

**FETDE 2020**  
**International Conference on Finance, Entrepreneurship and Technologies in**  
**Digital Economy**

**HUMAN POTENTIAL IN THE DIGITAL ECONOMY IN MODERN**  
**RUSSIA**

Natalia Fedorovna Voronina (a)\*

\*Corresponding author

(a) “Strela” of Moscow Aviation Institute, Zhukovskii, voroninanf@yandex.ru

**Abstract**

The problem of development of the digital economy is studied with the identification of factors that have a restraining effect. Human potential is considered by the author as one of the factors that influence the pace and effectiveness of the digital economy in modern Russia. Highlighted that the key processes that influence the creation of digital environment is inextricably linked with scientific and technological progress in the relevant fields of science and the active implementation of achievement of breakthrough technologies, and in General with the development of society, the formation of economic thinking of citizens, the development of appropriate competencies that allow a person to become an active participant of the process aimed at the development of a sustainable economy. A limiting factor in the dynamics of the digital economy is the existing difference in the pace of development of digital technologies and the ability of society to perceive and incorporate the results of this technological activity in the daily organization of life, to perceive them as norms. The analysis shows that there is a low level of human potential realization, which is not sufficient to ensure sustainable growth of the digital economy. In this regard, attention is drawn to the need for measures aimed at human development, which is considered by the author as an important element that affects the performance of the digital economy.

2357-1330 © 2021 Published by European Publisher.

*Keywords:* Human potential, digital economy, digital environment, economic development, competence



## 1. Introduction

The formation and effectiveness of the digital economy is influenced by factors related to the level of promotion of science and technology, the implementation of the results of achievements in socio-economic relations, and, consequently, on the competence of a person in the field of their use. In the development of society and the economy, the main factor is the person, and a qualitative change in such a factor as human potential becomes crucial (Krutin, 2019).

## 2. Materials and Methods

The concept of human potential includes a whole set of indicators. The quantitative and qualitative values of these indicators are related to the level of development of the nation's human potential, which affects almost all spheres of society and includes economic (GDP per capita), social (literacy rate, percentage of students, etc.), demographic (average life expectancy, etc.), and a number of other indicators (Ivanov, 2013). Currently, there is a significant gap between the technological level of development of the digital environment and the conditions for the formation and development of the digital economy, as well as the preparation of people for active involvement in this environment. The importance of forming a digital society is reflected in the Budget message of the President of the Russian Federation to the Federal Assembly, the May 2018 presidential decrees (On national goals and strategic..., 2018), the Federal law "on security" (On security..., 2010), and the economic security Strategy of the Russian Federation for the period up to 2030 (On the Strategy of economic security of the Russian Federation for the period up to 2030..., 2017). The state policy of the Russian Federation aimed at the development of human potential is to improve the standard of living, create comfortable living conditions, create conditions and opportunities for self-realization and disclosure of the abilities of each person. This policy is based, among other things, on the introduction of digital technologies in the economy and social sphere (Ukolova & Novikova, 2019).

The digital economy is the activity of creating, distributing, and using digital technologies and related products and services.

The digital economy is a type of commercial activity that concerns the production and sale of electronic goods and services (Kuvshinova et al., 2018).

The digital economy is an activity in which the key factors of production are data presented in digital form, and their processing and use in large volumes, including directly at the time of their formation, can significantly increase the efficiency, quality and productivity in various types of production, storage, sale, delivery and consumption of goods and services in comparison with traditional forms of management" (On the strategy for the development of the information society in the Russian Federation..., 2017).

Russia is ranked 45th in the international digital economy development rankings (Abdrakhmanova et al., 2019a). To a large extent, the Russian economy is lagging behind in terms of digitalization due to low investment volumes in digital infrastructure (Abdrakhmanova et al., 2019b). At the same time, the financing of the national program "Digital economy of the Russian Federation" in 2019-2024 is calculated in the amount of 1837696 million rubles (of which 1099589 million rubles from the Federal budget) and according to 2017. Amounted to 3,6% of GDP, which is less than in other developed countries. Adopted in 2017 the documents provide for measures aimed at stimulating the development of digital technologies and

their use in various sectors of the economy. The share of expenses for the development of a digital society should grow significantly by 2024 (Ershova, 2020).

Indicators that reflect the dynamics of the digital environment and its level of development include those that characterize the involvement of the population in this process, including the population in digital reality and the digitalization of the social sphere. In the digital economy, a significant role belongs to the individual (Ivanova et al., 2018). In the digital economy, digital competencies are the most important ones, which are a system of knowledge, skills and attitudes necessary for adaptation in a digital society. This system generates digital literacy of the population in the field of digital consumption, digital competencies and digital security (Merzlyakova, 2019).

### 3. Results

The most important element of digitalization is the widespread use of Internet technology and its accessibility for every member of society. Factors that have a limiting effect on Internet use in households in urban and rural areas in descending order include: "no need" (16,3%), "lack of skills to work on the Internet" (7,1%), "high connection costs" (4,7%), "lack of technical connectivity" (1,7%), "Internet access is available elsewhere" (1,4%), "for security and privacy reasons" (0,2%) (Abdrakhmanova et al., 2019b).

Special attention is paid to the factor associated with the lack of necessity for the majority of active citizens, the lack of desire to use, and the lack of interest in the opportunities and achievements that the digital environment provides. This means that a person not only does not use the potential that he has, but also does not strive for this type of activity, which is important for the development of digitalization in society. Currently, there is no understanding of the importance of digitalization in society, and there is no awareness that it is used to make fundamental changes in all spheres of human life and activity. The formation and development of the digital environment affects both the development of new industries and social roles, contributes to the solution of modern problems, including environmental and climatic ones, and allows us to more fully identify and meet human needs. It is extremely important to determine the reason for this formed stable behavior in order to further change it. To do this, it is necessary to form invariant digital abilities, knowledge, and sustainable skills at the level of General competencies that allow each person to integrate more effectively with the digital environment.

The list of the most frequently used digital skills includes: working with a text editor (41,1%), sending e-mail (36,8%), and working with files and folders (34,5%). Even fewer people can perform more complex actions: using a copy and paste tool in a document (22,4%), using software to edit photo, video, and audio files (21,2%), and working with spreadsheets (20,8%). A small percentage of the population has the necessary skills in working with devices, in particular: connecting and installing new devices (9,8%), creating electronic presentations using special programs (8,2%), changing the parameters or configuration settings of the software (2,7%), installing a new or reinstalling the operating system (2,7%), writing software independently (1,1%) (Abdrakhmanova et al., 2019a).

These data clearly show that most of the population does not have the skills to work with technology and software that are necessary to involve them in the digital environment. There is a picture that on the one hand the population has no need or desire, and on the other there are no necessary skills. This together

creates a barrier to citizens involvement in the digital economy, thereby forming a deterrent to its development and formation.

In order to create the necessary competencies for the majority of the active population, improve digital literacy of the population, and actually change attitudes to the opportunities offered by modern technologies, it is necessary to create and implement additional or special state programs aimed at involving the population in the digital environment, popularizing and developing digital literacy and digital economy competencies for everyone, and forming an appropriate state system for managing these processes to achieve this goal (Sedico et al., 2018). It should be noted that the formation of a modern, effective system of human development is the most urgent problem of all the most developed countries (Tolmacheva, 2014).

Currently, the distribution of costs for the development of the digital economy shows that this issue is clearly not given enough attention. The main concentration of costs in the development of digital technologies and the introduction of necessary technical products has led to a clear lag in the area of broad involvement of citizens in this process.

According to available statistics, provided by the experts of HSE issek, the costs of the higher education sector in 2017 on the implementation and use of digital technologies amount to 0,7% of the total volume of domestic spending on digital economy development, and staff training aimed at developing competences in the field of information and communications technology 0,2% of the total cost of the development of the digital economy.

The level of qualification of personnel is one of the factors determining the effectiveness of the introduction and use of digital technologies, since digitalization becomes a cause of technological complexity and the disappearance of a number of traditional professions, and a significant part of labor relations passes into the virtual environment, therefore, a person will need digital competencies for successful implementation. The emerging new nature of labor imposes new, additional requirements for professional skills of employees associated with improving their skills, constant training and creative communication, which leads to the modernization of labor relations and the formation of new standards of behavior (Golovenchik, 2019), new requirements for employees are formed (Kapkaev et al., 2019).

#### **4. Discussion**

The above indicators confirm the General picture of the presence of a constraining factor relates to human potential and economic efficiency of the introduction of digital technology and thus reduce the rate of implementation in practice of economic activity of advanced digital technology (Abdrakhmanova, Gokhberg, Kovaleva et al., 2019), the Activity aimed at the development of digital literacy, organization of training opportunities of digital competences aimed at the development of human capacity in General, will neutralize the impact of this deterrent. Digital technologies, in turn, allow you to expand the opportunities for growth of skills and competence (Bogdan, 2018).

The formation of an effective digital economy depends on the process of development of society, associated with the dissemination of knowledge and the formation of skills necessary for inclusion in the digital environment, which should become a General trend in society. This process should be abrupt in nature, associated with a relatively rapid transition to a new level of development of society, with an increase in human potential, after which there will be a period of relative stabilization. Without this rapid

transition, it is impossible to effectively develop the digital economy and further effective development of the state's economy as a whole. In the nearest time period, it is necessary to create conditions for the development of human potential and its effective use. Therefore, at the present time, the active attention of the state to the need for human development, the focus of programs on its formation in the field of digital competencies is especially important.

## References

- Abdrakhmanova, G. I., Gokhberg, L. M., Kovaleva, G. G., & Suslov, A. B. (2019). *Internal costs for the development of the digital economy. Digital economy*. <https://issek.hse.ru/news/281236984.html>
- Abdrakhmanova, G. I., Vishnevsky, K. O., & Gokhberg, L. M. (2019a). *Indicators of the digital economy: 2019: statistical collection*. NAT. research. UN-t I60 Higher school of Economics, higher school of Economics.
- Abdrakhmanova, G. I., Vishnevsky, K. O., & Gokhberg, L. M. (2019b, April 9-12). *What is the digital economy? Trends, competencies, measurement of the W-80*. Proc. by XX APR. international science, Conf. on problems of economic and social development, Moscow, sci. ed. by L. M. Gohberg. NAT. research. Higher school of Economics, Ed. house of the Higher school of Economics.
- Bogdan, N. I. (2018). Innovations and human resources for the development of the digital economy. *Belarusian economic journal*, 3(84), 110-123.
- Ershova, T. (2020). *How to assess the potential of the digital economy*. <https://umstrana.ru/article/kak-otsenit-potentsial-tsifrovoy-ekonomiki/>
- Golovenchik, G. G. (2019). *Digitalization of the Belarusian economy in modern conditions of globalization*. Minsk: Ed. center of BSU.
- Ivanov, O. I. (2013). *Human potential (formation, development, use): monograph*. PRE RAS, SPbSU, SPb.: Scythia-print.
- Ivanova, T. Yu., Ivanov, N. G., & Zhivkovich, S. (2018). Actualization of human capital as a factor of business sustainability in the digital economy. *Russian economy in the face of new challenges materials of the all-Russian scientific and practical conference*. Moscow State University N. P. Ogareva.
- Kapkaev, Yu. Sh., Isaeva, A. S., & Leshinina, V. V. (2019). Analysis of the quality of human capital in the conditions of digital economy development. *Bulletin of the Chelyabinsk state University*, 3(425), 158-167.
- Krutin, Yu. V. (2019). Development of human potential in the digital economy. *Vector of economy*, 9. <https://elibrary.ru/item.asp?id=41121896>
- Kuvshinova, Yu. A., Vershinina, O. V., & Chaynikov, V. V. (2018). Main aspects of development of modern digital (electronic) economy. *Human capital in the digital economy format: international science, Conf. dedicated to the 90th anniversary of S. P. Kapitsa*. Collection of reports. RosNOU Editorial and publishing house.
- Merzlyakova, E. A. (2019). Transformation of human capital in the digital economy. *Region: systems, Economics, management*, 4(47), 166-171.
- On national goals and strategic objectives of the development of the Russian Federation for the period up to 2024. Decree of the President of Russia, 2004. (2018, May 7). <http://publication.pravo.gov.ru/Document/View/0001201805070038>
- On security. Federal law, 390-FZ. As amended on 05.10.2015. (2010, December 28). [http://www.consultant.ru/document/cons\\_doc\\_LAW\\_108546/](http://www.consultant.ru/document/cons_doc_LAW_108546/) (accessed: 24.02.2020).
- On The strategy for the development of the information society in the Russian Federation for 2017-2030. Decree of the President of the Russian Federation, 203. (2017, May 9). <http://kremlin.ru/acts/bank/41919> (accessed: 24.02.2020).
- On the Strategy of economic security of the Russian Federation for the period up to 2030. Decree of the President of Russia, 208. (2017, May 13). <http://kremlin.ru/acts/bank/41921>

- Sedico, Yu. N., Vlasenko, M. N., & Kobuliev, L. M. (2018, February 16). *Regional human potential of Russian startups of the digital economy* (Human capital in the digital economy format: international. science, Conf. dedicated to the 90th anniversary of S. P. Kapitsa, Moscow, collection of reports. RosNOU Editorial and publishing house.
- Tolmacheva, E. V. (2014). Problems of formation of human potential of science in the conditions of innovation-oriented Russian economy. *Bulletin of the Tambov University, Series: Humanities Publishing house: Tambov state University named After G. R. Derzhavin*, 60-66.
- Ukolova, N. V., & Novikova, N. A. (2019). The Place of human potential in the digital economy. *Bulletin of the Altai Academy of Economics and law*, 1-2, 166-173.