LINGUA MONTENEGRINA, god. XVII/1, br. 33, Cetinje, 2024.

Fakultet za crnogorski jezik i književnost

Pregledni rad UDK 371.385.1:02

Jasmina JURAK-PLANTAK

University North jasmina.jurak-plantak@unin.hr

Ivana PERKUŠIĆ

Faculty of Humanities and Social Sciences in Osijek istanic@ffos.hr

Ana GLOBOČNIK ŽUNAC

University North ana.globocnik.zunac@unin.hr

THE IMPORTANCE OF HIGHER EDUCATION ICT LIBRARIES DUE TO A CRISIS

The crisis situation caused by the COVID-19 pandemic has globally affected all spheres of activity, thus imposing online communication as the primary form of communication. This is supported by the digitization process itself, which experienced a kind of expansion in the 21st century, becoming important in the system management process, including higher education level libraries.

The fundamental contribution to the organizational structure in the process of digitization of higher education libraries is made by electronic materials. In addition, the creation of new platforms on the websites of higher education libraries achieves better communication with users and provides greater availability of information. This approach requires users who are information literate that, based on the availability of a large amount of information in the information search process, will know how to manage information in the digital space.

The purpose of the paper is to show the importance of information literacy of users of higher education libraries based on the services and activities they provide on their websites. The basic thesis presented in this paper is that the digitization of the system of higher education libraries ensures a faster flow of information between users and librarians and prevents delays in obtaining the necessary information from users to service providers in higher education libraries.

Keywords: information literacy, information management, higher education libraries, communication

1. INTRODUCTION

Higher education libraries play an important role for their users. In addition to supporting the teaching and research processes, they are an active partner in learning and knowledge creation, and are also the most important institution in the construction of university and national information infrastructure (Regulation on the Main Activities of Libraries in the Republic of Croatia, Official Gazette, 43/01). According to Tadić (1994), higher education libraries collect, process, store and make available documents and information of scientific, educational and general cultural significance, primarily to members of universities and other scientific and teaching units. They are an integral part of the scientific-teaching infrastructure because they contribute to the development of science with their collections, departments and services and help promote educational and scientific research work at faculties and universities. In today's time of rapid growth and development of ICT, the digitization of higher education libraries takes on a new dimension. It is reflected in the faster availability of materials and more expedient visibility of not only collections, but also departments and services. In this context, we can say that they fully enable faster support for the entire system of science and the academic community as a whole.

The management system of higher education libraries in the Republic of Croatia is under the authority of the registry offices that operate on the basis of geographical features. There are several registry offices that manage the library system, while the largest registry office operates within the National and University Libraries and covers the largest university, the University of Zagreb. The document that regulates and determines the operation of higher education libraries in the Republic of Croatia is the Standard for Higher Education, University and Scientific Libraries (Official Gazette 81/22).

According to the Standard for Higher Education, University and Scientific Libraries with their services intended mainly for students, teachers and professional associates at the university, but also for other members of the wider social community engaged in scientific and professional work, are an unavoidable factor of modern established and organized educational and scientific system, and therefore it is of vital importance that they continuously incorporate modern achievements of library activity and science into their organization. (Vrana and Kovačević, 2010). Furthermore, according to the Standard for Higher Education Libraries (1990), they represent institutions

that collect, process, store and make available documents and information of a scientific, educational and general cultural character. According to the Statistical Data System, a total of 102 higher education, university and scientific libraries operated in the territory of the Republic of Croatia in 2022, of which 91 were higher education libraries, 9 of which were university libraries and 2 were scientific libraries (data available at: http://maticna.nsk.hr/wpcontent/uploads/2023/05/Podaci_sveuc_vsk_znan_2022_10052023.xlsr, downloaded in December 2023), which confirms that higher education libraries are an indispensable segment that contributes to development and work in the scientific and educational system.

The twenty-first century faced universities with an increased number of students, interdisciplinarity in the teaching process, increased exchange of students, cooperation of scientists on international projects, and cooperation based on the exchange of experience and knowledge with related faculties in the world and in Croatia. All of the above contributed to the digitization process of higher education libraries due to the development of information and communication technologies.

The aim of the paper is to point out the importance of digitization through the analysis of the websites of higher education libraries in order to ensure the highest quality and fastest flow of information to their users, primarily students and scientific and teaching staff. Through the access to the published works of previous research and by applying the compilation method, the significant role of the staff of higher education libraries for the functioning of higher education libraries in the process of constant and rapid development of digitization, i.e. computerization of the system of higher education libraries, is evident. Therefore, the research will focus on reviewing the state of 20 higher education libraries in the Republic of Croatia. The paper answers how digitization has contributed to end users in the context of faster finding of necessary sources, exchange of information and education itself through educational workshops that are conducted in higher education libraries with an emphasis on the COVID-19 pandemic period. The main research question that will be answered by research in the paper is whether the digitization of higher education library systems affects the faster availability of information between users and employees. The second research question that will be answered in this paper is whether the information literacy of users of higher education libraries contributes to effective information management. With the goal of a more comprehensive approach, this research, using the synthesis method, aimed to integrate the existing theoretical and empirical knowledge of the information literacy of users of higher education libraries. On the basis of the conducted research and the discovery of new knowledge in the research that will be presented in this paper, an attempt will be made to present the knowledge that has been obtained in order to point out the importance of digitalization of higher education libraries due to crisis situations such as the COVID-19 pandemic, when a number of restrictions were imposed, including closure of institutions and leaving online communication as the sole method of communication. The basic thesis presented in this paper is that the digitization of the system of higher education libraries ensures a faster flow of information between users and librarians. This is precisely why the paper indicates that the user's information literacy is an indispensable segment that can enable a faster exchange and flow of information in the digitization process.¹

2. THE IMPORTANCE OF INFORMATION AND COMMUNICATION TECHNOLOGIES FOR HIGH EDUCATION LIBRARIES IN A CRISIS

During the COVID-19 pandemic, society found itself in a situation that required rapid action in all systems. Higher education libraries, as a part of higher education system that represent a link between users and faculties, played their role since they enable the availability of relevant information indispensable for the successful implementation of the obligations and activities of students and teachers at universities. The crisis caused by the COVID-19 pandemic has led to the occasional closure of institutions, the isolation of higher education library users and employees, continuous changes in how institutions operated due to measures related to limiting socialization. Therefore, during such circumstances, the importance and application of information and communication technologies was particularly emphasized because they fully enabled smooth communication between users and service providers of university libraries. Operational functionality and efficiency is manifested primarily due to the very process of digitalization of the university library, and in this way it became possible to support distance learning and education through modern communication models (e-mail, chat, mobile phones etc.), various groups created on social networks or systems for electronic learning, own online catalogues, digital collections of books, bibliographies, electronic magazines, newsletters, repositories with evaluation papers and multimedia material needed for teaching and learning, electronic book readers, but also online interlibrary loans (Zubac, 2012). The very importance of ICT can be seen through the guidelines for the expansion and development of library ser-

¹ This paper is based on a master's thesis titled The importance of managing information in university/higher education libraries in the Republic of Croatia by a student Jasmina Jurak Plantak under the mentorship of Ivana Stanić, defended at University North

vices for the needs of conducting higher education studies at a distance, the creation and management of digital libraries, the creation and management of institutional repository/repositories with a special emphasis on the storage of information objects, the management of a large amount of scientific data and scientific data updates, participation in the development of standards for the structure of metadata on publications, data sets and metadata exchange when creating and managing institutional repositories, and in accordance with the needs of users, providing support for the creation of data management plans (DMPs), keeping track of standards and ensuring training for their use as stated in the Standard for Higher Education, University and Scientific Libraries (Official Gazette 81/2022).

2.1. The importance of information literacy of users of higher education libraries

However, digitization itself implies information literate users. Therefore, it can be said that information literacy represents a significant segment in the system of higher education. Bawden (2008) highlights the role and importance of higher education libraries in developing and educating the information competences of their users, but also states that information literacy is related to other types of related literacy, but should be distinguished from them, especially from information technology, media literacy, network literacy, digital literacy, network or Internet literacy, "computer literacy" and "media literacy".

The concept of information literacy appeared with the progress of information and communication technology in the early 1970s, and the term was first used in 1974 by Paul Zurowski, at that time the head of the American information industry, defining information literacy as the effective use of information in the context of problem solving. (Špiranec, 2003). The importance of information literacy can also be seen in the efforts of the umbrella librarian organization IFLA, which in 2006 adopted the Guidelines on Information Literacy in Lifelong Learning. It is an interesting formulation that connects lifelong learning and information literacy, namely in today's digital age, lifelong learning is often highlighted as a leading term. Information literacy is not only linked to educational institutions and libraries operating within the system, but it is considered that information literacy is created as a project implement by different institutions. (Lau, 2006). The aforementioned synergy gives a clear direction in which this concept should go towards the end users, so as not to create a gap in today's digitization process. Rubinić and Stričević (2013) list four basic types of teaching information literacy: intracurricular, intercurricular, extracurricular and stand-alone type. Each of the mentioned approaches has certain advantages and disadvantages, and there are different points of view regarding the best approach in the integration of information literacy programs. According to Lazić-Lasić et al. (2012), information literacy can be seen as a continuous process of acquiring knowledge, skills and attitudes necessary for learning in today's information environment. Špiranec (2007) claims that searching for information in digital libraries has become an indispensable tool in most academic communities and is increasing every day as a support for e-learning. A digital library can provide teaching staff and students with an access to scientific papers and data, provide them with the ability to search for necessary information, interact with colleagues, store information and data, and resolve copyright issues. All of this ultimately contributes to the interdisciplinarity of higher education institutions, lifelong learning and the innovation of educational processes. Although information literacy needs to be developed at all levels of education, it is crucial that students who are studying to become future teachers and professors in primary and secondary schools acquire such knowledge. With these students, it is necessary not only to develop information literacy, but also to point out what information literacy is, what it means and how to develop it. In this way, they will encourage students, as future teachers, to ensure the development of information literacy in their students as well as to ensure the application of new trends in education and in schools (Nadrljanski, 2006:266). A survey of students' information literacy conducted in August 2013 at the National Library in Zagreb shows that the biggest problem for students is choosing the right search strategy, recognizing quality information, and problems in citing literature (Bračanov et al., 2014). This clearly points to the needs of information literacy of users. Lasić-Lazić et al. (2012) mention research that determines the degree of web literacy of students and shows that in this matter students are extremely impatient and impulsive and that even when they choose the right strategy, which could ultimately lead them to relevant results, they do not persist with it, but give up very quickly. It is interesting that they do not think too much about the reliability and credibility of information. All of the above indicates insufficient knowledge of information literacy at a time when information is quickly available and comprehensive. The importance of information literacy has been recognized through studies, however, due to crisis situations, this problem cannot remain at the level of knowledge. Namely, the importance of the digitization process of higher education libraries caused by crises such as the COVID-19 pandemic has also enabled online communication as the only way of communication between users and service providers of higher education libraries, and the information literacy of users as an indispensable segment in finding relevant information has achieved its full meaning through this form of communication. Qualitative research conducted by examining 20 high school libraries with an emphasis on the importance of the digitization process is present further in the paper.

3. RESEARCH ON THE IMPORTANCE OF ONLINE COMMUNICATION OF HIGH SCHOOL LIBRARIES IN THE REPUBLIC OF CROATIA DURING A CRISIS

3.1. Methodology

The time period of the research was from June 2022 to December 2023². The research studies the possibilities and services of websites of higher education libraries with the aim of showing how the Internet as a digital medium increases the flow of information and digitization in higher education libraries, especially in a crisis such as the COVID-19 pandemic when it followed closing or restricting physical access to higher education libraries. The main goal of the research part of the paper is determined within the scope of research questions. The goal of the research is to show that the Internet as a digital medium has increased the flow of information and digitization in higher education libraries, thereby promoting the importance of encouraging users' information literacy. The research, using the content analysis method, tries to point out the importance of digitization of higher education libraries in crisis situations such as the COVID-19 pandemic, when a number of restrictions were introduced. This paper answers the fundamental research question of how the digitization process of higher education library systems ensures a faster flow of information between users and librarians. The next research question that is answered is whether information literacy is an indispensable segment that enables the flow of information in the digitization process. The aforementioned research questions support the basic hypothesis that digitization of higher education library systems does not realize its potential in the availability of information between users and employees if users are not information literate. The research included a suitable sample of twenty higher education libraries from the Republic of Croatia. The suitable sample of this research consists of the websites of higher education libraries: Central Agricultural Library, Library of the Faculty of Economics in Osijek, Library of the Faculty of Croatian Studies, Library of the Faculty of Organization

This paper is based on a master's thesis written by a student Jasmina Jurak Plantak under the mentorship of Ivana Stanić, assistant professor, PhD

and Informatics, Library of the Faculty of Mechanical Engineering and Naval Architecture, Library of the Faculty of Humanities and Social Sciences of the University of Zagreb, Library of the Faculty of Graphic Arts, Library of the Catholic Faculty of Theology, Library of the Faculty of Law of the University of Zagreb, Library of the Faculty of Food Technology Osijek, Library of the Faculty of Veterinary Medicine in Zagreb, Library and Documentation Centre of the Faculty of Economics, Central Library of the Faculty of Electrical Engineering and Computing, Central Mathematical Library (Faculty of Science and Mathematics in Zagreb), Central Medical Library (Library of the Faculty of Medicine), University Library Pula, University Library Rijeka, University North Library, University Library in Zadar and University Library in Split. Using the content analysis method through qualitative research of the websites of higher education libraries, the paper tries to answer the research questions and confirm the set hypothesis. The paper uses the synthesis method, which led to new conclusions, as well as the proof method, which, through this research, tries to prove the veracity of the mentioned hypothesis. All websites of higher education libraries were analysed during June 2022 and again during December 2023 to enable the objectivity of the content review and analysis.

3.2. Results and discussion

This part of the paper presents the results of the conducted research. Table 1 shows the socio-demographic characteristics of university libraries with regard to their location and year of establishment. The oldest analysed higher education library is the Library of the Catholic Faculty of Theology, which was founded in 1874, while the University North Library is the newest analysed higher education library. Regarding the number of employees, diversity is observed in terms of the number of employees and the level of education. The Library of the University of Split has the most employees (55), and the Library of the Faculty of Graphic Arts has the fewest employees (1). What is observed in further research is that the largest number of employees has a bachelor's degree (129), indicating the representation of professional staff with completed librarian studies.

Table 1: Higher education libraries in the Republic of Croatia (year of establishment)

NO.	Library name	County	Establi- shed in
1.	Central Agricultural Library	The City of Zagreb	1947
2.	Library of the Faculty of Economics in Osijek	Osijek-Baranja	1961
3.	Library of the Faculty of Croatian Studies	The City of Zagreb	1992
4.	Library of the Faculty of Organization and Informatics	Varaždin	1962
5.	Library of the Faculty of Mechanical Engineering and Naval Architecture	The City of Zagreb	1956
6.	Library of the Faculty of Humanities and Social Sciences of the University of Zagreb	The City of Zagreb	2009
7.	Library of the Faculty of Graphic Arts	The City of Zagreb	1959
8.	Library of the Catholic Faculty of Theology	The City of Zagreb	1874
9.	Library of the Faculty of Law	The City of Zagreb	1906
10.	Library of the Faculty of Food Technology in Osijek	Osijek-Baranja	1976
11.	Library of the Faculty of Veterinary Medicine in Zagreb	The City of Zagreb	1921
12.	Library and Documentation Centre of the Faculty of Economics	The City of Zagreb	1920
13.	Central Library of the Faculty of Electrical Engineering and Computing	The City of Zagreb	1961
14.	Central Mathematical Library – Mathematics Department	The City of Zagreb	1949
15.	Central Medical Library	The City of Zagreb	1947
16.	University Library in Pula	Istra	1949
17.	University Library in Rijeka	Primorje-Gorje	1948
18.	University North Library	Koprivnica- Križevci	2014
19.	University Library	Zadar	1956
20	University Library	Split-Dalmatia	1903

Source: table drafted by the author, 2022, 2023

Table 2 provides an overview of services as well as e-materials according to the analysed higher education libraries of the Republic of Croatia, which supports the research questions posed. The analysis shows that all libraries have online catalogues, while 80% of libraries (16) have group catalogues and catalogues of other libraries, while 20% of libraries (4) do not have this online service. In addition to the online catalogues, for more effective communication with users, especially the student population, it was considered important to investigate the interlibrary loan service. The purpose of interlibrary loan of books and acquisition of magazine articles is to enable users of all profiles to access domestic and foreign information sources with as few intermediaries as possible, in the simplest way and at the lowest possible price. (Golubović and Lasić-Lazić, 2011).

Table 2. Overview of the availability of e-services, e-materials

	LIBRARY NAME	Interlibrary loan	Book e-order	Ask a librarian	Social media	E-journals	E-digital repositories	Educational programmes
1.	CENTRAL	X				X	X	X
	AGRICULTU- RAL LIBRARY							
	(ZG)							
2.	LIBRARY OF	x		x	x		x	X
	THE FACULTY							
	OF ECONOMI-							
	CS IN OSIJEK							
3.	LIBRARY OF	X		X	X	X	X	X
	THE FACULTY							
	OF CROATIAN							
	STUDIES (ZG)							
4.	LIBRARY OF	X	X		X	X	X	X
	THE FACULTY							
	OF ORGANI-							
	ZATION AND							
	INFORMATICS							
	(ZG)							

5. LIBRARY OF THE FACULTY OF MECHANICAL ENGINEERING AND NAVAL ARCHITECTURE (ZG) 6. LIBRARY OF THE FACULTY OF HUMANITIES AND SOCIAL SCIENCES IN ZAGREB 7. LIBRARY OF THE FACULTY OF GRAPHIC ARTS 8. LIBRARY OF THE CATHOLIC FACULTY OF THE CATHOLIC FACULTY OF THE FACULTY OF THE FACULTY OF THE FACULTY OF LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERINARY MEDI- **THE FACULTY OF VETERINARY MEDI- **THE FACULTY OF VETERINARY MEDI- **THE FACULTY OF VETERINARY MEDI- **THE FACULTY OF VETERINARY MEDI- **THE FACULTY OF VETERINARY MEDI- **THE FACULTY OF VETERINARY MEDI- **THE FACULTY OF VETERINARY MEDI- **THE FACULTY OF VETERINARY MEDI- **THE FACULTY OF VETERINARY MEDI- ***THE FACULTY OF VETERINARY MEDI- **THE FACULTY OF VETERINARY MEDI- **THE FACULTY OF VETERINARY MEDI- ***THE FACULTY OF VETERINARY MEDI- ****THE FACULTY OF VETERINARY MEDI- ***THE FACULTY OF VETERINARY MEDI- *			Portanee						
OF MECHANI- CAL ENGI- NEERING AND NAVAL ARCHITEC- TURE (ZG) 6. LIBRARY OF THE FAC- ULTY OF HUMANITIES AND SOCIAL SCIENCES IN ZAGREB 7. LIBRARY OF THE FACULTY OF GRAPHIC ARTS 8. LIBRARY OF THE CATHO- LIC FACULTY OF THEOL- OGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERI- NARY MEDI-	5.	LIBRARY OF	x			X	X	x	X
CAL ENGINEERING AND NAVAL ARCHITECTURE (ZG) 6. LIBRARY OF THE FAC- ULTY OF HUMANITIES AND SOCIAL SCIENCES IN ZAGREB 7. LIBRARY OF THE FACULTY OF GRAPHIC ARTS 8. LIBRARY OF THE CATHO- LIC FACULTY OF THEOL- OGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERI- NARY MEDI-		THE FACULTY							
NEERING AND NAVAL ARCHITEC- TURE (ZG) 6. LIBRARY OF THE FAC- ULTY OF HUMANITIES AND SOCIAL SCIENCES IN ZAGREB 7. LIBRARY OF THE FACULTY OF GRAPHIC ARTS 8. LIBRARY OF THE CATHO- LIC FACULTY OF THEOL- OGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERI- NARY MEDI-		OF MECHANI-							
AND NAVAL ARCHITEC- TURE (ZG) 6. LIBRARY OF THE FAC- ULTY OF HUMANITIES AND SOCIAL SCIENCES IN ZAGREB 7. LIBRARY OF THE FACULTY OF GRAPHIC ARTS 8. LIBRARY OF THE CATHO- LIC FACULTY OF THEOL- OGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERI- NARY MEDI-		CAL ENGI-							
ARCHITEC- TURE (ZG) 6. LIBRARY OF THE FAC- ULTY OF HUMANITIES AND SOCIAL SCIENCES IN ZAGREB 7. LIBRARY OF THE FACULTY OF GRAPHIC ARTS 8. LIBRARY OF THE CATHO- LIC FACULTY OF THEOL- OGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERI- NARY MEDI-		NEERING							
TURE (ZG) 6. LIBRARY OF THE FAC-ULTY OF HUMANITIES AND SOCIAL SCIENCES IN ZAGREB 7. LIBRARY OF THE FACULTY OF GRAPHIC ARTS 8. LIBRARY OF THE CATHOLIC FACULTY OF THEOLOGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERINARY MEDI-		AND NAVAL							
6. LIBRARY OF THE FACULTY OF HUMANITIES AND SOCIAL SCIENCES IN ZAGREB 7. LIBRARY OF THE FACULTY OF GRAPHIC ARTS 8. LIBRARY OF THE CATHOLIC FACULTY OF THEOLOGY (ZG) 9. LIBRARY OF THE FACULTY OF LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERINARY MEDI-		ARCHITEC-							
THE FAC- ULTY OF HUMANITIES AND SOCIAL SCIENCES IN ZAGREB 7. LIBRARY OF THE FACULTY OF GRAPHIC ARTS 8. LIBRARY OF THE CATHO- LIC FACULTY OF THEOL- OGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERI- NARY MEDI-		TURE (ZG)							
ULTY OF HUMANITIES AND SOCIAL SCIENCES IN ZAGREB 7. LIBRARY OF THE FACULTY OF GRAPHIC ARTS 8. LIBRARY OF THE CATHO- LIC FACULTY OF THEOL- OGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERI- NARY MEDI-	6.	LIBRARY OF	X		X	X	X	X	X
HUMANITIES AND SOCIAL SCIENCES IN ZAGREB 7. LIBRARY OF THE FACULTY OF GRAPHIC ARTS 8. LIBRARY OF THE CATHO- LIC FACULTY OF THEOL- OGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERI- NARY MEDI-		THE FAC-							
AND SOCIAL SCIENCES IN ZAGREB 7. LIBRARY OF THE FACULTY OF GRAPHIC ARTS 8. LIBRARY OF THE CATHOLIC FACULTY OF THEOLOGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERINARY MEDI-		ULTY OF							
SCIENCES IN ZAGREB 7. LIBRARY OF THE FACULTY OF GRAPHIC ARTS 8. LIBRARY OF THE CATHOLIC FACULTY OF THEOLOGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERINARY MEDI-		HUMANITIES							
ZAGREB 7. LIBRARY OF THE FACULTY OF GRAPHIC ARTS 8. LIBRARY OF THE CATHOLIC FACULTY OF THEOLOGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERINARY MEDI-		AND SOCIAL							
7. LIBRARY OF THE FACULTY OF GRAPHIC ARTS 8. LIBRARY OF THE CATHOLIC FACULTY OF THEOLOGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERINARY MEDI-		SCIENCES IN							
THE FACULTY OF GRAPHIC ARTS 8. LIBRARY OF THE CATHOLIC FACULTY OF THEOLOGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERINARY MEDI-		ZAGREB							
OF GRAPHIC ARTS 8. LIBRARY OF THE CATHOLIC FACULTY OF THEOLOGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERINARY MEDI-	7.	LIBRARY OF	X				X		X
8. LIBRARY OF THE CATHOLIC FACULTY OF THEOLOGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERINARY MEDI-		THE FACULTY							
8. LIBRARY OF THE CATHOLIC FACULTY OF THEOLOGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERINARY MEDI-		OF GRAPHIC							
THE CATHOLIC FACULTY OF THEOLOGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERI- NARY MEDI-		ARTS							
LIC FACULTY OF THEOL- OGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERI- NARY MEDI-	8.	LIBRARY OF	X	X			X	X	X
OF THEOLOGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERINARY MEDI-		THE CATHO-							
OGY (ZG) 9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERINARY MEDI-		LIC FACULTY							
9. LIBRARY OF THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERINARY MEDI-		OF THEOL-							
THE FACULTY OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERI- NARY MEDI-		OGY (ZG)							
OF LAW IN ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERINARY MEDI-	9.	LIBRARY OF	X						X
ZAGREB 10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERINARY MEDI-		THE FACULTY							
10. LIBRARY OF THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERINARY MEDI-		OF LAW IN							
THE FACULTY OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF x THE FACULTY OF VETERI- NARY MEDI-		ZAGREB							
OF FOOD TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERI- NARY MEDI-	10.	LIBRARY OF	X			X	x	x	X
TECHNOLOGY IN OSIJEK 11. LIBRARY OF THE FACULTY OF VETERINARY MEDI-		THE FACULTY							
IN OSIJEK 11. LIBRARY OF x THE FACULTY OF VETERI- NARY MEDI-		OF FOOD							
11. LIBRARY OF X THE FACULTY OF VETERI- NARY MEDI-									
THE FACULTY OF VETERI- NARY MEDI-		IN OSIJEK							
OF VETERI- NARY MEDI-	11.		X			X			
NARY MEDI-									
		CINE (ZG)							
12. $\left \text{LIBRARY AND } \right x \qquad \left x \qquad \right x \qquad \left x \qquad \right x \qquad \left x \qquad \right x$	12.		X	X	X	X	X	X	X
DOCUMENTA-									
TION CEN-									
TRE OF THE									
FACULTY OF									
ECONOMICS		ECONOMICS							

Jasmina JURAK-PLANTAK & Ivana PERKUŠIĆ & Ana GLOBOČNIK ŽUNAC

13.	CENTRAL	X			X	X		X
	LIBRARY OF							
	THE FACULTY							
	OF ELECTRI-							
	CAL ENGI-							
	NEERING AND							
	COMPUTING							
	(ZG)							
14.	CENTRAL	x				X	x	
	MATHEMATI-							
	CAL LIBRARY							
	– MATH-							
	EMATICS							
	DEPARTMENT							
	(FACULTY OF							
	SCIENCE IN							
	ZAGREB)							
15.	CENTRAL	X			X	X	X	X
	MEDICAL LI-							
	BRARY (ZG)							
16.	UNIVERSITY	X			X		X	X
	LIBRARY IN							
	PULA							
17.	UNIVERSITY	X	X		X	X	X	X
	LIBRARY IN							
10	RIJEKA							
18.	UNIVERSITY	X				X	X	X
	NORTH LI-							
10	BRARY (VŽ)							
19.	UNIVERSITY	X			X			X
	LIBRARY OF							
	THE UNI-							
	VERSITY OF							
20	ZADAR							
20.	UNIVERSITY	X	X	X	X			X
	LIBRARY OF							
	THE UNIVER-							
	SITY OF SPLIT							

Source: table drafted by the author

The research found that all analysed higher education libraries (20) have an interlibrary loan service, which supports the stated thesis. In addition, 25% (5) of higher education libraries provide book e-order services. The

above points to the lack of service that came to the fore in a crisis such as the COVID-19 pandemic when it was the only option left to users who wanted to borrow literature. Table 2 shows that only 25% (5) of higher education libraries offer the "Ask a librarian" service, while social networks are becoming more common in higher education libraries as well. Namely, 70% (14) of the analysed libraries have social network profiles. What is observed through further analysis is the need to develop services through social networks because communication with users is constantly developing and changing. Further analysis reveals that 70% (14) of higher education libraries offer databases of various professional and scientific journals, while 75% (15) of higher education libraries have digital repositories on their websites, which is of particular importance in terms of the availability of electronic material. All of the above supports the thesis that digitization of the system ensures a faster flow of information between users and librarians in a crisis and enables, in addition to availability, continued operations without the interruption of communication with end users.

Given that this paper aims to determine whether information literacy is an indispensable segment that enables the flow of information in the digitization process, through content analysis it is determined that 90% (18) of higher education libraries provide education for students and employed staff within the higher education system of individual colleges and universities, while only 10% (2) of higher education libraries still implement this in the form of the e-education service. The above indicates that libraries have recognized the importance of user education, which contributes to the process of users' information and IT literacy. Špiranec and Lasić-Lazić state that libraries around the world utilise user education services based on the concept of information literacy as a way of supporting general efforts to build infrastructure for lifelong learning. (Špiranec and Lasić-Lazić, 2005).

It can be confirmed that the analysis of the content of the websites of higher education libraries included in this research has confirmed the presence of digitalization in the system of higher education libraries, but the need for their further development has been established at the same time. The reason for this is the continuous development and improvement of ICT and the digitization of the library system itself. Digital libraries are involved in the support of distance learning and education through modern communication models (e-mail, chat, mobile phones etc.), various groups created on social networks or electronic learning systems, their own online catalogues, digital collections of books, bibliographies, electronic journals, newsletters, a repository with peer reviewed papers and multimedia materials needed for teaching and learning, electronic book readers, but also online interlibrary loans (Zubac, 2012).

In addition to the above, by studying the aforementioned services and the availability of e-materials, it is confirmed that the digitization of the system ensures a faster flow of information between users and librarians, as well as the service providers themselves. This research, which included twenty higher education libraries, shows that information literacy is an indispensable segment that enables the flow of information in the digitization process, i.e. that the information literacy of users of higher education libraries contributes to effective information management. The above is confirmed by an overview of the services listed on the websites, and the provision of services aimed at further education of users, which continuously provides the possibility of information literacy, is considered especially important. The presence of libraries on social networks also enables a simpler way of communication between service providers and users, which is indispensable without the application of information and IT literacy of users.

3.3. Contribution of this research

The implications of the conducted research point to the need for continuous investment and revision in website systems in order to access e-services or e-materials as simply and purposefully as possible. It is clear that despite the fact that access to higher education libraries via the Internet has been made possible, further education is needed in terms of information literacy of users, because some users still do not use e-services but use the traditional approach in searching for services or searching for materials. However, with the development of ICT, i.e. the introduction of digital or e-services, the gap between consumers of services and those requesting services is closing in terms of their availability.

3. 4. Research limitations

The limitation of the research is reflected in the convenient research sample, however, this does not reduce the relevance of the research. Despite the fact that the research sample includes twenty out of ninety higher education libraries, this convenient sample, which includes higher education libraries from all over the Republic of Croatia, determines the need to improve the system as well as its benefit in a crisis such as the COVID-19 pandemic, when online communication enabled unimpeded work between users and employees.

4. CONCLUSION

Higher education libraries represent a central place in searching and finding information needed in higher education systems and beyond. The development of ICT proved to be an extremely important contribution to the system of university libraries, primarily through the digitization process that enabled networking at all levels. The constant growth and development of ICT affects the operation and work of university libraries, and they recognize the need to provide services online, i.e. via the Internet, in order to ensure better communication with end users. Today, in a world where digital technologies are at the forefront of the communication process, the form of communication and mediation in the online environment is unavoidable. This paper establishes and confirms the basic thesis that is focused on the importance of digitization of university libraries with the aim of faster availability and flow of information in view of new trends aimed at moving away from traditional ways of searching for information. At the same time, the paper shows and confirms the importance of acquiring knowledge, i.e. competence in the field of information literacy, which enables users to obtain relevant information for the needs of further education.

This research can be a starting point for further research that will determine to what extent users use websites of higher education libraries in comparison to traditional services of university libraries after the crisis caused by the COVID-19 pandemic.

5. REFERENCES

- Standard for Higher Education, University and Scientific Libraries (Official Gazette 81/22, available at: https://narodne-novine.nn.hr/clanci/sluzbeni/2022 07 81 1182.html (accessed on 15/04/2024)
- Standard for Higher Education Libraries (1990) available at: https://www.gksb.hr/images/dokumenti/Standardi_za_visokokolske_knjinice.pdf (accessed on 10/03/2024)
- Vrana, R. & Kovačević, J. (2010). Položaj knjižnice u umreženom društvu,
 Vjesnik bibliotekara Hrvatske , Vol. 53, No. ¾, pp. 25-41
- Statistički podaci i pokazatelji uspješnosti sveučilišnih, visokoškolskih i znanstvenih knjižnica za 2022. godinu. National and University Library in Zagreb, available at: http://maticna.nsk.hr/wpcontent/uploads/2023/05/Podaci_sveuc_vsk_znan_2022_10052023.xlsx, downloaded: December 2023

- Zubac, A. & Tominac, A.(2012). "Digitalna knjižnica kao podrška sveučilišnoj nastavi i istraživačkome radu na daljinu : elektronički izvori za elektroničko učenje na hrvatskim sveučilištima." Vjesnik bibliotekara Hrvatske, Vol. 55, No. 2, pp. 65-82
- Bawden, D. & Robinson, L. (2012). Introduction to Information Science. London: Facet
- Publishing
- Lau, J. (2006). Guidelines on information literacy for lifelong learning, IFLA, Veracruz
- Špiranec, S. (2003). "Informacijska pismenost–ključ za cjeloživotno učenje", Edupoint časopis o primjeni informacijskih tehnologija u obrazovanju Vol. 3, No. 17, pp. 5-15
- Bawden, D. (2008). "Origins and concepts of digital literacy", *Digital literacies: Concepts, policies and practices*, Vol. 30, pp. 17-32
- Rubinić, D. & Stričević, I. (2013) "Informacijsko opismenjavanje studenata: potrebe i perspektive" 12. dani specijalnih i visokoškolskih knjižnica, Vol. 11, No. 14, pp. 173–186
- Lasić-Lazić, J., Špiranec, S. & Banek Zorica, M.(2012). "Izgubljeni u novim obrazovnim okruženjima pronađeni u informacijskom opismenjivanju". *Medijska istraživanja*, Vol. 18, No. 1, pp. 125-143
- Špiranec, S. (2007). Model organizacije informacija u elektroničkoj obrazovnoj okolini: doctoral thesis. Zagreb
- Nadrljanski, Đ., (2006). "Informatička pismenost i informatizacija obrazovanja"; *Informatologija*, Vol. 39, No .4, pp. 262-266., available at: https://hrcak.srce.hr/file/14157
- Bračanov, A.; V. Golubović; D. Seiter-Šverko (2014). "Istraživanje informacijske pismenosti studenata u Nacionalnoj i sveučilišnoj knjižnici u Zagrebu". Vjesnik bibliotekara Hrvatske Vol. 57, No. 4 pp. 45-64
- Golubović, V; Lasić-Lazić J. (2011). "Međuknjižnična posudba: stanje i mogućnosti". Vjesnik bibliotekara hrvatske Vol.54, No. 3, pp. 107-126
- Špiranec, S.; Lasić-Lazić J. (2005). "Obrazovna uloga knjižnica: priprema građana za Europu znanja." *Vjesnik bibliotekara Hrvatske* Vol. 48, No. 1, pp. 46-56.

Jasmina JURAK-PLANTAK & Ivana PERKUŠIĆ & Ana GLOBOČNIK ŽUNAC

VAŽNOST IKT VISOKOŠKOLSKIH BIBLIOTEKA USLIJED KRIZNE SITUACIJE

Krizna situacija uzrokovana pandemijom COVID-a 19 globalno je zahvatila sve sfere djelovanja pa na taj način nametnula primarni oblik komunikacije kroz online komunikaciju. Tome u prilog ide sam proces digitalizacije koji je svojevrsnu ekspanziju doživio u 21.vijeku nametnivši se važnim u procesu upravljanja sistemima, a samim time i sistemom visokoškolskih biblioteka.

Osnovni doprinos organizacijskoj strukturi u procesu digitalizacije visokoškolskih biblioteka čini elektronička građa. Osim toga kreiranjem novih platformi na mrežnim stranicama visokoškolskih biblioteka ostvaruje se bolja komunikacija s korisnicima, pa se pruža veća dostupnost informacija. Taj pristup zahtijeva informaciono pismene korisnike koji će na osnovu dostupnosti velike količine informacija u procesu pretraživanja informacija, znati upravljati informacijama u digitalnom prostoru.

Svrha rada je prikazati važnost informacione pismenosti korisnika visokoškolskih biblioteka na temelju usluga i aktivnosti koje pružaju na svojim mrežnim stranicama. Osnovna hipoteza koja će biti predstavljena u ovom radu je da digitalizacija sistema visokoškolskih biblioteka osigurava bržu prohodnost informacija između korisnika i bibliotekara te onemogućava zastoj u dobijanju potrebnih informacija od korisnika do pružatelja usluga u visokoškolskim bibliotekama.

Ključne riječi: informaciona pismenost, upravljanje informacijama, visokoškolske biblioteka, komunikacija