MANAGEMENT AND MARKETING AT THE UNIVERSITY LIBRARIES

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Knowledge Management Organization in the Context of LibGuides of Sumy State University Library

Objective. The article considers the role of knowledge management in the library of a higher education institution in the modern conditions of the global information society. The process of implementing LibGuides as a new tool for systematization, analysis, preservation, transfer, actualization of knowledge, and access to it is highlighted. **Methods.** The study was conducted by using methods: analytical and review, analysis and synthesis, comparison of experience of the world's university libraries, and statistical method. **Results.** The role of the library as an information institute in the context of the development of the knowledge society is shown. The experience of Sumy State University Library regarding the LibGuides project implementation, which contributes to the creation of new knowledge, its productive use, as well as the formation of information literacy and academic integrity of scientists, teachers, and students, is considered. **Conclusions.** University libraries play a significant role in the organization of knowledge management of all participants in the educational and scientific process. LibGuides are an effective tool in the practice of knowledge management, which includes the librarian's work with new technologies, generating new knowledge, and sharing knowledge without any geographical limitations.

Keywords: university libraries; knowledge management; LibGuides; professional-looking final product; communication management; subject librarian

Introduction

The rapid development of information technologies has led to the transformation of the role and purpose of libraries, to the need to form a new type of library of a higher education institution, the model of which is aimed at the target user with modern requests and needs. The library development strategy should take into account the influence of global trends, in particular digitization, artificial intelligence, access to an unlimited amount of information, and the formation of a knowledge society. Therefore, the task of mastering new practices, and tools for sharing and managing knowledge is relevant for the library.

The semantic content of the concepts "knowledge", and "knowledge management" is characterized by polysemy. The concept of knowledge management is a key aspect of scientific research that accumulates knowledge from various fields: economics, sociology, programming, and can be related to various areas of human activity: education, science, business, librarianship. Knowledge by types (Ebisi & Arua, 2019) according to the classification of S. Patil is conditionally divided into:

- Explicit Knowledge – knowledge that is documented or coded (knowledge that is stored in textbooks, study guides, lecture notes, periodicals, conference materials, standards, patents, databases, etc.).
- Tacit Knowledge – knowledge that is not recorded on material carriers and is transmitted through personal contacts, and relationships (skills, abilities, experience, ideas that people have).

Knowledge management is a promising direction for library activity. Librarians collect, transfer, store knowledge recorded in documents, organize and manage the storehouse of

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knowledge, and search for necessary information. They use their own explicit and tacit knowledge to create a new professional-looking final product, have the ability to analyze, evaluate, and synthesize information in order to provide high-quality information service to users and create a library environment of innovative type to meet the needs of the academic community and the general public.

Knowledge management in the library field is a key research topic of many foreign and Ukrainian scientists. Among the scientific publications, it is necessary to pay attention to the newest ones: a practical guide by J. A. Bartlett (2021), which describes the use of explicit and tacit knowledge by library specialists within their organizations to keep them relevant to the information needs of their users; articles by M. Abah, N. K. Asiedu and D. J. Dei (2022), which states that libraries must move from the traditional knowledge management tactics and look in the direction of more modern tactics by selecting ideal implementation strategies for the knowledge management system; E. M. Ebisi and G. N. Arua (2019), who express the opinion that knowledge management should be a very common practice in day-to-day library work, in particular, the most important mission of libraries should be to expand access to knowledge for their users in all of the key areas of library services; O. Matviienko and M. Tsyvin (2018), who generally outline the activity models of an information profile specialist through the prism of explicit and tacit knowledge management.

The need for everyday knowledge management in the library (Bartlett, 2021; Ebisi & Arua, 2019) leads to the transformation of libraries, changes in the library activity system, the definition of new boundaries of the modern information space, and new functions of librarians and libraries in general, mastering of new technologies for knowledge management and exchange.

One of the modern knowledge management technologies that can be successfully realized in library practice is the implementation of LibGuides. Currently, the issue of effective implementation of LibGuides in the digital library environment is insufficiently researched among Ukrainian scientists. There is an urgent need to consider the advantages of the implementation of LibGuides by university libraries and the practical experience of their use by library users.

Materials for the study were obtained thanks to a thematic review of the websites of foreign university libraries by the library of Sumy State University (hereinafter - SumDU). Practical experience gained during participation in the II International Scientific-practical Conference "Library Development Strategies: From Idea to Implementation" became a significant impetus for the LibGuides implementation. Within the framework of the conference, the expert manager of Nazarbayev University Library Yelizaveta Kamilova in her report "Virtual and Online Strategies of Libraries: Nazarbayev University Library Practice" focused on the benefits of implementing LibGuides and presented the activities of subject librarians (Barabash, 2020).

The topic of the development and use of LibGuides is widely presented in the studies of foreign scientists (Mwanzu, Nakaziba, Karungi, Ayebazibwe, & Gatiti, 2022; Barker & Hoffman, 2021; Logan & Spence, 2021; Goodsett, Miles, & Nawalaniec, 2020; Paschke-Wood, Dubinsky, & Sult, 2020; Clever, 2020; Tyson & Dinneen, 2020). Abroad, LibGuides are a fairly common practice, it is a convenient format for presenting information, which significantly saves time for students, teachers, and scientists to search for the necessary scientific and educational resources.

LibGuides play a special role in the informational support of students and teachers (Clever, 2020). Research guides or LibGuides can be developed and implemented to better meet the needs of students by focusing on pedagogical support of student research and information literacy skill creation (Paschke-Wood, Dubinsky, & Sult, 2020).

Most of the world's leading libraries use LibGuides produced by Springshare (https://www.springshare.com/). Springshare is a software company for libraries and educational institutions. Since its inception in 2007, Springshare's LibGuides has become a popular content

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management system among academic libraries around the world (Logan & Spence, 2021). Libraries use it to create content, share knowledge and information, and promote library resources to the community. Currently, 7,500 educational institutions in 106 countries around the world use LibGuides. Many institutions use it to produce web content that helps users research specific topics and subjects, while others use it as their library website. LibGuides allows library staff members to share their expertise easily, quickly, and with a professional-looking final product. This system was designed to help library staff members publish information online without in-depth knowledge of HTML or CSS (Logan & Spence, 2021).

Despite the widespread use of Springshare's LibGuides by university libraries in various countries, each library may apply its own library approaches and practices in the direction of realizing the LibGuides implementation.

In this article, we aim to highlight the practical aspect of knowledge management based on the process of implementing our own format of LibGuides with the use of a new knowledge management infrastructure in the SumDU Library, which led to a rethinking of the functions and role of subject librarians.

Methods

To achieve the objective of the study, a complex of scientific methods was applied, including analysis and synthesis, comparison, analytical and review, and statistical methods.

A description of the own experience of the LibGuides implementation process by the SumDU Library was carried out, which includes the following stages:

- study of practical experience by analyzing websites of the world's university libraries;
- use of the Springshare platform in free trial access;
- assessment of the financial component of the LibGuides implementation;
- a request to develop own software with the design of a technical task;
- development and implementation of LibGuides;
- expansion of functional responsibilities of subject librarians;
- promotion of the professional-looking final product to the target audience;
- monitoring the effectiveness of the LibGuides use, as a result of which further improvement is carried out.

Results and Discussion

The active implementation of innovative technologies for supporting scientific and educational activities by the library of the higher education institution is due to the timely response to the requests and needs of the university community. The task of the modern library should be its transformation into a client-oriented service system, a communication space that will contribute to the development of research and academic activities of the university, and its integration into the globalized scientific, educational, and informational environment (Krytska, 2022). Sumy State University has a wide multi-disciplinary spectrum of specialties and areas of scientific activity. The SumDU Library functions as a navigator in modern information communications and plays a significant role in the implementation of knowledge management technologies. Considering the global trends in the development of the latest areas of library activity, the library investigated the requests of the university community regarding the systematization of knowledge in connection with the continuous flow of information. This led to the decision to develop the LibGuides website. The process of developing and implementing the LibGuides website took a year and a half and involved a certain sequence of actions.

At the initial stage of the LibGuides implementation in the SumDU Library (it was in 2020), an analysis of the websites of the world's university libraries was carried out. We studied the structure, content, design style, and software of LibGuides of such universities as Nazarbayev University (Republic of Kazakhstan), University of Cambridge (Great Britain), University of Liverpool (Great Britain), Duke University (USA), Auburn University (USA), Butler University (USA), University of Groningen (Netherlands).

The second stage was a free trial access to test the Springshare platform in December 2020.

The following platform modules were available:

● LibGuides – a flexible platform for creating and sharing guides;

● LibCal – an integrated calendaring platform designed to handle all calendaring needs, including booking;

● LibAnswers – 24/7 online chat;

● LibWizard – allows to create forms, surveys, quizzes;

● LibCRM – a module for collecting and saving data about persons and organizations with which the library cooperates;

● LibInsight – a module that allows to build dashboards to share statistics with stakeholders and to create shareable datasets;

● LibStaffer – a module for organizing the internal work of staff.

It's worth pointing out that there is a relationship between the above-mentioned modules, which makes it possible to cooperate with students, teachers, and scientists on the Springshare platform. The main advantages of using these modules are: they are easily integrated into the structure of the website; integrate with social networks (Facebook, Twitter), social photo service Pinterest and programs Zoom, and Microsoft Teams; adapted to mobile devices.

It should be noted that in modern realities libraries often depend on software products offered by IT corporations. In most cases, such software products are very expensive. As an example, the cost of the Springshare platform for the SumDU Library in 2020 was $10,999 USD per year. The Springshare platform has a significant list of advantages, but the limited financial capabilities of the SumDU Library did not allow us to use this platform.

At the same time, libraries can independently apply their own knowledge management technologies. This is confirmed by the fact that the SumDU Library has developed its own LibGuides format using a new knowledge management infrastructure.

To implement the LibGuides project, the library submitted a request for the development of its own software product to the Group of Web-oriented Information Systems of SumDU.

Librarians designed a technical task for the development of the LibGuides website:

- the structure should be appropriate for educational directions of training and the scientific research areas of SumDU;

- website localization in Ukrainian and English;

- arrangement and storage of online manuals containing text information, videos, and images;

- 24/7 access to materials;

- search and sorting of materials according to defined parameters (topics, databases, keywords);

- organizing feedback with users;

- displaying the content of the LibGuides website in accordance with the stylistic design of the SumDU Library website;

- adapting to mobile devices.

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The technical task was implemented by the Group of Web-oriented Information Systems of SumDU. The LibGuides website was developed on Yii Framework/2.0.43, based on the PHP-Framework component structure for fast development of large web applications.

The feedback with users is provided by subject librarians who are responsible for each faculty/institute (Fig. 1). They provide informational support in all educational and scientific areas, consult on relevant issues, promote the establishment of partnerships with faculties /institutes, and in the future they become an effective link in this communication system. The implementation of LibGuides led to a peculiar rethinking of the librarian's role and functions since it required the librarians to master modern competencies, quickly acquire subject knowledge, develop the required skills and abilities, namely communicative management, active leadership qualities, critical thinking, and the ability to adapt.
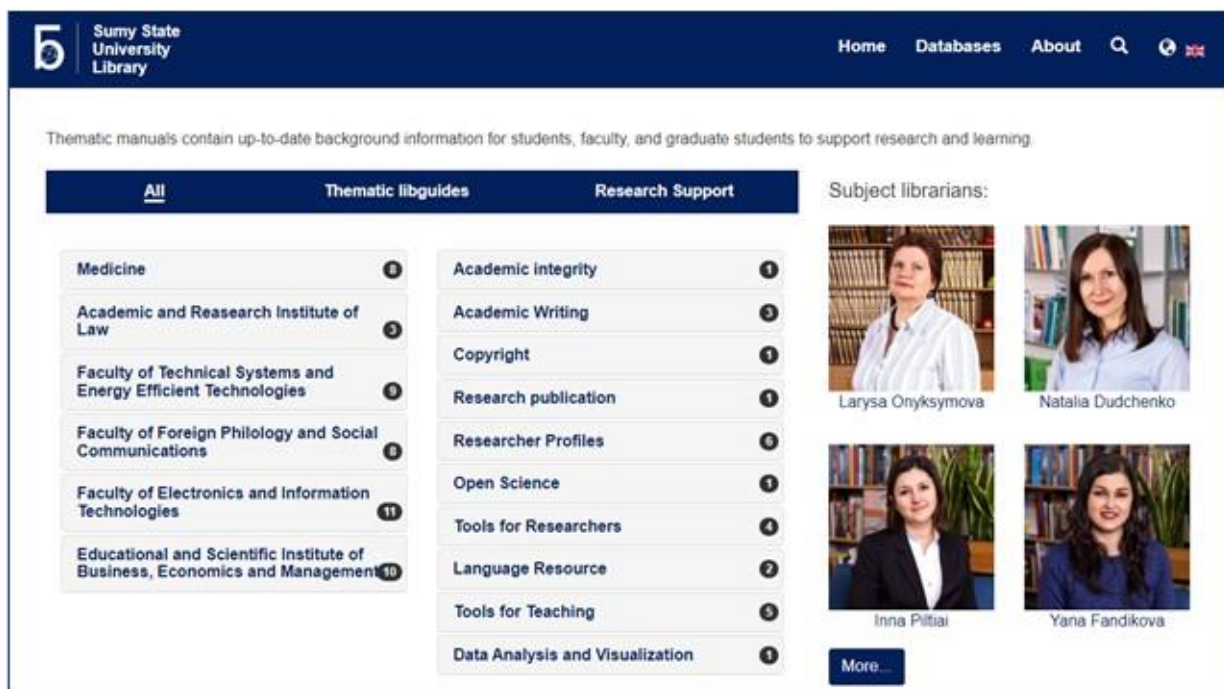

Fig. 1. The Structure of the LibGuides Website

The SumDU Library will increase the innovative potential of its specialists, promote their professional growth, and form a proactive culture of self-development and responsibility for the joint result (Krytska, 2022). Subject librarians are involved in advanced training courses (in particular through the Center of Human Resources Development of SumDU), constantly participate in training, seminars, and webinars, conferences (in particular of the Ukrainian Library Association) to improve acquired skills and abilities, take online courses on various platforms (Coursera, Prometheus, EdEra, VUM online, etc.).

It is worth noting that the LibGuides project has significant advantages for the target audience. As opposed to the usual search on the Internet, LibGuides provides access to reliable and verified scientific and educational resources. In accordance with the scientific directions, educational programs, and specialties of a specific faculty/institute, a list of resources and databases, modern periodicals, educational and scientific literature (textbooks, study guides, lecture notes, monographs), online courses, useful resources are provided on the LibGuides website (Fig. 2).

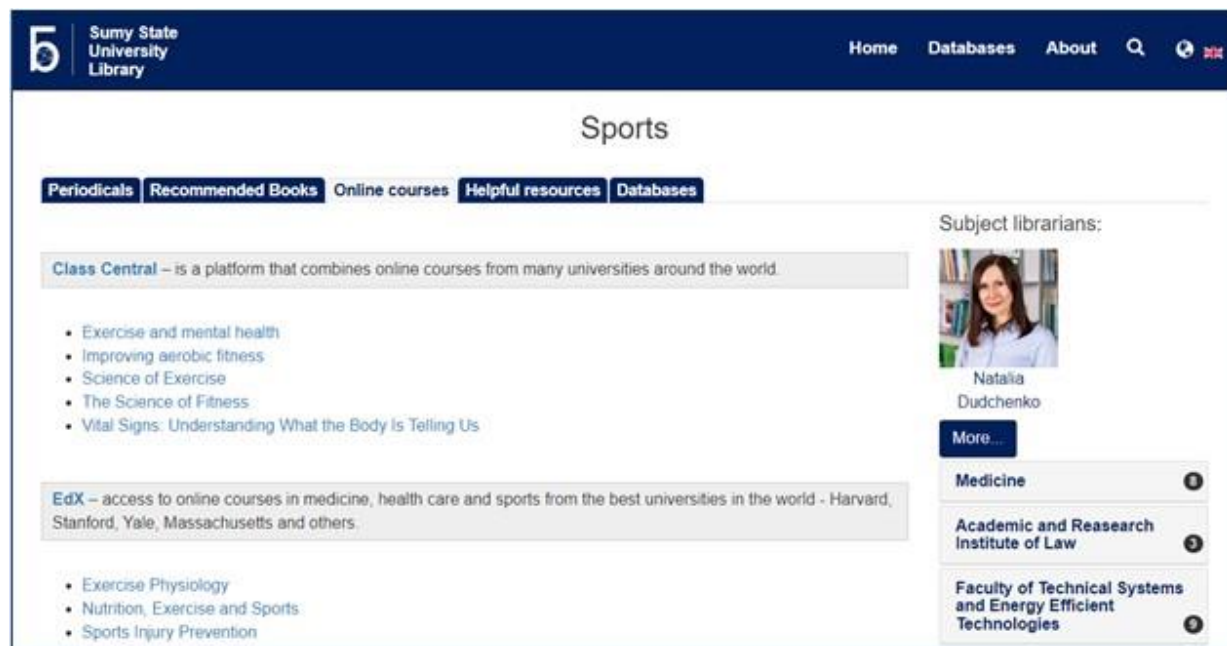MANAGEMENT AND MARKETING AT THE UNIVERSITY LIBRARIES

Fig. 2. Website Content According to the Specialty "Sports"

Creating and maintaining subject guides is an ongoing challenge for many academic libraries (Barker & Hoffman, 2021). There is always the possibility that users will not wish to use the information provided in the LibGuides format. Taking into account this factor, the library should direct users in the right direction when searching in modern information flows, and draw attention to LibGuides as a single point of access to information resources in the direction of scientific and educational university activities. Support of the LibGuides project requires subject librarians to carry out monitoring activities in terms of searching a set of scientific and educational resources, also updating content on the LibGuides website.

One of the important stages of effective use of the professional-looking final product by the target audience is promotion. The SumDU Library applies its own marketing strategies to promote LibGuides to the community (students, teachers, scientists) of each faculty/institute of SumDU by organizing and holding meetings. The library should promote the use of LibGuides in teaching activities (Clever, 2020). Thanks to the subject librarians, there is constant communication with the faculties/institutes, as a result of which the university community's suggestions regarding updating content on the LibGuides website are taken into account and implemented.

The use of LibGuides is monitored on a system basis using the Google Analytics service (from February 28, 2023). It should be noted that during the short period of its existence, this project has proven itself as a useful tool for finding the necessary information. The usage statistics of the LibGuides website show a gradual and constant improvement, an increase in the number of audience coverage. The increase in the number of visits to the website in certain periods indicates that the holding of presentation meetings (in the period from March to April 2023) caused interest in viewing. At the same time, it was found that in July-August there was a decrease in the indicators of usage activity, which is associated with the educational process stopping and summer student vacations beginning, as well as vacations of scientific and pedagogical staff (Fig. 3). At the beginning of the new academic year (September 2023), there is a general increase in the number of audience coverage and increase in interest to the individual thematic pages of the LibGuides website (Fig. 4).

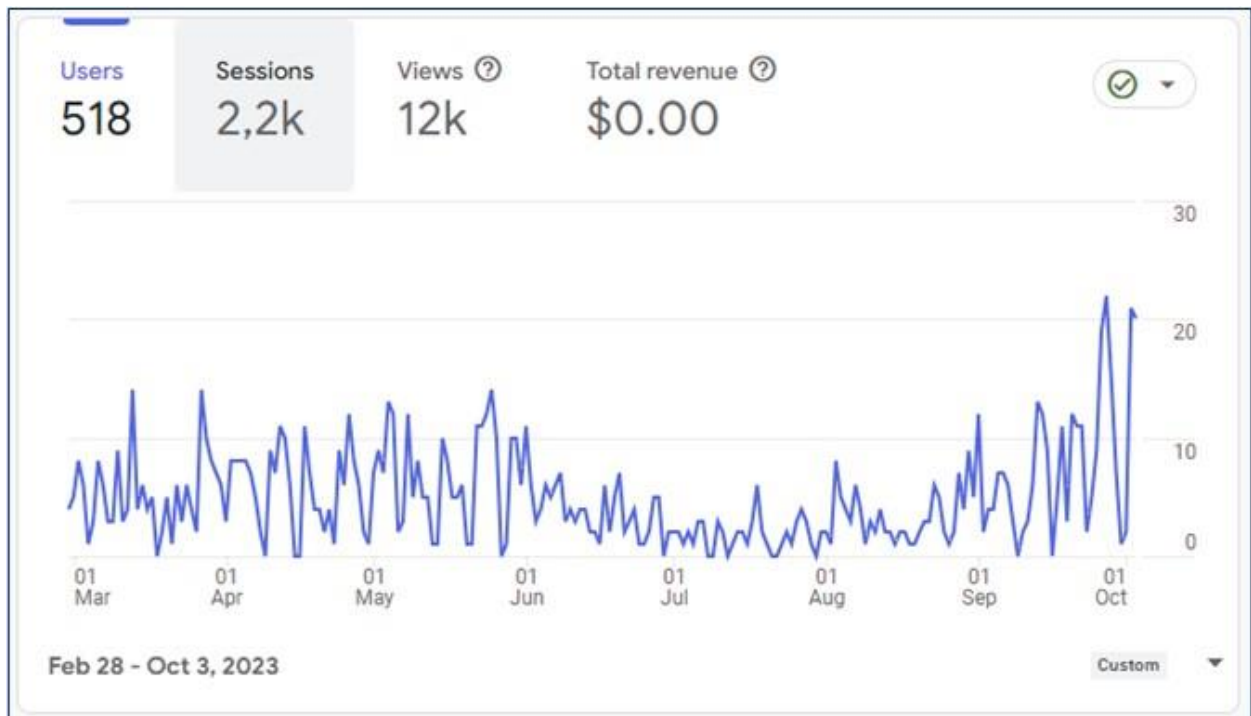MANAGEMENT AND MARKETING AT THE UNIVERSITY LIBRARIES

Fig. 3. Usage Statistics of the LibGuides Website as of October 3, 2023

Fig. 4. The List of the Most Popular Thematic Pages of the LibGuides Website in
September 2023

Based on the conducted statistical analysis, the SumDU Library notices the need for intensive promotion of the new resource to a separate category of users of each faculty/institute: students of various levels of education, teachers, and scientists. In order to effectively support the

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educational process, it is necessary to annually apply the latest strategies for popularizing LibGuides among first-year students of all specialties.

Conclusions

The article offers a new conceptual vision of the role of university libraries. It has been proven that they provide not only access to knowledge but also help the university community to use it effectively, and promote the open exchange of knowledge for research and education. The study revealed one of the latest technologies of knowledge management, which contributes to the development of a high-quality system of services and resources for the SumDU Library – the LibGuides implementation. The results of the analysis show that LibGuides are a tool that provides a system of interrelated processes for the creation, systematization, analysis, preservation, transfer, and actualization of explicit and tacit knowledge, as well as provides access to them to the SumDU academic community, aimed at creating additional value in support of learning, teaching, research activities.

On the basis of our own study, we have come to the conclusion that the LibGuides implementation with the use of a new knowledge management infrastructure leads to a rethinking of the functions of subject librarians, who, in addition to information support, are responsible for the effective organization of the interaction process and the establishment of partnerships with faculties/institutes, which contributes to the successful achievement of common goals, unification and coordination of efforts, rapid implementation of new solutions.

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Організація управління знаннями в контексті лібгайдів бібліотеки Сумського державного університету

Мета. У статті розглянута роль управління знаннями бібліотеки закладу вищої освіти в сучасних умовах глобального інформаційного суспільства. Висвітлено процес впровадження лібгайдів як нового інструменту систематизації, аналізу, збереження, трансферу, актуалізації знань та доступу до них. **Методика.** Дослідження проводилося шляхом використання методів: аналітико-оглядовий, методи аналізу та синтезу, порівняння досвіду бібліотек світових університетів, статистичний метод. **Результати.** Показано роль бібліотеки як інформаційного інституту в контексті розвитку суспільства знань. Розглянуто досвід бібліотеки Сумського державного університету щодо впровадження лібгайдів, що сприяють створенню нових знань, продуктивному їх використанню, а також формуванню інформаційної грамотності, академічної доброчесності науковців, викладачів і студентів університету. **Висновки.** Значну роль в організації управління знаннями усіх учасників освітньо-наукового процесу відіграють університетські бібліотеки. Лібгайди – це ефективний інструмент в практиці управління знаннями, що включає роботу предметного бібліотекаря з новими технологіями, генерування нових знань і обмін знаннями без будь-яких географічних обмежень.

Ключові слова: університетські бібліотеки; управління знаннями; лібгайди; професійний кінцевий продукт; комунікативний менеджмент; предметний бібліотекар