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Ways of Development of the National Electronic Scientific Information System as a Tool for Implementing the State Open Science Policy in Ukraine

Objective. Since 2020, Ukraine has been developing the National Electronic Scientific Information System (URIS). The creation and development of URIS were initially guided by a specific Concept, whose implementation timeline has now concluded. However, the Cabinet of Ministers of Ukraine mandated that work on URIS should continue. Consequently, there is a need to develop a new concept and identify the future directions for this scientific information system. Current research has emphasized the necessity of implementing the open science paradigm and highlighted the role of Current Research Information Systems (CRIS) in this process. There is a specific need to establish the development directions for URIS as a unique type of such system. The aim is to explore the prospective directions for the development of the National Electronic Scientific Information System "URIS," detailing the pathways for its growth and integrating new functions to fully implement the principles of open science in Ukraine. **Methods.** The study employed methods of theoretical generalization of normative and analytical data, as well as statistical and comparative analysis of the obtained scientific information. **Results.** The study identified seven directions with specific implementation paths: developing new functional modules for URIS, ensuring the comprehensive inclusion of priority information resources within URIS, providing Ukrainian scientists, research institutions, and higher education institutions with a digital tool, enabling ongoing communication with the scientific community and business representatives, identifying shortcomings in existing legal acts, creating conditions to overcome the dispersion of financial resources, accounting for losses in Ukrainian research infrastructure due to Russian military aggression. The URIS serves as a multifunctional platform for collecting, processing, and disseminating data related to scientific activities in Ukraine. Developed by the State Scientific and Technical Library of Ukraine, URIS aims to integrate and present aggregated data from various research institutions and universities, thereby enhancing the visibility of Ukrainian research on a global scale. This paper discusses the importance of URIS in supporting academic and research libraries, emphasizing the role of the library's experts in implementing the project. **Conclusions.** The development and improvement of URIS should lead to a significant reduction in the use of paper for various documents, offering interested individuals and organizations a wide range of digital tools for quick and continuous access to research data, information, and services related to the field of science. The full implementation of this project will enhance the visibility of Ukrainian scientists and research infrastructures both within Ukraine and for interested researchers and institutions in Europe and globally. Scope of Application of Research Results. The development of URIS will support the Ministry of Education and Science of Ukraine in fulfilling the national plan for open science and accelerating Ukraine's integration into the European Research Area. The successful implementation of URIS demonstrates the vital role of academic and research libraries in the digital age. The expertise of the State Scientific and Technical Library of Ukraine has been instrumental in advancing the goals of URIS, which aims to enhance the quality and visibility of Ukrainian research both nationally and internationally.

Keywords: CRIS-system; URIS; system analysis of scientific information; prospective directions of URIS development; ways of implementation; principles of URIS work; open science; State Scientific and Technical Library of Ukraine; academic libraries; national plan for open science; European Research Area

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Introduction

The development of a Current Research Information System (CRIS) is a global practice aimed at implementing open science policies at both institutional and national levels. In Ukraine, the creation of the National Electronic Scientific Information System (URIS) began in 2020. This initiative was guided by the Concept for the creation and development of URIS, approved by the decision of the Collegium of the Ministry of Education and Science of Ukraine on February 13, 2020, Protocol No. 1/1-13 (Ministry of Education and Science of Ukraine, 2020a). This decision was confirmed by the order of the Ministry of Education and Science of Ukraine dated March 4, 2020, No. 348 and amended by the Ministry's order dated June 25, 2021, No. 721 (Ministry of Education and Science of Ukraine, 2020, 2021), and the implementation of the URIS project was entrusted to the experts of the State Scientific and Technical Library of Ukraine (Zharinova, Zharinov, & Hauschke, 2023).

During the development of URIS, it became apparent that the range of tasks it must cover and support cannot be limited to the initially outlined scope. This understanding was reflected in the acts of the Cabinet of Ministers of Ukraine, which successively approved in 2022:

1. The Regulation on the National Electronic Scientific Information System (Verkhovna Rada of Ukraine, 2022a).
2. The National Plan for Open Science (Verkhovna Rada of Ukraine, 2022b).

Point 19 of the aforementioned Regulation stipulates that URIS should consist of 22 functional modules. However, according to the tasks set by the Concept for the creation and development of URIS, only 11 modules have been developed, as reflected in the Procedure for the Operation of the National Electronic Scientific Information System (Verkhovna Rada of Ukraine, 2024).

The National Plan for Open Science outlines several measures aimed at introducing the open science paradigm in Ukraine. The indicators for implementing some of these measures include the introduction of new functionalities for URIS, with target completion dates in 2025, 2026, and 2028.

Thus, the problem that needs to be addressed is the inability to fully outline the evolutionary path of URIS at the stage of developing the Concept in 2020. There is also a need to actually supplement URIS with new functions to fully realize the principles of open science in Ukraine. This issue requires a scientific approach to explore possible and promising directions for its development.

Analysis of Recent Research and Publications

The global scientific community has been conducting research on the development of Current Research Information Systems (CRIS) for several years. A notable work is the study by a team of Serbian scientists, who developed models for automatically extracting metadata from scientific publications for CRIS systems (Kovačević, Ivanović, Milosavljević, Konjović, & Surla, 2011). Another significant contribution is by G. Sivertsen, who explored data exchange between CRIS systems operating both within a single country and internationally. His findings can be applied to the construction of such systems on a global scale (Sivertsen, 2019). E. Zimmermann (2002) highlighted the importance of CRIS systems for a knowledge-based society.

Ukrainian scientists mainly focus on the paradigm of open science. Yu. Nosenko and A. Sukhikh studied the essence of open science in the context of building a knowledge society and modern transformations in the European research area (Nosenko & Sukhikh, 2020).

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T. Yaroshenko's research on the development of open science concluded that the future holds a global model of research collaboration, with multi- or interdisciplinary research groups solving common problems, emphasizing openness, speed, and reproducibility (Yaroshenko, 2021). I. Drach examined open science as a new approach to the scientific process, based on collaboration and new ways of disseminating knowledge through digital technologies and new collaborative tools (Drach, 2022). O. Chmyr noted that one of the key elements of open science is open scientific infrastructure, including knowledge-based resources, scientific archives, platforms, and repositories (Chmyr, 2021). V. Kopanieva dedicated her article to defining the theoretical and methodological foundations for the development of the communicative function of libraries for organizing their system-integrative interaction with open science (Kopanieva, 2017).

All these works, both by Ukrainian and international scientists, view the open science paradigm from various angles, but they share the recognition of the crucial role of digital tools in implementing its principles. However, it should be noted that the scientific contributions of Ukrainian researchers lack sufficient attention to the analysis of the development prospects of Ukrainian digital tools for implementing open science principles.

Objective of the Work

The aim is to explore the prospective directions for the development of the National Electronic Scientific Information System "URIS," detailing the pathways for its growth and integrating new functions to fully implement the principles of open science in Ukraine and highlight the contributions of the State Scientific and Technical Library of Ukraine in its development and implementation.

Methods

This study employs a comprehensive set of scientific research methods to URIS and its impact on the scientific community in Ukraine.

We systematically review existing regulatory frameworks, guidelines, and analytical data related to research information systems in Ukraine and internationally. This involves synthesizing information from academic literature, governmental reports, and best practice guidelines to establish a conceptual framework for understanding the role of URIS. Quantitative data from URIS is analyzed using statistical techniques to assess user engagement, data utilization, and the impact of the system on research productivity.

A comparative approach is applied to evaluate URIS against other similar research information systems globally. This involves analyzing system features, user experiences, and overall effectiveness in facilitating research activities. Key performance indicators (KPIs) such as data accessibility, user satisfaction, and integration with other platforms will be compared.

We will conduct surveys and structured interviews with users of URIS, including researchers, academic staff, and administrative personnel. This will provide firsthand accounts of user experiences, satisfaction levels, and areas for improvement. The survey will consist of both closed-ended and open-ended questions to capture quantitative and qualitative data.

By employing this multifaceted approach, the study aims to provide a thorough evaluation of URIS, offering insights into its contributions to the scientific community in Ukraine and identifying opportunities for further enhancement.

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Results and Discussion

The 2020 Concept for the Creation and Development of the National Electronic Scientific Information System "URIS" aimed to achieve the following objectives:

- develop technical specifications for URIS and the overall system architecture concept, including the algorithm for the operation of the main modules and metadata standards;
- create the main URIS modules, incorporating tools for importing/exporting data on scientific activities from external databases, an automatic URIS database update tool, a search index creation tool, and a metrics calculation tool;
- integrate and verify scientist profile pages from institutions, and URIS projects obtained both through automatic generation of these pages and manual input by system users with subsequent verification of records;
- develop modules for the automatic export of data from external commercial and open information systems into the unified database of URIS.

These objectives were fully met. However, after completing the planned work, it became logical to identify the directions for the system's further evolution based on previous achievements.

One of the first directions could be improving existing and developing new functional URIS modules, as provided in Clause 19 of the Regulation on the National Electronic Scientific Information System, approved by the Cabinet of Ministers of Ukraine on September 27, 2022, No. 1067. Achieving the desired result could be possible by supplementing URIS with new functional modules, including:

- module for conducting the registration procedure for scientific objects of national heritage;
- module for conducting the state accreditation procedure for individuals and legal entities for scientific and scientific-technical expertise.
- module for forming the register of science parks;
- module for electronic catalogs of scientific libraries;
- module for conducting the certification procedure for scientific workers;
- module for conducting the registration procedure for professional publications;
- module for conducting the registration procedure for scientific and scientific-practical events;
- module for the registration of scientific institutions granted the status of national scientific centers, and others.

Second, a crucial direction is ensuring the comprehensive integration of priority information resources into URIS. This can be achieved through the development and implementation of data exchange mechanisms between URIS and all priority information resources of the system, as approved by the Cabinet of Ministers of Ukraine on September 27, 2022, No. 1067. This includes utilizing an open API.

Third, it is essential to equip Ukrainian scientists, research institutions, and higher education institutions with digital tools to showcase their existing research infrastructure and scientific and technical results among domestic colleagues, as well as in European and global research spaces. This can be realized by enhancing the existing cooperation with international organizations (ORCID, DRIS) through mutual information exchange procedures and the implementation of joint projects and activities to develop European and global CRIS systems, with URIS as one of them.

Fourth, ensuring opportunities for communication and potential future collaboration between research institutions, higher education institutions (in terms of research activities), individual scientists, and business representatives is critical. This can be achieved by conducting

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communication and training campaigns targeted at scientists, staff of central executive bodies responsible for the scientific activities of their departments, higher education institutions, and research institutions, as well as business representatives regarding the capabilities and proper use of URIS.

Fifth, it is appropriate to identify deficiencies in current regulatory acts that hinder the most effective functioning of the URIS system. Efforts to identify such deficiencies should include the development and approval of instructions for using the system and individual URIS functional modules, as well as the formulation of proposals for developing new or amending existing regulatory acts that would facilitate URIS in fulfilling its functions.

Sixth, it makes sense to establish conditions to overcome the dispersion of financial resources allocated for scientific research. This involves creating conditions for mutual information exchange between electronic systems that manage documentation related to the funding of scientific research. To achieve this, it is necessary to develop and implement interoperability mechanisms between URIS and electronic systems that handle documentation related to the funding of scientific research, such as the National Research Foundation of Ukraine, among others.

Seventh, it is important to approve the accounting for losses of Ukrainian research infrastructure caused by Russian military aggression. These data should be used for calculating and compensating for damages resulting from active hostilities and the temporary occupation of territories where such infrastructure is located. This relevant direction for Ukraine is realized by populating URIS with data on the recorded losses of Ukrainian research infrastructure due to Russian military aggression (based on the results of appropriate audits), with the ability to generate corresponding extracts.

In addition to the above directions and measures, it is also necessary to ensure the formation of certificates and attestations regarding the statuses of individual scientists and institutions in the form of extracts (for example, the status of a scientific object of national heritage or the status of a scientific institution receiving state support, etc.). This will significantly facilitate the work of the relevant stakeholders.

The implementation of the above directions and methods should adhere to the principles of URIS operation as outlined in the Concept for the Creation and Development of the National Electronic Scientific and Information System "URIS", namely:

- **Principle of Flexibility**: The system should support potential future expansions regarding the coverage of metadata types and the use of external data sources.
- **Principle of Openness**: Data should be available for external use (in accordance with EU Directive 2019/1024).
- **FAIR Principles (Findability, Accessibility, Interoperability, Reusability)**: Data should be "findable" (i.e., there should be an actual ability to locate them), accessible (i.e., obstacles to access should be minimal or non-existent), interoperable (i.e., stored in formats that allow use by various software tools), and legally reusable (i.e., there should be an actual ability to reuse them).
- **Principle of Data Minimization**: The need for manual data entry should be minimal or non-existent, achieved particularly through the reuse of already entered data.
- **Principle of Sustainability**: The system should not require increased expenditures for its operation and development.

Active work by highly qualified specialists on implementing measures that would help achieve the outlined directions could ensure the necessary development of URIS and the digital transformation of Ukraine's scientific sector.

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The proposed seven directions for URIS development, along with the suggested implementation methods, will contribute to:

- ensuring continuous monitoring of the state of scientific and technical activities in Ukraine, the activities of employees of Ukrainian scientific and educational institutions (especially under conditions of Russian military aggression);
- creating more convenient working conditions for scientists and government officials working in the field of science in Ukraine;
- increasing the efficiency of using material, technical, and financial resources in the scientific sphere due to the adoption of more accurate management decisions by competent state bodies, based on up-to-date data.

In addition, the findings indicate that URIS has significantly improved the accessibility and reliability of research data, facilitating collaboration among researchers and institutions. The involvement of experts from the State Scientific and Technical Library has been crucial in ensuring the effective design and operation of the system, addressing challenges related to data digitization, aggregation, and verification.

Conclusions

The most obvious practical result of the development and improvement of URIS should be the minimization (up to complete elimination) of paper carriers for various types of documents (certificates, extracts, reports, questionnaires, etc.), and the formation of extracts of necessary open information regarding the scientific achievements of individual scientists or institutions through URIS should be possible from any device connected to the Internet.

Furthermore, the development and enhancement of URIS should also result in providing scientists, research institutions, higher education institutions, government officials, and other interested individuals and legal entities with a wide array of digital tools for quick and uninterrupted access to research data, information, and services related to the field of science. Additionally, it should facilitate convenient document management associated with carrying out official duties or conducting scientific research itself.

Moreover, the full implementation of the URIS project will enable increasing the visibility of Ukrainian scientists and research infrastructures both within Ukraine and for interested scientists and research institutions in the European and global research space. This will enhance the prospects of Ukrainian research institutions, higher education institutions, and individual scientists for productive internal scientific cooperation and the creation of joint international research projects with foreign partners.

Such outcomes fully align with the paradigm of open science and contemporary trends in the digital transformation of the scientific sphere in the countries of the European and global research space.

The successful implementation of URIS demonstrates the vital role of academic and research libraries in the digital age. The expertise of the State Scientific and Technical Library of Ukraine has been instrumental in advancing the goals of URIS, which aims to enhance the quality and visibility of Ukrainian research both nationally and internationally. Future research should further investigate the ongoing developments and potential expansions of URIS to meet the evolving needs of the scientific community.

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The sphere of application of the research results

The development of URIS will enable the fulfillment of the tasks assigned to the Ministry of Education and Science of Ukraine within the national plan for open science, as approved by the Cabinet of Ministers of Ukraine on October 8, 2022, under decree No. 892-r. Additionally, it will intensify the process of Ukraine's integration into the European research area.

REFERENCES

Chmyr, O. S. (2021). Rozvytok v Ukraini resursiv, zasnovanykh na znanniakh [Development of knowledge-based resources in Ukraine]. *Science, technologies, innovation, 4(*20), 35-49. doi: http://doi.org/10.35668/2520-6524-2021-4-04 [in Ukrainian]

Drach, I. (2022). Vidkryta nauka v universytetakh: tsili ta perevahy [Open science in universities: Goals and benefits]. *Scientific Bulletin of Uzhgorod University. Series: "Pedagogy. Social work", 1*(50), 90-93. doi: https://doi.org/10.24144/2524-0609.2022.50.90-93 [in Ukrainian]

Kopanieva, V. O. (2017). Naukova komunikatsiia: vid vidkrytoho dostupu do vidkrytoi nauky [Scientific communication: From open access to open science]. *Library Science. Record Studies. Informology, 2*, 35-45. doi: 10.32461/2409-9805.2.2017.150205 Retrieved from https://journals.uran.ua/bdi/article/view/150205 [in Ukrainian]

Kovačević, A., Ivanović, D., Milosavljević, B., Konjović, Z., & Surla, D. (2011). Automatic extraction of metadata from scientific publications for CRIS systems. *Program: Electronic Library and Information Systems, 45*(4), 376-396. doi: https://doi.org/10.1108/00330331111182094 (in English)

Ministry of Education and Science of Ukraine. (2020a). *Pro stvorennia Natsionalnoi elektronnoi naukovo-informatsiinoi systemy «URIS»: Rishennia kolehii Ministerstva osvity i nauky Ukrainy vid 13/02/2020, № 1/1-13*. Retrieved from: https://dntb.gov.ua/in-progress-projects/urisinfo (in Ukrainian)

Ministry of Education and Science of Ukraine. (2020b). *Pro stvorennia Natsionalnoi elektronnoi naukovo-informatsiinoi systemy "URIS": Nakaz Ministerstva osvity i nauky Ukrainy vid 04 bereznia 2020 r., № 348*. Database "Zakonodavstvo". Retrieved from https://mon.gov.ua/npa/pro-stvorennya-nacionalnoyi-elektronnoyi-naukovo-informacijnoyi-sistemi-uris (in Ukrainian)

Ministry of Education and Science of Ukraine. (2021). *Pro vnesennia zminy do nakazu Ministerstva osvity i nauky Ukrainy vid 04.03.2020 №348: Nakaz Ministerstva osvity i nauky Ukrainy vid 25 chervnia 2021 r., № 721*. Database "Zakonodavstvo". Retrieved from https://mon.gov.ua/npa/pro-vnesennya-zmini-do-nakazu-ministerstva-osviti-i-nauki-ukrayini-vid-04032020-348 (in Ukrainian)

Nosenko, Yu. H., & Sukhikh, A. S. (2020). Vidkryta nauka v konteksti pobudovy suspilstva znan i tsyfrovykh peretvoren yevropeiskoho prostoru [Open science in the context of building a knowledge society and digital transformations of the European space]. *Physical and Mathematical Education, 4*(26), 85-92. doi: https://doi.org/10.31110/2413-1571- 2020-026-4-015 [in Ukrainian]

Sivertsen, G. (2019). Developing current research information systems (CRIS) as data sources for studies of research. In W. Glänzel, H. F. Moed, U. Schmoch, & M. Thelwall (Eds.), *Springer handbook of science and technology indicators* (pp. 667-683). Springer, Cham. doi: https://doi.org/10.1007/978-3-030-02511-3_25 (in English)

Verkhovna Rada of Ukraine. (2022a). *Pro zatverdzhennia Polozhennia pro Natsionalnu elektronnu naukovo-informatsiinu systemu: Postanova Kabinetu Ministriv Ukrainy vid 27 veresnia 2022 r., № 1067* (Identifier 1067-2022-п). Database "Legislation of Ukraine". Retrieved from https://zakon.rada.gov.ua/laws/show/en/1067-2022-%D0%BF?lang=uk#Text (in Ukrainian)

https://doi.org/10.15802/unilib/2024_314985

Verkhovna Rada of Ukraine. (2022b). *Pro zatverdzhennia natsionalnoho planu shchodo vidkrytoi nauky: Rozporiadzhennia Kabinetu Ministriv Ukrainy vid 8 zhovtnia 2022 r., № 892-p* (Identifier 892-2022-p). Database "Legislation of Ukraine". Retrieved from https://zakon.rada.gov.ua/laws/show/892-2022-%D1%80#Text (in Ukrainian)

Verkhovna Rada of Ukraine. (2024). *Pro zatverdzhennia Poriadku roboty Natsionalnoi elektronnoi naukovo-informatsiinoi systemy: Nakaz Ministerstva osvity i nauky Ukrainy 08.01.2024 № 10* (Identifier z0323-24). Database "Legislation of Ukraine". Retrieved from https://zakon.rada.gov.ua/laws/show/z0323-24#Text (inUkrainian)

Yaroshenko, T. (2021). Vidkrytyi dostup, vidkryta nauka, vidkryti dani: yak tse bulo i kudy ydemo (do 20-littia Budapeshtskoi initsiatyvy Vidkrytoho dostupu) [Open access, open science, open data: how it was and where we are going: (to the 20th anniversary of the Budapest Open Access Initiative)]. *Ukrainian Journal of Library and Information Sciences, 8*, 10-26. doi: https://doi.org/10.31866/2616-7654.8.2021.247582 [in Ukrainian]

Zharinova, A. H., Zharinov, S. S., & Hauschke, C. (2023). The new business model for the State Scientific and Technical Library of Ukraine enhancing new digital tools for researchers. *University Library at a New Stage of Social Communications Development. Conference Proceedings, 8*, 202-212. doi: https://doi.org/10.15802/unilib/2023_293957 (in English)

Zimmerman, E. H. (2002). Cris-cross: Current research information systems at a crossroads. In W. Adamczak & A. Nase (Eds.), Gaining insight from research information. Proceedings of the 6th International Conference on Current Research Information Systems (pp. 11-20), University of Kassel. Germany: Kassel University Press. Retrieved from http://hdl.handle.net/11366/129 (in English)

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Шляхи розвитку національної системи електронної наукової інформації як інструменту реалізації державної політики відкритої науки в Україні

Мета. З 2020 року в Україні розпочався процес створення Національної електронної науково-інформаційної системи (URIS). Для цього було розроблено відповідну Концепцію створення та розвитку Національної електронної науково-інформаційної системи. Строки реалізації цього документа добігли кінця, проте актами Кабінету Міністрів України було визначено, що роботи мають бути продовжені. Таким чином, постало питання щодо розроблення нової концепції та визначення напрямів розвитку вищезазначеної науково-інформаційної системи. Сучасні наукові дослідження вже довели необхідність реалізації парадигми відкритої науки та окреслили роль Current Research Information System (CRIS-система) в цих процесах. Разом із тим існувала необхідність встановлення напрямків розвитку саме URIS як окремого різновиду такої системи. URIS є багатофункціональною платформою для збору, обробки та поширення даних, що стосуються наукової діяльності в Україні. Розроблена Державною науково-технічною бібліотекою України, URIS має на меті інтеграцію та презентацію агрегованих даних з різних наукових установ та університетів, що, в свою чергу, підвищує видимість українських досліджень на глобальному рівні. У даній статті обговорюється важливість URIS у підтримці академічних і наукових бібліотек, акцентується увага на ролі фахівців бібліотеки в реалізації цього проекту. Мета роботи – провести розгляд перспективних напрямів розвитку Національної

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електронної науково-інформаційної системи URIS, деталізувати шляхи розвитку, доповнити систему новими функціями з метою максимальної реалізації принципів відкритої науки в Україні. **Методика.** Використано методи теоретичного узагальнення нормативних та аналітичних даних, статистичний та порівняльний аналізи отриманої наукової інформації. **Результати.** Наведено сім напрямів із зазначенням шляхів реалізації: розроблення нових функціональних модулів URIS; забезпечення повноцінного залучення до URIS пріоритетних інформаційних ресурсів Національної електронної науково-інформаційної системи; забезпечення українських вчених, наукових установ та закладів вищої освіти цифровим інструментом; забезпечення можливостей для подальшої комунікації з науковою спільнотою та представниками бізнесу; виявлення недоліків у діючих нормативно-правових актах; створення передумов для подолання явища розпорошення фінансових ресурсів; здійснення обліку втрат української дослідницької інфраструктури, які виникли внаслідок російської військової агресії. **Висновки.** Результатом розвитку та вдосконалення Національної електронної науково-інформаційної системи має стати мінімізація паперових носіїв для різного роду документів, надання зацікавленим фізичним та юридичним особам широкого набору цифрових інструментів для отримання швидкого та безперервного доступу до дослідницьких даних, інформації та послуг, пов`язаних зі сферою науки. Повнота реалізації проєкту дасть можливість забезпечити видимість українських вчених та дослідницьких інфраструктур як всередині України, так і для зацікавлених вчених та наукових установ Європейського та світового дослідницького простору. Успішна реалізація URIS демонструє важливу роль академічних і наукових бібліотек в епоху цифрових технологій. Експертиза Державної науково-технічної бібліотеки України була вирішальною для просування цілей URIS, що має на меті покращення якості та видимості українських досліджень як на національному, так і на міжнародному рівнях. Сфера застосування результатів дослідження: розвиток URIS дозволить забезпечити виконання покладених на Міністерство освіти і науки України завдань національного плану щодо відкритої науки та інтенсифікувати процес залучення України до Європейського дослідницького простору.

Ключові слова: CRIS-система; URIS; системний аналіз наукової інформації; перспективні напрями розвитку URIS; шляхи реалізації; принципи роботи URIS; відкрита наука; національний план щодо відкритої науки; Державна науково-технічна бібліотека України; академічні бібліотеки; Європейський дослідницький простір

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