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## VIRTUAL READING ROOMS IN KAZAKHSTAN'S ARCHIVES

### ABSTRACT

*The adaptation of information technologies into archives is associated with a wide range of works. Apart from automating the main processes of activity, solving the tasks of preserving electronic documents and records, creating various databases and search engines, one of its main directions is to provide the possibility of remote work with archival documents, including via the Internet. The article discusses the organization of virtual reading rooms in the archives of Kazakhstan.*

*In this contribution, the upcoming directions and new forms of using documents are analyzed, including the necessity of expanding the possibilities of users' remote access to archival funds through virtual reading rooms. At the same time, problems related to their creation, successful implementation and effective use were identified.*

*It is concluded that in most cases the system of the "virtual reading room" operates in an introductory mode and provides mainly free access to the scientific reference apparatus of the archive and to the annotations of the funds.*

*Keywords: virtual rooms, archive, electronic document, electronic archive, archives of Kazakhstan, long-term storage, information system.*

## SALE DI LETTURA VIRTUALI NEGLI ARCHIVI DEL KAZAKISTAN

### SINTESI

*L'adattamento delle tecnologie dell'informazione negli archivi è associato a un'ampia gamma di opere. Oltre ad automatizzare i principali processi di attività, risolvere i compiti di conservazione di documenti e record elettronici, creare vari database e motori di ricerca, una delle sue direzioni principali è quella di fornire la possibilità di lavorare a distanza con documenti d'archivio, anche tramite Internet. L'articolo discute l'organizzazione delle sale di lettura virtuali negli archivi del Kazakistan. Vengono analizzate le direzioni imminenti e le nuove forme di utilizzo dei documenti. È motivata la necessità di ampliare le possibilità di accesso remoto degli utenti ai fondi archivistici attraverso sale di lettura virtuali. Contestualmente sono state individuate le problematiche relative alla loro realizzazione, implementazione di successo e uso efficace. Si conclude che nella maggior parte dei casi il sistema della "sala di lettura virtuale" opera in modalità introduttiva e prevede principalmente il libero accesso all'apparato scientifico di riferimento dell'archivio e alle annotazioni dei fondi.*

*Parole chiave: stanze virtuali, archivio, documento elettronico, archivio elettronico, archivi del Kazakistan, conservazione a lungo termine, sistema informativo.*

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## VIRTUALNE ČITALNICE V ARHIVU KAZAHSTANA

### POVZETEK

Vključevanje informacijskih tehnologij v delo arhivov je povezano s širokim naborom del. Poleg avtomatizacije glavnih procesov dejavnosti, reševanja nalog hrambe elektronskih dokumentov in zapisov, ustvarjanja različnih zbirk podatkov in iskalnikov je ena njegovih glavnih usmeritev zagotavljanje možnosti oddaljenega dela z arhivskimi dokumenti, tudi prek interneta. Članek obravnava organizacijo virtualnih čitalnic v arhivih Kazahstana.

Analizirane so prihajajoče usmeritve in nove oblike uporabe dokumentov. Utemeljuje se potreba po razširitvi možnosti oddaljenega dostopa uporabnikov do arhivskega fonda prek virtualnih čitalnic. Hkrati so bile ugotovljene težave v zvezi z njihovim ustvarjanjem, uspešno izvedbo in učinkovito uporabo.

Ugotovljamo, da sistem »virtualne čitalnice« v večini primerov deluje v osnovnem načinu in omogoča predvsem brezplačen dostop do znanstveno-referenčnega aparata arhiva in do opomb fondov.

Ključne besede: virtualne sobe, arhiv, elektronski dokument, elektronski arhiv, arhiv Kazahstana, dolgoročno shranjevanje, informacijski sistem.

### АННОТАЦИЯ

*Внедрение информационных технологий в деятельность архивов связана с широким спектром работ. Помимо автоматизации основных процессов деятельности, решения задач сохранения электронных документов и записей, создания различных баз данных и поисковых систем, одним из его основных направлений является обеспечение возможности работы с архивными документами в удаленном режиме, в том числе посредством сети «Интернет». В статье рассмотрены вопросы организации виртуальных читальных залов в архивах Казахстана. Анализируются перспективные направления и новые формы использования документов. Обосновывается необходимость расширения возможностей удаленного доступа пользователей к архивным фондам через виртуальные читальные залы. Вместе с тем, выявлены проблемы, связанные с созданием, успешным внедрением и эффективным их использованием.*

*Сделан вывод о том, что в большинстве случаев система «виртуального читального зала» действует в ознакомительном режиме и предоставляет главным образом бесплатный доступ к научно-справочному аппарату архива и также к аннотациям фондов.*

## INTRODUCTION

Based on developing information technologies, there is a transformation of the information environment of society and, naturally, the behavior of archival services users. Over the last years, according to statistics, the need for archival documents has been increasing, access to which in most cases can be obtained in the reading rooms of archives. In this regard, users of reading rooms often have difficulties in obtaining the necessary information. Moreover, during the pandemic Covid-19, the situation was further aggravated due to the restriction imposed on physical visits to archives. Now, there is a situation where archives cannot fully meet the needs of citizens and organizations in obtaining archival information in traditional forms. Therefore, at present, the most promising areas of expanding access to archival information and improving the quality of information services are the organization of remote access, the improvement of automated information retrieval systems, the integration of archival information resources, increasing the volume of electronic use fund and the adaptation of new usage forms of documents. In addition, the modern development of information technology provides users with the ability to quickly search for information using simple and "friendly" interfaces.

## THE CONCEPT OF A "VIRTUAL READING ROOM"

Among modern services (electronic document delivery, virtual certificate, virtual legal information center, etc.), virtual reading rooms have been actively developed. The development of new services requires a theoretical justification of their specifics, disclosure of functioning features. The theoretical aspects of this problem include the formation of definitions of virtual archive services concepts.

The concept of "virtual reading room" is actively included in everyday practice in the context of the informatization process of archives and libraries. By providing remote access to archival collections, virtual reading rooms are becoming increasingly popular, expanding the information field of archives. But the concept of "virtual reading room" is not reflected today either in national standards or in regulatory legal acts of the Republic of Kazakhstan.

For example, the Dictionary of Archives Terminology gives the following definitions of the concept of "virtual reading room":

- «an online research environment in which the discoverability and/or downloading of materials is deliberately limited, and/or access is restricted to researchers who have created a limited-term account and agreed to terms of use similar to those that apply in a physical reading room of archives»;
- «an online environment in which digital materials are made freely available» (Dictionary of Archives Terminology, 2021).

In other cases, the concept of a "virtual reading room" is revealed based on the form of its practical implementation in a particular organization. For example, the Regulation on the Virtual Reading Room of the National Library of Belarus provides the following definition: "A virtual reading room is an online information resource (database), including electronic publications, databases and services created by the National Library of Belarus and lawfully acquired for use". ("The Virtual Reading Room Regulations of the National Library of Belarus", 2021). The interpretation of the term in the normative documents of the Russian State Library differs significantly". The virtual reading room of the Russian State Library is a room of a public library with installed workstations equipped with personal computers with permanent IP addresses that have access to the Internet, allowing them to serve virtual readers" (Launching a Virtual Reading Room of the Russian State Library, 2021).

On its website, Research Libraries UK (RLUK) has published a major research report "New Frontiers of Digital Access: The development and delivery of Virtual Reading Rooms and Virtual Teaching Spaces amongst collection-holding institutions". It explores the development and delivery of Virtual Reading Rooms (VRRs) and Virtual Teaching Spaces (VTSS) amongst archives, special collections, and museums and presents the results from a major international survey of libraries, archives, and museums, conducted by RLUK in May-June 2021.

As noted in the report "Virtual Reading Rooms and Virtual Teaching Spaces are emerging services which have largely grown out of the coronavirus pandemic. Although a pragmatic response to the closure, or partial closure, of buildings during various local, regional, and national lockdowns, VRRs are becoming established as bespoke research services and VTSSs as valuable routes through which archives, special collections, museums and galleries can engage with diverse groups through virtual learning sessions".

The report presents the experiences of 32 institutions which have created, or intend to create, VRR and VTS services and explores the impact of these and their potential contribution to original research and learning across a range of disciplines. It explores issues in relation to the technological, spatial, and staffing requirements of these services, their potential scalability and sustainability, and the potential for collaborative and collective approaches between institutions in their development and discovery.

The report will provide the foundation for a series of events and cross-sector discussions, led by RLUK, to explore the continued development and delivery of these exciting services nationally and internationally (Greenhall, 2021).

## OVERVIEW OF VIRTUAL READING ROOMS IN KAZAKHSTAN'S ARCHIVES

The analysis of the implementation forms of virtual reading rooms in Kazakhstan archives allows us to define them in the most general way as an online service designed to organize remote users' access to information resources of archives.

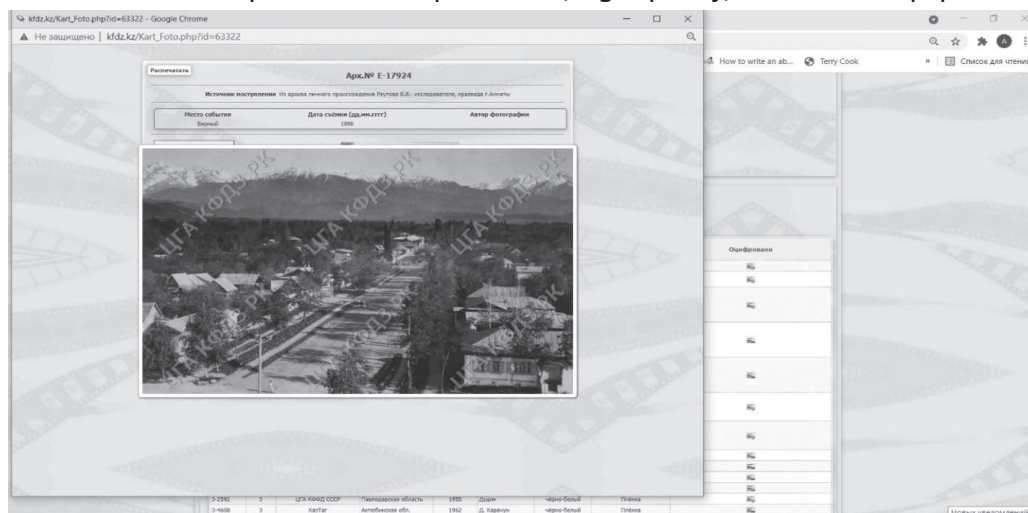
In the vast majority of regions of Kazakhstan, the "virtual reading room" system operates in an introductory mode and provides mainly free access to the scientific reference apparatus of the archive and the annotations of the funds. Access to digitized copies of archival documents in most regional archives that have implemented the "virtual reading room" system is not carried out, with rare exceptions, which include the Archive of the President of the Republic of Kazakhstan, the state archives of Nur-Sultan city and the West Kazakhstan region. The main limiting factor in this direction is the low rate of digitization of archival documents. As of January 1, 2020, this figure reached only 4% of the total volume of the National Archival Fund.

In this regard, the experience of the Republic of Kazakhstan's Presidential Archive on the creation of an electronic fund for use is indicative. 25,000 storage units (about 2.5-3 million pages) are digitized here annually. As of January 1, 2021, the archive has created electronic copies of more than 165,000 storage units, which is about 35% of the total volume of archival documents. In parallel, work is underway to translate the scientific reference apparatus into digital format. All these data are entered into the Unified Information Retrieval System "Electronic Archive" (EIPSEA), which is remotely accessed by registered users through a personal account on the archive's website. Online access can be organized to the entire array of digital copies or electronic documents, to separate categories of these documents, or to a separate document. The time period for which access is granted may also be limited.

Two web resources are also available on the website of the Presidential Archive: [tutkyn.kz](http://tutkyn.kz) and [asharshylyq.kz](http://asharshylyq.kz). The first of them is a database "Prisoners of war-Kazakhstan in World War II", posted on the official website of the archive. It is formed by searching for documentary materials about the military and post-war fates of former prisoners of war of the Second World War in the archives and libraries of Kazakhstan and foreign countries; studying statistical and analytical publications, periodicals, visual (graphic) materials and other sources. Currently, it contains information and documents about more than 35 thousand persons.

As part of the second project, an Internet resource has been created [asharshylyq.kz](http://asharshylyq.kz), which is a single republican database of victims of the mass famine of the 30s in Kazakhstan. It consists of three sections: victims of hunger, victims of hunger in orphanages and migration. In addition to the lists, the site contains materials of domestic and foreign researchers on the topic of the famine of the 30s, as well as photo, video, and audio materials.

In 2019, the Government of Kazakhstan adopted a Comprehensive development plan "Archive-2025", according to which the key areas of development are computerization, as well as the transfer to electronic form of at least 50% of archival funds, including audiovisual documents. For example, in the Central State Archive of Film and Photo Documents and Sound Recordings of Kazakhstan (CGA KFDZ), priority was given to digitizing film documents on combustible nitrocellulose and non-combustible triacetate bases, numbering 4 thousand units of xp., to create a fund for use on electronic media. Today it already occupies a volume of over 400 TB, or about 6096 film documents. Total digitization of the film required the most productive, high-quality, and modern equipment.



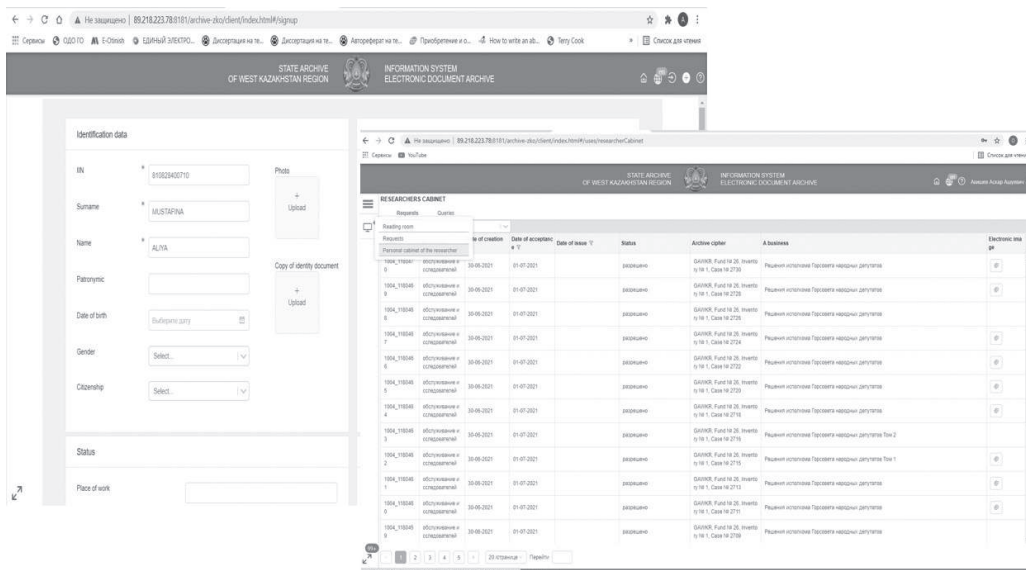
As a result of the translation of documents into digital format, it became possible to provide services more effectively to users of state archives for remote access to images of archival documents. Thus, access to copies of documents with low resolution can be carried out through a virtual reading room on the Internet.

The electronic images of audiovisual documents posted on the website are provided with brief annotations, and most of the newsreels are editing sheets with a frame-by-frame description. The search is conducted by keywords with highlighting of the found words in the accompanying information. You can set up a search by the names of directors, screenwriters or cameramen, as well as by year of release, genre and region. The

search engine is implemented in Russian and English, the results are displayed on the screen automatically as you type. Thanks to the portal, interest in archival audiovisual documents have increased, and the attendance of the archive has also increased. The creation of its own portal with access to electronic copies of archival audiovisual documents, the ability to order copies, arrange their delivery, as well as pay for copying online through paid online services will allow the archive to increase the efficiency and quality of providing information services in an electronic environment.

The traffic to the site of the KFDZ archive has increased, as interest is increasing not only among those whose interests are related to professional activities but also among history lovers.

Among the regional ones, the experience of the archive of the West Kazakhstan region is indicative. On its website, the user has the opportunity to register online and gain access to the information search engine through his personal account. Registration involves filling out a standard questionnaire, similar to the questionnaire of the user of the reading room. In the system, the user has the opportunity to get acquainted with the composition of the archive funds, inventories. The search is possible up to the title level both directly from the fund and the inventory and by keywords. It is possible to access digitized copies of archival documents.



In general, the use of a virtual reading room allows remote access:

- 1) to conduct a review of archival funds.
- 2) ensure equal access to archival documents for all users;
- 3) to create more comfortable conditions in working with archival documents for users;
- 4) provide access to users for the archive databases in order to meet their information needs;
- 5) provide additional services to users, such as obtaining digital copies of documents, printing documents, etc.; (Khorunzhiy, 2012).

Access to the virtual reading room is provided via the Internet, as well as from computers located in the archive's reading room.

A significant increase in traffic to the Nur-Sultan city archive website since the creation of the "virtual reading room" allows us to judge the demand for this service among users.



In this connection, it seems relevant to create a special unified information system for the remote use of archival documents, which in the future will be a national electronic archive. Such an information system will be a virtual reading room of archives, which will allow you to remotely use inventories and digitized copies of archival documents. The presence of such a system will make it possible to expand the circle of users of archival information resources, simplify the order of their use and reduce the workload of reading rooms.



It is more difficult to monitor users' compliance with the established rules for working with electronic documents and preventing unauthorized copying of electronic documents with online access. Copying in such cases may be restricted by issuing users in their personal accounts in different formats and with different permissions, protecting against the misuse of documents in the future. First of all, this is relevant for documents to which access is allowed, but copying is not, in particular, for electronic documents that are objects of intellectual property.

The issue of the procedure for providing copies of electronic documents at the request of users needs to be resolved. Copies can be provided to users in electronic form, while the characteristics of the copy may differ from the characteristics of the electronic document stored in the archive (format, resolution, size, etc.). It should be possible for the archive to certify copies of electronic documents with an electronic signature.

It should be noted that the development and improvement of the work of virtual reading rooms take place empirically, as well as during the comparative study of the accumulated experience of other archives, which is why it is so important to have an idea and constantly monitor the overall experience.

## SUMMARY:

*A characteristic feature of our time is the widespread use of information and telecommunication technologies. Electronic document management systems are being developed and implemented at the state level, specialized systems for providing service regarding requests or handling requests of the population and organizations are becoming popular. In the contemporary context of societal informatisation, archival institutions perform several important public and state functions for the development of electronic record keeping and document management, ensuring equal access to in-*

*formation resources using information and telecommunication technologies, the formation of digital content. Archival information becomes an independent factor of the social and economic development of society. A huge amount of information arising in modern society is concentrated in modern archives, forming a social information potential. In the current circumstances, traditional methods of information dissemination lose their effectiveness.*

*Virtual Reading Rooms are emerging services which have largely grown out of the coronavirus pandemic. Although a pragmatic response to the closure, or partial closure, of buildings during various local, regional, and national lockdowns, virtual reading rooms have become established as bespoke research services through which archives can engage with diverse groups of researchers. The majority of archives have created these services utilising affordable hardware and readily available software. Therefore the growing number of such services, would suggest that virtual reading rooms will continue to develop as valuable research services into the future.*

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