

Strategic Content of the Library of a Higher Educational Institution in the Information and Cultural Space

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Summary

The application of information and communication technologies (ICT) in the functioning of libraries has become inevitable in the context of supporting higher educational institutions (HEIs). In connection with digitalization, scientific investigations examine the issues of changing strategies for developing and digitizing the content of libraries of higher educational institutions within the conditions of a new information environment. The purpose of the academic paper lies in identifying the features of creating strategic content of the library of the higher educational institution in the information and cultural space. The methodology of the research is based on a content analysis of developing strategies and content of libraries of higher educational institutions (HEIs) in different countries of the Eurasian region. The results show that in the context of information technology, a service-oriented approach is required when defining strategic development goals in the field of user-oriented technologies in order to identify their needs and provide them with the necessary services. It has been revealed that libraries choose the most necessary software, developing forms of instant responses, using various tools of interactive communication. Digital content and interactive technologies bring them closer to readers, make them more relevant in the modern information society, form a new image, and increase the users' social activity by attracting them to the creation of library content (indirect participation in the formation of a resource through collaborative filtering). The world largest libraries pay particular attention to strategic planning in practical terms.

Key words:

strategic content, library content, libraries of HEIs, information space, content digitization

1. Introduction

Transformation of education and reforming higher education, integration of digital technologies into the libraries' activities of higher educational institutions (HEIs) contribute to the integration of the national science system into the global information cultural space. As a result, library services are being modernized, and the digitization of content and resources facilitates interactive cooperation between users. The role of the library of a higher educational institution (HEI) is being rethought, and, consequently, the strategies of activity and content are being changed. The modernization of the library service causes a significant rethinking of the traditional ideas

about the place and role of the library, which requires a shift in emphasis in the functioning of the library, fundamental changes and revitalization of its activities (Belous, 2019a). Libraries possess a powerful potential for the consolidation of social groups on a global scale, the direction of which towards the observance of European values can contribute to the integration of Ukraine into the European community, act as a guarantor of access to knowledge, information, and cultural heritage. In addition to digitalization, the university libraries' activities are significantly influenced by modern tendencies in the society, determining the strategic goals and objectives of its development. Teams of HEIs' professionals create new forms of library work in order to fully meet the information, cultural, scientific requirements of users. In the period of dynamic changes taking places in the society, university libraries are an intellectual space, a structured social and communication complex (Gorban, 2019). Rapid changes, caused by the accelerated development of information and communication technologies, strong competition on the part of popular and easily accessible sources of information from the Internet, significantly change the information landscape of the functioning of libraries (Kuts, 2020).

The purpose of the academic paper lies in identifying the features of creating strategic content of the library of higher educational institution in the information and cultural space.

2. Literature Review

Taking into consideration the evolution of digital libraries, an increase in the demands of library users is observed, as well as new challenges for suppliers and staff (Fan, Panneerselvam & Liu, 2017). The use of information and communication technologies (ICT) in the functioning of libraries has become inevitable for supporting higher educational institutions (HEIs) (Enakrire, 2021). In connection with digitalization, scientific investigations examine the issues of changing strategies for developing and digitizing the content of libraries of a higher educational institution within the conditions of a new information environment (Barabash, 2020; Visvizi, Lytras

& Daniela, 2018; Abbas, MacFarlane & Robinson, 2017; Fong, et al., 2020; Paudel, 2019; Shawyun, 2021). Fan, Panneerselvam & Liu (2017) in their scientific work, propose strategies for improving the quality of library services in the higher educational institution. Humenchuk, Michanyn, Novalska & Trach (2020) have developed a strategy of corporate cooperation for the formation of a consolidated and conveniently structured digital resource of higher education, equipped with convenient search services. Kodua-Ntim & Fombad (2020) argue that software, personnel, advocacy, marketing, and policy are factors contributing to the success of university library strategies.

Enakrire (2021) takes up the position that different types of ICT and library operations are key elements, the basis of the sustainability of higher educational institutions. The scientific value of accessible ICT and library operations centres on the transition from a traditional to a virtual platform for efficient library's activities, service delivery, restructuring of the library environment, and unrestricted accessibility.

Gorban (2019) highlights the features of the libraries' operation of higher educational institutions in the information environment of Ukraine on the example of the information and educational community of Kyiv National University of Culture and Arts. The author adheres to the viewpoint that it is the creation and use of one's own strategy that gives significant results towards improving the work of the university (Gorban, 2019). Belous (2019b) defines that the strategy of the library's activities is the direction of information and analytical monitoring and bibliometric analysis of the university's documentary communication system, creating the prerequisites for the representation of scientists in international abstract databases and search engines (Scopus, WoS, Google Scholar et al.). The library has free access to the Web of Science Core Collection and Scopus databases.

Ribalchenko (2019), using the example of the exploration of the strategic development of the HEIs' library in Ukraine, argues that strategic content meets the challenges of the time and combines traditional and innovative new forms of work in activities. The library is positioned as a partner structure of the HEI for information support of training, teaching and conducting investigations. Despite the fact that the library remains a platform for the receipt and dissemination of scientific and educational information for students, graduate students, and teachers, the institution is also a means of promoting the results of scholarly studies in the scientific environment, the custodian of the electronic educational and scientific content of the university. The library's strategy includes five key strategic areas identified by the Concept, namely: 1. Support of educational activities and scientific work, investigations; 2. Information - analytical monitoring and bibliometric analysis; 3. Development of library and

information technologies; 4. Development of library space; 5. Change management and increasing the level of human resources of the library.

Belous (2019b) identifies new features of HEIs' libraries through the introduction of new services as follows: shifting the focus of the library to the priority of providing services to the author - scientist; active partnership at all stages of the life cycle of scientific studies: providing access to documents, information, dissemination, analysis, evaluation of studies' results. The basic library operation and educational activities are a common link in the training of highly qualified specialists who are able to solve complex research and production problems. Training activities are subject to constant development and transformation of the social-economic and technical situation in the world; consequently, the library should respond to these changes (Gorban, 2019).

The results of the Kuts' study (2020) indicate that the libraries of medical HEIs in Ukraine do not contain information courses at all for increasing critical literacy (assessment of the quality and usefulness of information); they provide very insufficient materials on information ethics. Librarians should expand web content on the acquisition of IC, create separate pages on sites and actively use social networks for this purpose. International experience shows that distance learning courses and lectures developed by librarians are an effective way to improve the level of students' information literacy.

Stevenson, Ashworth & Evans (2018), on the example of the evolution of the Scottish Confederation of University and Research Libraries (SCURL) in 2009-2017, have revealed the following features of successful library collaboration, namely: strategic; design and plan; operational; sustainability; and closure. The scope of SHEDL libraries' activities includes a number of features, among which the most notable are as follows: consistency of goals; trust; risk tolerance; and careful selection of service areas to work with. At the strategic level, consistency of goals or alignment with objectives remains the most important component of the strategy. Compliance is determined by the overall objectives of the SCURL, within which a number of actions are taken, namely: SCURL works towards improving and developing services for the benefit of the library's users and maximizes access to resources through joint actions and shared services; SCURL cooperates with other organizations, sectors and domains in order to create a shared library infrastructure in Scotland. The Scottish Higher Education Digital Library (SHEDL) was launched with the clear aim of expanding access to the content of digital journals across Scotland through joint purchasing and commitment-based licensing. SHEDL is a strong brand in the publishing industry, successfully providing access to more than 3 500 electronic magazines for Scottish higher educational institutions (universities), the National Library of Scotland

and the National Museums of Scotland. The fundamental basis of SHEDL's activity lies in providing access to content to all staff, students working at universities in Scotland. SHEDL applies a similar model to issuing publishers' e-books through a successfully launched procurement system. SHEDL's approach to providing access to content through e-books was innovative; it was characterized by success and challenges of implementation, forasmuch as it required a combination of technology and high-quality academic content of e-books in order to support learning and investigation activities (Walker, 2021). The obtained empirical results of the conditions for the success of implementing, using and maintaining digital libraries in the academic context of higher education show that the most important factors for the success of an electronic library are as follows: (1) cost minimization, (2) adoption and use of electronic libraries, and (3) staff training (Pinho, C., Franco, M., & Mendes, 2020).

Within the conditions of the pandemic, South African higher educational institutions (HEIs) were forced to move to "emergency" online training mode based on a humanistic approach. The Department of Library Services (DLS) has aligned its work with the transition of the University of Pretoria to online training mode and increased its willingness towards innovations. DLS has consciously adopted a strategy of engaging students, staff, senior management and service providers. In the context of the pandemic, DLS offers a combination of services and programs, relying more on virtual services in order to maintain academic order and curriculum (Matizirofa, Soyizwapi, Siwela & Khosie, 2021).

The results of the study conducted by Nur, Fauzi & Sukoco (2017) have revealed that the four best universities in Indonesia have developed a basic infrastructure for the implementation of knowledge management (KM) strategy of libraries; the administration takes an active part in promoting KM initiatives, formulating KM strategy and providing budget allocations and remuneration system. Within the framework of the strategy, several pilot projects have been implemented for the development of the KM program at a higher level. Recommended strategies for implementing KM to improve the academic services of libraries include, inter alia, strengthening the role of the library's chief specialist, promoting a culture of knowledge exchange with optimization of knowledge repositories, forming a community of practices, developing a knowledge portal, optimizing e-learning and improving the reward system.

3. Methodology

In the present scientific work, a content analysis of strategic plans for the development of libraries has been carried out on the basis of data obtained in the course of

analyzing and studying the content of Strategies of National Libraries. This has made it possible to identify the most important and interesting directions of the library's activities, namely: The British Library, German National Library, National Libraries of Europe (Leibniz Information Centre for Science and Technology and University Library (<https://www.tib.eu/en/publishingarchiving/research-data/>) ra Bielefeld University Library), and National Library of France. In particular, the Bielefeld University Library Strategy (UB 2025 - Zukunftsstrategie der Universitätsbibliothek Bielefeld) and the German National Library Strategy (Strategic priorities 2021-2024 The German National Library is an active cultural memory of the past and future) have been used in the research process for the analysis of strategic content.

4. Results

Development of market relations, competition for investment in science, education and culture, exacerbation of social and environmental problems requires a rapid response to external and internal changes. The methods of strategic management are one of the most effective tools for such a response, which are absolutely capable of using libraries of different types. The results of implementing business processes of strategic management in library activities have quite practical and measurable benefits, leading to an improvement in the quality and efficiency of library products and services. Their dissemination, exchange of experience and further development requires a dialogue of specialists, which is successfully implemented in the framework of thematic scientific and practical activities.

The world experience of libraries' practical activities shows that within the conditions of rapidly developing information technologies, a service-oriented approach is required in determining the strategic development goals in the field of user-oriented technologies, identifying their needs and providing them with the necessary services. It can be stated that libraries actively create and maintain websites, use public social networks in order to organize professional communication and interaction with users, library services, educational activities and advertising of events. They choose the most necessary software, developing forms of instant answers, using other means of interactive communication. All the outlined brings them closer to readers, makes them more relevant in the modern information society, forms a new image, increases the users' social activity by involving them in the creation of library content (indirect participation in the formation of the resource through collaborative filtering).

In practical terms, the world's largest libraries pay the particular attention to strategic planning. First of all, these

are the strategic plans of the British Library, which in recent years has been developing strategies in certain direction; the Russian State Library, where the priority areas of activity for the period 2013-2018 are named as follows: the development of the national electronic library, the provision of remote access to the maximum amount of funds, the construction of a new building and infrastructural changes aimed at developing human resources. The National Library of Belarus has also identified priorities in the development of the library, the formation of information resources, library and information services, social-cultural, research and scientific-methodological activities. The National Libraries of Europe have adapted the analytical and rational aspects of strategic business planning to their realities.

The strategies and strategic content of libraries by the scale of their activities have been structured in Table 1 into national and local ones. The presented information makes it possible to draw a conclusion that within the conditions of the digital environment, the library’s modern activity forms value of materials and resources, content through various tools of interaction with users. By the way, digital technologies are one of the most effective tools of digital interactivity. For instance, the British Library integrates printed and digital publications towards preserving national cultural heritage in order to provide information services to academics, businesses, researchers and scientific groups. The Library’s Living Knowledge Strategy is aimed at future development by means as follows: 1) creating, managing, preserving the UK’s national collection of published, written and digital content; 2) support and stimulation of various types of investigations; 3) introduction of innovations in business; 4) involvement of citizens in the cultural experience of the country; 5) training of children and youth; 6) cooperation with partners for the exchange of knowledge and experience worldwide.

Table 1: Structuring strategies and strategic content of libraries (development goals) in the information space

| A group of libraries | Strategy | Strategic content |
|--|--|---|
| Group 1: national libraries of the countries integrating HEIs | | |
| The British Library | Living Knowledge Strategy. “Providing information services to academic, business, research and scientific communities”. | Preservation and replenishment of the national archive of printed and digital publications, various materials and resources (books, magazines, newspapers, sound recordings, patents, engravings, drawings, maps, manuscripts). |
| German National Library | Preservation of national culture, dissemination and documentation, presentation and promotion of users’ involvement, integration and | Expansion of digital content, combination of science and culture, development of educational organizations. |

| | organization, digitization. | |
|---|---|--|
| Group 2: local libraries of countries that are mainly focused on innovation and scientific studies | | |
| Leibniz Information Centre for Science and Technology | Strategy on providing open access to information, publications, and scientific data for various groups of the parties involved. | Printed and electronic content (a unique collection of science, technology around the world, including audiovisual media and research data). |
| Bielefeld University Library | | Excellent portfolio of services, including high-quality printed and digital publications. |

Source: author’s research based on content analysis of strategies of the British Library, German National Library, Leibniz Information Centre for Science and Technology, Bielefeld University Library.

The strategic priorities of the German National Library are as follows: 1) “Expanding digital collections; 2) Expanding digital indexing processes; 3) Linking culture and science; 4) Developing the educational organisations”. The main vision of the library is as follows: “The German National Library is an active cultural memory of the past and future”. The mission of the French National Library (BnF) lies in collecting, classifying, preserving, enriching and transmitting national documentary heritage. BnF provides the largest number of people with access to collections on site remotely and develops national and international cooperation.

Similar to the British Library’ operation, the strategic activities of the Leibniz Information Center for Science and Technology also include the dissemination of printed and electronic content. In addition, as a research institution, the Leibniz Information Center for Science and Technology is constantly expanding the importance, value of the German information center for digitizing research results and making them open to the parties involved. The Leibniz Information Center for Science and Technology carries out applied studies and developments in order to form and provide new services and improve existing ones. The library’s investigations focus on data science and digital content of libraries, scientific data management, open knowledge, non-textual materials, open science and visual analytics. As it is stated on the official website of the library: “We understand knowledge and technology transfer to mean communicating our knowledge to science, industry, politics and society. Consulting, mediation and application are the focus for us”.

In the Strategy of the Bielefeld University Library, it is stated that “the digitization of research and teaching as an ongoing innovation process is a major challenge for the university library”. In addition to assisting in the development of digital technologies and promoting relevant services for scientific investigations and training, it is also important for libraries to respond appropriately to changing requirements for providing scientific information

to users and obtaining it from different users' groups. Taking into consideration that digital technologies are differently integrated into various subjects and areas of studies, the relevant part of the scientific information will continue to be available in the printed media. This increases the requirements for the library. In addition, the University of Bielefeld is also undergoing constant change, and this is an additional challenge for the Bielefeld University Library. Consequently, the purpose of the university library lies in expanding the position it has acquired under changing conditions, and continuing to offer quality and future-oriented services. In order to ensure the success, continuity of further development of the portfolio of services with close involvement of users' groups, it is necessary not only to apply the innovative potential of the university library, but also to support the university leadership. Therefore, the strategy of the Bielefeld University Library until 2025 defines the following eight areas of activity, namely:

1. Excellence in service and innovation. For this purpose, tools for further development of services are used and optimized (involvement of users, expansion of information infrastructure, and close feedback with the university management).
2. Comprehensive, effective information support and promotion of information literacy: digital and printed scientific information is provided as needed and with the involvement of various users' groups. Consultations on research-oriented issues such as scientific publication, research data management, copyright and bibliometrics will be expanded during 2021-2025.
3. Integration of physical and digital space. The library, as a place of study, currently offers over 2 300 individual and group workplaces associated with the respective faculties over short distances. 95% of all material media, sorted by subject, are available in the reading rooms of the library.
4. Support of scientific studies and publications: The library supports the position of the university as a research-based university with a wide range of services. Taking into consideration the growing importance attached to the streamlined processing of research data, the Bielefeld University Library aims to create a center of competence for research data.
5. Development of demand-oriented services: Bielefeld University Library continually develops its competency profile and improves services as needed. Portfolio adaptation mechanisms, such as: continuation, further development and expansion of existing and introduction of new services and products, will also be used in the future.
6. Development of a partnership network with internal and external parties in order to deepen cooperation with faculties and university management in the direction of making strategic decisions. Along with this, the university library cooperates with other libraries, in particular, in the acquisition and indexing of scientific information. External

national and international cooperation is becoming increasingly important forasmuch as national e-journal licensing (DEAL) takes place, necessitating the University Library's leadership in the National Open Access Contact Point (NOAK) project and the development and consolidation of open scientific infrastructure (OpenAire).

7. Ongoing training promoting a forward-looking and open attitude among employees and offering a variety of tools for sharing. External requirements for organizational development are laid down and implemented with the involvement of employees. The ability of the library to learn and respond to future challenges is planned to be increased in the future by expanding the complaint management system and implementing operational knowledge management.

8. Development of staff skills: the university library supports staff through professional development and provides an opportunity for further professional growth. The library supports the university's goals of equality, health promotion and balance between family and work.

Thus, the structuring of strategies indicates that the first group of libraries functions with the aim of conveying the value of knowledge, focusing on various social groups and sectors (public, private, community). The second group of libraries focuses on innovations and scientific investigations. At the same time, a common element of libraries' strategies lies in providing open free access to information and knowledge both at the national, local levels and internationally through cooperation, the formation of the value of printed and digital content.

Content analysis of strategic plans for the development of libraries, as well as data obtained during the monitoring of professional printing has made it possible to identify the most important and interesting areas of library activities, in particular:

1. Data Management.
2. Web archiving.
3. New library services and strategies are oriented towards improving the quality of library services and developing service-oriented services and resources.

The concept of "Data Management" has originated in the 1980s; it is considered as a process that involves obtaining, checking, storing, protecting and processing the necessary data in order to ensure the availability, reliability and timeliness of data for its users; it is actively promoted in many universities libraries in Europe.

The experience of the following libraries is of particular interest in this direction, namely: Leibniz Information Centre for Science and Technology and University Library (<https://www.tib.eu/en/publishingarchiving/research-data/>) and Bielefeld University Library (<https://data.uni-bielefeld.de/en>). In 2011, the University of Bielefeld developed and implemented the "Principles of Research Data Processing", according to which the library supports faculties and the academic community towards connecting

the University databases with the worldwide network of data archives, and also offers services for the publication of research data.

The Leibniz Information Centre for Science and Technology and the University Library also operate on the basis of the research data management concept developed at the university, providing links and documents, and organizing training courses. By the way, another direction, implemented by a number of European libraries, is related to the archiving of web resources. For instance, the DeepArc system developed by the National Library of France makes it possible, using a relational database, to display information, such as XML schemas, creating an exact copy of sites. In 2017, it became known that the Presidential Library was the first in Russia to begin forming an archive of websites of Russian organizations and institutions; as a result, this will prevent the irreversible disappearance of network resources and ensure their safety. This direction of the Presidential Library’s activity is caused by the rapid development and change of the digital space. The formation of such web archives, according to the project’s initiators, will provide the opportunity for users to explore the history of the Russian Internet, discover missed sites, use the information posted on them as an evidence base, make links to archive copies, and much more.

The external environment of influence on the strategic content of the library manifests itself through the major factors as follows: the global network, information systems, services, sources of resources, etc. In this regard, various web technologies are of particular interest to libraries.

The conducted analysis of the libraries’ websites of various organizational and legal forms has made it possible to conditionally single out two main Internet technologies that are of the greatest importance for libraries, taking into account the general tendencies in the development of network information systems and technologies.

These are web services for the development of communication systems, information and other services, as well as web technologies for creating and allocating resources. In particular, the web services used (with examples of ready-made software solutions) are as follows:

- 1) e-mail (Microsoft Outlook, Windows Live Hotmail, Gmail, Mail.ru, Yandex.ru);
- 2) teleconferencing systems (USENET, Cisco TelePresence, FirstClass Intranet Server, NetMeeting);
- 3) services of e-mail mailings (including personalized), SMS, push-messages and transaction letters (SendPulse, Estismail);
- 4) mobile instant messaging services, services of conducting video conferences (Viber, WhatsApp, Skype, ICQ, Line, Facebook Messenger, Google Hangouts);
- 5) RSS- services (Google Reader, NETVibes, Feedly), etc.

Libraries are active in applying advanced technologies such as cloud computing, mobile devices and applications, social networks and next-generation analytics. From among the cloud computing services, libraries are the following ones, namely: “Software-as-a-Service” (SaaS), “Storage as a Service”, etc. Social networks have gradually become one of the means of generating content (content that is of particular value). In the practice of libraries, web tools are actively used to evaluate sites and social accounts, a detailed study of the main areas of work of libraries in the web environment, studying users’ behaviour and analyzing the demand for library information products and services offered on the sites. Analysis of the sites of several libraries in the world by applying analytical tools (Google Analytics, Hubspot Website Grader, Nibbler, CheckTrust, Google page speed insights, Hemingway, etc.) makes it possible to structure their rating by the average score, determine the effectiveness in terms of presentation on the web, adaptation to mobile versions, SEO and security, evaluate the content and adjust it if necessary (Table 2).

Table 2: Structuring strategies and strategic content of libraries (development goals) in the information space

| Name and address | Average score | Conception | Adapting to mobile devices | SEO | Security |
|--|---------------|------------|----------------------------|-------|----------|
| German National Library (http://www.dnb.de) | 52 | 22/30 | 15/30 | 15/30 | 0/10 |
| National Library of France (http://www.BnF.fr) | 36 | 26/30 | 0/30 | 10/30 | 10/10 |

Source: the author’s research on the basis of German National Library, BnF.

The specificity of the development of modern technologies lies in the fact that they change very quickly, however, at the same time, they help libraries operate more productively, increasing competitiveness and productivity, the range of implementation of social projects and their effectiveness, developing new ways and forms of informing users, taking into account their advantages in obtaining information. In this regard, the problem arises of the rational choice of web service options for solving certain problems and the formation of a set of criteria for their comparison. A rational choice is comprehended as the action of a decision maker based on all the information available to him, who conducts the best results for the library as a whole in order to implement a service-oriented approach when serving library users.

5. Discussion

In order to determine the current state of the web content of the libraries of medical HEIs of Ukraine as a tool for acquiring IC and improving the level of IG in the scientific work of Kuts (2020), a study of their web resources has been carried out. From among 17 Ukrainian medical institutions, 10 (59%) have a library website, 2 (12%) have a blog. Kuts (2020) has analyzed the web content of 12 libraries. The most common types of their content are various web navigators of specialized and high-quality Internet resources, namely: links to scientometric databases (100%), search engines for scientists (67%), medical databases (67%), individual medical periodicals (67%), etc. Libraries, as a rule, do not create instructions for searching for information in various databases, author profiles and scientometric indicators, however, they provide useful links to ready-made materials, presentations, which are developed by trainers to work with these resources (75%). 58% of libraries create their own materials and instructions for searching and managing medical information, but not in all aspects and in too short form. Unfortunately, only 3 libraries (25%) draw users' attention to problematic issues of bibliographic information management. There is not a sufficient amount of educational materials on the use of library resources; only 3 video instructions for searching information in the electronic catalogue are revealed. Virtual reference tools and feedback forms partially help improve the level of information service of users (58%) (Kuts, 2020).

From among 56 libraries participating in the study, only 27 generate Internet resources. From among them, the libraries of pedagogical universities (14) are the most active and most productive, as well as regional institutes of postgraduate pedagogical education (6). The worst situation with aggregation of own databases and their presentation in the network communication space is observed in special scientific libraries of institutions of the National Academy of Pedagogical Sciences of Ukraine. Typological features of the content indicate that most scientific and pedagogical libraries in the country underestimate the importance of aggregation of full-text Internet resources. For instance, from among 224 units of electronic library and information products, virtual exhibitions occupy the first place in terms of the number of titles (148 units, which is 66% of the total volume of produced Internet content). Thematic presentations of libraries (30 titles (13%) are on the second place, of which only 2 are multimedia ones, 1 is a video presentation). The third place in terms of the number of titles is occupied by bibliographic Internet resources (14 titles), of which there are as follows: the bibliographic indexes of personalities from the series "Outstanding teachers" (9 titles), indexes of new acquisitions to the library fund (3), recommended indexes

(2). It should be noted that only 6 libraries present electronic catalogues on the Internet, of which 1 - image catalogue, 1 - consolidated catalogue. Along with this, this is not enough in the context of strategic objectives of digitalization and openness of the educational and scientific space of the pedagogical branch. Full-text Internet resources make up only 6% of the total number of titles, including only as follows: 5 repositories, 2 digital archives of scientific publications of universities, 1 digital archive of library publications, 3 databases of valuable and rare publications on pedagogical issues, 2 databases of specialized periodicals, 1 database of dissertations defended in the institution (Belous, 2019b). The library of Sumy State Pedagogical University named after A.S. Makarenko stays ahead in terms of the number of aggregated full-text databases (5 DB). Unfortunately, the only library of Vinnytsia State Pedagogical University named after M. Kotsyubynsky represents an innovative project "Webinclusion" on its site, containing audio versions of individual pages of the library site, as well as audio tales and audio works of world classics for the visually impaired persons. By the way, the web product of the library of the V. Hnatiuk Ternopil National Pedagogical University, the database "Profiles of University teachers in scientometric databases" is equally relevant. Without doubt, these best practices should be borrowed and disseminated to all educational libraries in Ukraine, which will improve the quality and comfort of library and information services for the subjects of the pedagogical industry (Belous, 2019a).

6. Conclusion

The modern library operates in close cooperation with the external information environment, determining the possibilities and conditions of any of its activities. In the context of environmental dynamism, the growing demands for adaptation are becoming significant to such extent that the creation of the potential for interaction with the external environment should become a determining factor in the strategic behaviour of the library. Within the conditions of information technologies, the service-oriented approach is required when defining strategic development goals in the field of user-oriented technologies, identifying their needs and providing them with the necessary services. Libraries actively create and maintain websites, use public social networks in order to provide professional communication and interaction with users, library services, educational activities and advertising activities. It has been established that libraries choose the most necessary software, developing forms of instant responses, using various means of interactive communication. Digital content and interactive technologies bring them closer to readers, make them more relevant in

the modern information society, form a new image, and increase the users' social activity by attracting them to the creation of library content (indirect participation in the formation of a resource through collaborative filtering).

References

- [1] Abbas, Z., MacFarlane, A., Robinson, L.: *Use of mobile technologies by law students in the law library: An exploratory study*. *Legal information management*, 17(3), pp. 180-189 (2017)
- [2] Barabash, S.: *II International Scientific and Practical Conference «Library Development Strategies: From Idea to Implementation»*, *Ukrainian Journal of Library Science and Information Sciences*, (6), pp. 114–120 (2020).
- [3] Belous, W.S.: *Higher education library: today's challenges*. Collections of scientific works of the teaching staff of Vasyl Stus DonNU., pp. 197-203 (2019a)
- [4] Belous, W. S.: *Library – multi-vector navigator in the social and communication space of a higher education institution*. *Library Mercury*, 2 (22), pp. 111-129 (2019b)
- [5] Bielefeld University Library. UB 2025 – Zukunftsstrategie der Universitätsbibliothek Bielefeld. Available at: https://www.ub.uni-bielefeld.de/ub/div/pdf/2018_05_03-Strategiepapier_Endfassung.pdf
- [6] BnF. Available at: <https://www.bnf.fr/en>
- [7] Enakrire, R.T.: *Using information and communication technologies and library operations in support of higher education institutions*. *Journal of Educators Online*, 18(1) (2021)
- [8] Fan, Y., Panneerselvam, J., Liu, L.: *The Cost Function and Improvement Strategies of Service Quality of University Library under New Information Environments*. In: 2017 IEEE International Conference on Internet of Things and GreenCom, CPSCom and Smart Data, pp. 208-215 (2017)
- [9] Fong, K. C. H., Au, C. H., Lam, E. T. H., Chiu, D. K.: *Social network services for academic libraries: A study based on social capital and social proof*. *The Journal of Academic Librarianship*, 46(1), 102091 (2020)
- [10] German National Library. Available at: https://www.dnb.de/DE/Home/home_node.html
- [11] Gorban, Y. I.: *Development of the university library: a set of strategic decisions*. *Bulletin of the National Academy of Management of Culture and Arts*, (2), pp. 180-184 (2019)
- [12] Humenchuk, A., Michanyyn, N., Novalska, T., Trach, O.: *Strategy of the Scientific Educational Libraries of Ukraine Network Digitalization*. In: COAPSN ,pp. 237-246 (2020)
- [13] Kodua-Ntim, K., Fombad, M. C.: *Strategies for the use of open access institutional repositories at universities in Ghana*. *Library Management*, 41 (6/7), pp. 515-530 (2020) <https://doi.org/10.1108/LM-02-2020-0023>
- [14] Kuts, O.V.: *Web content of libraries of medical free economic zones of Ukraine: opportunities for raising the level of information culture of users*. (2020) Available at: http://repo.knmu.edu.ua/bitstream/123456789/26639/1/KIS-2020_tczy%20KUTS.pdf
- [15] Leibniz Information Centre for Science and Technology. Available at: <https://www.tib.eu/en/tib/profile>
- [16] Matizirofa, L., Soyizwapi, L., Siwela, A., Khosie, M.: *Maintaining student engagement: the digital shift during the coronavirus pandemic a case of the library at the University of Pretoria*. *New Review of Academic Librarianship*, pp.1-16 (2021)
- [17] Nur, R. N. N., Fauzi, A. M., Sukoco, H.: *Strategies of knowledge management implementation for academic services improvement of Indonesian higher education*. *Journal of Information & Knowledge Management*, 16(04), 1750032 (2017)
- [18] Paudel, K.P.: *Expectations and Realities of Knowledge Management: Experiences from Higher Education in Developing Countries*. *Education and Development*, 29, pp. 89-102 (2019)
- [19] Pinho, C., Franco, M., Mendes, L.: *Web portals as tools to support information management in higher education institutions: A systematic literature review*. *International Journal of Information Management*, 41, pp. 80-92 (2018)
- [20] Pinho, C., Franco, M., Mendes, L.: *Exploring the conditions of success in e-libraries in the higher education context through the lens of the social learning theory*. *Information & Management*, 57(4), 103208 (2020)
- [21] Ribalchenko, O.M.: *KhNTUSG Scientific Library today and prospects for development*. (2019) Available at: <http://dSPACE.khntusg.com.ua/bitstream/123456789/9954/3/Рибальченко%20O..pdf>
- [22] Shawyuan, T.: *Integrated Electronic HEI Performance Management*. In: *Encyclopedia of Organizational Knowledge, Administration, and Technology*, pp. 1108-1131 (2021)
- [23] Stevenson, A., Ashworth, S., Evans, J.: *The scottish higher education digital library (SHEDL): successes, challenges, and the future*. In: *Collaboration and the Academic Library*, pp. 195-204 (2018)
- [24] Strategic priorities 2021-2024. The German National Library is an active cultural memory of the past and future. Available at: <https://d-nb.info/1224706463/34>
- [25] The British Library. Available at: <https://www.bl.uk/#>
- [26] Visvizi, A., Lytras, M. D., Daniela, L.: *Education, innovation and the prospect of sustainable growth and development*. In : *The future of innovation and technology in education: Policies and practices for teaching and learning excellence*. Emerald Publishing Limited (2018)
- [27] Walker, W.: *Scottish Higher Education Digital Library: the e-book journey*. In: *Technology, Change and the Academic Library*, pp. 123-129 (2021)

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