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THE ROLE OF THE UKRAINIAN UNIVERSITY LIBRARIES IN INCREASING REPRESENTATION OF UKRAINIAN SCIENCE INTO GLOBAL ENVIRONMENT OF SCIENTIFIC COMMUNICATIONS

Defining the role of libraries in Ukrainian universities in the integration processes of scientific publications in international scientific and information space. Features of realization new digital initiatives in Ukraine are examined on example scientific-technical library of Dnipropetrovsk National University of Railway Transport. Monitoring/analysis of information flow of world library information science (“DOAJ”, “E-LIS Repository”, “SciVerge Scopus”, social networks) has identified Ukrainian scientists’ low level publications presence in it. It is offered a number of current perspective libraries activity directions. Also implementation of it allowed strengthening the role of libraries in the formation of new information technology infrastructure of science and becoming libraries’ “points of growth”.

Keywords: university library, digital initiatives, scientific communication, Ukrainian science, intellectualization of library activities, librarian, integration of scientific publications, library of DNURT, library publishing services, new publishing model

Now, in the conditions of rapid development of information and communication technologies, changes in the patterns of education and science, acceleration of the process of spatial diffusion of documented knowledge, broaden of the audience horizon expectations in the foreground in any country of the world is the question on increasing of the contribution of the university libraries in the development of institutional missions and goals. In the process of evolution, the university libraries in their activities to foster the creation and dissemination of knowledge and their long-term conservation of overcome physical limitations (locality) and acquire the characteristics of a global nature. At the same their mission has not changed, and only changed the way of their execution (Kolesnikova, 2014; Library Publishing Services, 2012; 2012 top ten trends in academic libraries, 2012; Ronald, 2012; Lewis, 2007) [5, 8, 9, 17, 21].

University libraries of Ukraine, which are the information centers of their institutions, try their best to meet the information needs of communities in education, researches, pedagogical and administrative practices. However, for today the main characteristic feature of their activity is the definition of intelligent information technologies strategic vector of functioning, the ideologeme of development and a prerequisite of existence.

The gradual displacing of library activities in the plane of digital communications is accompanied by the transformation of the structure and functions of the university library and introduction the new directions of library production and services.

One of such directions, highly demanded by the scientific community of the University, is the inclusion in the range of direct interest and responsibility of the library activities for the dissemination research results of the Institute's scientists in international scientific space.

The issues of development of digital initiatives scientific communication, including those associated with Open Access, and the role of university libraries are actively discussed in the world professional press.

Thus, the transformation processes in the system of scientific communications, development of digital libraries as the part of the digital research infrastructure and science 2.0, new models of publishing scientific periodicals and participate in these initiatives of the university library can be met in various publications (Devlin, 2013; Kolesnykova, 2013; Nahotko, 2013; Solovjanenko, 2010; Wittenberg, 2008; Library Publishing Services, 2012; Lewis, 2007; Turtle, 2007; Pyati, 2007) [1, 4, 8, 9, 11, 15, 18, 19, 20].

Influence of preservation of scientific documents on the Internet (repositories, digital libraries, e-journals, websites, authors blogs and so on) on the visibility of these documents in general and specialized search engines are investigated in the work of A. Pulikowski (2012) [14].

The discussion on the need of improving the library status-role positions at the University, permanent bringing by them, the value which they pose to the community of their institutions, we can found in different publications (Kolesnykova, 2013; Podrezova, 2013; 2012 top ten trends in academic libraries, 2012; Robinson-Garcia, 2011) [4, 13, 16, 21].

The using information-analytical activity of traditional libraries in modern practice (library- and scientometrical) evaluation methods, and in the future – a new, built on the basis of the social web (altimetry), are discussed by different scientists (Kolesnykova, 2013; Nazaroveć, 2012; Más-Bleda, 2013) [4-6, 10, 12].

The problem of lack representation of Ukrainian science in the space of virtual communications, including international scientometrical databases (DB), has become a subject of study of the following scientist such as Kolesnykova and Kostenko (2013) [4, 7].

The strategic choice of the innovative model of the university library as a means of adaptation to rapidly changing communication environment, predict the imple-

mentation of measures – from innovation support of the University administration to preparing innovative user interaction and relationships in a fundamentally new directions, are discussed in publications Guo Jing and Klugowska (2009) [2, 3].

At the same time, laying of new traditions in the work of the university libraries in Ukraine, numerous instances of experimentation with new features that provide new information technologies and which allows you to create not only a new educational and research area, but also provide generation, extraction, preparation and transportation of information and knowledge are required more detailed discussion.

Purpose.

Proceeding from the above, the aim of this work is the definition of the role of Ukrainian university libraries increasing the representation of Ukrainian science in global space scientific communications. The discussion of this issue became possible due to the introduction of new University libraries activities – responsibility for the dissemination of research results of the Institute's scientists in the web environment.

Research objectives are required the monitoring and analysis of the global flow of documentary information on this topic; clarification of the components in this direction and peculiarities of its realization in the universities of Ukraine; situation analysis regarding display of scientists' works of Ukrainian library science in the world of scholarly communication; identification of current and perspective directions of libraries activity in the direction of increasing the representation of Ukrainian science in global space of scientific communications.

Methods.

Theoretical basis of the research was the highlighting publication in the evolutionary development of social communications, interconnected and interdependent co-evolutionary processes of science, science communication, scientific libraries, advanced processes in the bibliometrics and scientometrics. In this paper, we used the methods of scientific analysis, generalization, analogy, comparison, prediction and so on.

Thus, the authors investigated numerous examples of practical implementation directly on liability of Ukrainian university libraries for dissemination scientists' research of the institution in the international scientific and educational information environment. For example, this is the following libraries of Ukrainian universities such as: Dnipropetrovsk National University of Railway Transport, National Technical University of Ukraine "Kyiv Polytechnic Institute", National Technical University «Kharkov Polytechnic Institute», National University "Kyiv-Mohyla Academy", National University "Lviv Polytechnic", Odesa I. I. Mechnikov National University, Sevastopol National Technical University, Sumy State University, Ternopil Ivan Pul'uj National Technical University, V. N. Karazin Kharkiv National University, and others.

While in terms of limited capacity (financial, technical, human), an innovative Ukrainian university library is concentrated the library resources, library and production services to the most important areas of development which can become “points of growth” of library. Thus, the “points of growth” are areas which provide the most complete focus on the information scientists’ needs as the information donors and acceptors of knowledge (Kolesnykova, 2013; Kolesnikova, 2013, 2014; Kostenko, 2013; Nazaroveć, 2012; Podrezova, 2013; Solovjanenko, 2010) [4, 5, 6, 7, 12, 13, 18].

Experience on implementation of university libraries direction with responsibility for dissemination of scientific research institutions in the world scientific and information space; consider the example of Scientific and Technical Library of Dnipropetrovsk National University of Railway Transport named after Academician V. Lazaryan (STL DNURT). The library was established in 1930 together with the University. STL DNURT today is one of the leading university libraries in Ukraine in the field of railway transport. Foundation of publications library is nearly 1 million copies; electronic collection features a database of their own generation and licensing. The number of users of a single library card is more than 12,500 people.

Today, generally built (but continue to evolving) an innovative model of university libraries of DNURT is noted: *first*, processes, infrastructure rapprochement with scientific activity; *secondly*, strengthening those aspects that allow to consider the library as a center of the intellectual activity information of educational establishment, as an active participant of processes of scientific-educational communication, organization, e-education, e-science and e-research; *in the third*, the implementation the deep concept of intellectualization of library profession.

Active work of STL DNURT in the direction of the introduction of digital initiatives was launched in 2009. It provided for mastering two powerful information technology platforms with open code – DSpace and OJS for integration of scientific documentary information of the University, which is its intellectual property, to the global space of virtual communications.

So, on the DSpace platform initiated by library, are created and further supported the university repository (digital archive of scientific works – “eaDNURT”, <http://eadnurt.diit.edu.ua/>). It is integrated into the international and national systems of open digital archives: ROAR (ID: 3288); OpenDOAR (ID 2667); SSMOUA (Simple Search Metadata in Open Ukraine Archives).

Employees of STL DNURT, who is supporting the creative practice of foreign libraries towards implementing a new electronic scientific publishing model – “library as publisher of scientific e-journals” (Library Publishing Services, 2012; Solovjanenko, 2010) [9, 18], had mastered the possibilities of Open Journal Systems (OJS). All these are allowed:

- firstly, to become the co-editors of two scientific periodicals – “Anthropological measurements of philosophical research” (<http://ampr.diit.edu.ua/>) and “Science and Transport Progress” (<http://stp.diit.edu.ua/>), providing a technical

platform by coordinating the movement of journal articles by including the present production services bibliographies, translators, experts in copyright compilers digital archives publications, etc.;

- secondly, to create system of DNURT of scientific periodicals at university sites - «E-Journals of DNURT» (<http://ejournals.diit.edu.ua/>, on 01.01.2014 – 6 editions in perspective – 8) and coordinate this activities.

Thus, the active support of Open Access initiatives by DNURT library provides unlimited access to researchers around the world to publications of university scientists and their periodicals, thereby increasing their visibility and scientific impact.

The logical continuation of the implementation of new digital initiatives that strengthen the role of libraries in the formation of a new information technology science infrastructure was a set of measures of STLs in progress publications of DNURT scientists and their periodicals to the world e-catalogs, full text, abstract and scientometrical database search and reference of the world. Thus, two specialized periodicals – “Anthropological measurements of philosophical research” and “Science and Transport Progress” are registered (on 01.01.2015) in the international registration systems and catalogs (UlrichswebTM Global Serials Directory, OCLC-WorldCat and others) scientometrical systems of different levels (DOAJ, Google Scholar, Polish Scholarly Bibliography, eLIBRARY.ru, CiteFactor, DRJI, Index Copernicus), search services and meta depository of scientific information (DRIVER, BASE, ResearchBib etc.).

To improve the link popularity of DNURT scientists and influence of its periodicals, STL's employees are provided the placement of scientific works in the library collections of influential universities and national libraries in different countries.

So, on 01.01.2015, the DNURT is presented by its publications in the electronic library collections: University of Cambridge (UK), UNIVERSIA (Spain), The Grove Online Library (UK), California State University (USA), Monash University (Australia), Erasmus Universiteit Rotterdam (Germany), University Georgia (USA), Charles University in Prague (Czech Republic), Education for Scotland (Scotland), State Library of New South Wales (Australia), University of Sainte-Anne (Canada), Syracuse University (USA), Search Texas A & M University-San Antonio Library (USA), Simpson University (USA), Leiden University (Germany), University of Groningen (Netherlands), University of Hong Kong (China), National library of Australian (Australia) and others.

In the communication libraries practices, which are the main formal channels of documented scientific communication and guarantees acceleration of spatial diffusion and maintaining of documented knowledge activated by means of the presentation of new information and knowledge, the information exchange intensity is increasing. In order to maximize the full information support of research activities, the DNURT library expands access to both of their collections to electronic publications, and

to the documentary world research resources – licensed commercial database, free access online resources, databases of scientific and technical information in the test domain. So, today the university scientists are able to use the products of commercial information systems and databases: “Elsevier” (“Scopus” and “ScienceDirect”, Netherlands), “League-Law” (Ukrainian), “Budstandart” (Ukrainian), DB “Official Bulletin of Ukraine” (Ukrainian), DB “Mechanical engineering. Locomotive engineering and car-building” (Russian), DB “Transport. Automation, Remote Control and Communication on the railways” (Russian), DB “Transport. Traffic control on railways” (Russian), DB “Energy. Generators of heat and direct conversion of chemical energy into electrical” (Russian), and others.

Taking into consideration the STL DNURT continuous change of research methods around the world, with the ability of quickly respond to new information needs of users, researchers, extension of access to digital resources and targeting them, actualized the need for scientific workshops for university researchers and editors of periodicals. Their subject matter provides clarification rows aspects citation indexes to improve academics and influential periodicals university orientation in international databases of scientific and technical information, opportunities of self-archiving scientific documents in institutional repositories or content and so on.

The need to determine the level of web-representation of University science in integrated international scientific and information space stimulated the creation of the new line of activities in 2011 – the information analysts in STL DNURT. The specialists of the library, including who deal with research and information work:

- monitor of the global scientific information flow in terms of “visibility” of scientists and university periodicals;
- conducting research on the level of scientific citation indexes and influential periodicals in scientometrical databases (Scopus, eLIBRARY.ru, DOAJ, Google Scholar, Index Copernicus, etc.);
- facilitate to correct display of authors profile and DNURT in the whole international scientometrical universal database “Scopus” and databases of the other level;
- determine the most top ranking journals (in terms of international and citation database “Web of Science and Scopus”), in which it is desirable to publish the scientists of the University, and will present recommendation thematically structured lists of journals on the website of the scientific library (<http://library.diit.edu.ua/>);
- forms its own database created “Publication profile science of DNURT” with the most complete information display about the activities of their authors publications scholars (bibliographic description monographs, theses, dissertation abstracts, articles from scientific journals, reports on conferences, etc.) and their scientific metrics;
- makes forecasting and advisory help to improve the representativeness of University scientists’ publications in the international scientific Data Base, the

level of approximation of its own university periodicals to the world standards and other.

In our opinion, the consideration of the implemented projects towards university libraries liability for the dissemination of research results to scientists in the virtual space of scientific communication as an example of STL DNURT would be incomplete without making another extremely important issue. This issue is the emergence of a new librarian formation (Kolesnikova, 2013; Ronald, 2012; Robinson-Garcia, 2011; Turtle, 2017, Wittenberg, 2008) [4-6, 16, 17, 19, 20].

The development of new areas of information interaction changed the role of the librarian in scientific communication at higher education institution. Librarian scientists noted (Turtle, 2007; 2012 top ten trends in academic libraries, 2012) [19, 21] that the librarians are usually more knowledgeable of e-Science and Science 2.0 than the faculty and the university administration. That's why librarians are trying to occupy the leading position with the introduction ideals of modern scientific communication in practice. This implies that the modern librarian should become a "role model" for the community of higher education institutions in digital scholarly communication initiatives, and in implementation it on their own practice using what he popularize. Among its strategies as "role model" we have highlighted some of them.

1. Publications by employees of Ukrainian University libraries their own articles in scientific periodicals of open access. For example, on 01.09.2014, the Directory of Open Access Journals (DOAJ) offers free electronic access to articles from 162 professional journals, united heading "Library and Information Science" ("Library and Information Science"). This edition of the following countries: Bulgaria (1), United Kingdom (6), India (9), Spain (13), Italy (2), Canada (5), Lithuania (2), Netherlands (4), Germany (6), Poland (3), Romania (2), USA (48), France (3), and others. Library Periodicals of Ukraine, Belarus, Russia in DOAJ are missing.

Scientists from around the world have access to 14 712 articles posted in DOAJ «Library and Information Science» and established authors from: UK (326), India (212), Spain (622), Italy (162), Canada (1077), Lithuania (93), the Netherlands (565), Germany (563), Romania (620), Turkey (2360) and others. Articles by authors who have affiliation of Ukraine, Belarus, and Russia in DOAJ are not found on 01.09.2014.

2. Self-archiving of scientific articles, reports, monographs, dissertations, and other documents in institutional repositories or content. For example, in international digital archive of library and information science "E-LIS Repository" (Repository for Library and Information Science) on the request «countries» – Ukraine (<http://eprints.rolis.org/view/countries/UA-.html>) has obtained the following results (on 01.09.2014):

- the total number of documents is 46;
- the most numerous sole copyright collection of documents with the following scientists: S. Nazarovets (14), T. Kolesnykova (10), T. Bulakh (6), A. Solyanik (6), T. Yaroshenko (2). Another 2 documents belong to co-authors – V. Sheiko, M. Kanystratenko, N. Kushnarenko and etc.

E-collection of library and information in some other countries «E-LIS Repository» presented as follows (in documents): Australia (102), Belarus (3), Bulgaria (15), Canada (428), Moldova (1), Germany (578), Poland (437), Russia (9), Slovakia (2), Turkey (436), Hungary (22), France (119), Czech Republic (120) and others.

At the same time, it should be noted that there are 75 institutional repositories (by ROAR data on 01.09.2014) in Ukraine, the activity of which is supported by the vast majority university librarians.

3. Publishing articles on their own websites, blogs and social networks. Interesting results regulations supplement brings Operation of e-science rules of the Science 2.0 (based tools Web 2.0), which creates a new communication environment (Nahotko, 2013; Turtle, 2007) [11, 19]. E-science, ensuring dissemination of research results by formal channels of communication (scientific journals, conference proceedings, monographs and other publications in electronic form), allows users to passive viewing content. At the same time, science 2.0, using informal channels of communication, as opposed to e-science allows scientists (authors and readers) free discussion of open access on any aspect of research, providing rapid feedback, accelerating the correction of possible errors and implementation of experiments and creating virtual communities of scientists.

For example, there are enough active work of Ukrainian university scholars and librarians who care blogs “Pan Bibliotekar” (<http://panbibliotekar.blogspot.com/>), “Mohyla librarian” (<http://kmalibrary.blogspot.com/>), “Ex Libris Mrs. Librarian” (<http://drpsklibr.blogspot.com/>) and others.

4. Observance of publication ethics (ethics of scientific publications), the main aspects which cover the attitude of the authors, editors and readers in the processes of scientific articles preparation by the author, the interaction between the author and editor at submission of the manuscript, the rights of the all authors publisher, the publishers and readers relationships, the solution of conflict situations at detection of plagiarism, errors in the results of studies, and also other questions connected with the publication and distribution of scientific articles.

From the author’s point of view, it is the implementation strategies of the librarian as a “role model” in the process of digital initiatives introducing of scientific communication in practice is a bright example of intellectualization of library activities (Kolesnikova, 2013) [4].

At the same time, for Ukrainian librarianships is extremely important to publish their own articles in the influential foreign journals. But today, unfortunately, the vast majority of domestic scientists do not have information what magazines in the field of library and information science have the greatest indexed in “Web of Science” and “SciVerge Scopus”.

During the research of the following is established: in Scopus on request “library” is found 51 scientific journals, 11 of them have already inactive. The Ukrainian scientific periodicals in this database the author has not found. Here are some publications (in order of ranking their indexes SJR):

- Library and Information Science Research (1.754);
- Journal of the Medical Library Association JMLA (1.320);
- Journal of Library Administration (1.204);
- Library Hi Tech (0.996);
- Library Quarterly (0.961);
- Library Collections, Acquisition and Technical Services (0.917);
- New Library World (0.845);
- Library Resources and Technical Services (0.730);
- Journal of Interlibrary Loan, Document Delivery and Electronic Reserve (0.718);
- Library Management (0.646);
- Malaysian Journal of Library and Information Science (0.439);
- Library Trends (0.430);
- Journal of Library and Information Services in Distance Learning (0.343).

In Scopus, at the request of “University Library” (referential constraint – “Social Sciences”) found 554 documents. Affiliation of the authors publications are follow: United States – 148, Nigeria – 54, UK – 46, Spain – 34, India – 32, Pakistan – 23, China – 22, Australia – 17, Austria – 14, Finland – 14, Canada – 12, Estonia – 8, Italy – 6, Turkey – 5, Germany – 4, Romania – 2, Bulgaria – 1, Poland – 1, Slovenia – 1, and so on.

On the request “University Library” (referential constraint – “Arts and Humanities”) found 36 documents followed affiliation: United Kingdom and the United States – 5, Canada – 4, Germany and Romania – 2, Bulgaria, Estonia, Spain, Finland and some other countries – 1.

Any documents on the request “University Library” (in various constraints) which belonged to Ukrainian scientists and has been indexed in the database «Scopus», the author has not found. At the same time, it was found 1 document (Bashun O., Ukraine) on request “library science”.

Thus, the data suggest an insufficient level of representation of Library and Information Science of Ukraine in the international scientific space («E-LIS Repository», «Scopus», DOAJ, social networks).

Results.

Analysis of information flow from the development of world and national library of science and practice, the direct participation of the author in the implementation of several projects on integration of scientific publications of the international information space to highlight a number of current and perspective directions of activity of Ukrainian University libraries in the direction of raising the profile and increasing the representation of Ukrainian science in global space of scientific communications.

List these vectors.

I. Improving by university libraries the quality of information research support by means of:

- a) expanding the range of domestic and foreign scientific and documentary information resources (including access to licensed full-text databases and scientometric);
- b) creation of the navigation system orientation in industrial and universal full-text, abstract and scientometric database (on the site of the library as a “common window”);
- c) the introduction of new specializations of library and information activities; for example bibliographer intelligence, expert bibliographer international information retrieval systems, “built” the librarian (embedded librarian) specialist library, which is included in the composition of the research group and is engaged in the ordering, structuring, processing, analysis and reorganization of primary (unpublished) information;
- d) conducting workshops for scientists, due to new requirements publication activities focus on a variety databases of scientific information, self-archiving documents in repositories (institutional or thematic) and others.

II. Further support of digital library initiatives, including in order disseminating the results of research scientists of universities in the space of digital communications through:

- a) the organization and support of university repositories (digital archives of scientific work);
- b) implementation of the model “Library as publisher of scientific e-journals” (in Ukraine on the platform OJS);
- c) coordinating the activities of scientific periodicals sites of each university and their integration into the national system (new statewide portal “Scientific Periodicals of Ukraine” platform OJS, supported by URAN – Ukrainian Research and Academic Network Universities Users);
- d) registration of scientific periodicals University in international directories (e.g. Ulrichsweb™ Global Serials Directory, OCLC-WorldCat), scientometric database at different levels (national, thematic, universal) search engine and meta depository of scientific information;
- e) extension of activities presentation to popularize documentary research resources of the University (virtual exhibition entries on Wikipedia, announcements and news feeds, advertising on social networks, etc.).

III. Intensive development of information-analytical and university libraries of scientometric activities related to:

- a) monitoring the global scientific information flow, analysis of citation indexes influential scientists and scientific periodical publications institution;
- b) forming publication university online profile of science that includes: 1 – the most complete collection and arrangement in its own internal database

created “Publication profile science of DNURT” information about their activity, authors publications (bibliographic description monographs, theses, dissertation abstracts, articles from scholarly journals, reports on conferences, etc.) and their scientific metrics; 2 – integration DB “Publication profile science of DNURT” from institutional repositories; 3 – implementing measures to correctly display the profiles of authors, research groups and universities as a whole in external scientometric (or abstract) databases at different levels (national, thematic, universal);

- c) prognostic and recommended activities to improve the representativeness of the publications of university scientists to international scientometric database approximation of their university periodicals with international standards and so on.

According to the author’s opinion, implementation of these policies needs some complex events at the national level. It can be, for example: a) the development of methods and implementation arrangements of preparation and publication of scientific articles in journals included in the international scientometric database; b) address issues regarding changes in the structure and staffing of university libraries, taking into account the need to perform their new activities related to data management primary (unpublished) and secondary (published) scientific information, information analysis, scientometric investigations, etc.

The survey results show that most information prepared by experts at universities, able to engage in information – analysis and monitoring of the correct representation publications and institutions in the abstract database, quality of the libraries and scientometric research led by scientists from the academic degrees are librarians. They, having centuries of experience with general information and bibliographic databases (or their analogues) in particular, have the ability to ensure the creation and maintenance of the internal database of publications of scientists’ institution and editing profiles of authors, research groups, and the University Scientometric Database at various levels.

At the same time, the management of libraries (both Ukrainian and foreign universities) still remains unresolved important issue. This is the conflict, on the one hand, between the generation of new ideas and librarian’s effectiveness of their implementation, and the second is the reluctance to take risks and be responsible in the innovations introduction (Ronald, 2012).

The logical continuation of the implementation of new digital initiatives that strengthen the role of libraries in the formation of a new information technology infrastructure of science should be continuous monitoring of the quality of services. It is as clear definition of user expectations and their quality performance library as contribution to institutional effectiveness (in the process of teaching and learning, research, social, professional and social processes of the University). But today, in universities of Ukraine monitoring of this trend happening, unfortunately, occasionally and usually in the course of general studies on the quality of library services.

The results show that the emergence of a new library philosophy, which comprehends: 1) the benefits of open access to information; 2) the willingness distribution of libraries on the primary arrays (unpublished) research information; 3) great interest, the creative approach and the direct participation of academic librarians in the pilot projects for the introduction of digital scientific communication forms; 4) the intellectualization of the library profession.

Conclusions.

The extremely important task of leading Ukrainian universities is to provide in the nearest future their accession to the main international ranking of the best universities in the world. A special role in this process belongs to the university library, which assumed responsibility for the dissemination of scientific research institutions in the global environment electronic communications.

Analysis of the global distribution of scientific expertise documentary information in the space of electronic communications activities in these areas, university libraries, and obtained data on presence of library and information science in Ukraine International information space to the following conclusions:

1. Ukrainian University Libraries took the leading place in raising the representation of Ukrainian science in the global scientific information space. At the same time, the level of “visibility” and significance of Ukrainian library and information science in the area of digital communications research is insufficient.

2. Vectors of current and future activities of the Ukrainian University Libraries in the direction of increasing the representation of Ukrainian science in international scientific and media space should be considered: a) improve the library as an information support of scientific research; b) further support digital library initiatives, including in order to disseminate the results of research university academics in the space of digital communications; c) intensive development of informational and analytical service libraries; bibliometric and scientometric activities.

3. Implementation of library activity data vectors will prevent the “dispersion” of documentary research and information resources of each university and their consolidation at the levels of internal and external (national, international) communication spaces, increase the importance of Ukrainian scientific publications and prestige of Ukrainian science in general, contribute to positive dynamics of a single University in the rating evaluation (national and international).

4. Meanwhile, implementation of the digital library activities scholarly communication initiatives will: first, to strengthen the role of university libraries in the formation of new information technology science infrastructure; secondly, to become their “points of growth”.

5. Active introduction new digital scholarly communication initiatives by Ukrainian university libraries are evidence of their ability to implement the evolutionary transition from the activities of creation, preservation, description, structuring documentary information and access to the level of awareness of

oneself as a social institution in charge of the selection and reasonable flow analysis knowledge around the user - scientist.

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Список використаної літератури

1. *Devlin F.* Evolving Models of Reference Staffing at the University of Kansas Libraries [Текст] // F. Devlin, J. Stratton // *Research Library Issues: A Report from ARL, CNI, and SPARC.* – 2013. – № 282. – P. 21-26; Те ж саме. – Режим доступу: <http://publications.arl.org/rli282/21> (дата звернення 15.03.2015).
2. *Guo J.* The innovative university library: strategic choice, construction practices and development ideas [Текст] // J. Guo // *Library Management.* – 2009. – № 30 (4/5). – P. 295-308.
3. *Klugowska A.* Model bibliotekarza dziedzinowego z zakresu sztuk plastycznych w kontekście przemian informacyjno-komunikacyjnych w bibliotece uniwersyteckiej w Toruniu [Текст] // A. Klugowska // *Biblioteki i ich klienci: między płatnym a bezpłatnym komunikowaniem się...* – 2009. – № 6. – P. 165-174.
4. *Колесникова Т. А.* Интеграция украинской отраслевой научной периодики в мировое научно-информационное пространство: проблемы и решения [Текст] // Т. А. Колесникова // *Наука та прогрес транспорту. Вісн. Дніпропетр. нац. ун-ту залізн. трансп.* – 2013. – № 6. – С. 7-22; То же. – Режим доступу: <http://eadnurt.diit.edu.ua:82/jspui/handle/123456789/2066> (дата звернення 12.05.2015).
5. *Колесникова Т. А.* Коммуникационные модели деятельности библиотек высшей школы [Текст] // Т. А. Колесникова // *Библиотековедение.* – 2014. – № 1. – С. 114-122.
6. *Колесникова Т. О.* Впровадження інноваційної моделі бібліотеки університету як чинник глибокої інтелектуалізації бібліотечної професії [Текст] // Т. О. Колесникова // *Вісн. Кн. палати.* – 2012. – № 11. – С. 21-22; 2013. – № 1. – С. 19-23; Те ж саме [Електронний ресурс]. – Режим доступу: <http://eadnurt.diit.edu.ua:82/jspui/handle/123456789/1714> (дата звернення 12.03.2015).
7. *Костенко Л. Й.* Видимість наукової періодики України в мережі Інтернет [Текст] // Л. Й. Костенко // *Наука України у світовому інформаційному просторі.* – 2013. – Вип. 8. – С. 27-36.
8. *Lewis D. W.* A Model for Academic Libraries 2005 to 2025 [Електронний ресурс]. – Режим доступу: <https://scholarworks.iupui.edu/handle/1805/665> (дата звернення 21.03.2015).
9. *Library Publishing Services: Strategies for Success: Final Research Report (March 2012)* [Електронний ресурс]. – Режим доступу: http://docs.lib.purdue.edu/purduepress_ebooks/24/ (дата звернення 15.02.2015).
10. *Más-Bleda A.* Can a personal website be useful as an information source to assess individual scientists? The case of European highly cited researchers [Текст] // Amalia Más-Bleda, Isidro F. Aguillo // *Scientometrics.* – July 2013. – Vol. 96, iss. 1. – P. 51-67.
11. *Nahotko M.* Global Digital Library as part of e-Research infrastructure and Science 2.0 [Електронний ресурс] // Marek Nahotko. – Режим доступу: <http://eprints.rclis.org/20343/2/GDL.pdf> (дата звернення 15.02.2015).
12. *Назаровець С.* Алтметрікс: новий підхід до оцінки якості наукових досліджень [Електронний ресурс] // Сергій Назаровець. – Режим доступу: http://eprints.rclis.org/18908/1/nazarovets_kyiv2012.pdf (дата звернення 20.02.2015).
13. *Подрезова М. О.* Бібліографічна культура періодичного видання як напрямок інформаційно-аналітичної діяльності бібліотеки [Текст] // М. О. Подрезова // *Вісн. ОНУ. Серія: Бібліотекознавство, бібліографознавство, книгознавство.* – 2013. – Т. 18, вип. 1 (9). – С. 105-114; Те ж саме [Електронний ресурс]. – Режим доступу: <http://vislib.onu.edu.ua/article/view/26191/23673> (дата звернення 05.05.2015).
14. *Pulikowski A.* Widoczność publikacji naukowych w Internecie [Електронний ресурс] // Arkadiusz Pulikowski // *IV Ogólnopolska Konferencja Naukowa. Zarządzanie informacją w pauce.* 28-29 listopada 2012. – Katowice, 2012. – Режим доступу: <http://www.ptin.org.pl/konferencje/Z2012/repozytorium/Pulikowski.pdf> (дата звернення 12.05.2015).
15. *Puati A.* A Critical Theory of Open Access: Libraries and Electronic Publishing [Електронний ресурс] // A. K. Puati // *First Monday.* – 2007. – Vol. 12, no. 10. – Режим доступу: <http://firstmonday.org/article/view/1970/1845> (дата звернення 20.02.2015).
16. *Robinson-Garcia N.* Librarians “embedded” in research [Текст] // N. Robinson-Garcia & D. Torres-Salinas // *CiLiP Update Gazette, CiLiP.* – 2011. – P. 44-46.
17. *Ronald C. J.* Innovation in academic libraries: An analysis of university librarians’ perspectives [Текст] // C. J. Ronald // *Library & Information Science Research.* – 2012. – № 34. – P. 3-12.

18. Соловяненко Д. Академічні бібліотеки в новому соціотехнічному вимірі [Текст]. Ч. 1. Академічна бібліотека як видавець / Денис Соловяненко // Бібл. вісник. – 2010. – № 4. – С. 3-14.
19. Turtle E. C. Scholarly Communication: Science Librarians as Advocates for Change / E. C. Turtle, M. R. Courtois [Електронний ресурс]. – Режим доступу: <http://www.istl.org/07-summer/article2.html> (дата звернення 20.03.2015).
20. Wittenberg K. The Role of the Library in 21st-Century Scholarly Publishing [Текст] / K. Wittenberg // No Brief Candle: Reconceiving Research Libraries for the 21st Century: Papers from a Meeting Convened by CLIR (Washington, D. C., 27 Febr. 2008). – 2008. – P. 35-41.
21. 2012 top ten trends in academic libraries: A review of the trends and issues affecting academic libraries in higher education. June 2012 [Текст] // College & Research Libraries News. – Vol. 73, no. 6. – P. 311-320.

Надійшла 12.05.2015 р.

References

- [1] Devlin F. Evolving Models of Reference Staffing at the University of Kansas Libraries. *Research Library Issues*, 2013, no. 282, pp. 21-26. Available at: <http://publications.arl.org/rli282/21> (accessed 15 March 2015).
- [2] Guo J. The innovative university library: strategic choice, construction practices and development ideas. *Library Management*, 2009, no.30 (4/5), pp. 295-308.
- [3] Klugowska A. Model bibliotekarza dziedzicznego z zakresu sztuk plastycznych w kontekście przemian informacyjno-komunikacyjnych w bibliotece uniwersyteckiej w Toruniu. *Biblioteki i ich klienci: między płatnym a bezpłatnym komunikowaniem się...*, 2009, no. 6, pp. 165-174. Available at: http://www-old.inib.uj.edu.pl/wyd_iinb/-s3_z6/klugowska (accessed 12 April 2015).
- [4] Kolesnykova T. Integratsiya ukrainskoy otraslevoy nauchnoy periodiki v mirovoe nauchno-informatsionnoe prostranstvo: problemy i resheniya [Integration of the Ukrainian branch scientific periodical press into world scientific information space: problems and decisions]. *Nauka ta progres transportu. Visnik Dnipropetrovskoho natsionalnoho universytetu zaliznichnoho transportu*, 2013, no. 6, pp. 7-22. Available at: <http://eadnurt.diit.edu.ua:82/jspui/handle/123456789/2066> (accessed 12 May 2015).
- [5] Kolesnikova T. Kommunikatsionnye modeli deyatel'nosti bibliotek vysshey shkoly [Communication models of libraries activity in the higher school]. *Bibliotekovedenie*, 2014, no. 1, pp. 114-122.
- [6] Kolesnykova T. Vprovadzhennia innovatsiinoi modeli biblioteki universytetu yak chynnyk hlybokoi intelektualizatsii bibliotечної професії [Innovative University Library, the communication model of the library activity, an alternative model of scientific communication, intellectualization of the library profession]. *Visnik Kryzh. palaty*, 2013, no. 11, pp. 19-23. Available at: <http://eadnurt.diit.edu.ua:82/jspui/handle/123456789/1714> (accessed 12 March 2015).
- [7] Kostenko L. Vydymist naukovoї periodyky Ukrainy v merezhi Internet [The visibility of scientific periodicals of Ukraine in the Internet]. *Nauka Ukrainy u svitovomu informatsiinomu prostori*, 2013, issue 8, pp. 27-36.
- [8] Lewis D. A Model for Academic Libraries 2005 to 2025. Available at: <https://scholarworks.iupui.edu/handle/1805/665> (accessed 21 March 2015).
- [9] Library Publishing Services: Strategies for Success: Final Research Report (2012). Available at: http://docs.lib.purdue.edu/purduepress_ebooks/24/ (accessed 15 February 2015).
- [10] Más-Bleda A., Aguillo I. Can a personal website be useful as an information source to assess individual scientists? The case of European highly cited researchers. *Scientometrics*, 2013, vol. 96, issue 1, pp. 51-67.
- [11] Nahotko M. Global Digital Library as part of e-Research infrastructure and Science 2.0. *Global digital library in e-Research*. 2013. Available at: <http://eprints.rclis.org/20343/2/GDL.pdf> (accessed 15 February 2015).
- [12] Nazarovets S. Altmetriks: novyi pidkhid do otsinky yakosti naukovykh doslidzhen [Altmetrics: a new approach to assessing the quality of scientific research]. 2012. Available at: http://eprints.rclis.org/18908/1/nazarovets_kyiv2012.pdf (accessed 20 February 2015).
- [13] Podrezova M. Bibliografichna kultura periodychnoho vydannia yak napriamok informatsiino-analitychnoi diialnosti biblioteki [Bibliographic culture periodicals as the direction of the informational and analytical activity of the library]. *Visnik ONU: Bibliotekoznavstvo, bibliografознавство, knihoznavstvo*, 2013, Vol. 18, no. 1 (9), pp. 105-14.
- [14] Pulikowski A. Widoczność publikacji naukowych w Internecie. *IV Ogólnopolska Konferencja Naukowa*. 2012. Available at: <http://www.ptin.org.pl/konferencje/Z2012/repozytorium/Pulikowski.pdf> (accessed 10 February 2015).

- [15] Pyati A. A Critical Theory of Open Access: Libraries and Electronic Publishing. *First Monday*, 2007, vol. 12, no. 10. Available at: <http://firstmonday.org/article/view/1970/18> (accessed 20 February 2015).
- [16] Robinson-Garcia, N., Torres-Salinas, D. Librarians “Embedded” in Research. *CiLiP Update Gazette*, 2011, pp. 44-46. Available at: <http://scholar.google.ru/citations> (accessed 10 March 2015).
- [17] Ronald C. J. Innovation in academic libraries: An analysis of university librarians’ perspectives. *Library & Information Science Research*, 2012, no. 34, pp. 3-12.
- [18] Solovianenko D. Akademichni biblioteki v novomu sotsiotekhničnomu vymiri. Ch. 1. Akademichna biblioteka yak vydavets [The academic libraries in new socially technical measurement: Part 1. Academic library as a publisher]. *Bibliotechnyi visnyk*, 2010, no. 4, pp. 3-14.
- [19] Turtle E., Courtois M. Scholarly Communication: Science Librarians as Advocates for Change. *Issues in Science and Technology Librarianship*, 2007, no. 51. Available at: <http://www.istl.org/07-summer/article2.html> (accessed 20 March 2015).
- [20] Wittenberg K. The Role of the Library in 21st-Century Scholarly Publishing. *No Brief Candle: Reconceiving Research Libraries for the 21st Century: Papers from a Meeting Convened by CLIR*, Washington D. C., 27 February, 2008, pp. 35-41.
- [21] 2012 top ten trends in academic libraries. A review of the trends and issues affecting academic libraries in higher education. *College & Research Libraries News*, 2012, vol. 73, no. 6, pp. 311-320.

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**РОЛЬ УНІВЕРСИТЕТСЬКИХ БІБЛІОТЕК УКРАЇНИ
В ЗБІЛЬШЕННІ ПРЕДСТАВНИЦТВА УКРАЇНСЬКОЇ НАУКИ
В ГЛОБАЛЬНОМУ ПРОСТОРІ НАУКОВИХ КОМУНІКАЦІЙ**

Анотація

Дослідження спрямоване на визначення ролі бібліотек українських університетів в процесах інтеграції наукових публікацій до міжнародного науково-інформаційного простору. Особливості реалізації нових цифрових ініціатив в Україні розглядаються на прикладі науково-технічної бібліотеки Дніпропетровського національного університету залізничного транспорту. Проведені бібліотекою моніторинг та аналіз світових інформаційних наукових потоків (“DOAJ”, “E-LIS Repository”, “SciVerge Scopus, соціальні мережі) виявили низький рівень присутності в ньому публікацій українських вчених. Автором запропоновано ряд поточних і перспективних напрямків діяльності бібліотеки. Реалізація цих напрямків дозволила би зміцнити роль бібліотек у формуванні нової інформаційно-технологічної інфраструктури науки та стати «точками зростання» бібліотеки.

Ключові слова: університетська бібліотека, цифрові ініціативи, наукове спілкування, українська наука, інтелектуалізація діяльності бібліотеки, бібліотекар, інтеграції наукових публікацій, бібліотеки з ДНУЗТ, бібліотечні видавничі послуги, нова видавнича модель.

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**РОЛЬ УНИВЕРСИТЕТСКИХ БИБЛИОТЕК УКРАИНЫ В
УВЕЛИЧЕНИЯ ПРЕДСТАВИТЕЛЬСТВА УКРАИНСКОЙ
НАУКИ В ГЛОБАЛЬНОМ ПРОСТРАНСТВЕ НАУЧНЫХ
КОММУНИКАЦИЙ**

Аннотация

Исследование направлено на определение роли библиотек украинских университетов в процессах интеграции научных публикаций в международное научно-информационное пространство. Особенности реализации новых цифровых инициатив в Украине рассматриваются на примере научно-технической библиотеки Днепропетровского национального университета железнодорожного транспорта. Проведенные библиотекой мониторинг и анализ мировых информационных научных потоков (“DOAJ”, “E-LIS Repository”, “SciVerge Scopus, социальные сети) обнаружили низкий уровень присутствия в нем публикаций украинских ученых. Автором предложен ряд текущих и перспективных направлений деятельности библиотеки. Реализация этих направлений позволила бы укрепить роль библиотек в формировании новой информационно-технологической инфраструктуры науки и стать “точками роста” библиотеки.

Ключевые слова: университетская библиотека, цифровые инициативы, научное общение, украинская наука, интеллектуализация деятельности библиотеки, библиотекарь, интеграции научных публикаций, библиотеки с ДНУЖТ, библиотечные издательские услуги, новая издательская модель.