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DIGITALIZATION OF THE STATE SECTOR: FOREIGN EXPERIENCE AND THE RUSSIAN FUTURE

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Abstract

At present, digital technologies are an integral part of any society, causing new ways of interaction between economic entities. The public sector has also recently undergone information revolution, as the business sector and households are constantly raising their requirements for government bodies to improve and simplify administrative processes, reduce the time for providing services by the state, and create those public goods that are really needed by society. The transition of government to a digital format began in countries in the 1990s, as part of the concept of new management. In Russia this process began much later, which makes it worthwhile to study the world's leading experience in digitalization of the public sector in order to select the most promising and effective ways to provide digital services by the state. The study shows digitalization of government bodies of New Zealand, the USA, and also considers further prospects for digitalization of the state sector of the Russian economy in the field of "big data", the introduction of online surveys of implemented draft government decisions, the creation of reports in the automatic mode with the participation of government departments and information networks. Processing data in large networks will easily reveal the opinion of citizens on key issues of public policy, while the possibilities of the analysis will be significantly expanded through information technology.

Keywords: Economy digitalization, public sector, digital services, digital change.

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1. Introduction

The evolution and development of mankind does not stand still, and each century is marked by its events and milestones. The 21st century is called the information one, and in our time computers and digital products are inextricably linked with our life. The state, in order to be effective and fulfill one of its main tasks: improving the quality of life of the population, must introduce information and communication technologies in the process of public administration. Great efforts to achieve this goal are aimed specifically at digitalization, which can solve problems that previously were not accessible or required huge resources. In the next few years, the 4th wave of digitalization will come, which will become a prerequisite for the transformation of traditional ways of managing the state. In such a rapidly changing reality, the Russian government needs new generation strategies and tools that will bring the country's development to a new level.

2. Problem Statement

Such categories as Digital Economy and Digital Government are currently receiving close attention from all actors. The economy digitalization as a whole or of an individual industry means knowledge and technologies that accumulate and provide economic entities that manage economic processes (Ermolaev, Matveev, Trubetskaya, & Gromova, 2019). Digitalization of the public sector can be considered as a qualitative change of the services provided by government bodies (Pereira, Macadar, Edimara, & Testa, 2017) in order to create an individual set of public goods for each citizen using information and communication technologies (Romme & Meijer, 2019). Several scientists highlight electronic and digital government, consider their distinctive features, and offer ways to quickly digitalize government agencies (Mergel, 2019). Russian scientists are exploring the problems of digital transformation, which is understood as the totality of changes in society under the influence of modern information technologies (Dobrolyubova, 2018), studying the features of government transformation in the digital economy (Smotritskaya & Chernykh, 2018).

3. Research Questions

In the course of the study, the following questions were considered:

- Identify the degree of digitalization of government;
- Consider the features of digitalization of the public sector using world experience as an example;
- Determine the prospects of the digital state in Russia.

4. Purpose of the Study

The purpose of the study is to consider the features of digital changes in the public sector of foreign countries. Supposed to identify promising areas of government digitalization in the Russian Federation. The article also examines the impact of digital technology on market failures.

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5. Research Methods

Methods of analysis and synthesis, generalization, the method of graphical presentation of the findings, and methods of mathematical statistics were used in the course of the study. General scientific methods have shown the features of the digital government development in Russia, identified the problems that the government faces in the digitalization process, analyzed the features of the digital state development of other countries. Methods of mathematical statistics made it possible to estimate the quantity and structure of services received by the population and business in electronic form.

6. Findings

Currently, the largest project in the field of digitalization of public administration is the national project "Digital Economy", aimed at creating successful environment for the digital economy in the Russian Federation. Within the confines of this project, it is planned to develop knowledge society in the Russian Federation, increase the living standards and kind of life of citizens by increasing the facility and quality of goods made in the digital economy, using new digital technologies, raising awareness and digital literacy, improving the suitability and quality of full spectrum of services for citizens, as well as security both domestically and abroad.

It has been possible to carry out a number of works on the practical implementation and testing of parts of end-to-end technologies of this project, which include: "big data"; virtual and augmented reality technologies; neuro technologies and artificial intelligence; virtual and augmented reality technologies; distributed registry systems; new manufacturing technologies; industrial internet; components of robotics and sensorics; wireless technology. But it is too early to say that there is a full-fledged transition to digital society or to the digital government of the Russian Federation, since based on estimates of international organizations, it can be concluded that the digital environment is not created.

The evaluation of e-government development is carried out by the United Nations, based on the E-Government Development Index, which considers quantitative and qualitative indicators of the services provided, the level of development of human capital and innovativeness. As of 2018, the United Nations rated the development indicator of Russian e-government as very high. The Russian Federation has improved its position in the ranking of e-governments compared to 2016, rising by three positions and taking 32nd place.

In the process of forming digital government, the Russian Federation encountered several difficulties:

- Poorly developed general principles and standards for the development of state information technology systems;
- A low level of structure and high inconsistency of data entering the system;
- A significant proportion of services cannot be implemented remotely, which leads to a physical identification of a citizen;
- A huge number (over 250,000) of various state websites and tens of thousands of state information systems;

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- Distortion of evidence and features within a particular department in order to improve indicators of the quality of its work.

To solve these problems, the Russian Federation can rely on the experience of world digitalization of the municipal apparatus. In New Zealand, there is a SmartStart platform that allows New Zealanders to interact with all government services, and it combines 55 services: birth registration, financial assistance, child health services. And integrated web content allows all information to be exchanged between government services, which eliminates the need to fill out the same form multiple times by citizens (OECD, 2018).

Since 2012, the USA has been implementing an initiative aimed at researching and introducing methods of processing "big data" into the work of public authorities. In this case, various areas are considered as initial resources of this information: from automated meters with micro-intelligence in the housing and communal services system to combined information of business entities that are exchanged based on inter-machine interaction.

The results of the experiment have come into widespread use, as the US Securities and Exchange Commission uses reaction methods to the results of Big Data analysis to identify and suppress abnormal trading activity during trading on stock exchanges, which reduces the risk of fraud in the economic sphere. The introduction of a large amount of information in the US Federal Housing Agency allows building models of cash capital, assets and investments in managed funds, as well as creating a forecast of expected benefits. Regarding the technological use of algorithms for working with big data in the United States, special emphasis was placed on the development of software-analytical connections established in federal authorities and giving the possibility of operational analysis and important long-term decisions. Thus, the introduction of digital technologies in state authorities can improve the previously existing methods of economic management, as well as solve problems of the population and business faster. Considering the review of foreign experience presented in the study, the following directions may become the most promising:

- Use "big data" to monitor and evaluate the results of government programs, as well as audit the effectiveness of government spending.
- Introduce online surveys of ongoing draft government decisions for the independent assessment of the results.
- Create reporting "in automatic mode" with the participation of state information systems, networks, and departments, which will reduce administrative costs in the economy and increase the reliability of the data on which decisions are made.
- Develop platform results-oriented solutions in the field of management. Government bodies will be responsible only for the provision of primary data, reports will be generated already on a common platform, which will eliminate the manipulation of the result and effectiveness of the policy.

The concept of the digital state will allow solving several problems related to the use of administrative resources, data manipulation in favor of government bodies. Moreover, the use of big data technology will allow all entities to access online information of interest to them. Processing data in large

networks will easily reveal the opinion of citizens on key issues of public policy, while the possibilities of the analysis will be significantly expanded through information technology.

The expansion of the use of digital technologies will solve the problem of the discrepancy between the demand and supply of public goods, since the state will have all the necessary information about the needs of citizens, and the targeting of state support will increase. All these processes will increase the effectiveness of government programs in all sectors: science, healthcare, public sector management, minimize face-to-face contact of the population and business with government bodies, which will increase the speed of public services, reduce administrative costs and allow real-time monitoring of the situation.

7. Conclusion

The concept of the digital government will allow solving problems related to the use of administrative resources, data manipulation in favor of government bodies. Moreover, the use of big data technology will allow all entities to access online information of interest to them. Processing data in large networks will easily reveal the opinion of citizens on key issues of public policy, while the possibilities of the analysis will be significantly expanded through information technology. The expansion of digital technologies will solve the problem of the discrepancy between the demand and supply of public goods, since the state will have all the necessary information about the needs of citizens, and the targeting of state support will increase. All these processes will increase the effectiveness of government programs in all sectors: science, healthcare, public sector management, minimize face-to-face contact of the population and business with government bodies, which will increase the speed of public services, reduce administrative costs and allow real-time monitoring of the situation.

References

Dobrolyubova, E. I. (2018). Performance management in public administration in the digital era: Review of international practices and prospects for Russia. *Public Administration Issues*, *4*, 70-93.

Ermolaev, K. N., Matveev, Y. V., Trubetskaya, O. V., & Gromova, T. V. (2019). Institutional changes and digital economy. In V. Mantulenko (Ed.), *International Scientific Conference "Global Challenges and Prospects of the Modern Economic Development". The European Proceedings of Social & Behavioural Sciences, 57* (pp. 580-589). London: Future Academy. DOI:10.15405/epsbs.2019.03.57

Mergel, I. (2019). Digital service teams in government. *Government Information Quarterly, 36*(4), 101389. DOI: 10.1016/j.giq.2019.07.001

OECD (2018). Embracing innovation in government. Global trends 2018. Retrieved from https://www.oecd.org/gov/innovative-government/embracing-innovation-in-government-2018.pdf Accessed: 12.11.2019.

Pereira, G. V., Macadar, M. A., Edimara, M. L., & Testa, M. G. (2017). Delivering public value through open government data initiatives in a Smart City context. *Information Systems Frontiers*, *19*(2), 213-229. DOI: 10.1007/s10796-016-9673-7

Romme, S., & Meijer, A. (2019). Applying design science in public policy and administration research. *Policy & Politics, 48*(1), 149-165.

Smotritskaya, I. I., & Chernykh, S. I. (2018). Modern trends in the digital transformation of public administration. *Bulletin of the Institute of Economics of the Russian Academy of Sciences*, *5*, 22-36.