FEATURE: GLOBAL PERSPECTIVES

Meeting Users' Information Needs Online during the Russian-Ukrainian War

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abstract: This article explores users' level of satisfaction with the information in the online space of a university library during the pandemic and the russian-Ukrainian war.[1] The authors analyzed the services and activities that the library provided online and examined whether they satisfied users' information needs. Using a questionnaire, the study surveyed students and faculty members of the Kyiv National University of Culture and Arts in 2023. The study revealed that users rely on online library services for many different information needs. The authors do not rule out that their results were influenced by current conditions in Ukraine, such as intensive military operations lasting more than a year, forced relocation of students and teachers to less dangerous regions, concern for the safety of educational and informational activities during constant rocket attacks, power outages, and unstable Internet connection. This article will be useful to those interested in meeting library users' information needs during a pandemic, war, or other instability. Respondents' suggestions for service improvement, conclusions, and recommendations will help university libraries to organize their activities more effectively to maximize users' satisfaction in the online space.

Introduction

Academic libraries are important information and scientific centers of higher education in Ukraine, with library collections, resources, and services designed to meet diverse information needs. The library of the Kyiv National University of Culture and Arts (KNUCA), like other libraries of Ukraine and the world, has undergone changes since the first days of the COVID-19 quarantine. The library was forced to transfer the provision of services online, closing its physical space for students and teachers from March through June 2020.[2] At the end of 2020, the library was redesigned to create a coworking center, open classrooms for individual classes, and a hall for presentations and exhibitions. The gradual partial restoration of user services on the library premises continued throughout the 2020–2021 academic year but was interrupted on February 24, 2022, when the full-scale russian invasion of Ukraine began. Even through the shock of war, the assault on Kyiv, attacks by unmanned aerial vehicles (UAVs), and daily and nightly missile and air strikes on residential, educational, cultural, and energy

infrastructure throughout Ukraine, the library put the safety of students, scientists, and university staff first.

At the beginning of the war, the library was forced to switch to strictly remote work for the second time in two years. While as of January 2023, the active front line has been nearly halved to 1,500 kilometers, or 932 miles, the disruption of daily life continues.[3] Since the beginning of the full-scale invasion of russian troops in Ukraine, library user service has been provided primarily online. Many hours of daily power outages, unstable Internet connection, and concern for the safety of educational and information events influence the work of the university library.

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Every time an air raid alert is announced, library staff are forced to take shelter. After the alarm is over, everyone returns to their stations and resumes work. The forced resettlement of students, librarians, and teachers to less dangerous regions of the country, far from the front line, disrupted the usual course of life and led to a different set of priorities. During emergency events, such as the evacuation of the population from the flood zone when russian occupying forces blew up the dam of the Kakhovskaya hydroelectric power station on June 6, 2023, the priority was to save lives. Not everyone could take tablets or laptops with them during the evacuation, so later, they needed more time to reestablish their usual educational process or work. Life may not return to normal for a long time.

According to Francis Yeboah, Musah Adams, and Ernest Boakye, a library's ability to support teaching, learning, and research largely depends on its available resources.[4] In these difficult conditions of war and instability, the library leveraged Web 2.0 technologies, especially social media such as Instagram, Facebook, and YouTube, to promote its information resources and services and to meet users' information needs. Considering that quality services are a prerequisite for the development and retention of users, the KNUCA Library continued to provide remote services to support the university community under martial law.

Meeting users' needs and providing access to information resources, based on the remote work experience acquired during the COVID-19 quarantine, have been key to the survival of the KNUCA Library. As Efua Mansa Ayiah and Eric Tamakloe note, "User satisfaction with library resources is very cardinal as it plays a pivotal role in determining the growth of the user, the library, and the institution as a whole."[5] Satisfaction is the evaluation of a service or product by users who find that their needs and expectations have been met. Inadequacy of services, as compared with expectations, leads to loss of users. To meet educational needs, the library offered online user registration, ordering and delivery of documents, extended terms for document use, scanning and delivery of electronic document copies, virtual reference consultations, electronic exhibitions, and access to databases and catalogs of publishing houses. Online information guides, an online information literacy course, online presentations, and other digital products were developed and presented on the library website during the pandemic.

To support scientific research, the library has deepened its cooperation with faculties and departments of the university, offering online consultations, webinars, and practical support to researchers, such as:

- providing document search in the Scopus and Web of Science databases;
- working with academic social networks such as Mendeley and ResearchGate;
- creating scientific profiles in ORCID and Google Scholar;
- maintaining the websites of 14 peer-reviewed university journals;
- obtaining DOIs (digital object identifiers) for scientific journal articles;
- creating metadata for scientific articles and ensuring their placement in international databases and catalogs; and
- tracking citations and conducting bibliometric analysis of scientific publications by university scientists.

Librarians used e-mail, video conference platforms such as Google Meet and Zoom, messengers such as Viber and Telegram, and the library website and social media sites to provide services. Considering the prevailing remote user service, researching the level of satisfaction of users' information needs in the online space of the university library under war conditions is important.

Literature Review

Looking at the impact of COVID-19 on higher education and academic libraries, Konstantina Martzoukou notes that the pandemic has made online learning the "new norm" at some higher education institutions, and libraries have been given a renewed mission to help users access information online and acquire digital competencies.[6] Remote library services during the COVID-19 pandemic continue to be the topic of research by scientists around the world. Research focuses on identifying innovative library and information services, which include distance education services, virtual information offerings, and guidelines.[7] The experience of libraries within higher education institutions of Ukraine in meeting the information needs of users and creating an alternative online space for communication with students during COVID-19 is highlighted in research by Olena Skachenko, Yurii Horban, and Katerina Viriutina.[8]

A study by Guinsly Mondésir and Lisl Schoner-Saunders assessed the impact of the pandemic on Ask a Librarian virtual help services, managed by the Ontario Council of University Libraries.[9] Services were compared before, during, and at the height of the pandemic to identify trends, shortcomings, or barriers to user access to online library resources. Another article considers the provision of remote services to users of public libraries in Croatia and academic libraries in Ukraine in the first months of the pandemic. The authors emphasize that during the forced quarantine, libraries quickly adapted to remote work, activated digitization, and developed online spaces where users could interact, receive information, follow events, comment, and distribute digital content that was created or provided by libraries.[10]

Library and information services during martial law are less represented in scholarship. Remote library and information service for users by libraries of technical universities of Ukraine during quarantine and martial law was investigated by Antoniy Rzheuskyi,

Nataliya Kunanets, and Viktoriya Dobrovolska.[11] Tamara Opolska studied remote service to users at university law libraries through analysis of their requests for additional information resources.[12] Since the full-scale russian aggression, the interest of users in literature of a national or patriotic orientation and of military themes has increased.[13]

KNUCA Study

Building on previous studies, the purpose of this research is to study users' level of satisfaction for their information needs in the online space of the university library during the russian-Ukrainian war and the declared martial law in Ukraine. The two-year quarantine measures during the COVID-19 pandemic, which caused the transition to remote service, continued in 2022 with a new crisis test—full-scale military operations, the introduction of martial law, and other instability. It became necessary to find out how, and to what extent, the library's services and information resources satisfied users' information needs during the war.

- Librarians at KNUCA designed a study with the following objectives:
- to determine the purpose, frequency, and format of contacting the library;
- to investigate the sources of satisfaction of users' information needs;
- to examine the usage of electronic resources and online services of the library; and
- to identify the level of satisfaction of users' information needs in the library's online space and to outline suggestions for improving the service.

Methods and Approaches

To address the objectives, a questionnaire was developed using Google Forms. Participants could choose from several answer options. The survey was conducted among students and faculty members of the Kyiv National University of Culture and Arts from March through May 2023.

Results

A total of 298 respondents took part in the survey, namely: 270 undergraduate students (91 percent); 13 master's students (4 percent); 6 graduate students (2 percent); and 9 assistants, teachers, or researchers (3 percent). The respondents are representatives of eight faculties of the Kyiv National University of Culture and Arts: Cinema and Television; Hotel, Restaurant, and Tourist Business; Musical Art; Design and Advertising; Event Management and Show Business; Public Relations, Journalism, and Cybersecurity; Choreographic Art; and Theater, Cinema, and Variety. By gender, the respondents were distributed as follows: 247 women, or 83 percent, and 51 men, or 17 percent. Eighty-seven percent were between the ages of 18 and 21, and an additional 7 percent were between 22 and 30 years old. Fifty-five, or 18.5 percent of the respondents, reported using the services of the university's scientific library.

Answering the question "For what purpose do you go to the library?" respondents most often chose answers related to study, leisure, professional activity, and scientific work (see Table 1). It should be noted that the respondents who indicated the need

Table 1.

Purpose for contacting the library at Kyiv National University of Culture and Arts

Purpose	Respondents (N = 298)	Percentage
Getting information on a topic of interest	172	58
Leisure	113	38
Professional activity	96	32.2
Scientific research	89	30
Using the Internet	56	19
Checking for borrowings in texts	22	7.3
Consultations on working with scientific profiles and social networks: ORCID, Google Scholar, ResearchGate, Mendeley	16	5.3
Use of Scopus and Web of Science databases	13	4.3
Participation in educational activities and projects of the library	13	4.3
Assignment of universal decimal classification (UDC)	15	5
Self-development and work in the reading room		0.7

for consultations regarding work with scientific profiles and social networks, Scopus databases, Web of Science, and assignment of various indexes were generally graduate students and university teachers.

The analysis of answers to the question "In what format do you visit the library?" is shown in Table 2. As evidenced by the results, the online format of contacting the library is, at present, most popular. The traditional form of visiting the library—in person—ranks significantly lower, which can be explained by the long period of strict quarantine and the remote form of education under martial law in Ukraine. The percentage of respondents who do not visit the library in any format was significant, indicating a need for more active advertising and information work among library users.

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Table 3 shows the respondents' answers to the question "What attracts you to the university library?" The data presented in the table show that for most respondents,

Table 2.
Format of contacting the library

Format	Respondents	Percentage
Online	183	61.4
Offline	85	28.6
Combined offline and online	12	4
Do not visit the library in any format	18	6

the library is a modern information center whose activities are aimed at satisfying their needs and requests. At the same time, 26 respondents, or 9 percent, did not choose any preference because they do not visit the library or cannot answer because they have not been to the library and are not familiar with its services.

Sources of Satisfaction of Users' Information Needs

When analyzing the answers to the question "Which sources do you most often turn to?" it was found that 201 respondents (67.4 percent) most often use electronic sources to meet their information needs. Twenty-two respondents (7.3 percent) turn to print sources. Sixty-five (22 percent) combine electronic and printed sources. Finally, 10 respondents, or just over 3 percent, did not choose an answer. At the same time, the respondents note that, regardless of the convenience of electronic resources and the ease of their use, if there is a choice, their preference is for access to printed sources. This testifies to the benefit of preserving the physical space of the library and the need to provide convenient and comfortable user service, offering free access to Ukrainian and global information resources both in the library building and online.

We also asked questions about the sources users wanted. To the question "Literature in which language are you most interested in?" the respondents gave the greatest preference (97 percent) to Ukrainian-language publications, and 38 respondents (13 percent) expressed interest in russian-language literature. Many (89, or 30 percent) also indicated interest in literature written in another language (English, French, Spanish, Italian, Korean, or Polish) and languages of national minorities. Among the literature in other languages, the respondents were most interested in English editions, with 34, or 11.4 percent, making that selection.

The Use of and Satisfaction with Online Library Services

In the conditions of a long period of distance learning during the COVID-19 quarantine and martial law, when communications with users mostly take place in the digital space, it was interesting to find out whether electronic or digital resources and online

Table 3.
Advantages of the library

Advantages	Respondents (N = 298)	Percentage
Obtaining the necessary information online at any time and in any location of the user	143	48
A convenient place for studying	117	39.2
Free Wi-Fi	71	24
Universality of the collections	61	20.4
Use of Internet resources	54	18.1
Obtaining information and consultations	48	16.1
Interesting cultural and educational events	48	16.1
Comfortable hall and silence	2	0.7
Other: did not answer / cannot answer / do not visit the library	26	9

services satisfied users' information needs. Table 4 contains an analysis of the answers to the question "Which electronic resources and online services of the library do you use to meet your information needs?" Given these responses, the study showed that electronic resources and online services are an effective source of information for meeting the needs and requests of library users.

To the question "Are you satisfied with the results of the information search in the library's electronic catalog?" the following answers were received:

- Yes, 220 (74 percent);
- No, 71 (23.8 percent);
- No response, 7 (2.2 percent).

Among the reasons for dissatisfaction with the search results, the respondents most often mentioned that it is difficult to find the necessary information or they do not know how to use the electronic catalog.

Finding Online Library Services

In the modern information and communication environment of the library, social networks are of great importance for the promotion of products and services aimed at meeting the information needs and requests of users. Pages in social networks are local information resources, with the help of which the library popularizes its activities. Information about new arrivals, announce-

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Table 4.
Use of electronic resources and online services of the library

Resources and services	Respondents (N = 298)	Percentage
Electronic (digital) library	150	50.3
Electronic catalog	106	36
Digital products (interactive presentations, online guides, information literacy courses)	80	27
Online seminars and webinars	52	17.7
Virtual references (thematic, factual, address, clarifying)	44	15
Databases	43	14.4
Electronic exhibitions	39	13
Do not use electronic services	20	6

ments of events, participation in activities, and other messages effectively influence the formation of a positive image of the institution.

Table 5 summarizes responses to the question "Is it easy for you to find the necessary information about services on the library's website?" While most respondents indicate that the library website is easy to use, 14 percent of respondents disagreed. Recognizing that users find information about the library in different ways, we asked "Which social networks do you use to monitor the activities of the library?" As Table 6 indicates, the website is the preferred resource for information, news, and events in the library, as it is viewed by 38 percent of respondents. Facebook and Instagram ranked highest in the respondents' preferences among the proposed social networks. While we see even representation of Facebook and Instagram, and a greater number of users preferring the library website at the same time, a fairly high percentage of respondents do not follow the library's activities on social networks.

The number of individuals who sought "interesting information from the lives of famous people (scientists, writers, actors, singers, journalists, political scientists, bloggers)" reflected the current context of the russian-Ukrainian war. Many famous Ukrainian actors, musicians, athletes, TV presenters, and bloggers became volunteer soldiers and helped the Armed Forces of Ukraine. For example, Taras Topolya and members of the music band ANTYTILA fought at the front in the Kharkiv region as part of a paramedic unit. They shot the video for the composition "Bakhmut Fortress" on the front lines.[14] Ukrainian soccer star Andriy Shevchenko became the first ambassador of

Table 5.
The convenience of searching on the library website

Answers	Respondents	Percentage
Yes, the site is convenient, the navigation is clear	193	64.8
No	43	14.4
Not interested in searching for information on the library website	40	13.4
Did not answer	22	7.4

Table 6.
Preferences among the library's social networks

Social network	Respondents (N = 298)	Percentage
Library website	113	38
Facebook	39	13
Instagram	39	13
YouTube	6	2
Twitter	4	1.3
Telegram	1	0.3
Do not follow the activities of the library in social networks	164	55

the UNITED24 platform, which raises money for the war.[15] His mission, to tell the world about the events in Ukraine, was supported by many American celebrities, including Liev Schreiber, an actor, screenwriter, producer, and director; the pop rock band Imagine Dragons; and vocalist, actor, and film producer Barbra Streisand. The ambassadors of the platform are Katheryn Winnick, a Canadian actress and director of Ukrainian origin, and Michel Hazanavicius, a French film director.[16] It is not surprising that Ukrainian youth wanted more information about celebrities given this context.

Analysis of answers to the question "Are you satisfied with the service in the library?" showed that 254 respondents (85.2 percent) were satisfied; 35 (12 percent) were

Table 7.

What kind of content respondents want to receive on the library's social networks

Type of content	Respondents (N = 298)	Percentage
Information about literature in a specialized field	135	45.3
Popularize books and reading	125	43
Help with education and self-development	120	42
Information from the lives of famous people	105	35.2
Advertising and informational messages about the library's activities	95	32
Discussion of current problems, round tables, debates	88	30
Interactive games, contests, quizzes	67	22.4
Posts about the activities of the library and its staff	64	21.4
Timely video-photo reports on library events	44	15
Life hacks and memes	2	0.7

not satisfied; and 9 (3 percent) did not answer. Among those who were not satisfied or did not respond, their answers highlight the following problems: respondents have not visited the library in the last three **years**, they lack information about the library's current activities, and they want a modern design of the library premises. The logical continuation of the survey was to ask to what extent the library satisfies users' information needs. For 185 respondents of 298 surveyed, the library satisfies between 75 and 100 percent of their information needs (see Figure 1).

To identify the opinions and suggestions of the respondents regarding the improvement of service in the library, and hoping to increase the level of satisfaction of users in the future, an open question asked, "What suggestions might users themselves have for online library services?" (See Table 8). In addition to the responses reflected in Table 8, three individuals noted that they are interested in the online format of communication with the library and offered to hold presentations on student projects in the library.

Discussion

Our research into the information needs of users in the online space of the university library during the war between russia and Ukraine revealed both the strengths and
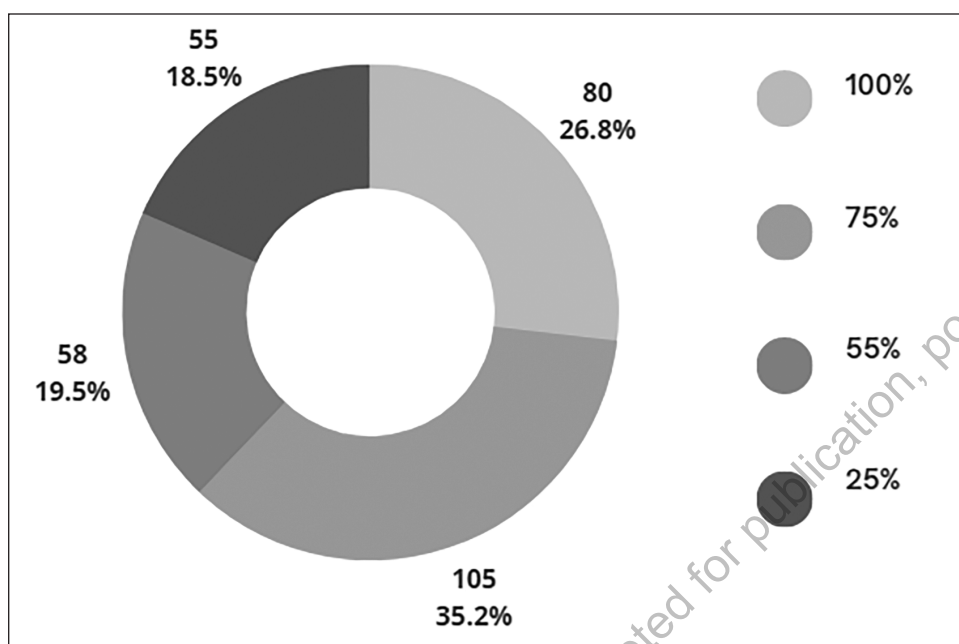
Figure 1. A circle graph illustrates how fully, in percentages, the library at Kyiv National University of Culture and Arts fulfills user's information needs, as reported through a 2023 survey.

Table 8.
Suggestions for online library events from respondents

Respondents' proposals	Respondents (N = 298)	Percentage
Online meetings with modern writers, scientists, journalists, political scientists, bloggers	157	53
Master classes	131	44
Video presentation of new books	95	32
Online presentations	84	28.1
Online tours	84	28.1
Online quizzes, games	79	26.5
Participation in library projects	42	14
Not interested in the library's online events	2	0.7

The decrease of in-person visits requires the development of new conceptual approaches to the popularization of library services and conducting advertising and information work among university students and teachers.

weaknesses of the library. It was found that most often the purpose of contacting the library is to obtain information about literature on a topic of interest, to conduct professional and scientific activity, to use Internet resources, or for leisure. The online format of contacting the library prevails. Survey responses showed a low frequency of visiting the library in person and a weakening of interest in using on-site library resources. The decrease of in-person visits requires the development of new conceptual approaches to the popularization of library services and conducting advertising and information work among university students and teachers.

We do not rule out that the decrease in the number of users and the frequency of visiting the library's online space was influenced by wartime conditions in Ukraine. Drastic changes in priorities in the life of society, a difficult security situation, a large share of forcibly displaced students and employees, power outages lasting many hours, and unstable Internet connections had a significant impact on the timely awareness of student youth about the services and information resources of the library.

Despite that all respondents recognize the important role of the library in the functioning of the university (both during the pandemic and during the war), librarians, due to the predominance of online services, feel tension regarding the work schedule and possible staff reduction. Due to constant rocket attacks and changes of residence, some librarians resigned or retired. In these times, the library employees began to perform more tasks for the editorial offices of 14 professional peer-reviewed journals of the university and supported the scientific research and publishing processes of the university. Three years of providing user service in the online space have demonstrated its advantages in accessibility and speed. It also emphasized the need for printed publications and the importance of personal communication in the physical space of the library. This especially applies to book club activities, art exhibitions or presentations, patriotic events, and educational classes on using the library.

Nevertheless, the results of the study showed that electronic resources and online services are effective at meeting library users' information needs. Users actively employ the electronic library, electronic catalog, virtual references, and electronic exhibitions. The level of satisfaction of users' information needs in the online space of the library is high, but the percentage of respondents who have difficulties in finding the necessary information is still significant, and they are not satisfied with the search results in the library's electronic catalog and with the percentage of electronic publications.

The level of satisfaction of informational needs in social networks is positive. Respondents receive information about the library's activities on its website, noting the convenience and ease of searching for information, and also follow the library on its Facebook and Instagram accounts and YouTube channels. At the same time, a high percentage of respondents do not view the pages in the library's social networks, which can be explained by a lack of interest in its work and the availability of alternative access

to resources. Analysis of the level of user satisfaction with the library and information services showed positive results and confirmed that the library occupies a leading position in the information and educational life of the university and can meet information needs. In the future, we hope to explore further how the conditions of martial law have changed library users' behavior and to what extent the realities of social unrest have influenced their information needs and use of library resources.

Conclusion

Information needs are at the core of society's requirements. The level of information culture, educational and scientific potential, professional activity, and pragmatic and intellectual desires influence the nature of users' information needs. To provide relevant services, it is necessary to have a clear understanding of the needs with which users come to the library. This study confirms that an academic library providing modified options is justified when it can offer and provide resources and services that meet the users' expectations.

Electronic resources and online services are an effective source of information to meet the needs and requests of library users. The current use of electronic library resources and online services, both during quarantine and under martial law, is carried out in the digital communication space. Effective tools for meeting users' information needs are the library's website and its pages on social networks, with the help of which individuals track information, news, and events.

Considering the current living conditions of Ukrainian society associated with the introduction of martial law, remote service for users over a long period (from March 2020 to June 2023 at the time of writing), and according to the results of the conducted research, the library can improve remote service and accessibility of electronic information and technologies. To increase user satisfaction in the online space of the university library, it is recommended:

1. To expand the list of online services; conduct online consultations on the use of the electronic catalog; publish monthly online announcements about new arrivals of literature by specialty for each faculty department; and offer online presentations of library users' own projects;

2. To propose a strategy for conducting advertising and information campaigns in the student environment to increase awareness and popularization of the library's activities, resources, and services; strengthen and activate the work of the library in social networks (website, representations of the library on Facebook, Instagram, Twitter, Telegram, and YouTube channels);

3. To make more use of gamification of library services, which will significantly contribute to their popularization among students, and, in particular, to cooperate with university faculties in the format of gamification;

4. To inform young people that, in addition to education and free Wi-Fi, the library is a universal center for intellectual development, improvement of digital competencies, and leisure, and an integrative institution for meeting users' information needs and requests;

5. To study the opinions of users regarding the level of provision of their information needs, to consider suggestions for further improvement and effective satisfaction, and to use the online tools Google Trends and Google Analytics; and

6. To continue communications in an alternative online space during intellectual student competitions and scientific events that will contribute to the positive information and image activities of the university library.

The proposed strategic directions of the university library's activity in the online space are primarily aimed at improving the quality and comfort of user service and will contribute to the effective satisfaction of users' information needs both in today's conditions and after the end of the russian-Ukrainian war.

Acknowledgments

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Notes

1. The authors, like many Ukrainians, choose to write *russia* and *russian* with a lowercase letter. Doing so has become a social norm in Ukraine in the face of the atrocities of the war in their region.

2. Olena Skachenko, "314 Days of the COVID-19 Quarantine for the Scientific Library of Ukraine," *International Information & Library Review* 53, 3 (2021): 272–73, https://doi.org/10.1080/10572317.2021.1949528.

3. Tetiana Kutsovera and Inna Semenova, "52 тижні боротьби. Десять найважливіших цифр за підсумками першого року повномасштабного вторгнення РФ—інфографіка NV [52 weeks of struggle. The ten most important figures based on the results of the first year of the full-scale invasion of the Russian Federation—NV infographic]," *New Voice of Ukraine*, February 24, 2023,https://nv.ua/ukr/ukraine/events/24-lyutogo-richnicya-vtorgnennya-rosiji-10-cifr-pro-viynu-vid-vtrat-do-voyennih-zlochiniv-rf-v-ukrajini-50304683.html.

4. Francis Yeboah, Musah Adams, and Ernest Boakye, "User Satisfaction with Library Resources in Public Colleges of Education in Ghana," *Library Philosophy and Practice*, May 9, 2018, 1–26, https://digitalcommons.unl.edu/libphilprac/1824.

5. Efua M. Ayiah and Eric Tamakloe, "Users' Perception of Library Resources in Academic Libraries: A Case of University of Education, Winneba Library," *International Journal of Innovative Science and Research Technology*8, 2 (2023): 601–15, https://ijisrt.com/assets/upload/files/IJISRT23FEB403.pdf.

6. Konstantina Martzoukou, "Academic Libraries in COVID-19: A Renewed Mission for Digital Literacy," *Library Management* 42, 4–5 (2021): 266–76, https://doi.org/10.1108/LM-09-2020-0131.

7. Morteza Amraei, Ehsan Geraei, Mohammadreza Hashemian, Fatemeh Ghassabi, and Firoozeh Zare-Farashbandi, "COVID-19 and Innovation in Medical Library Services: A Scoping Review of Case Studies," *Medical Reference Services Quarterly* 42, 1 (2023): 1–15, https://doi.org/10.1080/02763869.2023.2160129.

8. Olena Skachenko, Yurii Horban, and Katerina Viriutina, "The Game versus Quarantine: The Experience of Ukrainian Libraries in Communicating with Students during COVID-19," *College & Research Libraries News* 83, 9 (2022): 403–8, https://doi.org/10.5860/crln.83.9.403.

9. Guinsly Mondésir and Lisl Schoner-Saunders, "Learning from a Distance: Assessing the Impact of the Pandemic through a Virtual Reference Service," *Bulletin—Association of Canadian Map Libraries and Archives*, February 21, 2023, 9–18, https://doi.org/10.15353/acmla.n171.5292.

10. Dunja Holcer, Yurii Horban, Delija Dina Mašina, and Olena Skachenko, "Library Online Services during COVID-19: The Experience of Libraries in Croatia and Ukraine," *Library Mercury* 1, 25 (2021): 81–97, https://doi.org/10.18524/2707-3335.2021.1(25).231472.

11. Antonii Rzheuskyi, Nataliia Kunanets, and Viktoriia Dobrovolska, "Information Service of Users of Libraries of Technical Institutions of Higher Education of Ukraine under Quarantine Conditions: Comparative Analysis," *Library Science. Record Studies. Informology* 2 (2022): 57–65, http://journals.uran.ua/bdi/issue/view/15721.

12. Tamara Opolska, "Погляд користувача на сучасну бібліотеку закладу вищої освіти через призму анкетування [A user's view of a modern library of a higher education institution through the lens of questionnaires]," in Європейський вибір України, розвиток науки та національна безпека в реаліях масштабної військової агресії та глобальних викликів XXI століття [The European choice of Ukraine, the development of science and national security in the realities of large-scale military aggression and global challenges of the 21st century] (Odesa, Ukraine: Helvetika, 2022), 889–92, http://dspace.onua.edu.ua/handle/11300/20407.

13. Nataliia Hrachova, "Робота бібліотек в умовах воєнного стану [The work of libraries under martial law]," Kharkivska Oblasna Naukova Biblioteka (Kharkiv Regional Scientific Library), 2022, https://library.kharkov.ua/libdruk/LibKh-00000000346.pdf.

14. ANTYTILA, "Фортеця Бахмут / Кліп знятий на передовій лінії фронту [Bakhmut Fortress/Clip shot on the front line]," https://www.youtube.com/watch?v=Q5F3OuS6sYc.

15. Ukrinform.ua, "Андрій Шевченко став першим амбасадором United24 [Andriy Shevchenko became the first ambassador of United24]," May 18, 2022, https://www.ukrinform.ua/rubric-uarazom/3486282-andrij-sevcenko-stav-persim-ambasadorom-united24.html.

16. Viktoriia Melnyk, "Не тільки Кетрін Винник: перелік найвідоміших амбасадорів United24 [Not only Katheryn Winnick: the list of the most famous ambassadors of United24]," March 2, 2023, https://vikna.tv/styl-zhyttya/shou-biz/hto-stav-ambasadoramy-united24-perelik-najvidomishyh-druziv-ukrayiny/;Ukrinform.ua, "Французький режисер Хазанавічус став амбасадором United24 [French director Hazanavicius became the ambassador of United24]," February 7, 2023, https://www.ukrinform.ua/rubric-uarazom/3667050-francuzkij-reziser-hazanavicus-stav-ambasadorom-united24.html.