CURRENT ISSUES OF REGULATION OF CONDUCTION OF RELIABILITY AND COMPLETENESS CHECKS OF INCOME, EXPENSES, DIGITALIZATION DIGITAL DIRECTIONS OF PUBLIC MANAGEMENT AT THE FEDERAL LEVEL IN THE CONDITIONS OF A NEW STAGE OF DIGITAL TRANSFORMATION OF PUBLIC MANAGEMENT

1 BELYAEV ALEXANDER, 2 ZUDENKOVA SVETLANA, 3 KOMOV VALERY, 4 TOKMURZIN TIMUR, 5 RAZUMOVA EKATERINA

1 Financial University under the Government of the Russian Federation
2 Financial University under the Government of the Russian Federation
3 Financial University under the Government of the Russian Federation
4 Financial University under the Government of the Russian Federation
5 Financial University under the Government of the Russian Federation

Abstract
The article is devoted to the study of promising tasks of improving public administration processes at the federal level in the context of a new stage of digital transformation of public management. The authors argue the relevance and significance of the research topic. The current stage of digital transformation of public administration in foreign countries and in the Russian Federation is analyzed and evaluated, expressed in the transition of the “digital government” public administration model to a new stage of development - to Version 2.0 - the “GovTech-government” model. A general description of the trend directions of GovTech-technologization in the world practice of public administration is given, examples of local experience of their implementation in foreign countries are considered. The thesis is proved about the possibility of achieving great results and effects in improving the processes of public administration at the federal level in the Russian Federation in this direction, despite the situation of socio-economic instability in the country. Emphasis is placed on the fact that for the purposes of a successful transition from the “digital government” model to the “GovTech-government” model, there is a need to centralize management in new priority cross-departmental development areas, introduce other “administrative” GovTech development tools that have been successfully tested and applied in international practice of public administration at the federal level.

Keywords: digitalization of public administration, digital government, GovTech-government model, cross-departmental development areas, executive authorities.

1 INTRODUCTION
The development of information and communication technologies at the beginning of the new millennium, and subsequently digital technologies in developed and developing countries, led to qualitative changes in national systems of state (municipal) administration. Such changes, as a rule, correlate with an increase in transparency and, in general, the efficiency and effectiveness of this system, which, from a conceptual point of view, is associated with the integration of elements of the e-democracy and e-government models. According to S.E. Prokofiev et al., within the framework of the first model, the use of information and communication and digital technologies, as well as the corresponding infrastructure, occurs to enhance the participation of citizens in state administrative and socio-political activities, within the framework of the second model, for targeted interaction between public authorities and citizens as their clients, i.e. provision of official information (“open government”) and the provision of state (municipal) services, which, as a result, involves minimizing personal communication between the applicant and the contractor. Within the framework of the administrative reforms being implemented (implemented) at the international level in the field of modernization of public management, preference is undoubtedly given to the second model.

However, in the context of expanding digitalization opportunities, “electronic government” is acquiring new variations, and embarking on the path of digital transformation, the state elementarily or completely forms a qualitatively new ecosystem organism². Digital transformation, thus, acts as an intermediate stage in the development of public management, at which a particular state rises as a result of the launch of the process of transferring the system (mechanisms) of state (municipal) management to each new level of transformation through experimental and then actual integration of digital technologies into functionality. relevant sub-institutions, that is digitalization process. One of the results of this transition is the transformation of the “electronic government” model into a “digital government” (eng. digital government), a multipolar system of public management, the key functions and processes within which are carried out through digital technologies and digital infrastructure³.

The principle of multipolarity, in this case, reflects the capabilities (technological and infrastructural) of each specific state that has adopted the “digital government” model as a concept for self-development⁴.

So, initially the “electronic” activity of the governments of developed and developing countries was built through the e-portalization tool, that is multifunctional platforms with various interactive services, including a certain range of opportunities to ensure the openness of the activities of public authorities and the provision of services in an online format (in domestic practice, this is the first version of the “Gosuslugi” portal without super services). One should agree with the opinion of T.N. Litvinova that the development of the “electronic government” model in the Russian Federation, at least at the initial stages of its formation and development, can be optimally associated with the process of public involvement in the development and adoption of public management decisions through various portal services, for example, “Your control”, “Russian Public Initiative”, Federal Portal of Draft Regulatory Legal Acts, etc.⁵, i.e. non-integrated services operating on the principle of monochannel. Leveling within the framework of the digital transformation of public administration at the federal level of this principle and the transformation into an omnichannel one is provided by another tool - platformization, which, in conditions of sufficient penetration of “numbers” into infrastructure design, can be called a digital tool⁶. If we compare portalization and platformization, as two mega-technologies used for the purposes of modernizing public administration, then the first one is more narrowly functional and focused on improving the mechanisms for exercising power, while the second one is, accordingly, more multifunctional and democratic.

The platform is certainly much more advanced in the context of the possibilities of using digital technologies, for example, Big Data, i.e., big data accumulated in state information systems (GIS) to solve public management problems and achieve strategic goals for the development of the state⁷. In fact, it is for this reason, as S.Ya. Pirmetova and K.S. Mabulzhamalov, in the international practice of public administration, a gradual transition from "Electronic government 1.0" to "Electronic government 2.0" began to take place; The priority motive for this was the understanding that the portalization tool is not functional enough to provide the necessary level of relations with the key participants in the public management

---


ecosystem - the main stakeholders and their representatives, i.e., by the public ⁸.

Thus, by the beginning of the 2010s, in many developed countries, the concept of the American ideologue Tim O’Reilly about the state as a platform⁹, i.e., about the state that carries out the current monitoring of open data (open APIs) and the regulation of state policy (public administration) algorithmized on their basis. Despite the fact that this concept was initially perceived as some kind of metaphor, a technological dystopia, many states quickly began to integrate its principles, gradually introducing them into national public management systems as part of administrative reforms¹⁰. By the end of the decade, Singapore, Great Britain, the USA, Australia, France, Norway and some other European countries, as well as Russia, could conditionally be called a “state as a platform”. The main focus of the domestic developers of the concept was placed on the role of the state in the context of the transformation of the information society and its transition to digital “rails” ¹¹. It is noted that a significant part of the functions of the state as an intermediary in the movement of such information as statistical, tax, personnel, personal data, etc., will be performed by algorithms without human intervention.

Thus, in April 2018, the Center for Strategic Research (Russia) prepared a report with the same name “The State as a Platform” ¹², according to the authors of which, the target function of implementing this concept is the well-being of citizens and the promotion of economic growth based on the integration of digital technologies through the provision of beneficial interaction between the state, business and society as key participants in the public management ecosystem. It was assumed that the integration of key platform solutions, thus, will enable the state to come to a number of fundamental changes, in particular, in:

- models of state participation: will allow to introduce the model of the service state - culture “the state for me”; the state as a coordinator will take over the management of the interaction of all participants in the platform, will act as the creator of the eco-environment of interaction;
- public processes: public infrastructure will become a single center for all applications for public services; will allow the use of reliable and unified data for decision-making; will provide new opportunities for setting goals, evaluating results, and will reduce corruption;
- public service: a “digital mentality” will develop: acceptance of digital reality, the ability to work effectively in it, digital skills and personal development; there will be a unified digital interaction platform for civil servants, businesses and citizens.

However, having relatively quickly defined itself as a managerial ideology, in many other developed countries, including Russia, the concept of "the state as a platform" over the past three years has come to a qualitatively new solution, unprecedented in world practice, its strategic endgame - the "state as GovTech" model platform".

2. GENERAL OBJECTIVE

The purpose of this article is to study the promising tasks of improving public administration processes at the federal level in the context of a new stage of digital transformation of public management¹³. To achieve this goal, trends are considered, tasks and directions for changing the model of public administration under the influence of government technologies (GovTech) are clarified using the example of developed and developing countries, the conceptual and instrumental foundations and, directly, the vectors of such changes as the beginning of the ideological involvement of public institutions in the new digital agenda.

---

The results obtained by the authors can be used to further develop theoretical, methodological and practical aspects, as well as prospects for improving public administration processes at the federal level in a new stage of digital transformation of public management with the help of GovTech.

3. METHODOLOGY

To achieve this goal and objectives, the following research methods were used: general scientific (dialectical, analysis and synthesis of available literature data, comparisons and analogies, annotation, note-taking and abstracting of information obtained from modern scientific sources), special (systemic, comparative analysis, etc.) . The main sources of information are international and Russian legal acts, fundamental works, publications of Russian and foreign scientists and analysts devoted to the problems of adaptation, transformation and development of state (municipal) management models in the new digital technological reality, the use of GovTech tools to implement a single social demand for a high quality and standard of living of the population; portals and other Internet resources, news and notes published in the media, dedicated to various aspects of the perspective vision of the governments of different countries regarding the smartization of public management.

4. RESULTS

Public administration models of many developed and developing countries of the world are currently moving to a new stage of transformation into digital-oriented, i.e. is being transformed into the so-called "digital government" model of the new Version (2.0) or "GovTech-governement" (government technologies, GovTech), the main goal of which is not only the personalization of state power and providing a client-oriented (omnichannel) approach to the products and services produced by it, but to the ornamental restructuring of the state ecosystem, according to the traditions of technology-based public management (see Figure 1) that systematically increase the level of digital maturity of public administration (see Figure 2).

![Figure 1 - Key technologies - GovTech drivers in public administration](image)

According to E.I. Dobrolyubova, Ya.P. Silina et al., from an instrumental point of view, digital maturity of public administration is a complex quantitative indicator that characterizes the degree of development of widespread introduction of artificial intelligence (AI); emotional A; increase in human-machine interaction; natural language processing; open source software; blockchain; open API; “everything as a service” (everything-as-a-service); hybrid and multi-cloud infrastructure.

---

the state in the context of its use of digital solutions and technologies to fulfill the social demand for a specific service (services; values)\textsuperscript{16}. This indicator is used in the international ranking of digitalization of government and public services GovTech Maturity Index (GTMI) of the World Bank (2022), in which, it is worth saying, our country took 10th place (among 198 participants; leaders: South Korea, Brazil and Saudi Arabia). The GovTech Maturity Index (GTMI) measures performance in four basic areas: Core Government Systems Index (CGSI), Public Service Delivery Index (PSDI), Public Engagement (English Digital Citizen Engagement Index, DCEI) and "Institutional support" (Eng. GovTech Enablers Index, GTEI)\textsuperscript{17}.

\textbf{Version 0.0.} "Automation": implementation of IT solutions that repeat existing processes (nature of public administration: closeness, internal focus, policy focused on solving problems, not preventing them).

\textbf{Version 1.0.} "Digitalization": improvement of existing processes through the introduction of IT; learn-methods of process optimization; process reengineering; data analysis for decision-making (nature of public administration: greater openness and focus on the needs of residents, the use of digital technologies).

\textbf{Version 1.1.} "Digital transformation": a sharp reduction in transaction costs due to platforms - the emergence of new business models; the creation of technology opportunities and traditional areas of activity of the organization leads to the emergence of new products and processes with fundamentally different qualities (the nature of public administration: openness, focus on the needs of residents, data-based management, transformation of processes based on IT technologies);

\textbf{Version 2.0.} "Technologization" (GovTech): creation of a "smart state", the use of resources aimed at improving the mechanisms of coordination and communication between the state, business and citizens (technologies of "smart cities", digital regions and e-government, digital profiles, open data, integrated information systems) (nature of public administration: reorganization of management systems based on artificial intelligence, management based on real-time data).

Figure 2 - Evolution of the digital maturity of public administration models (world practice)

In turn, from a conceptual point of view, the digital maturity of public administration, in our opinion, is a certain system of relations that arises when human intellectual and physical labor is replaced, as well as its role in the management of public (state, non-state, commercial and private - individual) processes of a general and special nature by elements of digital technologies for the purpose of overcoming resource barriers in communications "state - business - society - personality - state", achieving high-quality (effective) results of these communications (actually, public services), as well as reducing the limitations of human nature, those. human factor in activities directly or indirectly related to public administration. This view is proved by the multiple international practice of implementing a wide range of areas for improving the processes of digitalization of public administration through GovTech:


“government-to-citizen”: development of services taking into account the needs of users; this direction provides for the development (support) of services taking into account social demand, the design of public services around important life situations (birth of a child, job search, housing issues, death of a loved one, etc.). So, for example, in Israel there is a personalized platform with information about public services, as well as cultural, leisure and other events, providing the user with the requested data based on interests, location and life situation at a particular moment;

“Management based on Big data”; this direction involves the development of consistent policies for the collection, storage, processing and management of big data. An interesting example is the Finnish project HOPE, aimed at monitoring air quality based on data collected from fixed stations and through mobile applications of residents of cities and municipalities;

“proactive government”; this direction involves forecasting (conclusive prediction) of the problems and needs of the state, business and society before they arise by analyzing weak signals and building predictive models based on big data. A current project was developed in the US: The New York City Police Department uses a set of machine learning models called Patternizr to predict future crime, analyzing historical performance over the past ten years;

“development of culture of experiments”; this direction provides for increasing the flexibility of the government, as well as the speed of launching new services through the use of the principles of agile and design thinking, rapid development and testing of prototypes. For this area, of particular interest is the initiative to integrate a culture of experimentation into the development of government projects and programs, ideas for which are quickly developed and launched in pilot versions (Experimental Finland); Finland plans to become a world leader in developing new solutions through experimentation in 2025;

“invisible government”; this direction provides for automated and integrated services, the creation of super-applications with omnichannel data exchange between various ministries and departments. It is being developed by many states, such as the USA, UAE, Estonia, etc.; An example is projects of the Child life-event service format (Estonia) - a super application with a set of services directly related to the birth of a child, offered proactively and automatically. Similar services are provided in Singapore (Moments of Life) and New Zealand (Smart Start);

“openness and development of interaction”; this direction provides for increasing the transparency and openness of state policy, developing cooperation and interaction within the government and with other participants in the innovation ecosystem. An example is the Austrian project IP Australia Global Artificial Intelligence Network (IP GAIN), which is an initiative to develop international cooperation and sharing of software projects and open APIs in the field of artificial intelligence; it is important to point out that the data is available not only to the authorities, but to interested organizations. Among other things, it is important to point out that the practice of using GovTech technologies makes it possible to more clearly outline the boundaries of communication vectors, which, as Yu.S. Afanasiev and Yu.B. Kostrov, clearly “testifies to the desire to establish political management of both vertical and horizontal nature”;

- g 2 g (state for the state) - communication between public authorities at all levels - from federal to local;  
- g 2 b (state for business) - interaction with representatives of large, small and medium-sized businesses, in particular through the institution of procurement;  
- g 2 c (the state for citizens) - the exchange of information, data with representatives of public authorities, and, in fact, the receipt of quality services. So, at present, GovTech-transformation of public management activities in world practice provides for four main areas:

- “UrbanTech” - technologies for improving the quality of life of the population; “customer-consumer” models g 2 c, b 2 g, g 2 b 2 c (residents, end users) are involved, for example, platforms for food delivery, car sharing, car pulling, transport services, etc.;

- Smart City - technologies for effective urban management; “customer-consumer” models b 2 g, g 2 b (local authorities) are involved, for example, smart lighting systems, management of solid waste

---

management, intelligent transport systems;

- “GovTech” - technology aimed directly at providing public services to the population and improving the work of the public sector; customer-consumer models (local authorities, government-related institutions - courts, educational institutions, healthcare organizations) are involved, for example, public service platforms, urban planning systems, solutions for optimizing the budgetary and procurement activities;

- “CivicTech” - technologies that simplify communication between citizens and the government, and also involve the former in solving critical social issues; “customer-consumer” models (indirectly and directly in the context of each stakeholder (i.e. from the state to a specific citizen) interested in improving processes public administration at the federal level in the context of a new stage of digital transformation of public management 20). Solidarity with this point of view is expressed by Yu.N. Shedko et al.; moreover, according to their opinion, in order to turn the idea of “GovTech government” into reality, the primary task is to transform the ways of thinking and working based on the use of newly integrated innovative technologies to improve the efficiency of management practices and, accordingly, their results (effects), 21because . nevertheless, the “GovTech-government” model should be considered as an ideology of involving public institutions in the new digital agenda, where the state is “a complex configuration of interests and relationships that determine the final, as a rule, non-linear, results of the integration of digital technologies”22; as it seems, this is what makes the problem of technological transformation of public administration so relevant and significant for our country.

In the Russian Federation, the reorientation of the public administration model to GovTech rails is currently at an early stage; as an industry direction, this trend originated back in 2015, when the Moscow City Hall created the mos.ru portal to simplify the use of city services (in collaboration with the Notamedia agency) and the Moscow Parking application (the Moscow City Hall launched this application together with Yandex Cards). An equally significant role in the development of the GovTech sector in Russia is played by the Moscow Innovation Agency. Thus, at the initiative of the Agency in 2019, a map of innovative solutions for a smart city was created (https://innoagency.ru/smartcitymap/). The map provides information about companies that operate on the GovTech market; all of them are divided into such sectors as “security”, “urban environment”, “smart home”, “construction”, “transport and mobility”, “health”, “education and personnel”, “tourism and recreation (30)”, “trade and services”.

22Mukhametov DR, Simonov KV (2021) “Smart State”: prospects for the introduction of digital technologies for public administration in Russia. The world of the new economy. no. 3 pp. 17-27.
In addition, from January 1, 2020, an experiment was conducted in Russia to create a digital platform "GosTech", which will unite state information systems. Due to geopolitical instability in the world, the original dates for its holding were extended until December 31, 2022. According to the Concept for the creation and operation of this platform, approved by Decree of the Government of the Russian Federation dated October 21, 2022 No. 3102-r, the results of this experiment will serve as the basis for the development of methodological documents and legal acts that will regulate the functioning of the platform on an ongoing basis and will help its further development. It is also noted that in 2023-2024, the platform management system and the Gosmarket information system, the state marketplace of IT services and applications, will be put into operation, standard solutions for ensuring information security will be developed, a catalog of digital services will be formed, and the process of creating and developing state information systems directly on the new platform will begin. In addition, it is planned to develop the architecture of the domains "Health", "Education", "Urban environment and housing and communal services", "Construction", "Transport", "Sport", "Science", "Ecology"; “in the future, the platform <...> will be replenished with new domains related to various sectors of the economy and the social sphere, and all state information systems will be developed and function only on this platform,” the Concept release states.

<table>
<thead>
<tr>
<th>Technologies of operationalization of the control space</th>
</tr>
</thead>
<tbody>
<tr>
<td>open data: publishing mandatory and optional open data sets online;</td>
</tr>
<tr>
<td>e-government services and digital profiles: integrated platforms or portals of public services using a citizen’s digital profile;</td>
</tr>
<tr>
<td>&quot;smart cities&quot; and digital regions: integrated monitoring systems and digital twins of a city or region;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Purpose in structuring public relations</th>
</tr>
</thead>
<tbody>
<tr>
<td>open data: increasing the transparency of the public sector and self-organization of citizens in decision-making;</td>
</tr>
<tr>
<td>e-government services and digital profiles: accumulations of information and a variety of functionality for targeted social support and regulation of access to public resources;</td>
</tr>
<tr>
<td>&quot;smart cities&quot; and digital regions: creating a virtual reality of a city or region to simulate the consequences of decisions and obtain local knowledge about the territory;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The situation in the country</th>
</tr>
</thead>
<tbody>
<tr>
<td>open data: presence of institutional regulation, lack of effective results;</td>
</tr>
<tr>
<td>e-government services and digital profiles: growth in the number of electronic public services provided, integration of the public services portal with other information systems to increase digital functionality;</td>
</tr>
<tr>
<td>&quot;smart cities&quot; and digital regions: the presence of institutional regulation while maintaining the fragmentation of the digitalization policy of municipal and regional government;</td>
</tr>
</tbody>
</table>

Figure 3 - Prospects for improving public administration processes at the federal level in the context of a new stage of digital transformation of public management with the help of GosTech

23"A government decree has been issued on the start of the experiment on GosTech from November 1, 2020.” 10/15/2020. D-Russia. ULR: https://d-russia.ru/vyshlo-postanovlenie-pravitelstva-o-starte-jeksperimenta-po-gostehu-s-1-nojabrja-2020-goda.html (date of access: 04/01/2023)

24The experiment to create the GosTech platform has been extended until the end of the year. 04/01/2022. D-Russia. ULR: https://d-russia.ru/jeksperiment-po-sozdaniju-platformy-gosteh-prodljon-do-konca-goda.html (date of access: 04/01/2023)


According to experts and analysts, taking into account global trends, it is difficult to say anything definite about the prospects of GovTech in Russia, in particular, taking into account the implementation plan of the Concept. In their opinion, in the long term, it is optimal to consider the existing achievements and problems in different areas of GovTech, on the basis of which it is possible to predict what decisions will receive attention from government agencies at the appropriate stages of the implementation of the Concept. So, for example, as basic, we can consider such areas as: open data, electronic public services and the creation of digital profiles, smart cities and digital regions. Taking into account the trends in the digital transformation of public administration in the Russian Federation at a specific point in time, of course, based on the ways of operationalizing the management space and structuring public relations, we get the following picture of prospects (see Figure 3).

5. CONCLUSIONS
The foregoing allows us to make an objective conclusion that the digital transformation of public management is no longer so much a long-term perspective, but an actual trend that virtually every country aspires to, claiming the status of a mature one in the field of digital and wishing to completely switch to the “state as a GovTech platform” model. Of course, in the context of the chosen trajectory of the strategic development of public administration, the government’s primary task should be the centralization of the administrative apparatus for the integration of GovTech technologies into public administration mechanisms, namely, new priority cross-departmental areas of GovTech development; in particular, we are talking about the organization of specialized GovTech departments, agencies, regional and (or) municipal GovTech centers and other macro, micro and nano-subjects of the GovTech ecosystem, within which the entire life cycle will be carried out - from design to implementation into operation - a specific technology or its elements. The creation of such centers (agencies, departments) is necessary to integrate efforts to implement the management decisions and initiatives planned by the authors of the Concept, which, accordingly, requires the establishment of a qualitatively new format of communications between various departments and departments - stakeholders of the Concept.

The practical significance of this decision is proved by a fairly common practice in the states initiating development in the direction of GovTech and, accordingly, the results (effects) obtained in the direction under study; at the local level, as a rule, it is represented by an autonomous position (CivicTechChief Digital Officer), functioning in the city administration (in the Netherlands - this is the Chief Technology Officer, Singapore - Chief Digital Strategy Officers, Great Britain - Chief Digital Officer, etc.), and at the regional and federal - a special unit in ministries and departments (in Boston - in the Department of New Urban Mechanics, in London - in the Office of Technology and Innovation, in the UAE - in the Ministry of Opportunities, etc.); Singapore is represented by a separate government - GovTech Singapore.

As a possible functionality of the Russian version of the CivicTechChief Digital Officer, one should consider such areas as: firstly, the organization of systematic work to stimulate the introduction of innovations in the GovTech-sphere (for example, the selection of tools for analyzing big data, processing such data, analyzing and identifying the needs of the population , searching for ready-made solutions, carrying out activities to develop in-demand solutions that are not yet available on the domestic market, etc.; secondly, the development of a general program (federal project, federal target program) for market development with a list of strategic directions, initiatives, key performance indicators and etc.; thirdly, the formation of a rating and a catalog of successful foreign practices in the implementation of GovTech solutions, in particular, based on expertise and user activity; fourthly, support for government organizations in choosing the most relevant solutions; fifthly, stimulation of cluster initiatives, starting from the territorial level, providing for targeted cooperation of social institutions, private companies, municipalities, cities, regions; sixth, the development of proposals for improving and updating the legal framework.

REFERENCES


[28] The experiment to create the GosTech platform has been extended until the end of the year. 04/01/2022. D-Russia. ULR: https://d-russia.ru/jeksperiment-po-sozdaniu-platformy-gosteh-prodijon-do-konca-goda.html (date of access: 04/01/2023)