The Social Consequences of Innovations in Public Administration

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Abstract. The role of innovations as a key factor in public administration development and state functions transformation remains so far insufficiently studied. The research objective is to study social consequences of applying innovative technologies in public administration, while analyzing state functions dynamics as influenced by developing innovations. Main research methods are the universal philosophical method of scientific knowledge; analysis, synthesis, comparative legal and systematic methods. Mainstreaming of innovative technologies in public administration creates conditions for emerging and developing new state functions - ensuring innovative security and overcoming inequalities in information society associated with limited accessibility of innovations for certain population strata. In line with global trends, the implementation of basic state functions is closely linked with the innovative development function and ensuring national innovative security thereby creating conditions for implementing other state functions. That said, account should also be taken of using innovative technologies in public administration poses certain risks to human rights, and therefore, the development of innovations should only be the material basis for achieving the primary goal of the state - ensuring and protecting human rights and freedoms. Our research results demonstrate dynamics and nature of state functions in today’s world with development and implementation of innovations.

1. Introduction

This article addresses the assessment of the results of introducing innovations in the process of the state performing a wide variety of functions. It has delved into the research findings of implementing innovations in the performance of its functions by the state to ensure educational rights of nationals (Varela O E, Cater J J, Michael N J [1]; Almazova N, Andreeva S, Khalyapina L [2]; Dumford A D, Miller A L [3]; Glukhov V V, Vasetskaya N O [4], et al.); political function (Goos K. Beckert B, Lindner R [5]; Savchenko M C, Kadlec V A [6]), law-enforcement function (Nissan E [7]; Bowers K, Johnson S D [8]; Vardanian A V, Andreev A S [9] et al.), etc.

The research has involved the studies of the works devoted to the digital inequality matters as one of the adverse results of the application of innovations in public administration (Rogers S E [10]; Dobrinskaya D E, Martynenko T S [11] et al.) as well as the issues of ensuring innovative security of the state (Sukhovey A F [12]; Sakovich V A, Brovka G M [13] et al.)
Nevertheless, the issue of the role of innovation as a key factor in the development of public administration remains so far insufficiently studied due to the relative transformation of the system of state functions.

The goal of the research is primarily to study into the social consequences of applying innovative technologies in public administration, as well as to analyze the system of state functions dynamics under the influence of the developing innovations.

To achieve this goal, it is necessary to perform a number of objectives:
- identify the main functions of the state and characterize the impact of innovations on their implementation;
- analyze the main trends in the implementation of the functions of the state and highlight new areas of its activities in connection with the introduction of innovations;
- define the priority objectives of the state when introducing innovations in the process of public administration.

2. Methods

The main methods of this research are the universal dialectic method of scientific knowledge, as scientific ones - analysis and synthesis, method of ideal modeling and the method of matching the logical to historical through its concretization in the comparative legal method.

In order to understand the methodology of the direct implementation of these methods (disclosed against the background of the recognition of the hidden existence of other methods), it is necessary to put forward as an initial thesis the mandatory assumption of changes in the content of public administration due to the use of innovative technologies.

The application of innovative models of various contents (financial, economic, material-technical, intellectual, etc.) implies the flexibility of the public administration system, which is subject to innovative transformations (management tools of various levels and rank) and the susceptibility of the managerial subjective factor (managerial decisions), expressed in a wide range of choices.

The management sphere proposed on the basis of the recognition of attributive variability allows us to build abstract models of relations arising in the field of managerial initiatives that require further deepening and consistent historical movement in the form of adequate logical (legal) constructions.

This movement is generally dynamic in nature and becomes a historical-forming factor, suggesting zigzags and departures from linear development paths, which is overcome by the constant support of analysis critically conducted (separation) of the components of the solutions being studied (indicators and descriptors) and subsequent mandatory synthesizing (combining) into a single acting competency.

The question of the content of competence according to the criteria of truth (absolute objectivity and relative pragmatism) is included in the scope of our research.

Approaching from the indicated positions in relation to the topic of our research, we conduct a thorough analysis of a number of fundamental sources (declarations, covenants and acts), modern scientific publications, leading the study to the synthesis of their essential provisions expressed in our findings and conclusions.

One of them is among other things the assumption that innovative implementations in the management system of the state mechanism lead not only to the correction of the content of certain functions of the state (such as ensuring national security), but also to the possible formation of a new function - the function of ensuring national innovative security in a wide spectrum of manifestation.

The legal construction we propose (the function of national innovative security) meets the characteristics of the established functions of the state and requires further actual (historical) research to validate their correspondence (logical to historical).

The research has been conducted in strict accordance with the requirements of the formal legal method.

3. Results and Discussion
The problem of using innovations in public administration and implementation of state functions is a knotty issue that requires a comprehensive study and evaluation of a number of different factors. The development of innovations in the modern world creates necessary conditions for the state to fulfill its primary and basic function - protection of human and civil rights and freedoms [14].

The main areas of protecting human rights and freedoms are fixed in the Universal Declaration of Human Rights of 1948 (hereinafter - the Declaration). In accordance with the provisions of the Declaration ‘everyone has the right to work, to free choice of employment ... to protection against unemployment’ (Art. 23), to a proper level of social security (Art. 25 of the Declaration), right to education (Art. 26 of the Declaration), the right to freely to participate in the cultural life of the community (Art. 27 of the Declaration) and others [15]. Fundamental documents laying down the criteria for the protection of human rights, also include the International Covenant on Civil and Political Rights in 1966 [16] and the International Covenant on Economic, Social and Cultural Rights of 1966 [17].

The use of information technologies in public administration opens up new opportunities for the implementation of the fundamental human and civil rights and freedoms.

Today, the innovative technologies are actively used in the process of fulfilling the educational function by the state, while ensuring the human right to education. It takes place among other things the development of ‘… the integration of online and off-line education in the student training system’ [2]. Of course, the implementation of innovative technologies in the educational process also raises the problem of ‘... assessing the quality of education’ [18]. In particular, the research of the effectiveness of such implementing up-to-date innovative technologies in education have demonstrated so far heterogeneous results: ‘the online environment can bring benefit to certain types of interaction, but also be ... a deterrent to others’ [3], while the success of online learning depends on the availability of ‘a certain set of behavioral patterns (low sociability, orientation toward achievement)’[1]. Nevertheless, it is noted that the use of modern innovative technologies within the educational process, in general, has a positive effect [4; 19; 20; 21].

In implementing its social function, the state also actively introduces innovative technologies. Today, computer information technologies are used in public administration, public health system: electronic document management is underway [22] as well as an ‘electronic register of consumed medicines’, etc. [23].

The state actively pursues innovative technologies in ensuring the electoral civil rights: remote voting methods are used as well as a computer-based processing of voting results [5; 6].

Clearly, innovative technologies are so far one of the most important tools of public administration. However, science also examines the issue related to the analysis and assessment of risks in the protection of human rights and fundamental freedoms in connection with the introduction of innovations.

It is rightly noted that the widespread use of information technology in society can be ‘a factor in enhancing social inequality: along with traditional forms of inequality ... its new forms arise ... among other things, the digital divide’ [11]. Indeed, the digital divide is an important problem of the 21st century [10].

The main reasons for the emergence of digital inequality in society feature limited access to information and communication technologies and a lack of skills in their use by a certain part of the population. A lack of access to the Internet, as a rule, is associated with the inability to use educational online resources, to get a number of public services in electronic form [11].

The aggravation of social inequality problem as a result of the application of innovations is associated with their active impact on the labor market. In science, it is increasingly pronounced an opinion about the possibility of large-scale replacement of human labor with artificial intelligence [24]. It is also noted that there is a ‘polarization of the labor market’ caused by an increase in the need for highly skilled professionals with a high level of education and an increase in the number of low-skilled workers [25].
The problem of protecting rights in the context of the development of innovations is also complicated by the fact that the development of artificial intelligence, ‘... with cognitive abilities,’ poses a question about its legal status and the possibility of endowing it with legal personality [26].

Today, the state uses widely innovations in the fulfillment of its law enforcement function [7]. For example, in world practice, there is positive experience associated with the use of unmanned aerial vehicles for the prevention, ‘...identification and proof of administrative offenses, as criminalistics and special means of preventing, solving and investigating crimes, to combat environmental offences, in counter-terrorism operations, and drug interdiction [9]. Criminologists successfully use artificial intelligence to study the identity of serial criminals, as well as to identify and analyze the factors that contribute to the commission of the crime [27; 28]. In order to prevent offences, ‘geographical information systems’ are used [8].

Nevertheless, despite the positive results of the application of innovations in the fight against offences, the active development and implementation of scientific and technical developments in the life of society pose new challenges for the state that need a legal solution. In particular, a special legal regulation requires the issue of the legal responsibility of artificial intelligence developers in case of damage to people [26].

The issue of assessing the benefit of the application of innovation in the law enforcement area is cumbersome as innovative technologies can be used not only by the state for the purpose of prevention and preclusion of crime, but also by the offenders for the purpose of committing socially dangerous acts. Innovative technologies can be both objects and instruments of committing crimes [9].

There are cases among other things of the use of unmanned aerial vehicles to violate the inviolability of private life [9]. Also, unmanned aerial vehicles can be used by criminals to search for sites to commit crimes such as theft and robbery. There are known cases of the use of artificial intelligence for mass mailing of messages in ‘death groups’ with the aim of inducing adolescents to commit suicide [29].

Also in science, it is believed that an increase in the level of criminological danger in connection with the use of technological innovations is associated not only with the possibility of committing unlawful actions ‘... with the software of the artificial intelligence system’, but with the possibility of committing a crime directly by the ‘artificial intelligence system’ itself [30].

The foregoing circumstances pose new challenges for the state to educate law enforcement officials. Today, the legal education system is actively supplemented by disciplines that allow future bachelors and masters to form competencies in the use of information technologies in their professional activities [30].

As one of the basic, fundamental functions of the state is the function to ensure security within its territory [31].

In accordance with the provisions of the Decree of the President of the Russian Federation dated 31.12.2015 No. 683 ‘On the National Security Strategy of the Russian Federation’, ‘national security includes national defense and all types of security, ... first of all, state, public, informational, environmental, economic, transport, energy security, personal security’ [32].

In the framework of the present research, the question of the content of the concept of innovative security is most interest, since all types of security listed in the Decree of the President of the Russian Federation cannot be ensured without proper innovative development of the state corresponding to the world level.

As the authors rightly note [12], there is no so far unambiguous understanding of the content of the concept of innovative security. Often the concept of innovative security is considered in the context of ‘... scientific-technical or technological security’, ‘economic security’, as well as the state of economy’ ... which ensures the competitiveness of the results of science, high technologies, high-tech products manufactured in the national, regional and world markets, provides sustainable development in the context of global competition’ [13].

Major factors creating risks for innovative security in the Russian Federation feature a lack of proper regulatory and financial support for the innovative policy of the state, reduction in the number
of basic scientific research, weakening of international scientific ties, etc. [12]. Thus, we can conclude that there is a direct relationship between the implementation of the function of ensuring innovative security with the implementation of educational, economic, law enforcement and other functions of the state.

4. Conclusions

In the course of the research, the authors have made the following conclusions.

1. Modern states face many goals and objectives aimed at ensuring the well-being of society. The main functions of the state conventionally comprise social, economic, political, law enforcement functions, a function connected with the need to ensure security of the country and development of international cooperation, etc. The use of modern innovative technologies in public administration takes the process of implementing the basic functions of the state to a new level of development.

2. Mainstreaming of innovative technologies in the public administration creates the conditions for the emergence and development of new functions of the state featuring ensuring innovative security, as well as overcoming inequalities in the information society associated with the limited accessibility of innovations for certain strata of the population.

3. To date, in accordance with global trends, the implementation of the basic functions of the state is closely linked with the function of innovative development and ensuring the innovative security of the state. In the innovative development of the country, conditions are created for the implementation of the other state functions. At the same time, the increased use of innovations poses certain risks, such as unemployment in the event of the possible large-scale replacement of human labor with artificial intelligence; restriction of human rights to privacy with the possible use of technical means for surveillance; the use of innovative technologies for criminal purposes.

4. The function of innovative development and ensuring the innovative security of the country is of great significance in the process of the state performing both internal and external functions. Nevertheless, it is necessary to take into account that the development of innovations should be only the material basis for achieving the state’s primary goal - protecting human rights and freedoms, ‘respect for which is an essential factor in peace, justice and prosperity ...’ [33].

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