

Session 7: Linked Repositories – Theme of the Day

Moderator: Barbara Butler

Corporate Librarianship in the ODINECET Group (EURASLIC)

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Abstract

This paper focuses on the advantages of joint librarian projects and international collaboration among the aquatic libraries, which are highly specialized. One of the outstanding features of the information environment during the last decades is the constant growth of e-libraries, or even separate digital collections. Nowadays any library is willing to expand the sphere of its informational activities either within the country or abroad; librarians attract users by promoting their services and providing (open) access to their collections via digitization. In so doing, libraries are more productive, useful and user-friendly. Libraries are becoming more integrated into the world of e-science via various international programs. Examples of certain successful international librarian partnerships are given. There have already been two institutional repositories (IBSS, Sevastopol, Crimea, and RuFIR, Russian Fishery Industry Repository, Moscow, Russia) and one corporate repository CEEMaR, launched as part of the ODINECET Program. The paper emphasizes the pluses and minuses of the CEEMaR e-Repository, the IODE

product of joint efforts of 18 libraries from five countries of the Central and Eastern Europe Region, against institutional repositories. Besides open access resources, worldwide corporate cooperation has brought document cataloguing to a completely different level. Electronic versions of bibliographic information has stimulated the creation of new forms of collaboration in bibliographic data exchange, leading to making the cataloguing process cheaper, raising the issue of quality control while compiling a bibliographic record, and uniting the libraries in their mutual efforts to create regulating documents of the international standards. The Union Catalogue of the ODINECET Group is a common corporate resource, gathering information on the aquatic periodicals' holdings from the Central and Eastern Europe libraries. The works (either factual or technical) have also revealed some problems that are yet to be solved, with a unique cataloguing standard among them. The challenging task for catalogue compilers will be to unite certain bibliographic metadata modes, classification descriptors and keywords. Current activities and future perspectives of the ODINECET Union Catalogue are reported on.

Keywords: Aquatic libraries, collaboration, e-repositories, CEEMaR, Russia, Ukraine.

The social role of a library has evolved for the last two decades. Such traditional functions of the library as enlightenment, physical preservation and dissemination of cultural and scientific heritage are regarded as insufficient nowadays. Today the library is only considered competent when it promotes itself as an information center, providing access to various databases, datasets, web sites and other digital resources that enable the researcher to seek further. Libraries inform readers that "if we cannot satisfy the needs of those seeing information, we will show them where and, most importantly, how, to find it." Modern libraries have become serious community units, collaborating with different academic universities, scientific institutions, government, media and international organizations. Nowadays a library is willing to expand the sphere of its informational activities either within the country or abroad; librarians attract users by promoting their services and providing (open) access to their collections via digitization. In so doing, libraries are more productive, useful and user-friendly.

Creation of e-repositories is currently gaining popularity as one of the solutions for libraries to enter the World Wide Web space and, due to the principles of linked data, make their library resources visible and accessible far beyond the library walls. Evidence is mounting that any material that is not available in digital format does not get used. But how are libraries encouraged to keep up with these tendencies? They need to define their projects efficiently so that they are not very time- and fund consuming, and make their first steps in the semantic web. Digital collections are usually the biggest part of any e-repository content. So far libraries have accumulated gigabytes of scanned materials, which, either for the purposes of preservation for future generations or for popularization among a wider community, can be professionally stored in e-repositories. That is why libraries, archives, museums, research centers and publishers unite in their efforts to implement large-scale and small-scale projects, raising money either within the establishment or from outside sources. One of the most successful examples of such an international partnership of libraries is the CEEMaR (Central and Eastern European Marine e-

Repository, <http://ceemar.org/>), which initially united 18 aquatic libraries from the research and academic institutions of Bulgaria, Croatia, Poland, Latvia, Russia, and Ukraine.

The percentage of documents uploaded into the CEEMaR is different for each participating country, depending on how eagerly and intensively the library works on filling the repository content with its collections. Although some of the organizations have submitted only one document, that may be because the library has its own institutional repository and has not yet decided on the amount of digital collections to be stored in the corporate one (like the Russian institute VNIRO with their new and productive DSpace-based e-repository RuFIR: <http://dspace.vniro.ru/>) or because the library lacks human resources (like our Bulgarian partners from IO BAS). The latter problem becomes more pressing nowadays as the number of requirements for depositing reliable texts is growing: OCR scanning (an obligatory rule for many project funders and repositories' policies), error-free text, quality control and preservation in secure formats (for instance, PDF/a) take time and considerably slow the process of open access. However, taking into consideration long-term conditions of storage and repeated usage of a digital document, the job is worth doing well.

Southern Scientific Research Institute of Fisheries and Oceanography (YugNIRO, Kerch, Crimea) became a member of this joint project in 2008. So far the total rate of our input makes up 42.8% of all the submitted documents in the CEEMaR. The main reason for such an intensive activity is that, due to very limited budgets, our institute cannot afford to develop its own e-repository because it would mean hiring additional IT staff, customizing the basic free software and providing constant maintenance to what has been created. That is why the idea of participation in the corporate digital resource, supported and physically located beyond our server, appealed to both the library staff and administration. Before joining the CEEMaR, we already felt that as library users' behaviors had changed, so had library expenses. In her article "Impacts of mass digitization projects on libraries and information policy," Trudi Bellardo Hahn (2006) precisely described common behaviors of library users nowadays, which appeared to apply to our scholars, too: "Researchers all over the world are relying on the ease and speed of digital access and are unearthing many new and rare treasures they never would have known about or found in print collections. Even for material that is readily available, people are annoyed if they have to go find a book, photocopy it, retype the relevant passage or quote."

Our priority during 2008-2014 was to provide open access to all recent born-digital products and OCR-scanned materials; the library was eager to make sure all the newly-written scientific works, standards, books and manuals are shared worldwide. Thus we chose to add the repository content from the more recent period to earlier materials. In 2014 such policy proved to be fruitful, resulting in submission of all the documents printed within YugNIRO during the years of Ukraine's independence (since 1993). This year we have made a controversial decision: to start a digitizing campaign of the first YugNIRO expedition reports and proceedings – the collection of so called rare books, which survived during the YugNIRO evacuation in the Second World War. This decision was made for a number of reasons: the poor conditions of physical carriers' storage, researchers' constant requests for these materials and the fact that some of these reports were concentrated only in the libraries of the post-Soviet countries.

Very old materials are still widely used nowadays, but mainly in digital format due to the expense of transporting print copies. In fact, the idea that it is necessary to give second life to yellowish and deteriorated volumes with dog's ears is far from being new. Librarians must cooperate in digitization; it makes no sense not to digitize because of the fear that after becoming digital the book will lose its value as a printed material. Instead, librarians should focus on increasing access to rich unique treasure troves. According to the Disaster Plan for our library, all the digitized physical carriers, in particular old and valuable ones, should be kept in safe boxes and access to them must be either restricted or prohibited. We consider digitization as the best form of insurance we have; it is not a replacement for the physical objects, but increasingly a good (though not always perfect) surrogate that at least preserves the content. Thus, this year we have uploaded eight expedition reports and YugNIRO Proceedings, dating back to the period of 1926-1930.

Rare books collections have already been digitized and included in the CEEMaR by two of our repository partners – the libraries of the Polish National Marine Fisheries Research Institute in Gdynia and of the Odessa Branch of the Institute of Biology of the Southern Seas (OB IBSS) in Odessa (Ukraine).

IBSS Repository (Institute of Biology of the Southern Seas, Sevastopol, Crimea) was established in April 2007, and in over two years it has gained popularity among the scientists in our institute and worldwide. According to the statistics, the repository includes 1,400 full-text documents. At the Ranking Web of World Repositories (repositories.webometrics.info), there were 800 registered repositories as of January 30, 2010. The rating was based on 400 most active repositories. IBSS Repository (the only one in Ukraine) entered the rating as # 305 on the total list.

For over 140 years of its existence in the Sevastopol Biological Station (the SBS was founded in 1871), IBSS has accumulated a large number of publications. Since then, this institution has many times changed the forms and versions of its scientific publications. When the project was first launched, it was decided to start filling the repository with periodicals published by the institute at that time. By the end of 2014, all periodicals, books, collections, conference proceedings, preprints and theses from recent years had been uploaded to the repository.

In 2015, the publishing activities of the institute were terminated. Inputting the abovementioned documents has been conducted simultaneously with taking the first steps to upload books and scientific collections published since the 1970s. The main obstacle to preparing books and collections of earlier periods is that many of them lack either Russian or English annotation. Thus, it is necessary to further pursue this work. Books and collections are scanned (unfortunately, without OCR recognition), supplemented by the corresponding annotations and inputted into the repository. This work has been slowing down the filling of the repository for the last few years. Since 2015, it was decided to submit theses abstracts of the Institute's scientists.

IBSS is also a Collaborating Center, inputting the institute's materials into the ASFA system. All the submissions are provided with the corresponding links to the articles from the repository. In order to provide effective monitoring of the repository activities, the system of the inputted journals analysis and statistics was almost simultaneously introduced. To ensure more precise and detailed statistics (for instance, which pages were visited and how often, which articles were downloaded and how often), the last version of the repository software was supplemented by a separate statistical module. Use of GoogleAnalytics was also added. Some statistical data for August 2015 are as follows: 3,907 full-text documents are located in the repository. The schedule of general users' visits, which increased in 2011, remained stable up to 2015. During the winter months, there is an increased number of visits to the repository, and visits decrease during the summer.

In 2015, in the rating of the world repositories' web pages (Ranking Web of World Repositories) the IBSS was # 765 out of 2,275 registered repositories, and the CEEMaR repository was # 955. Analysis of the statistics shows that since 2010 the IBSS Repository has been consistently in the top third of the list.

In the same ranking in 2010, there was one repository from Russia and one from Ukraine (IBSS Repository). In January 2015, of 2,275 repositories on the list, 46 were registered in Ukraine, many with high ratings. The number of Russian repositories has increased, too; there are 21 of them in total. One of the first and leading Russian repositories is the Ural Federal University Institutional Repository, which occupies the 402nd position on the list. The results achieved by the IBSS in creating and extending the IBSS and CEEMaR repositories were made possible through the capacity building program and facilities at the IODE Project Office for IODE, where many trainings in the field of marine information management are provided that help librarians establish e-repositories in their own institutions.

The most important task of the VNIRO library (All-Russian Scientific Research Institute of Fisheries and Oceanography, Moscow, Russia) is to provide readers with documents they need. A full-text documents collection and electronic content repository is now one of the main tasks of the VNIRO library and it is an integral part of the VNIRO holdings. Its development improves readers' services. Also, availability of electronic copies of particularly important publications from the VNIRO and other fishery institutes helps remove the physical items from active handling and prevents physical wear. Creation of the electronic library raises the quality and efficiency of users' services.

In 2008 the scientific and technical VNIRO library started developing the Russian Branch e-Repository "RuFIR" (<http://dspace.vniro.ru>). The scientific electronic library (repository) of VNIRO regularly updates digitized materials of scientific content. In it is a collection of scientific works of Russian scientists: monographs, scientific works of the leading Russian institutes, conference materials, authors' abstracts of theses (which we consider equivalent to articles in journals) and the main branch journals available at the VNIRO library holdings. Authors' abstracts of theses and scientific works of VNIRO are included for all the time periods. The rare books collection of the library holdings is represented as well.

The repository is Open Access, so everyone can easily find a scientific article on almost any topic covering fisheries and marine subjects. Currently RuFIR repository has a database of full-text documents (about 6,000 full texts), including articles by our scientists from the internationally ranked journals with a high impact factor, collections of conferences and seminars, and serial publications of the Institute, based on VNIRO scientific researches.

The main objectives of the VNIRO library repository are the following:

- Providing centralized and long-term storage of published texts and information in electronic format.
- Ensuring open access to sources of scientific information and the heritage of the research Institute.
- Providing opportunities for remote use.
- Promoting scientific research in the field of fisheries.
- Promoting growth of the VNIRO popularity by means of presenting its scientific achievements in the global network.
- Increasing citations of scientific publications by the VNIRO employees by providing free access to texts through the Internet.
- Creating a reliable and accessible system of accounting and control of the publication activity of the VNIRO research staff.

Use and development of the VNIRO institutional repository is beneficial for:

- Every scientist-officer
 - Dissemination, presentation, and advance of the research.
 - Increase of the impact and citation studies.
 - Permanent and long-term storage.
 - Preservation of copyright.
 - Full-text search.
- Structural subdivisions
 - Distribution.
 - Growth of the citation level.
 - Duration and constancy.
 - Maintenance;
- Scientific organization (VNIRO)
 - Research dissemination.
 - Support of research activities.
 - Improvement of the scientific communication quality.
 - Rating increase.
 - Open access to research materials.

Scientific publications of the VNIRO researchers in an open archive provide an opportunity to draw conclusions about the effectiveness of scientific research, and to analyze publications and their citations. It is complicated to implement such an accurate analysis, because during the process of writing publication of materials is affected by many factors. Science Citation Index is a means to measure the significance of scientists' materials, determined by the number of

citations to his/her publications. A scientist has a h-index if “h” of his many articles are cited at least “h” times each, while the remaining articles are not cited more than “h” times each.

When members of the research staff of VNIRO wish to place electronic versions of their materials in the repository, they contact the repository administrator, who is an employee of the VNIRO library. Joint efforts of authors are quickly filled and deposited in the VNIRO repository.

Some ways to further improve and replenish the database are:

- To separate the repository content in order to differentiate articles published in print and those born digital.
- To submit thematic bibliographies into the collection of “Bibliography of VNIRO scientists.”
- To submit the collection of virtual exhibitions with illustrative educational and informational materials of both scientific and popular-scientific nature. The purpose of such exhibitions is popularizing science.
- To create an ex libris (bookplates) database of the VNIRO library holdings.
- To create other project of library collections for science and technology, focused on popularization of science and scientific achievements.

Any e-repository has a great disadvantage, however. Digital repositories create digital “containers” for scholars to “dump” their data. However, libraries are creating “dumping grounds” of data in digital repositories, and researchers may have to search many dumps to find what they need. Without standards for interoperability, the search may be expensive and time-consuming, or even impossible.

There are some scientists who, for various reasons, seem unaware of materials and information that they cannot find easily on the web. Scholars are limiting their searches to only what they can retrieve through simple, “good enough” searches. They are not only missing key information, they are not learning advanced searching skills. In the 21st century, “good enough” is not enough. Only 20 % of users go to library catalogs when seeking a book. That means that 80 % are going to the web and are satisfied with the results obtained by the search engines. These potential library customers get lost in the global network. The proportion 20/80 has been changing, but not in favor of libraries. By making the library metadata available for the search engines, libraries add their resources to the world content, and both parties benefit.

The process of library e-catalog development is accompanied by a number of difficulties that affect many libraries in Russia and Ukraine. One example is the creation of duplicates not only within a library but also on the international level. Why should hundreds of catalogers each use valuable time to compose nearly identical cataloging records for the same item when one cataloger could do it and share the record? Why should hundreds of typists retype that same record on cards when a computer could be programmed to print them?

The other great concern of machine-readable cataloging is a very low level of unification methods applied to analytical processing of documents. Libraries share the benefits of machine-readable cataloging whether they have an online system or not. International cooperation of

libraries is essential while developing bibliographic databases; machine-readable cataloging facilitates libraries' integration into the world web. Any cataloging process includes such activities as preparation of bibliographic records, harmonization of the bibliographic description rules on the international level, and linguistic support of translated records.

The quality of library information products depends directly on the standards according to which the records are compiled, and which machine-readable format is applied. However, there is one more factor that greatly influences the record quality and, most importantly, that can only be done by a librarian; processing of the content document. Everyday routine tasks of librarians – indexing, editing, inputting of documents into the e-catalogs – make them very selective in choosing and submitting titles, subtitles, keywords, and descriptors. With the further development of information processes, the rules of indexing get more precise and refined. This approach is particularly applied to the scientific and technical libraries, where the assistance of a subject librarian is needed.

Together with the partners of the ODINECET Group, YugNIRO became a member of the Union List of Serials project, implemented by 20 libraries in total. So far, the following tasks have been accomplished:

1. All the libraries have added holdings of all the 128 serial periodicals included to this bibliographic database.
2. Lists of more periodicals to be included into the system have been prepared by a number of libraries; the lists are accompanied by the required metadata (ISSN, translated subtitle, publisher, place and date of publication).
3. Guidelines for submitting the data into the Union Catalog have been provided in several languages.

Due to problems regarding both the human resources needed and the technical difficulties, the work on e-catalog development has been stagnating. Hopefully the activities on the Union List of Serials will be refreshed, and the new data on accessible holdings and archives will be open to any user.

During 2014, the logical order and format regulations of the documents inputted in Russian were analyzed according to the Russian All-Union State Standard 7.1-2003 “A System of Standards on Information, Librarianship and Publishing. Bibliographic Record. Bibliographic Description. General Rules and Regulations for Compiling” (ГОСТ 7.1-2003 “Система стандартов по информации, библиотечному и издательскому делу. Библиографическая запись. Библиографическое описание. Общие требования и правила составления”). Agreeing on a transliteration system and creating a unique bibliographic record for the serials in different languages is still to be considered and implemented. While analyzing the order of fields to be inputted, all the work was focused on sharing: librarians shared samples of records, sets of keywords, serials metadata and so on. Various indexing methods were discussed and compared before the decision on any item was made and the “golden mean” was found. We strongly believe that those topics should be given more time for consideration; project coordinators should control such activities, and we suggest that separate libraries represent their own methodologies within the library community worldwide. Participation of IT staff during these

activities to reach consensus is highly recommended. In any corporate work, agreements should be made as a team. As Betty Ferrie points out in her report "Understanding MARC Bibliographic: Machine-readable cataloguing" (1988), "You could devise your own method of organizing the bibliographic information, but you would be isolating your library, limiting its options, and creating much more work for yourself."

References

- Baranova, O.V., Buntova, O.G., Kaplunov, D.A., Lissikh, I.G., Lovtskiy, K.E., Mansurova, E.N. 2002. Standards of the library information systems: Traditions and perspectives (in Russian). *Libraries and associations in the changing world: New technologies and new forms of collaboration*. Ninth International Conference "Crimea 2001" 1: 152-154.
<http://www.gpntb.ru/win/inter-events/crimea2002/trud/sec78/Doc6.HTML>
- Betty, F. 1988. *Understanding MARC Bibliographic: Machine-readable cataloguing*. 8th edition reviewed and edited. Network Development and MARC Standards Office, Library of Congress. <http://www.loc.gov/marc/umb/>.
- Hahn, T.B. 2006. Impacts of mass digitization projects on libraries and information policy. *ASIS&T Bulletin*, October/November. <https://www.asis.org/Bulletin/Oct-06/hahn.html>
- Pershina, M.A. 2010. Social partnership as a way of library development: Library as a developing environment of a new generation. Materials of the 5th Inter-regional Library Junior lectures (in Russian).
http://cbssykt.ru/kollegam/nashi_publicatsii_opyt_raboty_bibliotek_muk_tsbs/sotsialnoe_partnerstvo_kak_put_razvitiya_bibliotek/.
- Shcherbinina, G.S. 2002. Coordinate indexing in the light of integral processes (in Russian). *Scientific and Technical Libraries* 10 ; 72-76. http://www.gpntb.ru/win/ntb/ntb2002/10/f10_08.htm.