The digitalization in the service the asessment of regulatory legal acts

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Abstract — **Digital transformation covers more and more spheres of life and countries. Digitalization of public administration can provide a serious increase in its quality and efficiency, contribute to the accelerated socio-economic development of the whole society. First of all, the application of digital technologies in regulatory decision-making works for this task. The author reveals that digital technologies make it possible to take "proactive" measures consistent with external challenges, objective data and public attitudes. The article describes the examples of the application of digital technologies in public administration. As part of the administrative reform and the transition to e-government, some information mechanisms have been introduced in Russia to improve public administration (for example, a significant amount of information has been disclosed on official websites, platforms have been created on the Internet to post information about drafting legal acts and their public discussion). However, digital technologies open up new horizons. In Russia, the practical side of the digital transformation of public administration has been worked out slightly, which determined the relevance, purpose and objectives of the research – to analyze the experience and prospects of the application of digital technologies in public administration and, in particular, regulatory decision-making. The measures for the application of specific digital technologies in the assessment of regulatory acts (in the regulatory impact assessment) are propose in the research, and their importance for improving the quality of the formed at the same time regulatory environment is shown.**

Keywords — *digital transformation, digital technologies, public administration, regulatory impact assessment, regulatory environment*

I. AGENDA DIGITAL TRANSFORMATION OF PUBLIC ADMINISTRATION

The global trend of digital transformation covers more and more countries. In broad terms, "digital transformation denotes a change associated with application of the digital technology in all aspects of human society" [1]. Public administration is an important aspect of society and, of course, is being transformed under the pressure of the digital age. "Public administration of a new era" is being formed [2].

Innovation, including digitalization, of public administration affects the overall efficiency of socio-economic development [3, 4]. Given in the report [5, p. 5] quantitative analysis of UNO data, world Bank and the WEF have revealed "a direct correlation between the development of e-government and the parameters of the quality of governance: an index of the effectiveness of government (the correlation coefficient is 0,838), the index of control of corruption (0,795), and the index of Doing Business (0,7)".

According to OECD recommendations, "Digital Government refers to the use of digital technologies, as an integrated part of governments' modernisation strategies, to create public value. It relies on a digital government ecosystem comprised of government actors, non-governmental organisations, businesses, citizens' associations and individuals which supports the production of and access to data, services and content through interactions with the government" [6, p. 6]. Economists note that a some digital innovation, for example, the blockchain technology can "radically change most aspects of society ... and to allow Russian authorities to solve several problems, at once: to increase the transparency and efficiency of the public sector, to reduce corruption risks, to eliminate the shadow banking sector, to effectively combat tax evasion and to eradicate bureaucracy" [7, p. 51] and also reduce the size of the informal sector of the economy, based on the hiding information about the results of activities [8, p. 110-111].

The main action for the digitalization of public administration in Russia are formulated within the framework of the Federal project "Digital public administration", included in the national project "Digital economy of the Russian Federation". At the same time, the researchers note the lack of elaboration of the issues of practical application of digital technologies in specific processes of public administration [5, p.10]. That makes this area of research very relevant and promising.

The regulatory impact assessment of draft legal act has proved to be a tool for making effective regulatory decisions that are balanced in the interests of different groups. In Russia, regulatory impact assessment is well established in the practice of business regulation. However, it has a high potential to improve its performance [9]. The purpose of this research is to propose specific mechanisms to improve the efficiency of regulatory decision–making through the application of digital technologies at various stages of regulatory impact assessment.

II. RESEARCH METHODOLOGY

The author reviews the practices of digitalization in public administration in different countries. The effects of the use of digital technologies and the possibility of their translation into Russian reality are described. The method of induction proposed approaches to the application of digital technology in the framework of the assessment of draft legal regulatory

acts. The author presents the structure of the process of regulatory impact assessment in the adoption of draft legal acts and simulates the possibility of application of digital technologies on the individual elements of the structure.

III. THE APPLICATION OF DIGITAL TECHNOLOGIES IN STATE GOVERNMENT

Experts of the center of strategic development define digital transformation as "a deep reorganization, reengineering of business processes with the widespread application of digital tools as mechanisms for the execution of processes, which leads to a significant (at times) improvement of the characteristics of processes (reducing the time of their execution, the disappearance of entire groups of subprocesses, increasing output, reducing resources spent on the execution of processes, etc.) and/or the emergence of fundamentally new qualities and properties (decision-making in automatic mode without human intervention, etc.)" [10].

What digital tools are available to us today?

- Blockchain technology, the main feature of which is "the application of algorithms for mathematical calculation and the exclusion of "human" and the human factor in the decision-making system" [11];

- Agile-approaches that provide for an iterative process of implementation of activities with the constant use of feedback mechanisms and adjustment of actions of project participants under such feedback, providing "flexible management" [12];

- "Big data" provides the process of management of more accurate and relevant data for decision-making (for example, Statistics Netherlands uses supermarket scanner data in the Dutch CPI [13], the United States developed software and analytical systems for Federal authorities, which enable rapid analysis and adoption of the necessary strategic decisions [14]);

- The Internet of things allows to carry out control and supervisory activities on-line, especially in the environmental sphere, without the participation of inspectors;

- Artificial intelligence (the experience of the United Kingdom in the use of robot-mediator to resolve disputes[1], experience of the United States in the use of artificial intelligence to process messages of Internet users to identify restaurants that threatens the security of food products [5, p. 25]).

The author emphasizes the high importance of online interaction between citizens and authorities. There is a "transformation of public administration, in which special attention is paid to the influence of citizens on decision-making on the basis of digitalization" [15]. Digital technologies open up new possibilities from simple surveys on the Internet to scanning information on social networks and conducting behavioral experiments in real time (for example, the Predictiv[2] online platform in the United Kingdom).

Digital technologies are actively applied for the provision of public services, control and supervision, various monitoring, revenue administration, state property management, the creation of statistical databases, evaluation of the performance of authorities in the countries affected by the wave of the fourth industrial revolution. Experts in the field of regional policy propose to solve by digitalization problems related to the clarification of the legal status of the regional periphery; characteristics of the main types of sources of information on the socio-economic development of the municipality; the justification of directions of improvement of the system of municipal statistics [16, p. 9-13], the creation of conditions for further acquisition, processing, consumption, distribution and storage of information [17, p. 213].

The Russian practice of public administration at the current stage is marked by high inefficiency due to the high degree of "manual control", maintenance of databases in disparate, often overlapping, departmental systems by entering and subsequent processing of information by specialists and, as a result, reactivity, delay of decisions. One of the striking examples is the sphere of control and supervision. The task of urgent digitalization and automation of this direction by 2018 was not solved centrally. That led to the creation at the level of Federal and regional agencies of many different, not always integrated with each other, information systems, the filling of which often occurred manually. A platform that would lead to an increase in the efficiency of the inspector's activities and would offer a user interface to the businessperson did not appear.

In Russia, regulatory impact assessment is a mandatory procedure for draft legal regulatory acts affecting various aspects of entrepreneurial activity. At the Federal[3] and regional levels, public discussions are held on a specialized Web sites (however, this fact refers more to the level of electronic rather than digital government), where the draft acts and accompanying analytical documents are posted, everyone can leave his opinion and learn about the results of the assessment. A standard cost calculator is also used at the Federal level. Its database consists of data about Russia from the Federal statistics service. This database is formed by experts of the authorized body in the field of regulatory impact assessment. Therefore, the data is limited and time-lagging.

IV. DIGITAL TECHNOLOGY FOR THE ASSESSMENT OF REGULATORY LEGAL ACTS: THE AUTHOR RECOMMENDS

Today, digital technologies can significantly improve the efficiency of public administration processes such as monitoring, analysis, optimal decision-making, providing feedback to citizens. All these processes are present in the regulatory impact assessment.

Regulatory impact assessment is a procedure for selecting the optimal regulatory solution based on the analysis of objective data and the results of public discussions. In the table the author presents the decomposition of the regulatory impact assessment into the basic stages. measures for the application of digital technologies to solve the problems at each stage are proposed also.

TABLE 1. POTENTIAL APPLICATIONS OF DIGITAL TECHNOLOGIES FOR REGULATORY IMPACT ASSESSMENT

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[1] https://www.legalfutures.co.uk/latest-news/robot-mediator-settles-first-ever-court-case

[2] https://www.predictiv.co.uk/governments.html

[3] https://regulation.gov.ru

Stage of regulatory impact assessment	Tasks appearing at the stage	The solution with the application of digital technologies
Identification of the problem, setting regulatory objectives	Search and data collection. The transition from reactive to proactive nature of regulatory decision-making	Data collection with using digital technologies (Big data, Internet of things, data acquisition and processing on the basis of inter-machine interaction, analysis of open data in social networks, including search by tags) will quickly provide a wide range of relevant data, including those not available in the framework of official or departmental statistics. Examples: establishment of situation centres, collection of information on electronic checks, GIS data, etc.
Public consultation	Establishing the interests of different groups	Broad coverage of all potential regulatory addressees can provide special online platforms for surveys, as well as the use of artificial intelligence to analyze social network data
Regulatory impact analysis	Problem of correct data processing and forecasting of consequences, including the perception of the legal acts by the society	Processing and forecasting not only with the software, but with such advanced digital technologies as artificial intelligence, predictive analytics technologies, social behavioral experiments on special platforms
Monitoring the action of regulatory legal acts, assessment of the actual impact	Verification of the effectiveness of the implementation of legal acts, timely adjustment of regulation	Operational monitoring and evaluation of the effectiveness of regulatory decisions can be achieved through the application of digital technologies (Big data, Internet of things, data acquisition and processing based on inter-machine interaction, analysis of open data in social networks). Artificial intelligence can provide information processing with an assessment of the effect of regulatory legal acts with a proactive approach to the development of corrective measures, the constant adaptation of regulation to the needs of end-users (citizens and entrepreneurs). "Push" regulation [18] can be provided through social networks

V. DISCUSSION OF PROSPECTS OF APPLICATION OF DIGITAL TECHNOLOGIES FOR THE EVALUATION OF REGULATORY LEGAL ACTS

"We need to ensure that the changes associated with digitalization lead to an increase in the quality of the state's activities, which is significant for its external beneficiaries — citizens and business. Digital transformation may be recognized only change on the basis of digitalization of the content of public administration, leading to improvement of quality of public administration: reduction of unjustified state intervention, improve the efficiency and effectiveness of public administration" [5, p. 5]. The author shares this position.

The author call a system of accepted regulatory legal acts as regulatory environment. Since regulation is implemented through regulatory environment, it is important to make such environment adequate to global trends, comfortable for actors within it. Regulatory environment should be adaptive and effective to ensure sustainable socio-economic development in conditions of high technological and social competition between the territories. To do this, all the possibilities should be used and, first of all, a significant leap forward in the growth of the quality of the formation of regulatory legal acts can be offered by digital technologies (see the table.). The application of digital technologies, on the one hand, can reduce the costs of conducting the regulatory impact assessment itself, on the other hand, increase its effectiveness, which will be expressed in reducing excessive state intervention, improving the efficiency of the provision of public goods and the implementation of other state functions, reducing the transaction costs of interaction between entrepreneurs and the state.

The forth industrial revolution can still generate new unique technologies and applications of the developed technologies to improve the quality of public administration and regulatory decision-making. For Russia, the digital revolution opens a "window of opportunity" to make a leap in its development, overcoming the technological gap with developed countries. The fate of the digital sphere is still in uncertainty and is an important topic for further research.

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