

Aliya Mustafina<sup>1</sup>

## CREATION OF THE E-ARCHIVE IN KAZAKHSTAN

### ABSTRACT

The article describes the current state and the main directions of Kazakhstan's archives development in "digital state" formation conditions. The problems of ensuring the long-term storage of electronic documents and databases with the subsequent possibility of their management, including through the use of BigData technologies, are considered. A description of a project being implemented in Kazakhstan to create a "Unified Electronic Archive of Documents" is given.

**Key words:** Kazakhstan, archives, electronic archive, archival records

## CREAZIONE DELL'ARCHIVIO ELETTRONICO IN KAZAKISTAN

### SINTESI

L'articolo descrive lo stato attuale e le direzioni principali dello sviluppo degli archivi del Kazakistan nelle condizioni di formazione dello "stato digitale". Sono presi in considerazione i problemi di garantire la conservazione a lungo termine di documenti e banche dati elettronici con la conseguente possibilità della loro gestione, anche attraverso l'uso delle tecnologie BigData. Viene fornita una descrizione di un progetto in corso di attuazione in Kazakistan per creare un "Archivio elettronico unificato di documenti".

**Parole chiave:** Kazakistan, archivi, archivio elettronico, archivi

## OBLIKOVANJE E-ARHIVA V KAZAHSTANU

### IZVLEČEK

Članek opisuje trenutno stanje in glavne smeri razvoja arhivov v Kazahstanu v razmerah "digitalne države". Upoštevani so problemi dolgoročne hrambe elektronskih dokumentov in baz podatkov z naknadno možnostjo njihovega upravljanja, tudi z uporabo tehnologij BigData. Podan je opis projekta, ki se izvaja v Kazahstanu za oblikovanje "Enotnega elektronskega arhiva dokumentov"

### АННОТАЦИЯ

Статья посвящена основным направлениям развития архивов Казахстана в условиях формирования «цифрового государства». Рассматриваются проблемы обеспечения долговременного хранения электронных документов и баз данных с последующей возможностью их управления, в том числе путем использования технологий БигДата. Автор описывает реализуемый в настоящее время государственный проект по созданию информационной системы «Единый электронный архив документов», его задачи и ожидаемые результаты. Раскрываются имеющиеся проблемы по обеспечению сохранности и управлению электронных документов.

1 Aliya Mustafina, Deputy Director of the Archive of the President of the Republic of Kazakhstan, Kazakhstan, Almaty, 050010, Dostyk ave., 87 b, e-mail: amustafina@archive.president.kz.

Global informatization has become one of the determining factors in the development of the civilization of the 21<sup>st</sup> century. First of all, this was promoted by the rapid development of information and telecommunication technologies. A qualitative characteristic of this are an increasing importance of information, and, accordingly, increases of amount of information transmitted and speed of its transmission. Information technologies are intensively used in absolutely all spheres of public life: economics, politics, culture, etc.

Under these conditions, Kazakhstan, as a young sovereign state, has identified the formation of a "Digital State" as one of the key directions of strategic development, involving a large-scale digital transformation in order to organize effective interaction between society and the state.

The history of digital transformation of Kazakhstan began in 2005. At that time a formation of so-called "electronic government" began. One of the steps to create an information society was the State Program "Information Kazakhstan 2020", approved in 2013, focused on improving government administration. In 2017, its key provisions were revised and in order to digitally transform the basic sectors of the economy, to develop a "mobile state" and create a society and create a new infrastructure, the State Program "Digital Kazakhstan" was approved in 2017. The introduction of information technologies in the public sector brings to a new level all key aspects of citizen life - from the payment of utilities to the execution of important legal documents.

For 10 years the country has been running an e-government portal (eGov). During this period, the legal framework, architecture and infrastructure of the "electronic government" was formed. Today, eGov uses more than 50% of the economically active population of the republic, which are about 5 million people. The ecosystem of the "Open Government" is also developing: there are already 3333 publicly accessible data sets of various levels of public authorities on the open data portal that can be easily found, downloaded and used. It contains descriptions of government data sets, as well as information on how to access data sets and additional tools.

The process of digitization of the public sector has certainly affected the automation of the processes of working with documents. In the Republic at the state level, the Unified Electronic Document Management System of the Government was introduced. The transfer to the electronic form of state accounting activity is carried out, with the purpose of rendering state services to individuals and legal entities, new specialized information systems are being created and constantly developing. In state bodies, the amount of information that exists only in digital form is increasing.

According to the data of 2018, the volume of paperless electronic document flow between government agencies amounted to 73.4%.

These priorities of informatization of society entail the need to form a modern information and telecommunication infrastructure of the archival institutions of country. Under these conditions, an urgent task is to form and implement a complete cycle of paperless workflow into the state management system, creating a system of work on organizing the reception of archives for permanent storage of electronic documents and their intensive use.

Today, the archival industry of the Republic of Kazakhstan is a system of archival bodies and institutions, organizing the formation of the National Archival Fund of the Republic of Kazakhstan, its storage, use, as well as implementing the state policy in the field of office work.

As at 1<sup>st</sup> January, 2018, there are 217 state archives function in the republic. Of these, 4 republican archives - republican state institution: "Central State Archive"; "Central State Archive of film-photo documents and sound recordings" "Central State Archive of Scientific and Technical Documentation"; "National Archive of the Republic of Kazakhstan".

The network of regional archives is represented by 213 state archives (regional, city, district), including 153 hectares, 60 branches and regional departments.

The volume of the National Archival Fund and documents on personnel over the past 25 years has increased from 11.6 million to 23.8 million units of storage. On average, annually state archives accept about 400 thousand files and documents related to the composition of the National Archival Fund and personnel.

The information structure of the archives and documentation sector of Kazakhstan is characterized by an intensive transition from traditional paper documents to electronic ones, which is beginning to cover documents of a long and permanent shelf life. So, if earlier electronic documents with a wound term of more than 10 years were formed in electronic document management systems with the obligatory creation of a paper analogue, since January 1, 2018, this requirement has been abolished and a limited list of types of documents that need to be issued on paper is approved by regulations. This measure allowed to increase the volume of electronic documents in public administration (in 2018, this figure amounted to 74% of the total document flow).

Accordingly, the main issue for the archives of Kazakhstan today is to ensure the long-term storage of electronic documents.

As a result of a comprehensive analysis of the state and development of the archival sector in our republic, the following issues were highlighted.

- The state stock catalog and other information retrieval, as well as accounting systems, in most state archives are not automated and are kept in magazines or cards. At the same time, the available examples of automation are local in nature; in general, information contained in information retrieval systems remains inaccessible to users remotely;
- there is no methodological and program base for coordinated and purposeful regulation of archives informatization processes, there are no departments / staff units in state archives, whose functions would include the use and implementation of new technologies;
- state archives are not suitable for storing electronic documents and electronic databases - there is no relevant equipment that could ensure the safety and use of arrays of electronic documents, electronic images of documents and databases, in addition, 36% of even existing computer equipment is physically outdated, maintenance of which is extremely expensive;
- there is a significant gap in the provision of computer equipment to structural divisions and reading rooms of archives - 845 computers were installed in structural divisions (43% of the total number), 37 computers in the reading rooms (1.9% of the total number), only 18 were accessible to readers - of them (0.9%), which leads to the impossibility of implementing one of the main tasks facing archives - improving the quality of information support for users based on documents from the National Archival Fund of the Republic;
- it is necessary to modernize the activities of archival institutions, including the construction of new buildings, modern archives (the lack of specialized archives with high durability of the main structures of the building, its fire resistance, possession of technical strength can lead to loss and physical damage to archival documents);
- The annual growth of the volume of documents accepted by the state for storage of the National Archival Fund and by personnel influences the increase in labor costs of state archives, as well as the occupancy of archives, which leads to a shortage of storage sites;
- an increase in the number of requests for the provision of public services to the public "Issuance of archival certificates" (an increase in the number of citizens' requests for the provision of information services by state archives with a continuing staff number leads to an increase in labor costs, as well as a reduction in the quality and increase in the time required to fulfill requests).

On the basis of this, priority areas for informatization of the industry were identified.

First of all, this is the creation of the necessary regulatory frameworks. To this end, in May 2018, amendments were made to the main legislative acts, documents, electronic documents and electronic digital signatures.

Secondly, the development throughout the republic of a unified access system "The Unified Archive of Electronic Documents of the Republic of Kazakhstan", designed to streamline, ensure the safety and management of electronic documents and databases formed in government systems. This project was launched in 2018.

Interaction with archives in the implementation of their functions. Accordingly, its architecture is a collection of individual modules:

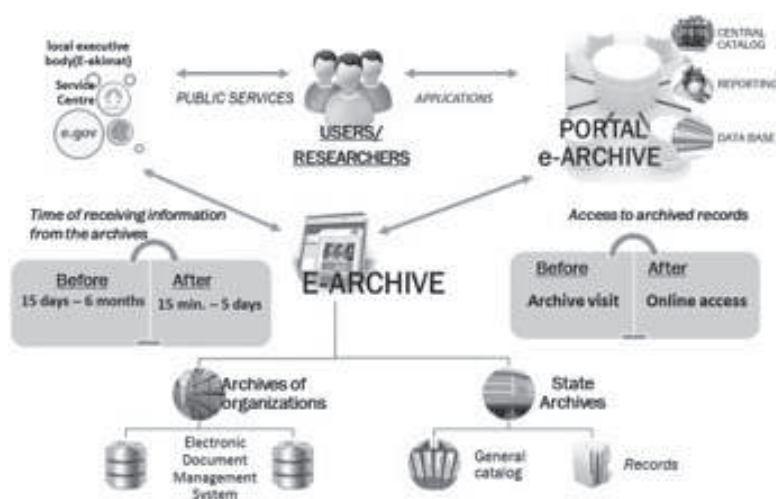
"State Archives";

"Departmental archive";

"Integration";

"Monitoring and Administration";

"Reporting".



In general, the state system of storage and provision of long-term storage of electronic documents and digital information with accompanying documentation (metadata).

Secondly, automated basic data of state archives, operational collection and analysis of administrative data, maintenance and updating of databases, including the state archive of documents from the archive fund, database of sources of components and others.

Thirdly, the procedure for the provision of public services, archives and quality control of services provided, access to reference information and archive documents in a remote mode has been significantly simplified.

Fourth, it is planned to create a single portal for the entire archival industry of Kazakhstan.

To date, only the first phase of the project has been implemented. Namely, an automated State stock catalog was created containing information about documents and funds of the National Archival Fund of the Republic of Kazakhstan. Also, the Departmental Archive module was implemented, which allows to receive and transmit electronic documents from electronic document management systems, streamline them, automatically generate the necessary accompanying documentation, as well as perform full-text search and retrieval of documents from the electronic archive.

The project is scheduled for completion by 2020. A lot of work lies ahead not only in solving technological problems, but in regulatory and methodological support of this sector. This is the first experience of Kazakhstan in creating a single information platform for all state archives of the country. The future development of the archival industry of Kazakhstan as a whole depends on the success of this project. The rapid introduction of digital technologies in all sectors of the economy poses the archival task of the early resolution of the issue of management, storage and effective use of vast array of information created in society.

## REFERENCES

Указ Президента Республики Казахстан от 10 ноября 2004 года № 1471 «О Государственной программе формирования «электронного правительства» в Республике Казахстан на 2005-2007 годы» [Электронный ресурс]//[https://adilet.zan.kz/rus/docs/U040001471\\_](https://adilet.zan.kz/rus/docs/U040001471_)

Указ Президента Республики Казахстан от 8 января 2013 года № 464 «О Государственной программе «Информационный Казахстан – 2020» и внесении дополнения в Указ Президента Республики Казахстан от 19 марта 2010 года № 957 «Об утверждении Перечня государственных программ» [Электронный ресурс]//<https://adilet.zan.kz/rus/docs/U1300000464>

Постановление Правительства Республики Казахстан от 12 декабря 2017 года № 827 «Об утверждении Государственной программы «Цифровой Казахстан» [Электронный ресурс]//<https://adilet.zan.kz/rus/docs/P1700000827>

Portal Open data of the Electronic Government of the Republic of Kazakhstan [Electronic resource] // <https://data.egov.kz/datasets/categories>

## SUMMARY:

The rapid introduction of digital technologies in all sectors of the economy and the countrywide transition to paperless workflow set the overarching task for archives to ensure the continuity of the life cycle of electronic documents with their subsequent transfer to storage and use. The separate information systems developed by the state archives appeared to be autonomous, had lack of integration functions and hence did not yield the expected results. In addition, the archives of Kazakhstan were not ready either technically or methodologically to address these issues. Under these conditions, at the state level, it was decided to develop a unified information system providing archival storage of electronic documents. In 2016, the Concept of the project "A Single Archive of Electronic Documents of the Republic of Kazakhstan" was developed, the implementation of which was launched in 2018. Project priorities include: ensuring the long-term storage of electronic documents and its metadata; automation and optimization of the main activities of the state archives; maintaining databases, including the State stock catalog of documents of the National Archival Fund; simplification of the procedure for providing archives of public services; creation of a single portal for the entire archival industry of Kazakhstan, combining information resources and databases of all state and departmental archives.

At the same time, a lot of work is still needed to develop a methodology for working with electronic documents, regulatory consolidation of methodological decisions, as well as conceptual modernization of the work of state archives.

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