



Efficiency of remote access services by global libraries

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Abstract. In the context of modern challenges and increasing demand for digital services, questions of remote library work, the use of interactive technologies aimed at the development of education, science, and civil society are quite relevant. The purpose of this study is to explore the global experience of remote access utilization in library activities, the historical peculiarities of the formation and development of distance library services in European and North American countries, the characterization of its effectiveness and prospects for its application in Ukraine. During the research, methods of generalization, comparative, and source analysis were applied. The features of remote access functioning of global libraries are highlighted, its effectiveness, advantages, and disadvantages are revealed. The development of information technologies and their impact on publishing, library attendance, scientific activities, exchange of experience, etc., are characterized. Trends in the development of global libraries are identified. It is established that for most European libraries, the priority direction has become digitization and opening access to books, press, documents, archives. It is found that remote access accelerates scientific research. In the second decade of the 21st century, there is a growth in online visits to library collections. The development of remote services provision by Ukrainian libraries is highlighted, as well as the main trends in this process in the context of the Russian-Ukrainian war. The importance of copyright protection in the context of remote access provision is disclosed. One of the measures was the introduction of electronic lending (e-lending), which involved receiving payment for the use

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of copyrighted materials. It is found that remote access to library databases will face a number of challenges related to copyright protection. The results of this study have practical value for libraries, research institutions, educational institutions, local government bodies in the context of implementing remote access to sources, materials, and books. The research materials are important for further scientific research in information and library science, document and information communications, public administration, and administration

Keywords: information technologies; digital services; online visits; development of library affairs; digitization

Introduction

The development of information technologies necessitates a reevaluation of approaches to library, publishing, and press activities. Global experience shows the necessity of applying cutting-edge technologies in library affairs. Digitization in Ukraine has achieved certain successes, and efforts are being made to adopt the experience of implementing this process in several European countries. The process of providing remote services by libraries in Europe and North America is significantly more advanced, and therefore valuable for improving the national system of electronic library resources. It is important for Ukrainian libraries to assess the experience of Western countries, which will both provide impetus for development and revitalize their activities. In this context, configuring remote access, developing optimal approaches to the use of information resources on social media platforms (Social Media Management or SMM), and establishing remote access library operations play crucial roles. Understanding the importance and role of social media in promoting library resources, disseminating knowledge, adapting humanity to new learning methods, and acquiring skills is essential. This issue became particularly relevant during the COVID-19 pandemic and the onset of full-scale Russian-Ukrainian war. Understanding the future realities of post-war Ukraine, where the speed and quality of disseminating and acquiring new knowledge will play a key role in the country's recovery, is especially important. Simultaneously, studying the experience of implementing remote services by libraries worldwide over the past decades is crucial, as understanding the trends of these processes in other countries will facilitate the qualitative reform of the system for providing remote services by Ukrainian libraries.

Given the relevance of remote work in the current stage of global development, the theme of remote services provision by libraries has been studied by a number of foreign and Ukrainian researchers. Even before the onset of the coronavirus pandemic, a group of scientists emphasized the need to transition from traditional methods of library service provision to modern ones, considering the development of information technologies. A. Rzheskyi (2022) characterized the process of using remote access, remote work, and education in practice, highlighting their strengths and weaknesses. Similar aspects were addressed in the work of N. Tereshchenko (2020), who noted that modern technologies improve the development of education and facilitate

access to sources of information. In her opinion, this was particularly relevant in the context of the pandemic. H. Xiao (2022) studied the electronic library as a system of digital information resources supported by modern high technologies, a model of information resource management of a new generation on the Internet, and a result of digitizing library collections. With the development of society and the accelerated pace of people's lives, who cannot spend too much time on book classification and search, studying the classification of books and quick search in university libraries becomes very important. The author investigates and analyses the classification and quick search of books in university libraries using algorithms and methods of digital information technologies, thereby finding the best algorithm.

T. Kolesnikova (2020), who also addressed the challenges of the pandemic on library development and remote work organization, not only revealed the mechanism of implementation and functioning of distance activities but also illuminated the strategy of adaptation in the post-COVID period. Characterizing the development of the European library network, R. Tavares (2023) notes that in recent years, EU libraries have become not only centres for preserving knowledge but also centres for learning that embody the concept of Europe's history and future. O. Maciej & S. Molchanova (2022), studying corporate library interaction, noted that the implementation of new computer technologies, particularly significant for scholars during the coronavirus and in conditions of full-scale war, is essential. As aptly noted by Y. Chumak (2022): "digitization stimulates the general trend of transforming Ukrainian public libraries into hubs for comprehensive processing of all types of information on all media". That is, it is progress in the development of library affairs, which gradually transforms the library, in the classical sense, into a centre for processing information, providing it, consulting, and so on. D. Holcer *et al.* (2021) conducted a comparative characterization of the adaptation experience of Croatian and Ukrainian libraries during the pandemic, identifying the most optimal features for the development of a modern network society. In the process of innovative educational development, an important factor in its modernization is information and library support, which L. Berezivska *et al.* (2023) consider as purposeful activity aimed at creating digital information resources and providing access to them based on the widespread use of modern information and

computer technologies to meet the needs, informational needs of users – education recipients, pedagogical, scientific, and scientific-pedagogical workers.

In the face of modern challenges, questions about the remote work of libraries, providing non-traditional services for institutions of this type, using interactive technologies aimed at the development of education, science, civil society, democratic progress, and so on, are quite relevant. The purpose of this article was to conduct a comparative analysis of the features and world experience of the formation and development of remote access usage in library activities in European and North American countries, characterizing its effectiveness and prospects for its application in Ukraine.

Materials and Methods

The study involved a detailed examination of a series of scientific works, materials, and library website analyses, which allowed for a comprehensive understanding of the specified topic. By applying specific methods of scientific cognition, the concept of this article was formed, which is based on the principles of objectivity and reliability. The following methods were used during the research: synthesis, comparative and source analysis, content analysis. Forming key conclusions regarding the research results involved the use of the synthesis method. Synthesis was carried out based on a detailed study of existing scientific works and documents. Comparing the experience of implementing remote access services in world and Ukrainian libraries is possible under the condition of applying comparative analysis. During the study of the features of implementing advanced technologies in the British Library, the Royal Library of the Netherlands, and the Ottawa Public Library, the most significant achievements in providing remote services were identified, and accordingly, the importance of this experience for Ukrainian libraries was noted. Source analysis involved a detailed study and evaluation of sources and materials on the research topic, in particular. During the application of source analysis and content analysis, the tendency of visitation and utilization of remote services in the British Library was established.

In the research, reports, programs, and reviews dedicated to the activities of world libraries were collected. A series of reports from the British Library were used to understand the trend of remote access usage by readers. Additionally, a prominent place is occupied by the first European overview of electronic lending in public libraries, outlining trends in electronic lending services, the relevance of their usage, and so forth. The article utilizes a report from the Association of European Research Libraries (LIBER, 2020), which clearly characterizes how libraries adapted to functioning in the conditions of COVID-19. The "Digital 2023: Global overview report" by S. Kemp (2023) allows understanding the trends in digital technology development at the present stage. Data on the dynamics of digital service provision by the British

Library were obtained from its annual reports from 2016 to 2023 (British Library, 2016; British Library, 2023). In addition to the mentioned materials, the work analysed the Development Strategy of Library Affairs until 2025 "Quality Changes of Libraries to Ensure Sustainable Development of Ukraine", which was approved according to the Cabinet of Ministers of Ukraine order No. 219-r (2016).

Results and Discussion

The development of information technologies has shifted priorities in information seeking among people. There is a gradual departure from traditional information sources (books, press, television) to modern ones (social networks, electronic resources, video content). As noted by experts from "We Are Social" and "Hootsuite" in their annual reports, the number of internet and social media users is increasing. The amount of time individuals spend consuming news from electronic resources or social media is also increasing. As of January 2023, the number of internet users reached 5.16 billion people (64.4% of the total population), and social media users numbered 4.76 billion people (59.4%). Compared to 2022, these figures increased by 1.9 and 3%, respectively. On average, each person spends over six and a half hours per day on the internet (Kemp, 2023). Considering these data, it is important to understand that it is easier and faster to find the necessary information not within the walls of specialized institutions but on the internet. Accordingly, since the beginning of the second decade of the 21st century, a number of world libraries have been implementing innovative approaches to their activities.

The process of developing the digital (networked) society was accelerated by the coronavirus pandemic. If before the pandemic, remote work was a privilege for workers in certain sectors (IT, journalism), then under strict quarantine conditions, remote work became a priority in the labour market. The formation of an adequate information infrastructure for businesses was dictated by survival in crisis conditions and ensured effective operation in the future (Vyas, 2022). Consequently, the number of social media users, online work platforms, and hours spent on the internet are increasing. However, despite remote work and remote access to necessary information becoming the norm, there are still a number of issues that require careful study, including cybersecurity, adaptation of national legislation, reduction of social communications outside the networked society, and so on. In the post-COVID period (and in Ukraine after the war), libraries can become a platform both for remote work and for personal socialization.

Continuous information flow has led to changes in library service technologies and a gradual transition to interactive information-seeking methods by users. Modern world libraries offer a wide range of remote services. Among the main global trends are digitization and open access publication of documents, electronic delivery of materials, issuance of electronic documents or

reader tickets, ordering and reservation of literature on shelves, e-governance, support for scientific and business projects, and more. At the current stage of information technology development, there is a gradual departure from the classical understanding of the concept of a "library" as a repository of books to perceiving it as a powerful information electronic resource. Adding any valuable information to electronic databases allows users to quickly find and work with the necessary sources. The transition from traditional libraries to electronic ones is explained by the term of preservation, reduction of storage space for printed materials, increased speed of providing information for use, and the non-obligatory nature of physically visiting the library. The only condition is the availability of remote access services, electronic databases, and digitized materials in the library. Printed publications are limited by the lifespan of the paper they are made from. The electronic counterpart of a printed publication can be stored virtually indefinitely and used without restrictions, provided periodic rewriting onto new information carriers (Andreev, 2014). The advantage of such libraries is their convenience, as anyone with internet access can use them.

In many countries around the world, the library has become a kind of intermediary between society and government, leading to the formation of e-governance projects. Thanks to the development of information technologies, citizens of various countries can, without intermediaries and without leaving their homes, ask questions to officials, familiarize themselves with government decisions and local self-government, and process necessary documents, among other things. The library has become the main centre for implementing e-governance projects in the USA, European countries, and the Baltic states, where services in this direction are provided via the internet. However, they play a significant role in e-governance for remote users, particularly on library websites where links to documents or government portals are placed. Additionally, in the Baltic states, the practice of remote access to e-governance services for persons with disabilities is widespread (Gich *et al.*, 2013). In the context of hybrid threats, the coronavirus pandemic, and geopolitical shifts during the years 2022-2023, online technologies played a significant role in diplomatic relations. Social networks, in particular, changed the space in which diplomats cooperate, communicate, and interact, replicating the logic of diplomatic institutions in the network (Bjola & Manor, 2022). Starting in 2021, 39 teams from 16 European countries launched initiatives aimed at developing libraries as democratic spaces (The Europe Challenge, n.d.). Thus, the library is perceived not only as an institution where knowledge is accumulated but also as a public institution aimed at promoting the development of democratic society. Obviously, the civil society of European countries seeks to use library resources for the development of democracy, activation of society, dialogue with authorities, promotion of

education, especially inclusive education. Considering this, it is conceivable that in the near future, thanks to the use of library electronic resources, a number of countries will be able to provide remote services for citizens to engage in dialogue with state or civil institutions. Libraries and their online services can become a bridge between society and the state. Especially in the context of modern challenges in a globalized society (terrorism threats, hybrid warfare, Russian aggression in Ukraine, COVID-19), and the likely emergence of new challenges in the future, remote services will have significant importance for the security of every citizen and society as a whole. However, in this context, the global community must ensure information and cyber security.

Modern web technologies are developing rapidly. The international publisher "SAGE", together with the British Library, emphasizes the change in traditional cataloguing and metadata creation on a Web scale. During the years 2010-2011, libraries in Canada and the USA first utilized Web Scale Discovery systems. It is designed to consolidate all information resources, both licensed and open access, into a single search system (Zhuravleva, 2016). However, the Web Scale Discovery service differentiates between publicly available search results, so a registered user will be able to separately access publicly available data or licensed data if the library within the system has the right to provide them (Breeding, 2014). In the following years, online data cataloguing gained momentum, and the coronavirus pandemic accelerated the process of fully utilizing online catalogues and resources.

Electronic collections of various publications are stored on websites and can be used for reference or as sources for scholarly work. In particular, on the British Library's electronic portal, under the section "Catalogues & Collections", scanned documents are posted, some of which are rare. They are uploaded online for preservation and public use. In the absence of an electronic version of a document, a reader can request digitization of the necessary source. A similar procedure is in place at the Wrocław Library. After making the appropriate payment online, a user can order an electronic copy of a document. The scanned source can only be used privately for reference or scholarly purposes and cannot be distributed. This service existed as early as 2008-2009, and today it has been refined and adapted to modern realities. The Library and Archives of Canada, up to 2017, established remote user support and improved access to collections online. Through a contract with Ancestry, approximately 25 million pages of the most popular and antique materials were digitized and made available on the institution's website. Additionally, over 26,000 books and manuscripts in various languages are available on the website. Through the "Library and Archives of Canada" portal, access is provided to the Theses Canada Portal, which contains dissertations by Canadian scholars. Access to these portals is possible through programs such as AMICUS and Archivichet, which facilitate

material search across 1,300 Canadian libraries. The Library and Archives of Canada is visited by 2,000 remote users monthly (Semeko, n.d.). According to statistics, there are an average of 1.6 million page visits to the website per month and about 20 million annually. Every month, 2,350 clients use the library's online services. Thanks to remote access, the Library and Archives of Canada provides an average of 1,750 responses per month to unofficial inquiries regarding access to confidential information and 100 to official ones. The Ottawa Public Library also organizes a series of online events and projects popular among many readers. In 2022, the library provided access to 2,376,869 electronic and audio books (Ottawa Public Library, 2022).

The British Library supports any initiatives of scientific development, as well as business. Based on the Business and Intellectual Property Centre, the library provides assistance to novice entrepreneurs (Kerzyuk, 2015). The institution's website has a "Business Support" section where users are provided with online consultations,

training, articles, and blogs that address the main issues of modern business development. Over 10,000 small and medium-sized enterprises use the resources of the British Library. The peculiarity of this service lies not only in assisting beginners but also in establishing links between entrepreneurs from EU countries and assisting in the organization and implementation of projects. Of course, support is aimed at small businesses or entrepreneurial endeavours. Regarding the latter, the library is willing to provide funding for start-ups. To do this, one simply needs to fill out a special online form.

Remote access to library services becomes a widespread phenomenon (Fig. 1). In particular, remote services of the British Library have been actively used by readers since 2019. In 2023, approximately 25.3 million visitors utilized the British Library website for various purposes (browsing, research, reading news, information retrieval, participation in programs, business, etc.). For educational purposes, the site was visited by about 9 million readers (British Library, 2023).

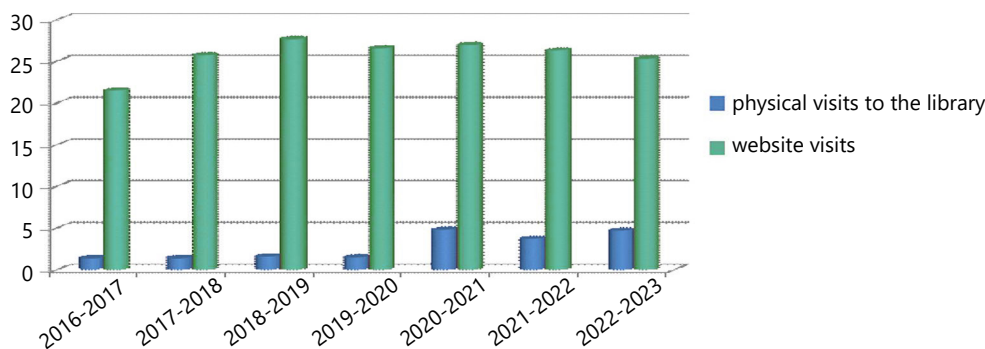


Figure 1. Change in user visits to physical and remote access of the British Library from 2016 to 2023

Source: constructed by the author based on data from the British Library Annual Report and Accounts for 2016-2023

The number of visitors to the British Library for accessing its resources is increasing: in 2016/2017, the number of physical visits to the library was 1.46 million, while website visits reached 21.5 million users; in 2017/2018 – 1.48 million physical visits and 25.7 million website visits; in 2018/2019 – 1.6 million physical visits, and 27.7 million website visits; in 2019/2020 – 1.5 million physical visits, and 26.6 million website visits; in 2020/2021 – physical visits reached 4.8 million, with 27 million website visits; in 2021/2022 – physical visits were 3.7 million, with 26.3 million website visits; in 2022/2023 – physical visits amounted to 4.7 million, with 25.3 million website visits (British Library, 2017-2023).

Additionally, in 2023, as a gesture of solidarity and support, in partnership with the National Library of Ukraine named after V.I. Vernadsky and the Embassy of Ukraine, over 16,000 books in Ukrainian or Ukrainian/English languages were distributed to library partners of the "Living Knowledge Network" program throughout Great Britain, and a series of events aimed at highlighting Ukrainian culture were organized. In particular, the British Library

hosted the "Books Without Borders" event for Ukrainian refugee children and their families, attended by the First Lady of Ukraine, Olena Zelenska (British Library, 2023).

As of 2018/2019, 148 libraries in Great Britain and over a hundred international higher education institutions utilize the electronic document delivery service. With the onset of the COVID-19 pandemic, the number of libraries providing remote document delivery services is increasing. Half of all British Library users reside outside the United Kingdom, 80% of whom are in the commercial sector. Over 30% of users who submit documents online receive their own articles through the Secured Electronic Delivery system. From 2014 to 2016, the number of consultations provided remotely increased from 2.6 million to 3.2 million (British Library, 2016). In 2017, the number of online queries increased to almost 3.7 million (British Library, 2017). A crucial indicator of the quality of remote services provided by the British Library is the satisfaction of readers' needs. According to the library's data, the number of satisfied users of remote services is increasing, with satisfaction rates as follows: in

2012/2013 – 79% of users rated the quality of remote services positively; 2013/2014 – 83%; 2014/2015 – 86% (British Library, 2014; 2015). In 2016/2017, the quality of online service provision remained relatively stable compared to previous years (2015/2016 – 88%; 2016/2017 – 87%) (British Library, 2017). In 2017/2018, the British Library set a goal to improve the quality of remote access to resources, enhance search systems, and test new document delivery models (British Library, 2017). Continuous growth in the use of online services provided by the British Library was observed from 2018 to 2023, accompanied by an improvement in satisfaction with the quality of remote services: 2018/2019 – 91%; 2019/2020 – 90%; 2020/2021 – 90%; 2021/2022 – 88%; 2022/2023 – 87% (British Library, 2018-2023). It is evident that the trend will continue to evolve in the coming years.

Throughout 2023, an additional 262,000 physical storage units were added to the British Library's collection, which now totals over 170 million storage units. Items from the British Library's collection were used nearly 82 million times through reading rooms or online, with library staff responding to almost 86,000 reference and library inquiries, assisting people in finding and utilizing the information they needed (British Library, 2023). In March 2012, the Royal Library of the Netherlands was awarded the "Electronic Library – 2012" prize, oriented towards electronic content, a broad audience of remote users, and low prices. Thanks to digitization, approximately 180,000 international publications are available to readers online. Since 2012, the library has digitized and provided open access to newspapers, journals, and books printed in the Netherlands since 1470. This approach will increase the number of remote users, thereby enhancing the reputation of the library as an educational-information centre. As of 2023, ancient works stored in the library's collections can be provided in an online format upon request.

Thus, modern world libraries, considering the advantages of remote access to their resources, have developed strategies for further development in the second decade of the 21st century, according to which the main trends in library affairs have become the creation of an electronic library, formatting electronic documents, online material delivery, virtual exhibitions, webinars, support for business projects and scientific developments through online presentations. The main task of developing remote access is to meet the needs of users around the world and create a global database to save resources and costs.

The coronavirus pandemic has become a powerful crisis that has shaken the global community. The fight against the virus and its consequences in EU countries by individual researchers is characterized as a complete failure (Sottilotta, 2022). At the same time, business structures, the IT sphere, and several other sectors of the economy attempted to adapt independently to new requirements, which to some extent allowed easing the

tasks for state institutions. The COVID-19 pandemic has made certain adjustments to the functioning of libraries in offline mode. Accordingly, remote access to information, especially scientific resources, was quite important for any individual. Scientific and sociological studies conducted by European researchers have shown that most libraries were ready to provide access to data remotely. Another key finding was the increase in the number of digitized materials. A study by the Association of European Research Libraries showed that most libraries have increased, modified, or expanded digital services. Only 22.01% indicated that the number of digital services has hardly changed (LIBER, 2020).

With the emergence of digitized books, documents, journals, as well as e-books and their commercialization, another phenomenon has arisen, namely electronic lending. The document "First European Review of Electronic Lending in Public Libraries" (as of June 22, 2022) defines "electronic lending" as a privileged status of operations with electronic libraries regarding copyright laws, legitimization of open access practice through ordinary fair use (EBLIDA, 2022). Thus, the main drawback of open access to electronic resources is the likelihood of copyright infringement. Accordingly, a number of information resources, books, publications are paid. The mentioned document reveals the practical side of applying electronic lending in a number of countries, namely providing remote access to individual materials with the regulation of all legal aspects. For example, in 2021, Danish libraries had 7.8 million transactions (80,000 titles) of electronic lending (EBLIDA, 2022). Paid access to electronic books, publications, audiobooks is one way to protect copyright, and accordingly, authors and libraries earn by providing access to them. Similar trends will take place in Ukraine considering the European integration processes.

Libraries in Ukraine also provide remote services. To a greater extent, this is associated with digitizing books, sending document copies, searching for materials, and so on. Moreover, electronic catalogues have been introduced to facilitate the search for necessary literature for readers. In 2016, the Cabinet of Ministers of Ukraine approved the Strategy for the Development of Library Affairs until 2025, "Quality changes of libraries to ensure sustainable development of Ukraine" (Order of the Cabinet of Ministers No. 219-2016-p, 2016). One of its points was the creation of a unified web portal of library information resources in Ukraine, as well as the envisaged joining of the World Cat global catalogue (Zhuravleva, 2016). The inclusion of domestic libraries in this system will have several advantages: firstly, users through Ukrainian library resources will have access to global databases, thus saving time on searches; secondly, there is no need to travel outside the country to search for information, which saves money on travel.

The significant impact on the development of remote services of Ukrainian libraries was made by the COVID-19 pandemic. However, the adaptation of work

in remote mode had chaotic features and at the initial stages created a number of obstacles for readers and employees. It should be noted that in the remote mode, libraries provided such services as assigning universal decimal classification, electronic document delivery, virtual reference, online consultation with a bibliographer, systematic information on a topic, formation of bibliographic lists, provision of services for organizing and/or conducting events (Rzheuskyi, 2022). However, even libraries of the national level had the opportunity to provide not all services, not to mention institutions at the regional, district, or municipal level. The full-scale military aggression of Russia actualized the need for remote servicing of users, taking into account the threats of missile attacks. The practice of remote access during the coronavirus pandemic is also applied in the realities of war, although improvements and implementation of new forms of remote work are taking place.

In the realities of the pandemic and the Russian-Ukrainian war, remote services of Ukrainian libraries become relevant for scientists, teachers, students, journalists, politicians, and military personnel. From the perspective of the development of Ukrainian society in wartime conditions and later during post-war perestroika, the quality of education, the speed, and quality of acquired knowledge are the key to the restoration and development of Ukraine. The experience of the British Library confirms the importance of online visits. The growth of remote use of library services is possible only under such conditions: media coverage and quality provision of online services. Ukrainian libraries should not only preserve and disseminate knowledge but also become a platform for integrating society, a centre for providing alternative education, a hub for the development of start-ups, support for businesses, politicians, scientists, and journalists. The experience of the British Library is optimal for the practical implementation in the national libraries of Ukraine. Digitization of funds and providing open access to them is just the first step. The post-war and post-COVID periods will necessitate the establishment of social communications in society as one of the elements of unity. Libraries can become centres where relevant projects can be implemented both remotely and in person. Considering the challenges of information security in the modern world, contemporary libraries can perform the function of scientific centres that deal with studying information threats, developing mechanisms for protection, and disseminating the basics of information hygiene among the population. The results of the research have practical value for libraries, scientific institutions, educational institutions, local self-government bodies in the context of implementing remote access to sources, materials, books. The materials of the article are important for further scientific research in the field of information and library affairs, social and documentary-informational communications, public administration, and administration.

The issue of remote access is becoming increasingly relevant. A number of scholars, resorting to empirical methods, seek to identify the advantages and disadvantages of remote work and open access to information sources. In the context of the Russian-Ukrainian war and hybrid challenges facing the EU and NATO countries, the value of information space security should be understood. In today's realities, civil society and state security structures are engaged in combating Russian propaganda. However, it is important to involve research centres for more effective action in the information field. Ukrainian scientific libraries, institutes, and universities, which have the appropriate professional level, can become centres of scientific and expert support and create a system for disseminating truthful, scientifically substantiated information among Ukrainian society and the global community. This point of view is supported by Y. Novalska (2022), who believes that the main tasks of public libraries in the conditions of the Russian-Ukrainian war are to protect the information space, create the National Digital Library of Ukraine, informational and educational work, provision of online support, organization of library services, volunteer projects, charitable activities, including assistance to the Armed Forces of Ukraine. The library should not only fulfil its traditional function but also a range of alternative functions, especially in crisis conditions (pandemic, war). The development of alternative functions can be useful in the post-war years.

Modern geopolitical challenges, caused not only by the exacerbation of conflicts in various parts of the world but also by the spread of the pandemic, only emphasize the importance of library online services. The pandemic has created a new reality where remote work is a familiar norm of professional life (Obenauf, 2021). However, remote access is a challenge for such areas as education and science, at least in Ukraine. For example, N. Tereshchenko (2020) emphasizes the challenges of the spread of coronavirus for the development of education. However, as noted by T. Kolesnikova (2020), most Ukrainian libraries were not fully prepared to switch to remote work. While some global libraries, educational institutions, and research institutions practiced remote forms of work on certain platforms. However, in the pre-pandemic period, this did not become widespread. In Ukraine, this practice began in the conditions of the pandemic. Of course, the issue of online education arose before the appearance of COVID-19, but only the pandemic for the first-time tested distance education. Ukrainian society is convinced that online education only leads to degradation and has negative quality. It is partially correct. However, there is another point of view, which has recently been prevalent in the information space, namely, about the higher quality of alternative education (mostly in online format) compared to traditional education. Of course, this is only a hypothesis based on the successes of a motivated

population. But this also suggests the idea of creating online courses, platforms for relevant specialties based on libraries. It is also important to use the experience of European libraries, which organized online events, exhibitions, lectures, etc., as noted by Z. Ponomarenko (2020). Analysing the challenges of distance learning and the place of libraries in this process, researchers I. Kirichok & T. Pavlenko (2021) noted that it remains relevant to review the library's work system in providing remote educational services. For this, it is important to use innovations tested in other countries. Perhaps it is even worth using the experience of transforming foreign classical universities into new ones (for example, creating massive online courses based on cloud technologies, including Coursera, Edx, Open Science, etc.) (Kiryenko, 2023). International library cooperation as a comprehensive system of interconnected areas of activity between libraries and foreign partners aimed at using the best practices and solving such problems as quality resource and functional support of user services, borrowing the best experience for the effective implementation of Ukraine's state policy in the field of informatization, as well as corporate solutions to global information and communication problems of the world community are considered in their monograph by V. Medvedeva & O. Shendryk (2020). The authors of the study, realizing the importance of the book and the library in shaping the worldview of the individual and the impact of public consciousness on social, intellectual, cultural, and artistic processes, consider the main strategy in these conditions to be the search by Ukrainian libraries for concepts of national identity and self-identity to overcome intercultural, informational, and cultural isolation.

A group of scholars conducting a comparative analysis of the operations of Ukrainian and Croatian libraries during the coronavirus pandemic noted that with the onset of quarantine announcements, the number of users on social media sharply increased. At the same time, Croatian libraries actively engaged on social media platforms by providing information on the latest news, online services, and partially serving as an alternative for leisure activities during the pandemic (Holcer *et al.*, 2021). Thus, social media should become an auxiliary factor in the development of remote library services. To achieve this, it is important to synchronously develop the informational aspect and implement new technologies and methods, following the example of the British Library or the Royal Library of the Netherlands, while also taking into account the current realities of the Russian-Ukrainian war.

■ Conclusions

Therefore, considering the contemporary challenges facing the globalized world, remote access to information emerges as an important practical means of addressing a range of educational, scientific, technical, political, and

economic issues. Since the beginning of the 21st century, global libraries have embarked on the process of adapting to modern challenges and effectively fulfil not only the classical function of knowledge accumulation and preservation but also serve as a hub for individual communication with civil society or the state, facilitating the integration of new technologies into the scientific sphere. Advanced technologies have been actively implemented in global libraries for several decades and currently play a significant role in library communication with readers, civic associations, businesses, government institutions, and more. Global experience confirms the effectiveness of remote work, and the onset of the coronavirus pandemic only confirmed the further development of remote service delivery tools.

The issue of remote access has become increasingly relevant in recent years, characterized by the widespread adoption of telecommunications tools in library work, the emergence of electronic full-text editions, the creation of proprietary electronic collections, and the development of corporate library systems, among other factors. Libraries today have become an effective platform for self-study and online learning, with users actively seeking digital forms alongside traditional books, using information-interactive technologies and various Internet resources as search tools. At the same time, organizing outreach exhibitions, creating global information resources, book presentations, and publishing projects popularize cultural heritage and libraries.

The search for a new paradigm of library activity in the Ukrainian library community is based on the recognition that the comprehensiveness, completeness, and quality of document and information resources concentrated in libraries and provided to users depend significantly on international information cooperation. International library cooperation allows for the study of the experience of intercultural cooperation, the development of concepts of effective communication links in national and global systems; the introduction of systemic organizational, structural, and technological changes in line with global trends; adaptation of national legislation to international standards in the library-information sphere; improvement of funding, staff training, modernization of technical and material equipment; expansion of library participation in international projects, grant receipt, corporate cooperation, etc.

Furthermore, it is important to actively study the dynamics of changes in Internet network users, social networks, the number of hours spent daily browsing news online, and seek optimal measures to popularize library affairs. To achieve this, particular attention should be paid to the specifics of working in social networks, searching for approaches to establishing communication with the user, and more. In practical terms, global library work experience and forming relationships with society will allow for the effective use of library resources.

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Ефективність надання послуг віддаленого доступу світовими бібліотеками

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Анотація. В умовах сучасних викликів та збільшення попиту на цифрові послуги досить актуальними є питання дистанційної роботи бібліотек, використання інтерактивних технологій, спрямованих на розвиток освіти, науки, громадянського суспільства. Метою цього дослідження є вивчення світового досвіду використання віддаленого доступу у діяльності бібліотек, історичні особливості становлення і розвитку дистанційних послуг бібліотечних послуг у країнах Європи та Північної Америки, характеристика ефективності й перспективи його застосування в Україні. Під час дослідження були застосовані методи узагальнення, компаративного і джерелознавчого аналізу. Висвітлено особливості функціонування віддаленого доступу світових бібліотек, розкрито його ефективність, переваги та недоліки. Охарактеризовано розвиток інформаційних технологій та їх вплив на книговидання, відвідуваність бібліотек, наукову діяльність, обмін досвідом тощо. З'ясовано тенденції розвитку світових бібліотек. Встановлено, що для більшості європейських бібліотек пріоритетним напрямком стало оцифрування і відкриття доступу до книг, преси, документів, архівів. З'ясовано, що віддалений доступ прискорює наукові дослідження. У другому десятилітті XXI ст. відбувається зростання онлайн відвідувань бібліотечних фондів. Висвітлено розвиток надання віддалених послуг українських бібліотек, а також основні тенденції розвитку цього процесу в умовах російсько-української війни. Розкрито значення захисту авторських прав в умовах надання віддаленого доступу. Одним із заходів стало запровадження електронного кредитування (e-lending), який передбачав отримання оплати за використання авторських матеріалів. З'ясовано, що віддалений доступ до баз даних бібліотек матиме низку викликів пов'язаних із захистом авторських прав. Результати цього дослідження мають практичну цінність для бібліотек, наукових установ, освітніх закладів, органів місцевого самоврядування у контексті реалізації віддаленого доступу до джерел, матеріалів, книг. Матеріали дослідження є важливими для подальших наукових досліджень з інформаційної та бібліотечної справи, документно-інформаційних та соціальних комунікацій, публічного управління та адміністрування

Ключові слова: інформаційні технології; цифрові послуги; онлайн-відвідування; розвиток бібліотечної справи; оцифрування