European Bank for Reconstruction and Development, EBRD);
- Global Connectivity Index – GCI (or Huawei Index);
- Index of digitization of the economy (Boston Consulting Group (e-Intensity));
- Digital Evolution Index – DEI – (Mastercard and the Fletcher School of Law and Diplomacy at Tufts University);
- The Global Cybersecurity Index (GCI) (ABI Research and International Telecommunication Union);
- E- Participation Index – EPART
- Digital opportunity index, DOI (International Telecommunication Union, ITU) and other indicators.

Due to the constant monitoring of the identification of rapidly developing economic activities in industries and areas where digital technologies are widely used, as well as the expansion of the number of indicators for them and their inclusion

in the system of national indicators for the development of the digital economy, it should become one of the important aspects of the planned work in the near future.

For example, “e-commerce" is becoming a hegemon in terms of the use of digital technologies among industries and sectors of the economy. Therefore, at the next stage of economic development, it will be necessary to increase the number of e-commerce indicators in the structure of the system of national indicators for the development of the digital economy.

Also, the financial sector should be included in the list of industries for intensive digitalization. Among the indicators for the digitalization of the financial sector should be included: the use of electronic data exchange technologies between internal and external information systems in financial sector organizations by type of economic activity; payments from customers of credit institutions using payment orders received electronically.

Additionally, it is necessary to expand the range of indicators on "digital skills of the population", which cover indicators of the level of digital skills of the population in urban and rural areas, by gender, by age groups, by country, etc.

Conclusion

The collection of primary data on indicators of the level of digital skills of the population should be collected by organizing a sample survey. A more accurate accounting of indicators of digital skills of the population can be identified during the population census of Uzbekistan, scheduled for the end of 2025 through continuous monitoring. Thus, based on the above proposals, the newly developed national system of digital economy development indicators will take on a more complete form, enabling scientific research, analysis, and forecasting, as well as expanding opportunities for delivering educational materials and teaching courses such as “Digital Economy” and “Modern Technologies: Digitalization of Economic Sectors.”.

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