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# SOME PROBLEMS OF THE UNIVERSITY LIBRARY

*The article examines the problems faced by university libraries, which are no longer able to independently build and maintain independent tools for spreading scientific achievements. Using the example of the university libraries in Poland, we consider the technical and economic obstacles that make the functionality of library IT systems unable to meet the needs of a user. We consider IT systems and national projects which will make it possible to modernize university library systems used for comprehensive management of the entire range of processes, and, accordingly, improve the quality and expand the range of services provided by university libraries.*

***Keywords****: strategy development of academic libraries, national repository, raw data, library system.*

Until recently, it seemed to us, i.e. academic librarians, that we are able to build and maintain independent tools for the dissemination of scientific achievements, such as a repository of full texts or a repository of raw data, and to independently maintain the basic source of information about collections, such as the library catalog, and finally to offer its own digital library. Sure, it is still possible to deal with and make these tools available to the public, but does it actually make sense? First, with great effort and after gathering the necessary financial resources, create those, so necessary for the work of every scientist and researcher, university information sharing platforms, and then merge their content through superstructures, integrating this scattered data?

Is it time to integrate academic librarians from different universities and undertake, for example, co-cataloging in one system or creating a national repository of raw data? Or creating a single knowledge base for the entire university, accumulating full information about the scientific achievements of its employees, conducted research or grants. We are convinced that the answer to the questions posed is yes. Let's look at this problem from the point of view of the University Library in Toruń, which is on the verge of such changes.

The library system is the basic tool for the work of the academic library, used for comprehensive management of the entire range of processes related to the collections, both printed and electronic, and for servicing the University's users. The so-called the integrated library system (Horizon), technologically obsolete, is no longer able to properly handle the rapidly increasing number of collections, especially electronic ones and the expanding services offered by the University Library in Toruń, e.g. it is not possible to conduct a bibliography of publications of NCU employees in Horizon (it is a new task that has been performed by librarians for several years). On the other hand, Horizon also fails to meet the expectations of readers requiring a one

point of information about: collections, digital library content, repositories and open resources. The tasks and functions of the University Library, expanding over time, meant that the system, implemented in the mid-1990s, ceased to be integrated, supporting only traditional library processes. In such situation, the solution was adopted that services related to digital collections or electronic services must be provided by complementary external systems (including commercial ones).

The Horizon system, which has not been developed for years, which works only thanks to the care of the Library's IT specialists, is not able to provide the expected functionalities. For example, the metadata of e-books, available only online in licensed databases, are systematically imported to library catalogue and updated by IT specialists employed at BU. Maintaining a few or a dozen supplementary programs is not only burdensome for librarians, but also discouraging for readers who are well-versed in the possibilities of Internet applications and expect one platform enabling efficient use of resources not only of the university library, but also providing information about collections available in other Polish libraries or museums. The University's library system may not limit the information made available only to the metadata of basic types of collections (books, magazines), but in a situation where paper collections lose their dominance, it must first of all enable the management of various electronic sources.

An obstacle, from the economic point of view, of the organization of the national catalogue of collections is the lack of the ability of the team of cataloguers of the University Library in Toruń to work in one nationwide, common for many libraries, system. At the current intensity of the influx of publications, possibility to create metadata on the one, national level, is very important for optimizing work and reducing the waiting time for readers document description. For years, bibliographic descriptions of the University Library collections in Toruń have been sent to the central catalogue (NUKAT), which makes available metadata sent from all over the country on its own platform. From the point of view of the organization of research facilities, conducted by employees and students of the Nicolaus Copernicus University, an ideal solution would be access through the BU search window in Toruń to both own collections and collections other libraries. Such an option will definitely facilitate the collection of source literature.

The answer to the expectations of academic libraries is the National Library's E-service OMNIS project, implemented since 2017, one of the tasks of which is to create a common indexing platform for Polish library resources. The issue of the new system for the university library in Toruń remains to be solved.

The necessity to purchase a modern IT system for managing library resources for the Nicolaus Copernicus University is caused by the desire to improve the quality and broaden the spectrum of services offered by the University Library to employees and students of the Nicolaus Copernicus University and enable librarians cooperate with the Omnis e-service implemented at the National Library. This service is ultimately planned as a nationwide IT system offering one access point to the collections of Polish libraries, museums and cultural institutions.

As a result of the purchase and implementation of a new generation library system in the NCU Library, a new quality of access to library collections will be achieved, which will increase innovation resulting from the expansion of knowledge.

Thanks to the activities undertaken by the University Library team to promote the idea of open access, the Nicolaus Copernicus University Repository has been functioning since 2012. In the Repository every employee and doctoral student has the right to deposit in electronic form full texts: preprints, articles, books, chapters, doctorates, reports as well as other materials created as a result of research activities or didactic work. It is possible to deposit both materials previously published and unpublished results of scientific works conducted at the university.

The repository is open, its resources are publicly available to all interested parties. The deposited materials are protected by copyright and made available according to the will of the authors, within the scope of fair use.

The repository on the DSpace platform certainly met the expectations set in 2012, it became a recognized part of open knowledge resources and scientists became convinced of this form of publishing their scientific achievements. The author, deciding what and when to publish, can, while waiting for the publication to appear in the commercial title, archive the work in the repository, immediately disseminating its results. It seems, however, that the repository in its current shape offers too little in relation to the users' needs. Certainly, many depositors would like to associate with the deposited article also raw research data confirming the described experimental results or only make them public, for example, to meet the requirement to publish the data before the article is published. Such a requirement, to publish the raw data, was introduced in Poland by grant management institutions.

DSpace is not a flexible application, it does not allow for extending functionality, adding new indexed fields or reorganizing resources. Changing the structure of the database to reflect a different division of the university is not possible. The current affiliation of a publication to a collection cannot be changed, for example, into an assignment to disciplines, or a large number of teams corresponding to faculties cannot be replaced by colleges. Until now, the structure of the repository was as follows: teams (corresponding to the faculties), which were divided into collections (separate for articles, chapters, books). The establishment of new faculties, the liquidation of a faculty, or the introduction of a new university structure (e.g. division into colleges) will prevent the Repository from reflecting the changes in the University structure. Moving the repository to a new, more functional platform is a condition for its further development.

The idea of creating repositories of raw research data, whether for disciplines or for individual institutions, is becoming more common around the world. In the first instance, researchers looking for a place for their research data should be referred to the repositories relevant to a given field. Another form is the repositories run by the employees' home institutions. The university, in addition to a place to store full texts of scientific papers of its employees, should also have a repository of raw data, which were used to create these publications, operating on a similar basis. Research results

created with the taxpayer's money should be made public in order to be able to compare them with other research results, combine, supplement and, consequently, re-use.

University employees store raw data from various research in paper form, on local computer drives, on CDs and other more or less durable media. Institutional help is needed for scientists who have such data and want to make them public. The assessment of whether the data (archival or current) is worth placing in the repository, and thus preserving and publishing, should be left to the creators of this data, specialists in a given field or even subsequent users who find this data on the Internet. It is not the task of a librarian or other university employee to assess whether data can still be useful for something. The usefulness and usefulness of raw data may surprise the creators themselves. Archival entries from ship logs were used in research on Earth's climate change.

It is the responsibility of the university to provide scientists employed at NCU with a place to store research data. It is an important and necessary task that the university must perform in order to ensure the quality of research. Governmental institutions that "measure" scientific activity (ie analyse scientific achievements) do not yet evaluate research data, although it seems that they will soon also check raw data. The need to ensure open access to research data has also been included as a condition of the European Commission's Horizon 2020 framework program. A university that wants to participate in this Commission program should provide space for such data. The repository must ensure not only the possibility of storing data, but also their sharing, dissemination and understandable description of the contents of the set of files.

Our university's Text Data Repository is not a suitable place to store raw scientific data for several reasons:

- it was supposed to be used to deposit the results of works (mainly articles) in formats typical for documents, articles, i.e. mainly in the form of pdf files,

- after self-depositing, it is no longer possible to correct or update files,

- the metadata that can be placed in the repository is insufficient for the correct and complete description of the raw research data.

Unfortunately, for collecting raw data of UMK employees, the only solution is to launch another platform. We are aware that the maintenance of several independent but complementary bases will not facilitate the promotion of the University's scientific achievements. Due to the lack of a system of mutual connections between information platforms, in order to get to know the image of the university's scientific life, the users will have to browse through many websites. The knowledge base should become a comprehensive system of information about what is happening at the university in the sphere of science. A repository, a bibliography of employees' publications, a platform that provides full texts of journals published by the university or a library catalogue are the most important resources, the combination of which seems necessary. Obviously, the variety of information shared requires the use of appropriate tools for its presentation. The main goal of the University's knowledge base should be to collect in

one place all important connections to the university's scientific resources, pages presenting research workers and their activity, as well as to enable the search for conferences or currently implemented research projects.

A Polish example of a raw data repository is RepOD - Repository of Open Data repod.pon.edu.pl created by ICM of the University of Warsaw as part of the Open Science Platform activities. It is "a service" that enables open research data sharing. It is aimed at all researchers in Poland who would like to make available on the Internet data related to their current research work, so that all interested parties - both other scientists and people from outside the academic community - can use them. Each registered user could create and share new data sets and manage the existing resources. RepOD is intended for the so-called small research data from all fields of knowledge, including, for example, interviews with people conducted as part of research, e.g. in sociology, surveys, etc. Each data set included in RepOD receives a DOI number, thanks to which it can be clearly quoted in scientific papers. Since the NCU raw data repository would also be used to deposit contemporary data, RepOD seems to be the optimal place for small files reflecting the specificity of problem research conducted at universities for which there are no global domain repositories.

In 2019, NCU librarians made an effort to launch for the university community repository of raw research data, on the open DataVerse software. Of course, we managed to install a test version. However, we faced the dilemmas we already knew from the text data repository. The necessity to provide memory resources necessary to store the accumulated deposited data or the requirement of constant modernization of the platform infrastructure resulted in the decision to join RepOD and launch the NCU raw research data repository within this structure. The NCU raw data repository will be one of the "virtual" RepoOD shelves and the data deposited by NCU employees will automatically be part of a nationwide platform accumulating materials created during the implementation of research projects. We hope that in October we will be able to invite NCU employees to deposit raw data sets on the "shelf" marked for NCU in the RepOD repository.

Of course, the NCU research data repository will be open to all interested parties. Therefore, we invite you to visit the website of the Nicolaus Copernicus University, where you will find links leading to the website of the University Library, the platform of journals published by the Nicolaus Copernicus University (with open access to full texts), a repository of full texts and soon probably a new link to the repository of raw research data.

The creation of a new platform integrating these resources will be even more necessary. Launching a knowledge base about scientific resources and science at NCU, it is for librarians, working in the University library, next problem.

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## Деякі проблеми університетської бібліотеки

*У статті розглядаються завдання, що постають перед бібліотеками університетів, які підтримують ресурси та сервіси для поширення результатів наукових досліджень. На прикладі Бібліотеки Університету Коперника у Польщі розглядаються технічні й економічні чинники, що стримують розвиток бібліотечних IT-систем, які в результаті не здатні забезпечити потреби користувача.*

*Розглядаються IT-системи та національні проєкти, які дадуть змогу модернізувати бібліотеки університетів та розширити перелік, підвищити якість їхніх послуг та сервісів.*

***Ключові слова****: стратегічний розвиток університетських бібліотек, національний репозитарій, вихідні дані, бібліотечна система.*