

Library Sciences

Creation of Electronic Catalogue and Resources in Azerbaijani Libraries

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ABSTRACT. The article describes the impact of socio-political and economic factors on the computerization of the library work in Azerbaijan, particularly the damage inflicted upon the library-information system of Azerbaijan as a result of the Nagorny Karabakh conflict. It touches upon the issues of creation of electronic catalogues and electronic resources through two fundamental libraries - the IRBIS Automated Library Information System (ALIS) applied at the Baku State University Scientific Library and VIRTUA ALIS applied at the M.F.Akhundov Azerbaijani National Library. It provides information about the ALISA (Automated Library System of Azerbaijan) centralized electronic library information system connecting Azerbaijani libraries in a common place and AZLIBNET used for implementation of common cataloguing activities in Azerbaijani libraries and creation of the combined national electronic catalogue system of libraries. The article discusses the problems related to creation of electronic catalogue and electronic resources in Azerbaijan and their solution. © 2016 Bull. Georg. Natl. Acad. Sci.

Key words: Azerbaijani libraries, electron catalogue, IRBIS, VIRTUA, ALISA, AZLIBNET

The libraries guarded by society have always echoed the requirements of the society, period, time and place they served, organized their work, improvement and development directly in alignment with the demands of society, processes taking place in the society and always tried to keep up via evolution, and when necessary, through more brisk and optimal events.

Exactly therefore, the processes taking place in the society affected the library work, the development of information-communication technologies, as well as technological advancement in scientific-tech-

nical progress began influencing the work process of libraries, library work underwent automation and computerization and a technological revolution took place in the library work. This revolution has improved the process of serving society without affecting the five-thousand-year-old library traditions and affected the emergence of new electronic service and work forms in the service process.

Just like the advanced countries of the world, Azerbaijani libraries are facing serious problems like establishment of modern electronic library service and achievement of the integration of library-infor-

mation and bibliographic resources to the world information system. The settlement of these problems would first of all allow spreading information about Azerbaijani history, culture, science, education, art, material and moral values and delivering the truths of Azerbaijan with 20% of its lands under occupation and suffering from disinformation of its infamous neighbours to the international community.

Application of modern technologies in Azerbaijani libraries and creation of electronic catalogues and electronic resources began enjoying attention after our country restored its independence.

Brief History

Despite the presence of an extensive library network in Azerbaijan with a rich literature foundation, there were certain difficulties in the application of new information technologies in the libraries. True, in the middle of the past century – i.e., in the 1960s, automation of library processes commenced in Azerbaijan, that is, the selected and spread system of information was used in the Azerbaijan SSR Academy of Sciences fundamental scientific library and the Republican Scientific Technical Library [2]. Since 1970s, Regional Automated Library-Information System (RALIS) was used in the Republican Scientific Technical Library. Databank of documents and *library service* subsystem were in active industrial use, while subsystems, such as *automated packing*, *literature development*, *bibliographic information* and other experimental usage [3]. However, in 1990s, these automated systems stopped their operation due to the political situation and war condition in the republic.

As a result of the Nagorny Karabakh conflict, the Azerbaijani library-information system suffered financial damage of 20 million 815 thousand USA dollars [4]. 9 centralized library systems, 927 libraries and 4.6 million copies of books in the Nagorny Karabakh of Azerbaijan and regions adjacent to it occupied by Armenia were plundered and destroyed [7].

Application of new technologies in Azerbaijani libraries, more precisely, creation of electronic cata-

logues and electronic resources in libraries began enjoying attention after our country restored its independence and the necessity of building library work in accordance with international standards. After Azerbaijan Republic gained independence, political and economic situation in the country was difficult. Libraries, just like other fields of culture, were not provided with necessary resources, the number of readers reduced, nor were they provided with current literature. In a word, all the achievements gained for many years during the Soviet power were lost [5]. This situation was particularly evident in the field of new library-information technology. During the 5-6 years after Azerbaijan gained its independence, no official and methodical documents regulating the library activity with new conditions were adopted [2].

Beginning from 1995, computers began to be used for implementation of various operations. If at first the computers were used for automation of clerical work in libraries and, partially, calculation of financial expenses, now there was a great need for connecting libraries to the Internet computer information network, meeting the readers information needs in electronic form, establishment of interlibrary relations, automation of literature orders, more precisely, since the library work was a collective labour, establishment or obtaining of automated systems thoroughly implementing its computerization and encompassing all the fields of library work.

From the second half of 1990s, libraries were forced to seek ways out of this difficult situation, particularly financial sources. However, at that time, the sponsors were more interested in trade and other fields of activity than in libraries. Under such circumstances, many big libraries began receiving grants from various international funds and charity organizations, which caused certain improvement of the economic state of libraries. US Agency of International Development (USAID), foreign oil companies operating in Azerbaijan, many humanitarian and non-governmental organizations began rendering financial aid to the Republican libraries [2]. At that period, the state fi-

nancial sponsoring of libraries also gradually expanded. On the 22nd of December 1998, the Azerbaijan Republic National Assembly adopted the Law on Library Work [6]. This law enabled official restoration of the status of libraries, a legal basis was established for their activity, strengthened democratization of the libraries and created opportunities for expansion of independent mutual relations between the republican libraries and the world libraries.

Already from the late 1990s - early 2000s, the first steps were taken in Azerbaijani libraries towards the application of new library-information technologies and creation of electronic catalogues in several big libraries.

Creation of Electronic Catalogues in the Years of Independence

One of the first libraries to take steps towards creation of electronic catalogue among the libraries of our republic was the Baku State University Scientific Library. In the late 1990s, Computerization of Libraries scientific research laboratory was established at the Library Studies & Information Faculty by the initiative of professor A.A.Khalafov to upgrade the activity of BSU Scientific Library [3]. Commencement of a laboratory attached to the Chair of Library Studies next to the library in 2000 stimulated the process of computerization of the library work in the country and modern information-communication technologies began to be applied more widely in the libraries across the country.

The laboratory prepared the scientific principles of establishing electronic library network for the first time in Azerbaijan and its stage by stage implementation on the basis of BSU scientific library began. As an initial result of the researches, a laboratory programmer developed the Library-1.0 Automated Library Information System (ALIS) [7]. Later, an improved version of the Library-1.0 ALIS, Library-2.0 was created. These ALISes had information base of books in Azerbaijani on the basis of approximately 20 thousand bibliographic scripts and implemented informa-

tion search on the basis of 13 search indicators and their combinations [6]. The system could work on arbitrary local computer networks with unlimited numbers of users. The system supposed major library processes, including systematization, cataloguing, automated user places of the subscription service. The system was capable of creating and using unlimited number of databases. It ensured automatic creation of various headings for quick formation of reader queries. The system had a simple, comfortable and graphic user interface with service resources ensuring accurate information entry.

Since these ALISes were the initial experience in the field of creating electronic catalogues and their bibliographic databases were based on the library image standard that was in force in 1990s, they did not meet the modern problems of libraries, including the international exchange of bibliographic information. Therefore, since 2003, MARC-Sql-1.5 that was long applied in several advanced libraries of the former CIS and later, IRBIS-64 ALIS, a product of the Russian State Public Scientific Technical Library, began to be used in the creation of the BSU electronic catalogue [3].

The M.F.Akhundov National Library of Azerbaijan also began the process of creating electronic catalogue and reforms in the field of modernization and information supply of the library at the end 1990s. From the beginning of 1997, the National Library in cooperation with the Eurasian Fund, IREX, ISAR, Institute of Open Society – Assistance Fund (IOS AF) and other international organizations and funds operating in Azerbaijan, participated in the competitions announced by them related to protection of the library funds, services rendered to readers, obtaining of the modern library equipment, took part in the international and regional conferences and seminars and employees of libraries passed various courses for improvement of professional skills.

In 1998, the library won a project titled Connection of the Azerbaijan State Library to the Interna-

tional Internet Network and in 2000, an Internet-hall was presented to the readers by the financial aid of the Eurasian Fund and sponsored by the USAID as part of the project [5].

At that time, the National Library together with its partners was engaged in the study and research of automated library information management systems and opted for a system compliant with the world standards and capable of working at international level - VIRTUA system of the VTLIS Inc. (USA). Following the selection of the automated management system, in June 2002, the library appeals to 3 organizations – Eurasian Fund, IOS AF and the Training Centre of Information and Library Employees attached to the USA Embassy in Azerbaijan with a project titled Creation of the Machine-Readable Electronic Catalogue. After the discussions, all three organizations agreed to implementation of this project in the National Library in conditions of joint cooperation [2]. Thus, grant agreements were signed in October 2002 and project-related activities were launched.

The library cadres having passed professional training as part of the project began creating a base of bibliographic scripts of the current books purchased in Azerbaijani language in the MARC 21 format in the VIRTUA automated library information management system, i.e., their electronic catalogue [1]. In addition to implementing the project of establishing electronic catalogue, in December of 2002, the National Library and the IOS AF signed a grant agreement as part of the Gutenberg network of projects for the purpose of establishing and maintaining electronic library of Azerbaijani literature. Since 2006, the databases, electronic catalogue and full-text electronic resources of the National Library were presented to the readers.

Discussions

The main objective of considering the creation of electronic catalogues in Azerbaijan represented by two libraries (National Library and BSU Scientific Li-

brary) is that in Azerbaijan, libraries use mainly the following software: IRBIS produced by Russia and VIRTUA software produced by the USA for creation of electronic catalogue and electronic resources. The Central Scientific Library of the Azerbaijan National Academy of Sciences, Presidential Library, state higher education libraries, majority of the public libraries and centralized library systems in the republic use the IRBIS ALIS, only the National Library uses the VIRTUA ALIS and some libraries use the Follet and Millenium ALISes. IRBIS allows creation of electronic catalogue database on the basis of the RUSMARC format, while VIRTUA enables both the creation of the electronic catalogue database based on the MARC 21 format along with the automation of other traditional library processes (packing, book release, reader registration, etc.).

It should be noted that the former Soviet library work greatly differs from that of the USA and Western Europe. The ALISes prepared in the Western countries are quite expensive and their application and adaptation to the library work in Azerbaijan, as well as CIS countries with consideration of the existing differences requires great expenses and labour. On the other hand, their exploitation demands availability of high technical equipment and trained cadres. Nevertheless, the exploitation of applications prepared in CIS countries is tens of times cheaper, even though they lag slightly behind the Western standards. Therefore, in the transition period, our libraries preferred using the software developed in CIS countries, i.e., most libraries opted to use the IRBIS ALIS [6].

The diversity of machine-readable formats and ALISes in the creation of electronic catalogues in the libraries necessitated establishment of the national combined electronic catalogue and national ALIS in Azerbaijan since 2010, combining various library systems operating sparsely in a common structure and using a common centralized library portal of all the controlled libraries. Therefore, by the order of Azerbaijan Republic Ministry of Culture and Tour-

ism, *Ultra Technologies* company developed the ALISA (Automated Library System of Azerbaijan) centralized electronic library information system uniting Azerbaijani libraries in a common place. The main purpose in the development of the system is to establish a modern centralized common library system automating and simplifying the library processes and relationships with readers and making the integration with other world library systems possible by application of the latest technologies. The ALISA system is a web-based system developed by application of the latest technologies. Built on the basis of MARC 21, ISO2709, UNICODE, Z 39.50 and other standards and protocols, the system reflects all the functionalities for full automation of any national, public, private, university and school library processes.

Despite the fact that as part of the ALISA pilot project, the centralized system has already begun to be applied in three district central libraries of Baku - Khatai Centralized Library System (CLS), Narimanov CLS and Sabail CLS, they are not applied at the republican level yet. In addition, the National Library-Information Centre - AZLIBNET was established by the support and patronage of the Azerbaijan Republic Ministry of Culture and Tourism attached to the J. Jabbarli Youth Library in order to implement the joint cataloguing of Azerbaijani libraries and create the national combined electronic catalogue system of libraries. The main objective of AZLIBNET is to achieve management of big republican libraries controlled by the Ministry of Culture and Tourism, as well as the electronic resources of city (district) CLSs from a common centre, ensuring their safety, introducing electronic resources to the users in a continuous and operative manner, elimination of additional time, resource loss, as well as errors and repetitions in the preparation bibliographic scripts during cataloguing.

Problems

The problems of creating electronic catalogue and electronic resources in Azerbaijani libraries may be

characterized in the following directions:

1. Cadres and technical supply for computerizations of the traditional technological processes - cataloguing, packing, subscriber, etc.;
2. Creation of a format readable by national device - AZMARC;
3. Creation and republic-wide application of electronic catalogues via the electronic catalogue of the National Automated Library Information System;
4. Organization of electronic document exchange and dispatch service;
5. Creation of electronic libraries;
6. Establishment of corporate library-information networks;
7. Ensuring the information safety in the common library information system (fight against unauthorized use, virus, etc.);
8. Problems related to several linguistic, thesaurus, headings, alphabet coding, etc. [3].

Solutions of Problems

For successful implementation of electronic catalogues and electronic libraries in Azerbaijani libraries with application of information-communication technologies, firstly the world practice must be analysed, then the level of usage of that experience in Azerbaijani libraries must be identified, the current situation must be considered and the solution of problems in the following directions must be achieved:

- All the technological processes in the libraries must be computerized, integrated automated management systems of technological processes must be established and national automated library information system must be applied for computerization of the libraries;
- Language, software and technical compatibility must be provided in the information exchange between the existing automated library information systems;
- Corporate library-information networks must be created for establishment of common information environment;

- Azerbaijani libraries must be provided with electronic obligatory copies based on the world experience;
- In Azerbaijan, there is a need for integrating the library information activity to the international information infrastructure and developing a base of national normative technical documents for its reorganization on international level (for ex., standards, formats, thesauruses, etc.);
- Prestigious records base must be created for improvement of the quality of meeting the library information demands in Azerbaijan;
- Electronic document dispatch service applied in most world libraries and considered as on-line paid service must be organized;
- Reliable information safety of the republican library information resources must be ensured;
- Electronic publication fund related to the cul-

ture, history, individual science fields of Azerbaijan must be established [3].

Conclusion

We can say with certainty that if all of these problems are resolved, opportunities will emerge in our republic for application of effective methods in the process of library work electronization, integration of Azerbaijani libraries to the international information space, availability of electronic catalogues will expand, the level of effective information service rendered to readers will increase, interlibrary intellectual information exchange and scientific communication opportunities will grow, electronization and management of national book funds will become easier and it will be possible to meet the readers demand for information via modern technologies.

ბიბლიოთეკათმცოდნეობა

ელექტრონული კატალოგისა და რესურსების შექმნა აზერბაიჯანის ბიბლიოთეკებში

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* ბაქოს სახელმწიფო უნივერსიტეტი, ბიბლიოთეკათმცოდნეობისა და ინფორმაციის ფაკულტეტი

(წარმოდგენილია აკადემიის წევრის გ. ლორთქიფანიძის მიერ)

სტატიაში აღწერილია სოციალურ-პოლიტიკური და ეკონომიკური ფაქტორების გავლენა საბიბლიოთეკო სამუშაოს კომპიუტერიზაციაზე, კერძოდ აზერბაიჯანის საბიბლიოთეკო-საინფორმაციო სისტემაზე მთიანი ყარაბაღის კონფლიქტის შედეგად მიყენებული ზიანი. ეს ეხება ორი ფუნდამენტური - ბაქოს სახელმწიფო უნივერსიტეტის ს ამეცნიერო და მ. ახუნდოვის სახელობის აზერბაიჯანის ნაციონალურ ბიბლიოთეკებში ელექტრონული კატალოგებისა და ელექტრონული რესურსების გამოცემების შექმნას.

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