



## Library information system and graduates

Vladimir Radovanović<sup>1</sup>, Bojana Marinčić<sup>2</sup> and Dragoslava Rodaljević<sup>2</sup>

<sup>1</sup> Faculty of Technical Sciences Čačak, University of Kragujevac, Serbia

<sup>2</sup> The Public Library of Uzice, Uzice, Serbia

e-mail [bokyue@gmail.com](mailto:bokyue@gmail.com)

**Abstract:** *The role of libraries in modern society is changing and gets greater role in supplying information resources, because users will be informed and equipped to perform bibliographic research outside the library. "They will look for information that is immediately accessible to internet, consult their favorite sites and access the library catalogs which are available on the network." [1] By raising the level of media and information literacy of secondary school pupils it will make their professional development easier. At the same time we will set the foundation for the development of knowledge society. Modern scientific achievements in our country as well as in the world are easily accessible to young people due to the use of library information system and new resources within the Virtual Library of Serbia. This is especially interesting for graduates who wish to continue their formal education. Since this is an area that is constantly changing and supplementing a continuous systemic education students is needed.*

**Keywords:** *secondary school pupils, media and information literacy, library and information system, Virtual Library of Serbia, graduates.*

### 1. INTRODUCTIONS

According to the principle of the librarianship and information field: "Libraries are at the heart of development of information society because they are essentially important for informing the citizens, for their improvement and individual development. They are necessary for the development of education, science and culture. They are initiator of overall progress of free democratic civil society. [2] Library information system of Serbia aims to successfully implement this principle in practice in order to make knowledge accessible to everyone. For that purpose, a series of services aimed to all categories of the population are developed, with special attention to the needs of the education system. Virtual Library of Serbia and the most important electronic sources and databases that occur within it will be presented in the work as well as availability of scientific information from the world through Kobson service with special emphasis on expertise of graduates in the mentioned sources. Since today's secondary school pupils are to be leaders of society development, it is important to train them for life-long learning. Libraries, as the gate of knowledge, are the main pillar in the process, as these perform the dissemination of reliable information. To make the process complete it is necessary to work on the development of media and information literacy of children. This allows them to develop a critical thinking in order to reach reliable information.

According to IFLA (International Federation of Library Associations), Internet manifesto, in addition to providing resources for customers the libraries need to teach how to use them the most effectively. "Besides many valuable information sources available on the Internet, there are those that are untrue, unpleasant, offensive, which can lead to misconceptions. Libraries must actively promote and facilitate responsible access to quality information networks for all their users, including children and young people." [3] In their daily work public libraries notice that library information systems are not known to most pupils and growing need for their use is in period of the graduation papers. It is when graduates begin to recognize the importance of virtual, library catalogs and other databases that can be accessed from the library and from home. The need to find reliable information increases during period of the continued education at institutions of higher education and further work. All public libraries conduct daily individual user training, with special emphasis on the training of graduates, the search of electronic resources and databases. In addition to the individual trainings, librarians continually are devising a variety of activities (projects, workshops, seminars,) which are intended to graduates, whether they are target group or indirectly through teachers and school librarians who will implement the knowledge acquired in the teaching process and extracurricular activities. In order to meet the mentioned needs the National Library of Uzice realized the project "Find and use information", co-financed by the Ministry of Culture and Information of the Republic of Serbia in 2014. One of the target groups were graduates of secondary schools to whom Library Information system of Serbia was presented with special emphasis on virtual library.

## 2. INFORMATION NEEDS OF GRADUATES

Librarianship in our country is not recognized as an essential factor in the development of society, but it is developed at an accelerated pace in this period. Metadata, collections of digital documents, electronic services are to follow and present our scientific community. The rapid development and great variability of media distribute scientific knowledge, making new demands of information literacy. Search in databases that have several million records becomes meaningless if we get a large number of hits. The skills are needed for forming a complex search expressions and for use of Boolean operators which should be certainly covered in teaching of informatics in secondary schools.[4] Secondary education should enable children to develop the necessary skills and knowledge to successfully function in the information society, speaking on globally. It was believed that scientific information is outdated by an average of 10 years, but today, some of technologies are obsolete for 5 years. Economic environment of the modern global world is in a constant process of change and therefore for successful functioning in such environment the most important is ability of continuous professional training and system support for lifelong learning.

We have already stated that the current high school pupils will be bearers of the knowledge society, and as such represent the target group in education for the use of library information system. It is believed that generation born after 1993 is *Internet generations* and that is more natural to them to type on keyboard with screen in front of them then to write in notebooks and look at the paper. It is generation that wants to be permanently connected to internet, to get answers quickly and as short as possible, that believes more peers than authorities such as parents, teachers, and librarians. We can say it is generation of social networks. This is confirmed by data of the Republic Institute for Statistics of

Serbia for 2015 which show that 65.3 % of people use the Internet, and young people aged 16-24 years to 99%. [5] The question is how much people use the internet for gaining knowledge and which resources they find on the Internet for this purpose. In fact, if they are media and information literate enough to recognize the need for information, to find reliable information to meet those needs, critically evaluate (valorize) and present them in an ethical and satisfactory manner. These four elements are the essence of definition of media and information literacy. [6]

Our education system recognizes the need for development of media and information literacy among school pupils and strives to incorporate all school subjects as given objectives to be achieved in this process. According to the law, among other objectives it is stated that the goals of education are “ development capability of finding, analyzing, implementing and communicating the information , through skillful and effective use of media and information and communication technologies ; training for problem solving, integration and application of knowledge and skills in further education and everyday life.” [7] The achievement of the mentioned goals is more effective with the adoption of necessary knowledge of information systems in our country and in the world. Library and information system in the developed societies of knowledge has a central place in the development of media and information literacy. It is generally accepted that the libraries-public, university, school and special, are indispensable factor for successful lifelong learning and professional development. Is it so, do graduates have the right skills to help them acquire necessary skills for successful professional development or to continue formal education? Today we talk about the information universe. Information sources are more readily available and information is multiplied at various levels. It is real ability to cope in such an environment and efficiently find reliable information. In accordance with mentioned requirements, National Library of Uzice pays a great attention to the development of media and information literacy in local community. In order to enrich the knowledge of secondary school graduates in this field, it designed the project “Find and use information” approved by the Ministry of Culture and Information in 2014. Library Information system of Serbia is promoted through a series of presentations.

Teaching staff is presented information to improve acquired knowledge about relevant library information resources and their implementation in design of strategy for development of media and information literacy in the teaching process. The experience is exposed, gained in the UNESCO/IFAP, IFLA e-workshop “ Information and media literacy-educating the educators”. [8] The presentations were aimed at pupils containing information about databases: COBISS/OPA, SCIndeks, Doi Serbia, KOBSON, digital library collections, ASK (Anthology of Serbian Literature), Europeana, Coursera, edX, Udacity and others.

### **3. VIRTUAL LIBRARY OF SERBIA AND ITS SERVICES IN SUPPORT OF KNOWLEDGE SOCIETY**

Following the development of information technology, since 2000 the National Library of Serbia has started the development of the Virtual Library of Serbia (VLS). Central VLS project is Mutual cataloging where today are more than 170 public, special, high school and university libraries. Thus COBIB.RS database arose that can be accessed through network COBISS/OPAC. COBISS/OPAC is available, searchable and free from any browser to all internet users. Currently, there is no an application for android devices in Serbian language

that can be especially installed.

On the development of mutual cataloging system in our country it has been worked intensively since the eighties. In 1987 the National Library of former Yugoslav Republics adopted a mutual cataloging system as a common ground for the library information system and system of the scientific and technological information of Yugoslavia. Institute of Information Science (IZUM) from Maribor was determined as holder of the development of organizational solutions and software. After the disintegration of Yugoslavia in 1991, the libraries continued to work in their already formed bases. Connecting in unified mutual cataloging system in our country began in 2003. Cataloging in COBISS (Co-operative Online Bibliographic System and SERVICE) develops in the COMARC/B for the basic bibliographic description and COMARC/H for state fund that are consistent with the IFLA's UNIMARC (Universal MARC format- Universal machine readable format) bibliographic format for data exchange. Record can be exported in the structure of ISO 2709 (MARC21, COMARC) or XML (Dublin Core, MODS, MARC21, COMARC).

The application of these standards enables the exchange of data between the bases, although they are based on many different MARC (machine-readable format) formats and are created in different applications. COMARC/B is adjusted to our national cataloging rules and standards for cataloging library materials (ISBD) and so allows the exchange of data with catalogs of national libraries in the world. It is possible to download the bibliographic records from WorldCat and ISSN- base (International Database serial publications) in Paris through OCLC (Ohio College Library Center- Online Computer Library Center) server Z39.50. Records can be downloaded on the bases of contract signed between National library of Serbia and OCLC. [9]

The first databases were established primarily to meet the needs of researchers. The basic step in the research is data about literature from which reliable data will be used for the work. In addition to knowledge of relevant printed sources, the researchers should be trained to search various databases, but certainly the research should begin by search of shared catalogs and other electronic resources offered by Library system of Serbia. Virtual library of Serbia is consisted of more connected bases and services:

- **COBISS/OPAC** – mutual bibliographic catalog database was formed in 2003 from catalog of the Matrica Srpska Library, National Library of Serbia and University Library “Svetozar Markovic” in Belgrade. When establishing it had around 1.300.000 records. Today, 175 libraries participate in shared cataloging and catalog contains 2.946.583 entries with a tendency of constant growth.

Besides the shared cataloging system in parallel the other bibliographic services are formed in order to improve education system and facilitate flow of information. The bibliographic description of part in shared catalog contains links to full text if available in the Internet.

- **SCIndeks (Serbian Citation Index)** - it is the first introduced national index in Europe and first introduced public base in the world that represents a full hybrid database of full text and citation index. To date it refers 67911 articles of which 31059 are available in full text. This base includes the domestic professional journals published from 2000 onwards.
- **Doi Serbia** – Doi is a unique alphanumeric string assigned to a single digital object (article, book chapter, etc.), the establishment of permanent links to Internet sites where

original document is located. Data connectivity about article, DOI number and Web address is done via CrossRef ([www.crossref.org](http://www.crossref.org)) service [10].

- **E-CRIS** - Research information system activities. The University Library “Svetozar Markovic” in Belgrade is in charge for the work of this base in Serbia. Records are kept in this base about research centers and researchers, projects in which they participate. Also, code of researchers is assigned here. When bibliographic processing the work of an author in mutual catalog COBISS the researcher code is entered on what bases it is possible to write their bibliographies from the site of base E-CRIS. SR. Also, through this base it is possible to create the bibliographies of institutions.
- **KoBSON** - Serbian Library Consortium for coordinated acquisition is a new form of organizing the libraries of Serbia in order to provide foreign scientific information. The acquisition is completely determined by the needs of research institutions in the country and it is funded by the Ministry in charge for science. In 2016 over 35.000 titles of foreign scientific journals in full text are available, close to 160.000 book titles as well as several indexing databases. Institutions such as universities, institutes and main libraries that have academic network have access to these data via their computers. If a researcher in Serbia wants to join this service from home computer it is necessary to receive password and access code from Centre for Scientific Information at the National Library of Serbia with signing the contract on use.
- **Digital collections** - are digitized print publications that have to be protected from further deterioration or are part of the national cultural heritage. In recent years, most public libraries create their own digital collections. The largest collection of digital documents is in possession of the National Library of Serbia, which is available at <http://www.digitalna.nb.rs/>. The Serbian bibliography of books from 1868-1944 is set in this collection as well as ten volumes of the printed catalog of the National Library of Serbia 1868-1972 which is searchable on website.

In addition of the mentioned bases the two bases are in preparation and in the future will be available to users of the system, they are:

- **CONOR** – normative base of the authors from which data on authorship will be downloaded in order to balance the entry of author in the cooperative catalog. This base is important because of records of accepted forms of author names and entry of variant forms in order to get all records on the author works by searching any variant form. Cataloguers from institutions founders of corporate catalog are privileged to fill this base.
- **CORES** – database of serial publications that are to be filled at the request of author or editor, in order to find data from E-CRS base when author was managing editor and editorial board member in a professional and scientific journal since these activities are scored in acquiring professional and scientific titles.

After the nineties and disintegration of Yugoslavia, it was ending of the Yugoslav Bibliographical Institute that issued the printed bibliography of monographs and bibliographies of articles of current issues. Current bibliography in Serbia was taken over by Bibliographical Department of the National Library of Serbia. From creation of VLS until 2005 the bibliography of monographs, serial publications, non book materials and analytic bibliographies are published in print and electronic form. Since 2005, all kinds of current bibliographies are printed only electronically and are available on the website of the National Library of Serbia. With the introduction of the given database graduates are

directed to the way of collection of bibliographic data required for graduation papers and research papers in further education and work.

#### 4. HOW DO THE MOST SUCCESSFUL UZICE GRADUATES USE INFORMATION FROM INTERNET AND SEARCH THE ELECTRONIC LIBRARY CATALOGS

While working on education of graduates as part of this project, the graduates of Uzice secondary schools were interviewed on the use of library and information resources. There were 757 respondents, a sample was separated from the 306 excellent students, because it is assumed that they will continue their education, therefore a need to search reliable database will be necessary. Results show that computer literacy is far beyond information literacy of graduates. Most of them never search the electronic library catalogs and not even the shared catalog, the most significant asset in the library and the education system in our country. The largest number of graduates sometimes uses information from the Internet while learning, and in a free conversation it is concluded that these data are mostly downloaded from Wikipedia, without checking the reliability of the offered texts content.

*Table 1. Results of the survey on the use of information from the internet and search electronic library catalog with the excellent final year pupils of secondary schools in Uzice*

Question:	Answers:		
	always	sometime	never
Do you use data from internet in everyday learning?	56 (18,30%)	231 (75,49%)	19 (6,21%)
Do you get desired results when you search the Internet?	104 (33,97%)	194 (63,39%)	8 (2,64%)
Do you download content from the internet when making homework?	38 (12,42%)	159 (51,96%)	109 (35,62%)
Do you search library catalogs on the internet?	17 (5,56%)	101(33,00%)	188(61,44%)

Knowledge of relevant information is a key element of acquiring knowledge and they are just stored in the library resources, it is evident that these sources are unknown to a large number of graduates. "Graduates in their libraries can still expect some help with literature needed for graduation papers, but freshmen are from the perspective of academic libraries quite unrecognizable and unmet category, drowned in the student user population and treated in the same way as final-year students." [11] By not knowing how to search library and information resources the freshmen are placed in a very difficult situation. So that many of them are forced to look for help with the search of reliable database in public libraries. Librarians then conduct an individual's training of user.

## 5. CONCLUSION

Library and information system of Serbia strives to ensure adequate support for lifelong learning to all categories of the population and recognizes the specific information needs of secondary school graduates considering that that is a generation that continues further education. During secondary education, it is necessary to master certain skills and achieve a satisfactory level of media and information literacy in order to be trained for lifelong learning and successful functioning in modern society. I should be aware of the rapid social, economic and technological changes, and that it is necessary to enable the young generation to follow the development and quality of innovation. The theme of media and information literacy cannot be adequately treated through project activities and needs a systemic solution. Without a specific concretization through the contents of the curriculum the significant progress in practice cannot be achieved. It should consider the idea that, through computer teaching in the form of specific themes or subject from primary to secondary schools, the structure of library information system in Serbia and the world is discussed. In designing the program, it would be necessary to consult eminent experts in this field. The educational and library and information system should continue strong interconnectedness and provide adequate support to the processes that relate to their interaction.

## REFERENCES:

- [1] Miler, Ž., Miler, Ž. (2005.), *Library Management : management of staff*. Belgrade: Clio.
- [2] *The Law on Library and Information field* : Official paper of RS no. 52/11
- [3] *IFLA – Internet manifest*, available at <http://www.ifla.org/files/assets/faife/publications/policy-documents/internet-manifesto-sr.pdf> (28.03.2016.)
- [4] Kosanović, B.(2005). *Fundamentals of Library Informatics*, <http://kobson.nb.rs/upload/documents/oNamaPredavanja/PR2005OsnovibiblioteckeInformatike.pdf>(30.03.2016.)
- [5] *Use of information and communication technologies in the Republic of Serbia* (2015). Electronic Library of Republic institute for statistics of Serbia <http://webrzs.stat.gov.rs/WebSite/Public/PageView.aspx?pKey=452> (28.03.2016.)
- [6] Jurić S. (2012). *Information literacy and birth of digital culture* <https://casopisbibliotekar.wordpress.com/2012/08/09/информациона-писменост-и-рађање-диги/> (28.03.2016.)
- [7] *The Law on the bases of educational system*: Official gazette RS no Sl. Glasnik RS“ no, 72/2009, 52/2011 and 55/2013, article 4 paragraph 4 and 5.
- [8] Boekhorst A. K.(2013). „*Information and media literacy in the curriculum: to facilitate, to seduce, to commit*“. Presentation in the framework of the UNESCO/IFAP, IFLA workshops, Uzice, Serbia.
- [9] *COBISS / Cataloging : shared cataloging* (2000). Institute of Information Science. Maribor : IZUM.
- [10] *Doi Serbia* - <http://www.doiserbia.nb.rs/img/DOI2010.pdf> (30.03.2016.)
- [11] Jeremić, V., Vasiljević, N. (2011). *Neither secondary school pupils nor students, special category of library users*: Bibliotekar, 53 (1-2), 135-148.