IRSTI 14.01.29

https://doi.org/10.51889/2959-5762.2024.81.1.006

Assanova B., 1* Bekbaeva T.²

^{1*}Al-Farabi Kazakh National University, Almaty, Kazakhstan ²Abai Kazakh National Pedagogical University, Almaty, Kazakhstan

THE IMPORTANCE OF ELECTRONIC LIBRARIES IN THE DEVELOPMENT OF THE EDUCATION SYSTEM

Abstract

The article considers the issue of using digital libraries in the process of developing open access opportunities in the system of ensuring the quality of education. The leading structural division of the university and libraries of higher educational institutions, as an information and educational center, provide students with open access to information resources in order to ensure the quality of education.

The article concludes that creating a comfortable educational environment for students by expanding access to information, developing information, service and other types of services has a positive effect on increasing the interest of young people in education and science. The main task of the library of higher educational institutions is to provide new and necessary information and educational and scientific processes for the organization of strategic plans of higher educational institutions.

As a result of the research work, within the framework of the "Informative Kazakhstan - 2020" program, comparing the direction of development of the libraries of 131 higher educational institutions in Kazakhstan and the position of the types of services in the information space, the effectiveness of automation in the provision of information and library services was determined with concrete evidence, and the modern service of RFID technology and QR-libraries. The article, a statistical comparative analysis of the significance of each library was carried out, and an open access repository and the possibility of free access to science and knowledge were analyzed based on statistical data.

The results of the research are analyzed, conclusions are drawn, and the importance of providing access to necessary information to learners in the process of development of teaching and learning within the framework of the state program "Digital Kazakhstan" considered in the article is summarized from today's point of view.

Keywords: digitalization, innovation, informizer, repository, e-library, e-resources, learning management system.

$\it E.C.$ Асанова, *1 $\it T.A.$ Бекбаева 2

 1 Әл-Фараби атындағы Қазақ Ұлттық университеті, Алматы қ., Қазақстан 2 Абай атындағы Қазақ ұлттық педагогикалық университеті, Алматы қ., Қазақстан

БІЛІМ БЕРУ ЖҮЙЕСІН ДАМЫТУДАҒЫ САНДЫҚ КІТАПХАНАЛАРДЫҢ МАҢЫЗДЫЛЫҒЫ

Аңдатпа

Мақалада білім беру сапасын қамтамасыз ету жүйесіне ашық қолжетімділік мүмкіндіктерін дамыту үрдісіндегі сандық кітапханалардың ақпараттық ресурстарын пайдалану мәселесі қарастырылады. Университеттің жетекші құрылымдық бөлімшесі және жоғары оқу орындарының кітапханалары ақпараттық-білім беру орталығы ретінде білім алушыларға білімнің сапасын қамтамасыз етуде ақпараттық ресурстарға ашық қол жетімділікті қамтамасыз етеді.

Мақалада, ақпаратқа қолжетімділікті кеңейту арқылы білім алушылар үшін жайлы білім беру ортасын құру, ақпараттық, сервистік және басқа да қызмет түрлерін дамыту жастардың білімге, ғылымға қызығушылығын арттыруға жағымды ықпал ететіндігі туралы тұжырымдар жасалды. Жоғары оқу орындары кітапханасының негізгі міндеті – жоғары оқу орны қызметінің стратегиялық жоспарларын ұйымдастыру үшін жаңа, әрі қажетті ақпаратпен және оқу-ғылыми үдерістерімен қамтумен түйінделеді.

Зерттеу жұмыстың нәтижесінде, «Ақпаратты Қазақстан – 2020» бағдарламасы аясында Қазақстандағы 131 жоғары жоғары оқу орындары кітапханаларының даму бағыты мен қызмет түрлерінің ақпараттық кеңістегі алатын орнын салыстыра отырып, ақпараттық-кітапханалық қызмет көрсетуде автоматтандырудың тиімділігі нақты дәлелдермен айқындалып, RFID және QR технологиясының қызмет көрсетудегі әрбір кітапхана үшін маңыздылығына статистикалық салыстырмалы талдау жүргізілініп, ашық қолжетімділік репозиториі мен ғылым мен білімге еркін қол жеткізудің мүмкіншілігі статистикалық деректерге сүйене отырып талданды. Мақалада білім сапасын жетілдірудегі кітапхананың маңыздылығына салыстырмалы талдау жасалып, статистикалық мәліметтер негізінде ғылым мен білімге еркін қол жеткізу мүмкіндіктері талданды.

«Цифрлық Қазақстан» мемлекеттік бағдарламасы аясында оқыту мен оқу үрдісінде білім алушыларға қажетті ақпаратқа қол жеткізуін қамтамасыз етудің маңыздылығының зерттеу нәтижелеріне талдау жасалып, бүгінгі көзқарас тұрғысынан қорытындыланады.

Түйін сөздер: цифрландыру, инновация, информатор, репозиторий, электронды кітапхана, электронды ресурстар, оқытуды басқару жүйесі.

Асанова Б.С.,*1 Бекбаева Т.А.²

¹Казахский Национальный Университет им. Аль-Фараби,
г. Алматы, Казахстан

²Казахский национальный педагогический университет имени Абая,
г. Алматы. Казахстан,

ЗНАЧЕНИЕ ЦИФРОВЫХ БИБЛИОТЕК В РАЗВИТИИ СИСТЕМЫ ОБРАЗОВАНИЯ

Аннотация

В статье рассматривается вопрос использования информационных ресурсов цифровых библиотек для возможностей открытого доступа к системе обеспечения качества образования. Являясь ведущей структурной единицей университета, библиотеки высших учебных заведений как информационнообразовательный центр, обеспечивают студентам открытый доступ к информационным ресурсам в целях обеспечения качества образования.

В статье делается вывод, что создание комфортной образовательной среды для студентов за счет расширения доступа к информации, развития информационных, сервисных и других видов услуг положительно влияет на повышение интереса молодежи к образованию и науке. Основная задача библиотек высших учебных заведений — обеспечение новой и необходимой информацией учебного процесса для организации стратегических планов высших учебных заведений.

В результате исследовательской работы в рамках программы «Информационный Казахстан – 2020», проведено сравнение развития библиотек 131 высшего учебного заведения Казахстана и видов их услуг в информационном пространстве, на конкретных примерах определена эффективность автоматизации в предоставлении информационно-библиотечных услуг, а также современное обслуживание RFID-технологий и QR-библиотек. В статье проведен статистический сравнительный анализ значимости каждой библиотеки, а также возможность открытия доступа к хранилищу, доступ к занятиям наукой, к знаниям.

Проанализированы результаты исследования с современной точки зрения, сделаны выводы и обобщена важность обеспечения доступа к необходимой информации обучающимся в процессе преподавания и обучения в рамках государственной программы «Цифровой Казахстан».

Ключевые слова: цифровизация, инновация, информатор, репозиторий, электронная библиотека, электронные ресурсы, система управления обучением

Basic provisions. The library of higher educational institutions holds a paramount position within the university's information and educational ecosystem, actively participating in the educational process, furnishing vital information support for both scientific and educational endeavors, and addressing the diverse informational requirements of experts across various domains of knowledge.

The outcomes of the operation of university libraries should shape the outlook for the scientific activities of higher educational institutions, serving as a foundational information resource that instigates innovative transformations geared towards enhancing the overall functionality of the education system. The most crucial practical avenues for fully realizing the roles and objectives of university libraries in today's landscape and fostering conditions for their progressive development include the following:

- An information products expert, responsible for connecting users to electronic full-text resources and scientometric services, ensuring seamless access.
- A conduit for the dissemination of scientific and educational information and a catalyst for fostering information culture.
 - A research facilitator, actively monitoring the publication activity of university staff.
 - A vehicle for promoting the outcomes of scientific research.
- The custodian of electronic educational and scientific content within the university, ensuring accessibility.

Currently, the activities of higher educational institutions in Kazakhstan are undergoing significant changes. Integration processes occurring both in science and in education create new technological and organizational opportunities for university libraries in terms of providing information to teaching staff of students, undergraduates and doctoral students. Research, testing, and the rapid and flexible implementation of these capabilities into direct library practice are one of the most important tasks of university libraries. Knowledge of this responsibility and its practical implementation make it possible to increase the role of the library in the development of the university and provide invaluable assistance to all participants in scientific and educational activities.

This method of organizing library work is especially relevant in an era when information prevails over knowledge, and Internet technologies make it possible to quickly find information on the Internet and use it without comprehending, researching or comparing alternatives.

Undoubtedly, the library will face a number of problems arising from these and other challenges of the time. The very paradigm of higher education is changing. Along with the educational process at the university, research activities come first. The requirements for organizing scientific research are quite high. This is the need to publish in authoritative foreign periodicals, publish monographs and educational materials in English, hold international conferences, develop scientific projects, and commercialize science. There are also many innovations in education. This is the introduction of new methods of student-centered teaching and learning, the development of innovative training programs, the internationalization of education, and digitalization.

The new trend is tailored and personalized learning. University teachers create a large number of different educational, methodological and didactic materials: lecture courses, electronic educational presentations, educational and methodological complexes aimed at introducing these and other innovations. As part of these and other changes, the requirements for providing scientific and educational programs with information resources are also increasing.

To support research activities, it is necessary to create a university repository and constantly update it with new publications by faculty, systematically study various resources of the information network and offer test access. Provide comprehensive assistance in finding journals for publishing articles by determining the degree of popularity and authority of the publication, that is, the ability to search by quartiles and percentiles of the journal. Every scholar publishing a monograph must submit it to the university library in both paper and electronic format (PDF).

Introduction. In the modern information society, the importance of the university scientific library has been sharply increasing. It cannot be limited only to the functions of providing users with storage units from their funds. The library should be a conductor of new technologies with the access to the fullest information support for all its users and resulting in improving the quality of education at the university.

Today, a university library as one of the key links in the information support of the education process pays great attention to modern forms of accumulation and presentation of information. The process of accumulation of electronic resources, both purchased from third-party organizations and produced within the institute, requires the creation of a system that provides storage, updating, search and retrieval of the required electronic resource, as well as access control to these resources. The electronic library resources can significantly facilitate learning and research processes, and provide public (including remote) access to them. It has become one of the priorities of education, science and culture services.

In the works of a number of foreign and domestic authors, such as T.Yu. Chepaikina A.S. Sharshavina, M.S. Slobodyanik, O.V. Serova, A.S. Karaush (Chepaikina 2017; Sharshavina 2016; Slobodyanik 2005; Serova 2009; Karaush 2008)[1] emphasizes the importance and effectiveness of innovative technologies used in libraries and equipment based on RFID technology. Also, the authors' works clearly examine the general description and operating methods such as inventory readers, self-booking stations, automatic book return stations, universal programming stations, signs of book delivery, and the effectiveness of technologies such as anti-theft systems.

In this sense, the university environment is the most optimal for the use and development of existing resources, as well as the creation of information and communication technologies. Now a library as an information center of the university is the priority for the development of electronic resources and e-services for users.

This is primarily because most readers are students who are not experienced users. When they come to the university, for the first time they address to the library as an institution to meet their information needs. That is why the university library should be as friendly as possible with the aim to focus on variety of service to users, including traditional loan, e-service or provision of electronic resources. All this leads to increased attention to the processes of organizing the processing, storage, presentation and search of information resources in the e-library of the university.

Users are no longer interested in the availability of a particular document in the library's collection, but in the availability of open access. It becomes less essential for users how they can obtain information through a traditional book, an online full-text database, prompt electronic delivery of a document or through access to the "free" Internet. Speed and convenience are on the top of their priority (Krasnova 2015) [2, p.17]. Orientation to the prompt receipt of the necessary information is implemented in the concept of Electronic Libraries.

Nowadays, libraries of higher educational institutions have been increasingly involved into the world information community. In this regard, it becomes important for almost all segments of the population to get access to information and able to work with it. According to international experience, libraries of higher educational institutions provide the most accessible information for the teaching staff, doctoral, master and undergraduate students.

A number of studies have been conducted regarding information literacy in universities (Mustafa, Noorhidawati 2020; Nosheen, Abebe 2018; Michel 2001)[3]. These studies demonstrate the role of libraries in information literacy education through the provision of information literacy activities for students such as orientation, short curriculum, reference desk instruction, interactive self-study program, and collaborative learning in the classroom.

Nowadays, Kazakhstan has a formed system of electronic libraries with improving quality of virtual services. It also has open access to electronic resources, including electronic publications of e-textbooks, books, encyclopedias, interactive training courses on CD-Rom, databases of the world best universities through a global network (Orazaliyev 2015; Ratmanova 2003) [4]. At the same time, the traditional information services have become more innovative with introducing new technologies such as automation of the search process for readers that rise in service quality. Special technologies and automated library systems have become an integral part of the modern library. In this regard, the library uses the following type of new technologies - QR libraries, which are written

in the works of V.M. Vorobyova, N.K. Gornic, P.N. Articles by Voskresensky (Vorobyova 2013; Gornic 2016; Voskresensky 2015) [5].

In the open information space, libraries are gradually becoming Information Centers of electronic resources.

As can be seen from a brief review of the literature, there are still no special studies devoted to the issue of the importance of digital libraries in the development of the education system in the republic.

The above-mentioned works do not analyze the possibilities of open access to science and knowledge of digital libraries, nor do they examine the activities of libraries of higher educational institutions of Kazakhstan in providing information and library services.

Until now, the importance of digital libraries in the development of the education system has not been the subject of special research and has not received adequate coverage in the press. Therefore, this study aimed to explore the role of university libraries in improving the quality of the education system and supporting the integration of information literacy into course teaching.

New technologies have had a significant impact on library standards and performance criteria. Today, the criterion for evaluating the work of libraries is not the availability of library funds and information but their effective use for the benefit of readers.

Eventually, university libraries should serve as an informational basis for opening up new prospects for research activities, improving the quality of the education system and stimulating innovative changes.

Materials and methods. Currently, it is important to study the role of university libraries in the implementation of such systems as free access to foreign publications and general databases in the collections of libraries of other universities for the comprehensive development and exchange of knowledge between students. In particular, it is part of a research work that studies information integration and therefore, the provision of university libraries with databases is carried out intensively in each university. In many Kazakhstani universities database of libraries consist of "EBSCOhost", "ELSEVIER", "IPRbooks", "polpred.com databases", "ebooks", "ShringerLink", "ChemSpider", "Zan–Law", "University library Online", "epigraph", etc.

The main task of the library is to provide new and necessary information and educational and scientific processes for the organization of strategic plans for the university activities.

The current development of university libraries in the country is characterized by changes in the main priorities of their activities. The most important of them are:

- Improving the regulatory mechanism for implementing the university library strategy;
- Replenishment of university libraries with literature supporting trilingual education;
- Creating a comfortable educational environment for library users by expanding access to information, developing information, service and other types of services, and improving the quality of service;
 - Creating conditions for users who require special educational needs;
 - Improving the professional competence of library specialists.

Today, university libraries provide remote services to users, society as a whole, providing unlimited, open access to full-text resources in their fund in compliance with copyright requirements [6, p.20]. At the same time, the level of Virtual Library Services is slowing down, although new types of automated information library services are currently being implemented in the libraries of higher educational institutions for more comprehensive library users. This work is a part of the larger study, which was developed to study research and use electronic resources in the libraries of Kazakhstani universities. In order to achieve the goal of the study, a statistical analysis was carried out on the provision of virtual services by university libraries in 2020. There are 131 higher education institutions in Kazakhstan, which means that there are 131 university libraries, respectively. 10 of them are national, 1 is international, 32 is state, 18 are joint – stock, 14 are non-civil, 56 are private and 1 is autonomous educational organizations.

During the study, the following forms of virtual service provision were considered:

- Library websites;
- Library web pages on the University website;
- Electronic catalog (open Piblish Access Catalog (Horace);
- Virtual reference book;
- Electronic document delivery;
- Thematic guides;

Facebook Instagram is a social media library that allows you to create and share a library content on social networks. Based on the final results of the analysis of these forms, the following results were obtained (Table 1).

Types of activities	Report indicator (percentage (%) and
	quantitative)
Web pages of libraries on the University website	57-(44%)
Website	30-(23%)
Electronic catalog	40-(31%)
Virtual Directory	23-(18%)
Electronic document delivery;	3-(2%)
Thematic instructions	1(0,1%)
Library page in social networks	22-(17%)

Table 1:Estimated indicators of virtual services of university libraries (2020)

When studying this issue, the following research methods were used: analytical, comparative-pedagogical, social.

Results. The findings suggest that 74 university libraries in 131 Kazakhstani universities do not even have a web page. The web page is a unique tool that allows users, mainly students and university professors to obtain information about new books, events, communicate with librarians, use funds and get acquainted with the electronic catalog and databases. The library web page is a modern and convenient tool that complements and expands the range of services provided to readers but it is missing in 56% of university libraries and only 30 private university libraries have it. Website can be used as a quality tool to support teaching public courses for students of the first year students.

- 23 Kazakhstani university libraries provide users virtual reference services, which is only 18% of libraries. A virtual reference service is electronic means of virtual communication with librarians in real time. Advantages of the virtual help desk for users are:
 - Quick, professional help in finding information;
 - ime saving, since some information can be obtained in advance;
 - Distance service, any questions can be addressed without visiting library.

Currently, university libraries are in the process of maximum development, but the libraries do not address all readers' needs. In this case, the "electronic document delivery" service is much easier and provides an inter-library service.

The first service "electronic document delivery" has been operating in university libraries since 2011 as a system of Interlibrary Resource Exchange. This service provides access to materials from other partner libraries. The readers just need fill out a special form on the library website and get a response within three days.

The use of social networks in libraries is an indispensable opportunity for interactive communication with library users and news distribution, as information reaches the reader faster, and users learn about important events in the library.

The in-depth study has been conducted in scientific Library of Al-Farabi Kazakh National University, Nazarbayev University library, KIMEP University library, Pavlodar State Pedagogical Institute, the library of Almaty University of Technology. As it turned out, the libraries of L.N. Gumilev Eurasian National University and the Kazakh National Women Pedagogical University

have provided detail information about the library, the structure and mode of its operation, online search of the library catalog and links through virtual reference services.

These results show that respondents are confident in the benefits offered by using a virtual help service linked to an information service environment. These conclusions coincide with Imenov's argument [7, p.63-64].

Open access will change the development strategy of university libraries and provide broad partnership opportunities for their information and reference support, database management, quality assurance and active exchange of electronic resources. Libraries provide maximum support for the creation of open access repositories - publication and use the latest information and communication technologies. Open access and institutional repositories are currently considered as a new model of scientific communication.

The main purpose of the repositories is to provide free access to articles and presentations, dissertations, technical reports and working documents, conferences, as well as other electronic publications. There are 4 types of repositories that perform their specific functions.

Type	Informational
Institutional	Institutional or departmental storage
Joint	Archive of data collected from multiple sub-databases
Governmental	Repository for government data
Thematical	Repositories of objects of multiple organizations

Table 3: Storage types and definition

According to the table, university libraries form institutional repositories and actively benefit from open access. The main tasks of the institutional repository are:

- Ensuring free access to the results of scientific research conducted at the university through self-archiving;
 - Access to the uiversity scientific research for the world community;
- Citation of scientific publications of university employees by providing free access to the internet.

Availability of the Webometrics repository at the university (Webometrics World Universities ranking Webometrics ranking) (http://www.webometrics.info/) is taken into account through the international rating system for higher education institutions. Generally, Webometrics is not only an analysis of the scientific and educational activities of universities, but also their "representation" on the internet.

Webometrics calculates the institutional repository as a percentage on four indicators:

- 1. S(Size) the number of web pages available in the Google search engine;
- 2. V (Visibility) the total number of unique backlinks to the repository site located in domains, according to data available in the MajesticSEO database and the ahrefs database;
- 3. R(Rich files) Adobe Acrobat (.pdf), Adobe PostScript (ps and.eps), Microsoft Word (doc and.docx) and Microsoft Powerpoint (ppt and .pptx) files and Google search engine;
- 4. Sc (Scholar)(researcher) to determine the value of this indicator, Google provides a normal amount of data for the last five years, excluding the current year, in the Scholar database. Dzhangulova [8, p.164] analyzes how Nazarbayev University will create an institutional repository, highlighting the advantages and problems of data related to the institutional repository.
- 101 Kazakhstani universities are registered in Webometrics. The top 10 libraries in Kazakhstan are shown in the table below on the basis of the world ranking and the degree of Webometrics observation. The obtained results are presented in the table.

Table 4: Webometrics ranking

Rating	World	Universities	Level of	Degree of	Degree of	Level of
	Rating		Participation	influence	Transparency	Success
1	1952	L.N. Gumilyov Eurasian	907	3304	761	2418
		National University				
2	2495	Al-Farabi Kazakh National	515	2518	3157	3300
		University				
3	4435	Kazakh National Agrarian	3950	1468	7047	5777
		University				
4	5014	Nazarbayev University	2906	6680	1117	5777
5	5336	E.A. Buketov Karaganda	3361	7642	7067	4914
		State University				
6	5699	S.D. Asfendiyarov Kazakh	1163	5535	6156	5777
		National University				
7	5986	KIMEP University	4058	7026	4724	5777
8	6037	S. Toraigyrov Povladar	1051	2779	9593	5777
		State University				
9	6282	Karaganda State Technical	872	8140	5507	5777
		University				
10	6700	South Kazakhstan	1447	6796	7878	577
		Pharmaceutical Academy				

These indicators show an increase in demand for electronic resources around the world along with changing means of promoting information. The demand for information is growing, and the possibilities of it is infinite. Therefore, the organization of library activities in accordance with modern requirements, its quality and effectiveness open up new perspectives.

The scientific library of Al-Farabi Kazakh National University provides a new type of library and information services with combination of information and communication technologies that allows quickly and fully receive any necessary information. The library is replenished with new equipment, including:

- Information board that help library users to obtain information online.
- Informizer, an automated software and information system for providing reference information without contacting librarians directly. The informizer can provide the necessary information from the library or university website, and allows users to place an order through the library website through an electronic catalog.
- Planetary scanner (ElarScan A2 300). It is an autonomous complex for fast digital copying of books, magazines, catalogs, newspapers and various types of linked documents up to A2 + format, including scan publications with a thickness of up to 10 cm and a weight of up to 10 kg without damaging the original. Scanned materials can be copied to an email or flash drive.
- Kirtas automated scanner is a single complex for universities, libraries, archives, research centers and state corporations, which does not require a lot of workers when simplifying, speeding up and scanning the digitization of books.
- RFID reader for inventory. RFID is a mobile device for automatic inventory, which is preinstalled with a software package for identifying and inventory storage units of the library stock based on technology. This equipment is a reflection of the fact that the level of automation of the library has increased, and the quality of service represents a single system. In addition, the library provides access to e-books from internationally recognized publishers and databases (EBooks), 3456 e-books from the EBSCO database, 10817 e-books from Springer, and 114 e-books from Elsevier. Library EBESCOhost, Elsevier, IPRbooks, polpred. It provides access to such databases as com, SpringerLink, ChemSpider, China National Knowledge Infrastructure, law and order, and epigraph. EBSCO is a leading provider of databases and electronic services in the Information Service Market. A multifunctional search platform allows quickly access scientific periodicals

around the world in electronic format in various languages (English, French, German, Spanish, etc.). The database contains publications by Blackwell Publishing, Springer, Harvard Business School, Taylor&Francis, Sage Publications, etc. The list of Information Resources includes 11 databases: Academic Search Premier, Business Source Premier, ERIC, GreenFILE, HealthSource – Consumer Edition, Health - Source: Nursing/Academic Edition, Lib - rary, Information Science & Technology Abstracts, MasterFILE Premier, MEDLINE, Newspaper Source, Regional Business News. http://search.ebscohost.com you can access the resource using the link.

IPRbooks Electronic Library System (EBS). Any professor or a student has the opportunity to work free of charge with the Russian licensed full - text fund of EBS electronic publications IPRbooks, which is the first certified electronic library system in the country recommended for use resource for training and scientific research, dedicated to seminars, tests and exams, projects and the performance of necessary works, various areas of study, combining new information technologies and licensed educational literature. It is useful for teaching in drawing up a curriculum, preparing for classes, and getting information about new publications from colleagues. The ECC contains more than 100,000 publications, 26,000 educational and scientific works in various disciplines, about 400 Russian and foreign journals, most of which are included in the list of the Higher Attestation Commission, more than 500 federal, regional, university publishing houses, research institutes, works of scientists and literature of leading author collectives. The content of IPRbooks EBS fully meets the requirements of the legislation of the Russian Federation in the field of education, standards of higher and secondary vocational education, additional and distance learning. In addition, the fund of Russian libraries with more than 62,000 publications is available - rare publications, notaries, periodicals, historical, local history literature, etc. The site offers online tests (more than 350 tests) that will help you test your knowledge in various subjects.

Lecturers have the opportunity to publish their work electronically in the IPRbooks EBS with the following indexation in the fund of the Russian scientific citation index (RGI). IPRbooks EBS is a partner of the eLibrary scientific Electronic Library. Publication of EBS works IPRbooks access to publications for students on a convenient platform using EBS services to improve the efficiency of the educational process, i.e. providing students with their own publications in preparation for classes, monitoring knowledge, analyzing statistics of students ' work with publications. A significant feature of it is the high-quality selection of literature for the educational process, taking into account the requirements of teaching staff and students in the process of collecting the fund. Another advantage is new user-friendly services, high adaptability of the system, advanced functionality with rapid speed of search. Anyone can access the full text of publications only after logging in from an university computer http://iprbookshop.ru.

Polpred.com the database is an archive of important publications and consists of 53 industries, 600 sources, 9 federal regions of the Russian Federation, 235 countries and territories, main materials, articles and thousands of daily news, full text in Russian, millions of the best stories of the information agency and 15 years of business press. Hundreds of articles can be exported in word. Access to <url>
 <url>
 sopen on all computers of the library and on the local network of the University - www.polpred.com.
 </ur>

The database "Zan/Zan" was created by the Republican Center for legal information. This is the most complete electronic collection of legislation and other normative legal acts of the coutnry. The database is equipped with dictionaries: a legal reference dictionary, An explanatory dictionary of legal terms in the text of laws of the RK with links to the text of laws in the database, a dictionary of Russian – Kazakh terms. There are resolutions, decisions, and regional programs of local authorities in the regions of the Republic of Kazakhstan. Readers can simultaneously view two modes of text in the state and Russian languages in the window. Chronological coverage dates back to 1990.

Springerlink is a global and valuable interactive full-text database of scientific, technical and medical content (journals, books and reference materials) in the following areas: biology, ecology, medicine, physics, technical sciences, mathematics, computer science, humanities, economics.

Popular China National Knowledge Infrastructure (CNKI) is the main national Information Project created under the leadership of Tsinghua University and Tsinghua Tongfang since 1996. The first database was full-text Chinese academic journals "China Academic Journals Full-text Database", CD version. In 1999, CNKI began developing data resources online but today, CNKI has created an integrated comprehensive system of Chinese educational resources. It includes journals, doctoral theses, master theses, newspapers, annual publications, e-books, patents, standards. Ten CNKI service centers operate in Beijing, North America, Japan, North Korea, Taiwan and Hong Kong. CNKI continues to develop new products, introducing new content in two areas: full-text academic resources, digitization and knowledge management software.

Epigraph database-the library contains more than 3000 titles of textbooks and teaching aids for higher educational institutions of the country. Most of the submitted publications are bestsellers. The textbook collection consists of 700 thousand pages, including color illustrations, and is updated annually from 500 to 800. These textbooks are given in Kazakh, Russian and English languages. Digital collections of textbooks and teaching aids of epigraph publishing house http://res.epigraph.kz / available via the link. After registration in the library via a special IP address, it allows to use it remotely from the library territory [9, p.46-48]. In addition, the library has created and operated a mobile application that can be downloaded from Android phones via PlayMarket. Through the app, you can freely visit the library website and use the electronic catalog by phone [10] the library is a part of the Smart University, whose educational and scientific processes were aimed at providing new and necessary information for the organization of strategic planning of the university. One of the branches of the innovative infrastructure platform was the project of creating Smart libraries. Today, the library has developed several times in critical comparison with the libraries of universities in Kazakhstan and has achieved effective work.

Thus, the results of the modern stage of development of the library of higher educational institutions of Kazakhstan are explained by the active introduction of new methods of information exchange, the creation of own information resources, automation of bibliographic and access organizations users to electronic services.

The actual task of the library of higher educational institutions of Kazakhstan at the modern stage is the greater integration of information and bibliographic service, educational, scientific and administrative processes of a university. The role of university libraries as the main supplier of information resources for students, undergraduates, teaching staff and doctoral students of the university can be strengthened in the following areas:

- Creation and formation of the Library Information System on the website resource;
- Organization of improving the qualification of library personnel to work with information technologies;
- Further development and expansion of the spectrum of electronic resources in the educational activities of the University;
- Providing full information on the content of the bibliographic fund through the system of electronic catalogs, maps and other forms of bibliographic information;
- Coordination and cooperation of structural subdivisions of the university to more fully satisfy the information needs of readers.

Libraries of higher educational institutions of Kazakhstan provide information support for science and education; more fully and promptly meet the information needs of all users.

Discussion. A university library has transformed into an information and cultural center of the digital era of and computer literacy. The changed society and the new concept of the library require constant maintenance of professional knowledge, skills, knowledge of new technology, as well as the formation of a new awareness of the profession of librarian.

SCONUL has pointed out the importance of academic libraries in allocating accurately required information resources and in facilitating the use of information resources [11, p. 697-707].

Librarians coordinate in the assessment and selection of information resources for teaching and learning supporting in arranging systems and facilitating the information access. Library acquisition has become a challenging process in the current decade as libraries have shift from traditional to digital platform. A new paradigm has emerged in libraries incorporating conventional and electronic resources described as expanding the traditional view of the traditional collection and born-digital collection. Libraries have invested over billions of dollars in electronic resources. Therefore, it is critical to study decision-making process of e-resources acquisition to ensure the right decision is made in developing library collection based on users' demand.

Since 2010, the Republican Interuniversity Electronic Library (RIEL) with electronic educational and scientific resources of higher educational institutions has been introduced throughout the country. The main goal of the creation of the REIF is to provide a wide and advanced information base through the integration of e-learning resources to all universities of the country into a single information system. As a result, any student or professor have the opportunity to use the library fund not only of their university but also of other educational institutions. Today, 110 universities and colleges are members of the RIEL. Also, readers can use the library by registering through their ID card numbers or on the page in social networks. Mashakova's and current research have the same result [12, p.90-91].

At the present stage of the development of science and technology, the range of services of libraries of higher educational institutions is being replenished with e-resources. The use of innovative technologies in librarianship has been introduced since 2005.

Libraries are connected to the Internet, and library management system is based on KABIS, IRBIS, RABIS programs. The library's collections are supplemented with electronic textbooks and multimedia materials. Each system has its own software features and automation capabilities. The use of IRBIS, KABIS, RABIS, etc.programs in libraries depends on the capabilities and funds of the library. Our analyses shows that more than half of university libraries use the KABIS program because of its attractive price and possibility of use. The IRBIS program use is lower than KABIS but the IRBIS has constantly developed in accordance with new requirements, unlike KABIS. For example, almost most libraries use IRBIS with RFID technology, which means that IRBIS capabilities can be integrated into new automated technologies. Also, this program is more expensive than other programs, if the KABIS Full -1350\$ [13, p.45-46], IRBIS ARM program "administrative" IRBIS-64 full-text databases (self-use) – 1050\$, including delivery and installation costs 870\$ [14]. This program requires using other modules for integration into technologies that involves additional funding. However, price, quality and service have become rather affordable for university libraries. Sapargaliyev, characterizes that despite of the requirement for additional funding the program can benefit libraries greatly since the use of Information Systems accelerate work in the library, provides high-quality services to readers, electronic collection of a library collections, catalogs, as well as administrative work of the library, monitoring the progress of library [15, p.24-28].

Today, the main requirement is the introduction of new information technologies for the implementation of library processes, such as replenishment of its book fund, its storage, timely satisfaction of readers' requests, ensuring free access to publications in the fund, and the organization of open book collections. In this regard, the use of RFID technology for automated library maintenance by providing libraries with innovative technologies is an indispensable opportunity. RFID (Radio Frequency IDentification) is a technology for automatic non – contact identification of targets using a radio frequency communication channel. The multi-functional RFID tag completely changes the approach to the library science. The RFID tag for libraries is designed specifically for marking objects of the storage fund, including CD/DVD discs, video cassettes, books.

In the work of Chepaykina the importance of RFID technology for successful implementation in libraries [16, p.453-457]. The importance and efficiency of the technology and equipment based on RFID such technologies as an inventory reader, an independent book delivery station, an automatic book return station, a universal programming station for book delivery signs, an anti-theft system.

The effectiveness of automation in the provision of information and Library Services is demonstrated by concrete evidence that innovative technologies in automation, including the use of RFID technology and QR-libraries in libraries, are important for each modern library services. The rapid development of innovative technologies contributes to the library industry for example the functioning of QR (Quick Response) libraries, which increases the level of "mobility" of libraries. QR-library is designed for young people, owners of mobile devices and tablets, people who prefer to read books in electronic format, and active internet users. The purpose of creating the QR library is to encourage young people and active internet users to read through modern culture and art.

Gornikh (2016) the article considers effective ways and skills of servicing users, as well as libraries. Banners with the QR codes have been installed in university libraries to provide readers to read e-books [17, p. 36-40]. In general, the analysis and systematization of scientific literature show the role and influence of electronic resources on the successful introduction of technologies of libraries of higher educational institutions and their accessibility to open access to science and education, as well as institutional repositories as a new model of digital education.

Conclusion. Today, libraries of higher educational institutions combine traditional and electronic sources and types of services in their work. Continuing to perform their traditional tasks, university libraries are changing the content and type of library activity. These two main tasks are defined: in the collection and storage of data and in the implementation of user services.

Automation of technological processes focused on traditional technologies is widely used in the field of cataloging and reference and bibliographic services, as well as the library is interested in replenishing its funds with full-text electronic resources, because, firstly, their number is growing rapidly in the information market, and on the other hand, the number of users of information in digital format is increasing. Therefore, libraries must necessarily receive electronic publications in order to maintain the function of the main document keeper. Thus, the electronic component is gradually increasing in the composition of information resources, which significantly affects the direction and content of library activities. Therefore, it is important to create databases of libraries, provide consumers with free, prompt access to remote information resources, expand the list of information services based on modern technologies, create an electronic library fund through the creation of bibliographic databases on the professors' research, as well as access to databases around the world.

References:

- 1. Chepaikina T.U. RFID-technologii v bibliotekah // XLV Ogarevskie chteniy : Sb.statei Saransk, 2017. S. 453-457; Sharshavina A.S. Avtomatizaciya bibliotechnyh proceccov na osnove RFID-technologii: opyt vnedreniya I ispolzovaniya v NOYUB // Sovremennoe tendencii organizacii bibliotechnogo prostranstva: Sb. Statei. Novosibirsk, 2016. S.32-35
- 2. Slobodyanic M.S. Innovasionnaya bibliotechnaya technologiya: puti realizacii//Progressivnye bibliotechnye technologii: organizaciya I upravleniye:Sb.nauch.tr. 2005. S. 36
- 3. Karaush A.S., Makarevich, A.S. Razvitiye informacionnyh technologii v biblioteke: vzglyad v budushee//Nauychnye I technichiskie biblioteki. $-2008. N_{\odot} 1. S. 53-68.$
- 4. Krasnova T.V. The concept of an electronic library//Libraries of educational institutions. $-2015. N_{\odot}$ 14. S. 17- 24.
- 5. Mustafa A, Noorhidawati A. Adoptionandimplementationofevidence-basedlibraryacquisitionofelectronicresources. Malaysian Journal of Library & Information Science. 2020. Vol. 25, no.1, pp. 1-29. https://doi.org/10.22452/mjlis.vol25no1.1; Nosheen F.W., Abebe R. Adoption of linked data technologies among university librarians in Pakistan: Challenges and prospects. Malaysian Journal of Library &

- Information Science.2018. Vol. 23, no.3, pp. 1-13 https://doi.org/10.22452/mjlis.vol23no3.1; Michel, S. What do they really think? Assessing student and faculty perspectives of a web-based tutorial to library research. College & Research Libraries. 2001. Vol.62, pp.317-332. https://doi.org/10.1080/13504622.2022.2102584
- 7. Sovremennye trendy v razvitii universitetskih bibliotek: opyt, problem I perspectivy [Elektronnyi resurs]. Mejdunarod. Nauch.-prat.konf.,18-19 marta 2015 g. / red.: B.Ae.Orazaliev, J.B.Mamaeva, J.E. Isimov. Astana: ENU im. L.N.Gumileva,2015. 261 s. URL: http://elib.kaznu.kz/order-book.(data obrashcheniya: 26.01.2024).; Ratmanova S.B. Virtualnaya biblioteka: Kulturologicheskiye aspect formirovaniya I razvitiya [Elektronnyj resurs]: ucheb.-metod. Posobie. Almaty: kazNIIKI, 2003. 233 s. URL: http://elib.kaznu.kz/order-book_(data obrashcheniya: 26.01.2024).
- 8. Vorobyeva V.M. Ispolzovaniye QR-kodov vo vneurochnoi deyatelnostei: metod.posobiye. M.:TemoCentr, 2013. 316 s.; Gornih N.K. Biblioteka v mobilnom gadjete // Molodye v bibliotechnom dele. 2016. N2 2. S. 36-40.; Voskresenskii, P.N. Gramotnoe ispoolzovaniye QR-codov // Spravochnik rukovoditelya uchrejdeniya kultury. 2015. No 3. S. 81.
 - 9. Иржанова Γ . Біздің күшіміз-бірлікте//Кітап және кітапхана. 2017. N_24 . E. 20.
- 10. Imenov J. Today's library-information resource access center//Book kingdom.- 2013. №1-2. S. 63-64.
- 11. Джангулова Т. и др. Институциональный репозиторий Назарбаев университета: путь создания и его контент:сб.статей/Т.Джангулова, Д.Халелов, К.Бесжанов/Библиотечное взаимодействие: современные мировые тенденции в развитии вузовской библиотеки. 2016. Астана, 2016. С.164.
- 12. Мусагалиева Г.М. Web-сайт Казахского национального университета им. Аль-Фараби инновационный информационно-образовательный ресурс библиотеки//Кітапхана әлемі. -2013. -№1. C.46-48.
- 13. Утемжарова Н.Т. и др. Научная библиотека Аль-Фараби [Электронный ресурс] // http: eLIBRARY.RU(дата обращения: 02.05.2023)
- 14. Warraich N.F. Linked data technologies in libraries: An appraisal. Journal of Political Studies. 2016.Vol. 23, pp. 697-707. https://doi.org/10.22452/mjlis.vol23no3.1.
- 15. Машакова Н.С. Учреждение «Республиканская межвузовская электронная библиотека»//Альманх мировой науки—2016—№4-2— С.90-91.
- 16. Камилова Е.Е. Виртуальные службы вузовских библиотек Казахстана//Библиотечный вестник— 2017. -№ Б.45-46.
- 17. Система автоматизации библиотек ИРБИС [Электронный pecypc]// http://rntb.kz/images/FORM/price.pdf (дата обращения: 02.05.2023).
- 18. Сапаргалиев Е.Б. Автоматизированная библиотечно-информационная система WEB-RABIS // Кітап және кітапхана. 2017. №4. Б.24-28.
- 19. Чепайкина Т.Ю. RFID-технологии в библиотеках //XLV Огарёвские чтения : Сб.статей Саранск, 2017. С. 453-457.
 - 20. Gornich N. Bibliotheca in gadget mobili// Iuvenes in bibliothecarii. 2020. № 2. S. 36-40

References:

- 1. Chepaikina T.U. RFID-technologii v bibliotekah//XLV Ogarevskie chteniy: Sb.statei Saransk, 2017. S. 453-457; Sharshavina A.S. Avtomatizaciya bibliotechnyh proceccov na osnove RFID-technologii: opyt vnedreniya I ispolzovaniya v NOYUB // Sovremennoe tendencii organizacii bibliotechnogo prostranstva: Sb. Statei. Novosibirsk, 2016. S.32-35
- 2.Slobodyanic M.S. Innovasionnaya bibliotechnaya technologiya: puti realizacii// Progressivnye bibliotechnye technologii: organizaciya I upravleniye:Sb.nauch.tr. -2005.-S. 36; Serova O.V. kachestvo uslug v electronnoi srede I novye servisy //Bibliosfera. -2009.-N2 1. -S. 53-68.;
- 3. Karaush A.S., Makarevich, A.S. Razvitiye informacionnyh technologii v biblioteke: vzglyad v budushee [Tekst // Nauychnye I technichiskie biblioteki. $-2008. N_2 1. S. 53-68$.
- 4. Krasnova T.V. The concept of an electronic library//Libraries of educational institutions. $-2015. N_{\odot}$ 14. S. 17- 24.
- 5. Mustafa A, Noorhidawati A. Adoptionandimplementationofevidence-basedlibraryacquisitionofelectronicresources. Malaysian Journal of Library & Information Science. 2020. Vol. 25, no.1, pp. 1-29. https://doi.org/10.22452/mjlis.vol25no1.1; Nosheen F.W., Abebe R. Adoption of linked data technologies among university librarians in Pakistan: Challenges and prospects. Malaysian Journal of Library &

Information Science.2018. Vol. 23, no.3, pp. 1-13 https://doi.org/10.22452/mjlis.vol23no3.1; Michel, S. What do they really think? Assessing student and faculty perspectives of a web-based tutorial to library research. College & Research Libraries. 2001. Vol.62, pp.317-332. https://doi.org/10.1080/13504622.2022.2102584

- 7. Sovremennye trendy v razvitii universitetskih bibliotek: opyt, problem I perspectivy [Elektronnyi resurs]. Mejdunarod. Nauch.-prat.konf.,18-19 marta 2015 g. / red.: B.Ae.Orazaliev, J.B.Mamaeva, J.E. Isimov. Astana: ENU im. L.N.Gumileva,2015. 261 s. URL: http://elib.kaznu.kz/order-book.(data obrashcheniya: 26.01.2024).; Ratmanova S.B. Virtualnaya biblioteka: Kulturologicheskiye aspect formirovaniya I razvitiya [Elektronnyj resurs]: ucheb.-metod. Posobie. Almaty: kazNIIKI, 2003. 233 s. URL: http://elib.kaznu.kz/order-book_(data obrashcheniya: 26.01.2024).
- 8. Vorobyeva V.M. Ispolzovaniye QR-kodov vo vneurochnoi deyatelnostei: metod.posobiye. M.:TemoCentr, 2013. 316 s.; Gornih N.K. Biblioteka v mobilnom gadjete // Molodye v bibliotechnom dele. 2016. N 2. S. 36-40.; Voskresenskii, P.N. Gramotnoe ispoolzovaniye QR-codov // Spravochnik rukovoditelya uchrejdeniya kultury. 2015. No 3. S. 81.
 - 9. Irzhanova G. Virtus nostra in unitate // Liber et Bibliotheca. − 2017. −№4. − S. 20
- 10. Imenov J. Today's library-information resource access center // Book kingdom. -2013. $N_{2}1-2$. S. 63-64.
- 11. Dzkhangulova, T. et etc. Repositoria Institutionum Universitatis Nazarbayev: de idolo creationis eiusque contentis: collectione articulorum/T.Dzkhangulova, D.Khalelov, K.Beszhanov. Astana. 2019. S. 164.
- 12. Musagalieva G.M. Website of Al-Farabi Kazakh National University. Innovative information and educational resource of the library// Kitaphana alemi. $-2019. N_0 1. S.46-48$.
- 13. Utemzharova N.T. Bibliotheca Al-Farabi [Elektronnyj resurs]. URL:https:// library.ru (data obrashcheniya: 02.05.2023).
- 14. Warraich N.F. Linked data technologies in libraries: An appraisal. Journal of Political Studies. 2016.Vol. 23, pp. 697-707. https://doi.org/10.22452/mjlis.vol23no3.1.
- 15. Mashakova N.S. Institution "Republican Interuniversity electronic Library"// Almanac of World cience. -2016. -N 4-2-S. 90-91.
- 16. Kamilova, E. E. Officia vietualis Bibliothecae Universitatis Kazakhstaniae // bibliothecae bulletin. N 1. S. 45-46
- 17. IRBIS Library automation system//http://rntb.kz/images/FORM/price.pdf (data obrashcheniya: 02.05.2023)
- 18. Sapargaliev E. B. Automated library and Information System WEB-RABIC//Liber et Bibliotheca. − 2017. − №4. − S. 24-28
- 19. Chepaikina T.Yu. RFID technologiae in bibliothecis: Collectio capitulorum. Saransk, 2017. S. 453-457
 - 20. Gornich N. Bibliotheca in gadget mobili/Iuvenes in bibliothecarii. 2020. № 2. S. 36-40

МРНТИ 14.35.09

https://doi.org/10.51889/2959-5762.2024.81.1.007

Seitova M., 1* Halmatova Z., 1, Kazykhankyzy L., 1

¹ Khoja Akhmet Yassawi International Kazakh-Turkish University Turkistan, Kazakhstan

A RESEARCH ON TEACHERS' VIEWS ON THE USE OF ARTIFICIAL INTELLIGENCE IN TEACHING ENGLISH

Abstract

The popularity of Artificial Intelligence (AI) in teaching English can be attributed to the advancement in natural language processing (NLP) and machine learning (ML). NLP allows machines to understand and interpret human language, while ML enables them to learn from data and improve their performance over time. These two technologies are the backbone of AI-powered language learning systems, which have become increasingly sophisticated and accurate over the years. Today, AI has been applied in various ways