

**R. Sergaliyeva\***, *c.e.s.*<sup>1</sup>  
**R. Bugubayeva**, *PhD in economics, professor*<sup>1</sup>  
**L. Tretyakova**, *doctor of economics, professor*<sup>2</sup>  
*Karaganda University of Kazpotreboyz*<sup>1</sup>  
*Karaganda, Kazakhstan*  
*Belgorod State National Research University*<sup>2</sup>  
*Belgorod, Russia*  
\* – main author (author for correspondence)  
e-mail: sergalieva89@mail.ru

## DEVELOPMENT OF DIGITAL COMPETENCIES OF CIVIL SERVANTS IN THE REPUBLIC OF KAZAKHSTAN

*The system of state administration is becoming more digital and convenient for citizens. In this regard, there are growing requirements for personnel who manage the digitalization processes, they must have a wide range of digital competencies. A modern civil servant who is responsible for the implementation of digital projects and the transfer of work to a digital environment must first of all have the skills to work in the digital world.*

*The development of the unified information space of the civil service and the widespread introduction of e-government technologies place increased demands on the digital competencies of civil servants.*

*When studying this research topic, the main strategic programs for the implementation of digitalization are considered and analyzed. In the course of the research, special attention is paid to the study of the current state of the electronic government of the republic, as well as an overview of upcoming projects on the introduction of digitalization.*

*The result of the study is methodological recommendations on the transformation of competencies in the field of ICT, which have practical significance for improving the selection process of civil servants in the conditions of digitalization of the civil service. They will contribute to increasing the level of development of digital competencies of applicants for civil service positions.*

**Keywords:** *civil service, digitalization, civil servant, digital competencies, digital literacy, e-government, digital state, selection of civil servants, reserve, digital transformation, information and communication technologies.*

**Кілт сөздер:** *мемлекеттік қызмет, цифрландыру, мемлекеттік қызметші, цифрлық құзыреттер, цифрлық сауаттылық, электрондық үкімет, цифрлық мемлекет, мемлекеттік қызметшілерді іріктеу, резерв, цифрлық трансформация, ақпараттық-коммуникациялық технологиялар.*

**Ключевые слова:** *государственная служба, цифровизация, государственный служащий, цифровые компетенции, цифровая грамотность, электронное правительство, цифровое государство, отбор государственных служащих, резерв, цифровая трансформация, информационно-коммуникационные технологии.*

**JEL classification:** H 70 – State and Local Government: Intergovernmental Relations: General

**Introduction.** «Digit» is now becoming the basis for a profound transformation of all aspects of life and society. The process of digitalization today affects almost all spheres of activity, in all countries of the world. The pandemic and its consequences have once again demonstrated how important the work on digitalization is. Digital technologies accelerate the pace of economic development and improve the quality of life of the population. They create a new society where human capital, i.e. knowledge, skills and competencies, is actively developing. The efficiency and speed of work is increased due to automation and other new technologies, and the dialogue between citizens and the state becomes simpler and more open. The digital

revolution is happening at a tremendous pace.

The purpose of this study is to develop recommendations for improving the selection criteria, the selection of civil servants in terms of qualification requirements for competencies in the field of information and communication technologies, based on the study of the experience of Russia and Denmark.

To achieve this goal, the following tasks were set:

- to reveal the essence of the concepts of «digital literacy» and «digital competence»;
- to study the evolution of the electronic government of Kazakhstan;
- to investigate the competence models of civil servants in Russia and Denmark;
- to consider the main competencies required of

## *Менеджмент және маркетинг / Менеджмент и маркетинг*

state civil servants in the conditions of the new format of public service in the Republic of Kazakhstan;

- summarize the conclusions based on the results of the study and offer recommendations for improving the criteria of recruitment, the selection of civil servants.

The methodological basis of the research was such methods as: historical, systematic, comparative, theoretical analysis, comparison, generalization, concretization and information collection.

In 2021, significant changes are expected in the civil service of the Republic of Kazakhstan, the reduction of the state apparatus is expected. A new selection will be made for the presidential personnel reserve, where only 50 people will be selected instead of 300. The selection criteria will be tightened, in this regard, the recommendations presented are timely, practical and relevant.

Countries themselves determine the priorities of digital development. National digitalization programs are currently being implemented in more than 15 countries around the world. The leaders in this direction are China, Singapore, South Korea, Denmark, etc.

Digitalization has noticeably affected the state administration system. It is being reorganized and modernized through the prism of the introduction of digital technologies. The era of universal digitalization set special demands on the personnel who will be able to work in the new conditions and become leaders of change. New technologies are growing new views in a new, service - based state. Automated processes created with the help of public service portals and platforms for automatic data generation pose tasks for civil servants that require a special creative approach. Today, Kazakhstan has a shortage of digital competencies necessary for working in the technological environment in all areas, in particular in the civil service. In the Republic of Kazakhstan, government agencies do not have a systematic approach to analysis and IT architecture, there is no focus on solving user problems, and there is no coordination of IT projects. The introduction of digital technologies expands the work tools of civil servants, which requires updating their competence profiles. In this regard, the issue of developing digital competencies of civil servants in the Republic of Kazakhstan is relevant. Kazakhstan needs to transform the paradigm of training civil servants and review existing approaches, training models, as well as improve

the criteria for selection and selection of personnel.

**Literature review.** The concepts of «digital literacy» and «digital competence» are increasingly used in Kazakhstan after the adoption of the «Digital Kazakhstan» program, the main purpose of which is to accelerate the pace of development of the republic's economy and improve the quality of life of the population through the use of digital technologies [1].

The authors analyzed this strategic program, namely, the «Transition to a digital state» – the direction of transforming the functions of the state as an infrastructure for providing services to the population and business, anticipating its needs.

The result of the research work on the creation of the competence model of the digital transformation team in the state administration system made it possible to thoroughly study the structure of the competence model, basic digital competencies, personal competencies in the field of digital development, professional competencies in the field of digital development [2].

Features and fundamentals of digitalization are revealed by O.A. Polyushkevich, I. A. Zhuravleva, G.V. Druzhinin, N.V. Moskvitina. Digitalization has been studied precisely as a mechanism of transformation of public administration, as a method of solving management problems in public administration. The disadvantages of digitalization of public administration are clearly highlighted:

- 1) partial duplication of information systems by different departments;
- 2) substitution of the assessment of the impact of digital technologies on the effectiveness of state administration;
- 3) provision of state services without a request for them;
- 4) the lack of a reasonable system for predicting the introduction of digital technologies [3].

The main components of the competence models of civil servants of Russia [4], the USA [4], the USA [5], Canada [6], Great Britain and Finland [7] were analyzed, the features were identified, recommendations were formed.

The issues of digitalization of the civil service are reflected in many scientific works of domestic and foreign researchers. However, a review of the literature indicates the insufficiency of research on the introduction of digital technologies in the work of government agencies in the process of hiring.

**Main part.** Digital literacy is a mandatory

factor for the effective use of the digital educational environment. This concept first appeared in 1997 in the work of P. Gilster [8]. By this term, the American writer and journalist meant the ability to critically evaluate and apply the data that an individual receives through interaction with a computer in various forms from a variety of sources. According to P. Gilster, the constant presence on the Internet, in the field of hypertext, which makes it possible to quickly navigate from one resource to another, forms new patterns of human behavior, information search techniques, and communication features. This leads to the formation of network thinking, the main feature of which is a high degree of information and communication activity.

This definition was further elaborated by the Australian scholar-historian Allan Martin. He added that digital literacy is the understanding, attitudes and ability of an individual to effectively use digital tools and opportunities for identification, access, evaluation, integration, management, synthesis and analysis of digital resources, compilation of the latest knowledge systems, interaction with other individuals for more constructive social interactions in the paradigm of certain situations [9].

Increasing the level of understanding of the term «digital literacy», operating with the term «digital competence», which has become popular recently, is caused by a number of significant prerequisites. The rapid growth of opportunities provided by the Internet and its popularity make it insufficient to consider the Internet only as a specific sphere of human activity. The network for a modern person is a whole world, which is not inferior to the «offline» world in terms of the richness of opportunities and activities and mediates all spheres of life.

Digital literacy is based on digital competencies. The transition to the concept of digital competence has practical grounds, as it implies the constant acquisition of new competencies (motivation, knowledge, responsibility, skills), the ability of a person to critically, confidently, safely and effectively identify and use communication and information technologies in all areas of their activities. Digital competence means not only the presence of any skills and knowledge, but also the desire to get the maximum effect from their activities. In other words, digital competence is not only the sum of general user and professional knowledge and skills that are

represented in various models of ICT competence, information competence, but also an attitude to effective activity and a personal attitude to it based on a sense of responsibility [10].

Digital literacy thus includes the personal, technical, and intellectual skills that are necessary to live in a digital world. Digital competence includes the ability to collaborate digitally, provide security, and solve problems. Digital competence of civil servants is the skills and abilities to perform their duties while modernizing the entire system of state administration through the introduction of technologies and digitalization of all aspects of life.

The policy of digitalization in Kazakhstan was taken in the 90s. Thus, the state program for accelerated industrial and innovative development was launched, and the Bolashak international education program was initiated. A number of elements of the innovation ecosystem were also created, the special economic zone of the PIT «Alatau», «Nazarbayev University», the international technopark Astana Hub was launched [11].

For the first time, the idea of creating an «electronic government» in Kazakhstan was announced by N.A. Nazarbayev in the State Program «Kazakhstan-2030» in 1997.

Today, the e-government portal of Kazakhstan offers 237 types of services and services. So, in 2007 the site started with 20 services, by 2010 their number tripled, and in 2011 the portal already provided 74 types of public online services. In 2014, 235 interactive and transactional services were offered to users of the portal. The range of services and payments on the portal increases every year. For the convenience of citizens, a Telegram bot was launched in Kazakhstan in 2015. Messenger has become a convenient channel for receiving a wide variety of online services. Many developers have started to create analogues of various applications and services in the form of chatbots, interaction with which is carried out using pre-defined commands in the chat mode. To date, more than 20 public services are available through the bot of the e-government portal. In 2019, 24.4 million services were provided through PSCs (Population Service Centers), and the number of services received by citizens independently through self-service zones increased by 4 million compared to last year.

Due to the declaration of the state of emergency in the country in 2020, private companies and

public authorities have switched to a remote format of work and provision of services. On behalf of the President of the country, 70% of civil servants were transferred to remote work. 21 government agencies have been transferred to cloud document management. In the country, more than 80% (565) of public services are available online. Since the closure of the PSC, citizens have independently received more than 2.5 million services. In total, since the beginning of the year, the population has received more than 9 million public services in electronic form – this figure is growing every day,

and the pace is accelerating.

In 2020, the Republic of Kazakhstan rose to 10 positions in the world ranking of e-government development, which is formed by the UN. The country is now in 29th place and follows just behind Canada.

This rating is compiled every 2 years on the basis of 3 components: 1) Online Service Index (OSI), 2) Human capital index (HCI), and 3) Telecommunications infrastructure index (TII). It evaluates 193 UN member states. When compiling the current rating, the work carried out by the states in 2018-2019 was taken into account.



Figure 1. **Kazakhstan is in the UN global ranking for the development of e-government in 2008-2020**

According to the «Digital Kazakhstan» program, the «Transition to a digital state» involves providing citizens and businesses with open, transparent and convenient opportunities that are available online at any time. It is expected that by 2022, the share of public services received in electronic form will increase to 80%, and large Kazakh cities will switch to the «Smart City» concept. Within the framework of the «State – to-Citizens» initiative, it is planned to reduce the paper document flow and the demand for certificates. The «State – to-Business» initiative involves the creation of a «Single Window», which will save business from the need to submit documents to customs on paper. Entrepreneurs are expected to use electronic invoices using Blockchain technology [1].

Thus, there are quite a few achievements in the field of e-government in Kazakhstan. However, there are also drawbacks, namely weak legislation, lack of professional staff, imperfect interface, and an imperfect platform e.gov, insufficient funding, cybersecurity, data loss, internet attacks. Kazakhstan does not independently develop its own information systems, borrowing advanced digital technologies and cybersecurity systems developed in other countries. In such a situation, critical objects of the state information and communication infrastructure can be attacked at any time. And the result is unpredictable. There is also a potential threat of espionage and data disclosure. In terms of personnel management, this is primarily protected

personal data of employees.

In many countries, including Kazakhstan, such competencies of civil servants as focus on results, skills of organizing their own time, discipline, stress resistance are put in the first places, and adaptability, readiness for change, creativity, initiative, skills of applying novelties and innovations are put in the last places [12].

In connection with the digitalization of the civil service, it is necessary to improve the digital skills of civil servants in Kazakhstan, so that, first, they can provide one hundred percent security to existing programs, second, create our domestic platforms, and third, provide high-quality public services.

In Kazakhstan, there are no uniform templates for the design of requirements for professional knowledge and skills in the digital sphere. Thus, the process of entering the civil service consists of the following stages:

1. testing for knowledge of the state language and legislation of the Republic of Kazakhstan;
2. testing for the assessment of personal qualities;
3. competition for holding an administrative public position.

Testing to assess the personal qualities of candidates for the position of Corps «B» includes 10 tasks to identify: the level of stress resistance; customer orientation and informing; management of activities, etc.

This is the basic necessary set of qualities for a civil servant. Taking into account the level of the

## ***Менеджмент және маркетинг / Менеджмент и маркетинг***

position, additional competencies are checked, such as system management, etc.

In this case, it is noteworthy that digital competencies are not taken into account, either in the basic set or in additional competencies. Although, without regularly updated digital skills, without information literacy, today the work of civil servants will not give the expected result.

The basic qualification requirements that determine the general level of qualification for public service positions should include the following requirements:

- general knowledge of information technology;
- electronic office management skills.

As for additional digital competencies, it is considered appropriate to refer to the experience of Russia.

Table 1

### **The list of digital competencies of civil servants recommended based on the analysis of competency models of foreign countries\***

Competencies	Description of competencies
Digital information management	Knowledge of information and analytical systems that provide data collection, processing, analysis and storage
Provision of digital public services	Knowledge of digital technologies for the provision of state and municipal services
Deploying digital solutions	Knowledge of the basics of computer science and trends in modern cross-cutting digital technologies
Digital Project Management	Knowledge of the basics of project management (methods and tools) using digital technologies
Digital Security	Knowledge of general issues in the field of information security, information security systems, sources of threats, means and methods of information protection, measures to counter external influences
Digital Ethics	Knowledge of the rules and norms of behavior, risks and threats in the process of using digital technologies

\* Compiled on the basis of the source [13]

In December 2020, the Academy of Civil Service under the President of the Republic of Kazakhstan launched a digital coworking center, which implements key digital competencies, the Academy revised all training programs, and included the study of such competencies as the introduction of the principles of the digital state, the transition to smart government, etc. A project has also been launched: a thousand civil servants will be trained in basic digital and communication skills to improve the efficiency of their work in remote conditions. A unique quality of the program is its inclusiveness: 342 civil servants with special needs participate in it.

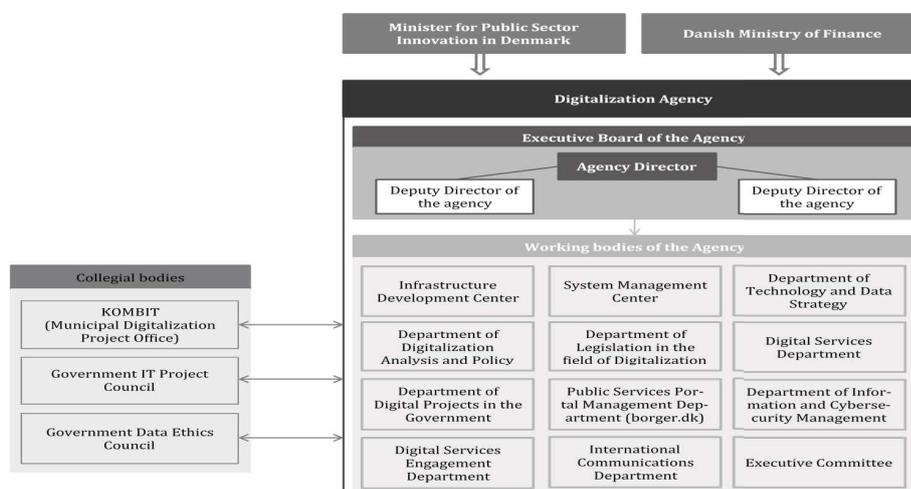
However, this is not enough. The availability of digital competencies for civil servants should be legalized. In this regard, having studied the above list, the following recommendations for the inclusion of additional digital competencies in the regulations of state bodies are offered: for executive positions, include all basic digital skills, as well as the provision of digital public services, digital security, digital ethics; for down management – the

deployment of digital solutions; the competencies of middle management should be supplemented with digital information management skills, digital project management. Since civil servants of executive positions in the context of the transition to digitalization are required to possess basic digital skills, such as the use of ICT, information exchange, personal computer skills, knowledge of the specifics of the informatization of government bodies in accordance with industry specifics, as well as the skills of performing the duties of a civil servant in providing E-Government services to citizens and representatives of the business community. Down management must possess modern digital skills, such as knowledge of the basics of cybersecurity, understanding digital trends, and implementing innovations. Mid-level managers need to implement ICT in the personnel management system, use non-standard methods to solve problems related to the implementation of ICT, own systems for collecting, processing, analyzing and storing data. For the higher positions of the «A» corps, along with these competencies, it is necessary to have the skills of

coordinating the actions of civil servants through special software, constantly improving information systems, databases, platforms, and adapting the professional activities of the state body to changes in the digital environment.

According to UN estimates, in 2018, the first place in the ranking of e-governments was taken by Denmark, which is one of the most digital countries in Europe, 88% of citizens use the opportunity of digital interaction with public authorities at least once a year. In this case it is appropriate to consider the experience of this country in the field of digital transformation of public administration and improving the model of competencies of civil servants. Denmark has made an exceptional transition to digital state administration.

Actively using breakthrough technologies such as blockchain, big data, the Internet of things, artificial intelligence, etc., the country has created a platform that allows simplifying business management and reducing its administrative burden by introducing automatic reporting. A public services portal, *borger.dk*, has been created. It contains a personalized page with services available to a particular citizen, a digital mailbox that is mandatory for individuals and businesses, and a portal that provides access to personal health data (*sundhed.dk*). Effective communication with business is established through *Virk.dk* resources and *NemHandel* – an open e-business environment that allows businesses to send standardized electronic invoices safely and securely [14].



**Figure 2. Organizational structure of the digital transformation management system in Denmark\***

*\* Compiled on the basis of the source [15]*

Such a digital transformation requires that civil servants have digital skills. The successful implementation of the digitalization process in the country was due to the trained personnel. In Denmark, mass training of employees and local governments in digital skills and technologies was carried out, and the selection of civil servants was improved.

The Danish Agency for Digitalization is responsible for defining and implementing the Danish digitalization policy. The Agency was established in 2011 by the Ministry of Finance. The agency operates 11 centers and 3 digitalization management communities. Having studied the activities of these departments, the authors analyzed the skills required by civil servants, which should be trained by our employees to achieve results:

- ensuring the use of data and technological capabilities of their processing, data exchange between all authorities and organizations (a single data lake);
- implementation of a program for the formation of a common data architecture in the public sector, a strategy for data processing and the use of artificial intelligence technologies;
- development and promotion of draft laws regarding the digitalization of society and the organization of digital transformation, including the improvement of procurement activities, data protection, ethics of data use.

Since the beginning of 2020, the Agency of the Republic of Kazakhstan for Civil Service Affairs has been conducting a large-scale digitization of personnel analytics and office work. The *i-Kyzmet* project

involves digitization of the entire personnel service and paperwork, which will actually reduce to zero the «exchange of papers» between departments. In the future, it is assumed that this platform will become a single digital workspace for government employees. Therefore, the state needs a strict selection of personnel who will ensure these transformations.

In August, 2021, a project was launched to increase the capacity of civil servants and practitioners involved in the introduction of innovations in the public administration system and digitalization of public services in Central Asian countries. The project is designed for three years and will be implemented by the Hub, the United Nations Development Program in Kazakhstan in partnership with the Ministry of Internal Affairs and Security (MOIS) and the National Information Society Agency (NIA) of the Republic of Korea. The project is funded by the Government of the Republic of Korea. It is noticeable that significant steps have been taken, but improving the selection process will only accelerate the implementation of this project.

**Conclusion.** Based on the results of the study, the following conclusions were made: 1) all processes in the portal of the electronic government of the Republic of Kazakhstan are automated, documents are submitted electronically. Therefore, data processing skills and artificial intelligence are very important; 2) in our country there is an urgent need for a substantial elaboration of the regulatory framework governing the formation of the data market and

access to them. The level of digital literacy of civil servants in Kazakhstan not high. 3) such competencies as improving laws and legal support of digital services are relevant for our country. It is necessary to increase the selection criteria and qualification requirements for civil servants. In this regard, we consider it necessary to use the experience of Denmark, in particular, to supplement the criteria for selection and selection of personnel with the above competencies. 4) A number of digitalization projects have been launched in the public service system. Large-scale work lies ahead. To implement these and other projects, unique personnel with digital skills are needed.

Digitalization is rapidly being introduced into all spheres of human life, becoming an integral part of it. Today's realities dictate the need for public managers to build up their IT capacity, be flexible and adaptive to changes, and use new technologies and a project-based approach in their activities.

It is digital competencies that help civil servants better understand themselves, feel confident, control emotions, build effective communications, find ways out of problematic situations, which, of course, has a positive effect on the efficiency and productiveness of work in digital transformation. The development of digital competencies of civil servants in the Republic of Kazakhstan will lead to an increase in the image of the civil service, increase public confidence, customer focus, increase income, the functioning of a secure platform, accessibility and transparency.

## REFERENCES

1. Государственная Программа «Цифровой Казахстан». Утверждена Постановлением Правительства Республики Казахстан от 12 декабря 2017 года № 827. – <https://adilet.zan.kz/rus/docs/P1700000827>
2. Шклярчук М.С., Гаркуши Н.С. Модель компетенций команды цифровой трансформации в системе государственного управления / М.: РАНХиГС. – 2020. – 84 с.
3. Полюшкевич О.А., Журавлева И.А., Дружинин Г.В., Москвитина Н.В. Основы цифровизации государственного и муниципального управления: учеб. пос. / И.: ИГУ. – 2020. – 163 с.
4. Камолов С.Г., Коржов И.А. Проблемы повышения квалификации государственных и муниципальных служащих // Право. Журнал Высшей школы экономики. – 2012. – №2(3). – С. 185-189.
5. Карапетян Н.С., Каунов Е.Н. Трансформация компетенций государственных служащих в условиях развития цифровых технологий // Креативная экономика. – 2020. – Том 14. – №6. – С. 993-1010. – DOI: 10.18334/ce.14.6.110503.
6. Зимняя И.А. Ключевые компетентности как результативно-целевая основа компетентностного подхода в образовании / М.: Исследовательский центр проблем качества подготовки специалистов. – 2004. – 42 с.
7. Кауфман Н.Ю. Трансформация управления знаниями в условиях развития цифровой экономики // Креативная экономика. – 2018. – Том 12. – №3. – С. 401-405.
8. Glister P. Digital literacy / New York: Wiley Computer Pub. – 1997. – P. 276.

Менеджмент және маркетинг / Менеджмент и маркетинг

9. Martin A., Madigan D. Digital Literacies for Learning // London: Facet Publishing. Journal of information literacy. – 2006. – №1 (3). – P. 19
10. Солдатова Г.У., Рассказова Е.И. Психологические модели цифровой компетентности российских подростков и родителей // Национальный психологический журнал. – 2014. – №2(14). – С. 27-35.
11. Интернет ресурс: [https://www.inform.kz/ru/cifrovoy-kazahstan-realii-i-perspektivy\\_a3179860](https://www.inform.kz/ru/cifrovoy-kazahstan-realii-i-perspektivy_a3179860)
12. Васильева Е.В., Пуляева В.Н., Юдина В.А. Развитие цифровых компетенций государственных гражданских служащих Российской Федерации // Бизнес-информатика. – 2018. – №4(46). – С. 28-42. – DOI: 10.17323/1998-0663.2018.4.28.42.
13. Приказ №41 от 24 января 2020 года Об утверждении методик расчета показателей федерального проекта «Кадры для цифровой экономики» национальной программы «Цифровая экономика Российской Федерации» // [https://www.economy.gov.ru/material/dokumenty/prikaz\\_minekonomrazvitiya\\_rossii\\_ot\\_24\\_yanvarya\\_2020\\_g\\_41.html](https://www.economy.gov.ru/material/dokumenty/prikaz_minekonomrazvitiya_rossii_ot_24_yanvarya_2020_g_41.html).
14. Лопатова Н. Международный опыт формирования цифрового правительства // Наука и инновации. – 2019. – №5. – С. 24-28. – <https://doi.org/10.29235/1818-9857-2019-5-24-28>.
15. Интернет ресурс: [https://hr.cdto.ranepa.ru/os\\_1](https://hr.cdto.ranepa.ru/os_1).

## ЛИТЕРАТУРА

1. Gosudarstvennaja Programma «Cifrovoy Kazahstan». Utverzhdena Postanovleniem Pravitel'stva Respubliki Kazahstan ot 12 dekabrya 2017 goda № 827. [The State Program «Digital Kazakhstan». Approved by the Resolution of the Government of the Republic of Kazakhstan dated December 12, 2017 No. 827]. – <https://adilet.zan.kz/rus/docs/P1700000827>.
2. Shkljaruk M.S., Garkushi N.S. Model' kompetencij komandy cifrovoj transformacii v sisteme gosudarstvennogo upravlenija [The competence model of the digital transformation team in the public administration system] / М.: RANHiGS. – 2020. – 84 s. [in Russian].
3. Poljushkevich O.A., Zhuravleva I.A., Druzhinin G.V., Moskvitina N.V. Osnovy cifrovizacii gosudarstvennogo i municipal'nogo upravlenija: ucheb. pos. [Fundamentals of digitalization of public and municipal administration] / I.: IGU. – 2020. – 163 s. [in Russian].
4. Kamolov S.G., Korzhov I.A. Problemy povyshenija kvalifikacii gosudarstvennyh i municipal'nyh sluzhashhih [Problems of professional development of state and municipal employees] // Pravo. Zhurnal Vysshej shkoly jekonomiki. – 2012. – №2(3). – S. 185-189 [in Russian].
5. Karapetjan N.S., Kaunov E.N. Transformacija kompetencij gosudarstvennyh sluzhashhih v uslovijah razvitija cifrovyh tehnologij [Transformation of competencies of civil servants in the context of the development of digital technologies] // Kreativnaja jekonomika. – 2020. – Tom 14. – №6. – S. 993-1010 [in Russian].
6. Zimnjaja I.A. Kljuchevye kompetentnosti kak rezul'tativno-celevaja osnova kompetentnostnogo podhoda v obrazovanii [Key competencies as the effective-target basis of the competence approach in education] / М.: Issledovatel'skij centr problem kachestva podgotovki specialistov. – 2004. – 42 s. [in Russian].
7. Kaufman N.Ju. Transformacija upravlenija znanijami v uslovijah razvitija cifrovoj jekonomiki [Transformation of knowledge management in the context of the development of the digital economy] // Kreativnaja jekonomika. – 2018. – Tom 12. – №3. – S. 401-405.
8. Glister P. Digital literacy / New York: Wiley Computer Pub. – 1997. – P. 276.
9. Martin A., Madigan D. Digital Literacies for Learning // London: Facet Publishing. Journal of information literacy. – 2006. – №1(3). – P. 19.
10. Soldatova G.U., Rasskazova E.I. Psihologicheskie modeli cifrovoj kompetentnosti rossijskih podrostkov i roditelej [Psychological models of digital competence of Russian teenagers and parents] // Nacional'nyj psihologicheskij zhurnal. – 2014. – №2(14) – S. 27-35 [in Russian].
11. Internet resource: [https://www.inform.kz/ru/cifrovoy-kazahstan-realii-i-perspektivy\\_a3179860](https://www.inform.kz/ru/cifrovoy-kazahstan-realii-i-perspektivy_a3179860).
12. Vasil'eva E.V., Puljaeva V.N., Judina V.A. Razvitie cifrovyh kompetencij gosudarstvennyh grazhdanskih sluzhashhih Rossijskoj Federacii [Development of digital competencies of State civil servants of the Russian Federation] // Biznes-informatika. – 2018. – № 4(46). – S. 28-42 [in Russian]. – DOI: 10.17323/1998-0663.2018.4.28.42.

## ***Менеджмент және маркетинг / Менеджмент и маркетинг***

13. Prikaz № 41 ot 24 janvarja 2020 goda Ob utverzhenii metodik rascheta pokazatelej federal'nogo proekta «Kadry dlja cifrovoj jekonomiki» nacional'noj programmy «Cifrovaja jekonomika Rossijskoj Federacii» [Order No. 41 of January 24, 2020 On Approval of Methods for Calculating Indicators of the Federal Project «Personnel for the Digital Economy» of the national program «Digital Economy of the Russian Federation»]. – [https://www.economy.gov.ru/material/dokumenty/prikaz\\_minekonomrazvitiya\\_rossii\\_ot\\_24\\_yanvarya\\_2020\\_g\\_41.html](https://www.economy.gov.ru/material/dokumenty/prikaz_minekonomrazvitiya_rossii_ot_24_yanvarya_2020_g_41.html) [in Russian].

14. Lopatova N. Mezhdunarodnyj opyt formirovaniya cifrovogo pravitel'stva [International experience of digital government formation] // Nauka i innovacii. – 2019. – №5. – S. 24-28 [in Russian]. – <https://doi.org/10.29235/1818-9857-2019-5-24-28>.

15. Internet resource: [https://hr.cdto.ranepa.ru/os\\_1](https://hr.cdto.ranepa.ru/os_1).

**Р.Т. Сергалиева, Р.О. Бугубаева, Л.А. Третьякова**

### **ҚАЗАҚСТАН РЕСПУБЛИКАСЫНДА МЕМЛЕКЕТТІК ҚЫЗМЕТШІЛЕРДІҢ ЦИФРЛЫҚ ҚҰЗЫРЕТТЕРІН ДАМУ**

#### **Аннотация**

Мемлекеттік қызметтің бірыңғай ақпараттық кеңістігін дамыту және электрондық үкімет технологияларын жаппай енгізу мемлекеттік қызметшілердің цифрлық құзыреттеріне жоғары талаптар қояды.

Тақырыпты зерттеу барысында теориялық және салыстырмалы талдау әдістері, салыстыру әдістері, ақпарат жинау әдістері қолданылды. Цифрландыруды енгізу бойынша негізгі стратегиялық бағдарламалар қаралды және талданды. Зерттеу барысында республиканың электрондық Үкіметінің ағымдағы жай-күйін зерделеуге ерекше назар аударылды, сондай-ақ цифрландыруды енгізу жөніндегі алдағы жобаларға шолу жасалды.

Зерттеу нәтижесі мемлекеттік қызметті цифрландыру жағдайында мемлекеттік қызметшілерді іріктеу процесін жетілдіру үшін практикалық маңызы бар АКТ саласындағы құзыреттерді трансформациялау бойынша әдістемелік ұсынымдар болып табылады. Олар мемлекеттік қызмет лауазымдарына үміткерлердің цифрлық құзыреттерін дамыту деңгейін арттыруға ықпал ететін болады.

**Р.Т. Сергалиева, Р.О. Бугубаева, Л.А. Третьякова**

### **РАЗВИТИЕ ЦИФРОВЫХ КОМПЕТЕНЦИЙ ГОСУДАРСТВЕННЫХ СЛУЖАЩИХ В РЕСПУБЛИКЕ КАЗАХСТАН**

#### **Аннотация**

Система государственного управления становится более цифровой и удобной для граждан. В связи с этим, растут требования к кадрам, которые управляют процессами цифровизации, они должны обладать широким спектром цифровых компетенций. Современный госслужащий, ответственный за реализацию цифровых проектов и перевод рабочих процессов в цифровую среду, должен прежде всего иметь навыки работы в цифровом мире.

Развитие единого информационного пространства государственной службы и повсеместное внедрение технологий электронного правительства предъявляет повышенные требования к цифровым компетенциям государственных служащих.

При изучении данной темы исследования использовались методы теоретического и сравнительного анализа, методы сравнения, сбор информации. Рассмотрены и проанализированы основные стратегические программы по внедрению цифровизации. В процессе исследования особое внимание уделено изучению текущего состояния электронного правительства республики, а также приведен обзор предстоящих проектов по внедрению цифровизации.

Результатом исследования являются методические рекомендации по трансформации компетенций в области ИКТ, имеющие практическую значимость для совершенствования процесса отбора государственных служащих в условиях цифровизации государственной службы. Они будут способствовать повышению уровня развития цифровых компетенций претендентов на должности государственной службы.

