

THE IMPACT OF INSTITUTIONAL REPOSITORY DEVELOPMENT ON THE RESEARCHER VISIBILITY: CASE STUDY ON SPU "ION CREANGĂ"

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Abstract: *This article describes the experience of the "Ion Creangă" State Pedagogical University in setting up and developing the institutional repository DIR-SPU whose purpose is the implementation of the free access to the personnel activity and the visibility of the intellectual potential of the research activities of the university. The paper presents the steps in the creation and development of the institutional repository of the Ion Creangă State Pedagogical University and reflects the main aspect related to the diagnosis of the influence of scientific research archiving on the visibility of the researcher and the prestige of the institution.*

Keywords: *open access, digital institution repository, higher education, academic community, scientific communication, researcher visibility, university's prestige.*

"The development of institutional repositories, electronic archives of the research output of the staff of any individual institution, are often managed by academic libraries. Their development raises key issues about the role of academic libraries in the scholarly communication cycle, and the impact that institutional repositories may have on traditional forms of scholarly communication in the 21st century. Academic libraries have played a key role in the scholarly communication process for the past 150 years. During this period, they have experienced major changes in the creation, dissemination, and preservation of knowledge, through changing social, philosophical and educational paradigms, and the emergence of new technologies. Academic librarians have shown themselves to be adept at adjusting to these changes, and been proactive in advancing research, scholarship and knowledge. With the advent of institutional repositories, they are being asked to adopt another new technology, one that brings with it the potential for a further paradigm shift in scholarly communication" [1].

The problem of access to scientific knowledge is relevant for world science in general, but in Moldova it is especially acute for several reasons. First, the most authoritative and popular journals for publications are available exclusively on a fee basis. Many universities and scientific institutions can not pay for subscriptions to these journals, let alone private individuals, who are given the only opportunity - to buy items by articles for an impressive amount. Secondly, the practice of publishing preprints is poorly used in our country, and self-publishing by authors of articles on the Internet is practically impossible because of the harshest conditions on the part of traditional publishing houses, consisting in the total or partial prohibition of the use of the published text of the article. As a result, we have a large number of scientific studies (often the most interesting and advanced ones) that are completely inaccessible and invisible to a wide audience.

Following the definition set forth by the Budapest Open Access Initiative (2002), open access refers to literature that provides:

"free availability on the public internet, permitting any users to read, download, copy, distribute, print, search, or link to the full texts of these articles, crawl them for

indexing, pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraint on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited" [2].

This definition underscores the open or non-proprietary nature of Internet technologies and their potential, as well as the recognition that research results are best utilized when others are permitted to build upon them, provided credits are duly given.

The Open Access Policy of the „Ion Creangă” State Pedagogical University was approved by the Senate "Ion Creangă" State Pedagogical University On October, the 31-st, 2013.

"Ion Creangă" State Pedagogical University recognizes the strategic importance of Open Access to Information, which aims to promote the dissemination of scientific knowledge promoted by the Budapest Open Access Initiative (2002); The Bethesda Statement on Open Access Publishing (2003); Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities (2003); Code on science and innovation of the Republic of Moldova (2004); Binding principles on public access to the results of researches funded by the European Research Council (European Research Council) (2008); The pilot project of the European Commission (Science in Society) in the Framework Programme for Research (FP7) (2008) [3].

In 2015 our scientific library was a partner of the **Modern Information Services for Improvement Study Quality** TEMPUS Project [4] and having one of the objectives Creating institutional repositories for study and research in the universities of Moldova we have moved to the actual organization of the repository, active promotion in its academic community and the placement of publications of the didactic-scientific staff in open access. In order to realize the idea of Open Access in the university, our librarians elaborated 2 questionnaires for the scientific community (2012-2013 and 2015). It was identified the degree of knowledge of the value and usefulness of the institutional repository by the members of the university community [5].

The level of acquaintance of academic community with the ideas of open access in science and the value of creating a university repository were assessed in these questionnaires. The results obtained within these studies have served as a basis for creation The institutional repository, the elaboration of the Regulation on the organization and the functioning of the Institutional Digital Repository of the State Pedagogical University "Ion Creanga" and the Program for the Promotion of the Digital Institutional Repository of the University, the conviction of the teaching and scientific staff in the necessity of placement the results of scientific research in Open Access.

Within the framework of this Program, librarians attended meetings of the departments, faculties, scientific councils of the university and recounted about the advantages of placing scientific and educational texts in the open access repository, about how this placement has a positive effect on the transparency of the educational and scientific process at the university, and on the increase in the citation index specific university teacher. Then the Regulation on organization and operation of the Digital Institutional Repository of the State Pedagogical University „Ion Creangă” was approved by the Senate on November, the 26-th of 2015.

According to the Regulation “Digital Institutional Repository (DIR) of the "Ion Creangă” State Pedagogical University represents an open, cumulative electronic archive,

managed by the Scientific Library for the purpose of collecting, storing, preserving and disseminating the scientific production of the university”[6].

As Moldova is a post-Soviet country, we are noticeably behind the developed countries in promoting technology in higher education. But this gives us an advantage: we can take into account all the mistakes and shortcomings made earlier by others in the implementation of open access technologies and the development of repositories, and thus we will avoid these shortcomings.

In accordance with the requirements of The National Council on Accreditation and Attestation [7] in 2016 in the university repository were placed all detailed descriptions of the contents of training courses and programs and subjects that students are studying at the university on every faculty. This significantly influenced the transparency of the educational process in the university (fig.1). If in 2015 the texts of the programs were not available online, the visibility of the educational and methodical process in our university was not equal to it. At the time of mid-2018, 127 curriculum texts were placed in the open access repository, which gave a noticeable increase in the visibility of the teaching and methodological process. In addition, the placement of detailed descriptions of curricula, subjects and disciplines helps scientific communication because any teacher from any university in the world can access the texts of these curricula; compare them with programs that he himself developed for his students who study similar discipline. This facilitates the methodological part of the pedagogical activity of the university teacher. And in addition to the positive impact on scientific and methodical communication, the placing of curriculum texts helps students to better orient themselves in choosing a future specialty, and allows employers to see exactly what knowledge, skills and abilities the student has received while studying at the university. And this, in turn, increases the prestige of the university.

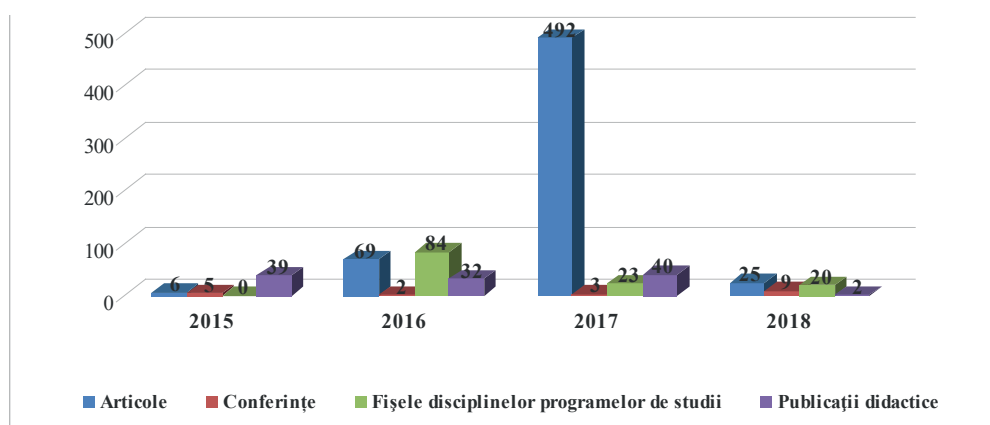


Fig. 1 Statistics on the growth of the number of different materials in the DIR of SPU “Ion Creangă”

In addition, the placing in the repository of not only the entire full-text volume of the scientific conference, but also individual articles of specific authors, influenced the growth of the on the increase in the visibility of these researchers. As you can see from Fig. 1, in 2015 there were only 6 scientific articles in the open access repository of the “Ion Creangă” SPU, and by 2018 there were 592 of them. This greatly influenced the in-

crease in the visibility of researchers, since our researchers write scientific articles much more often than they produce monograph.

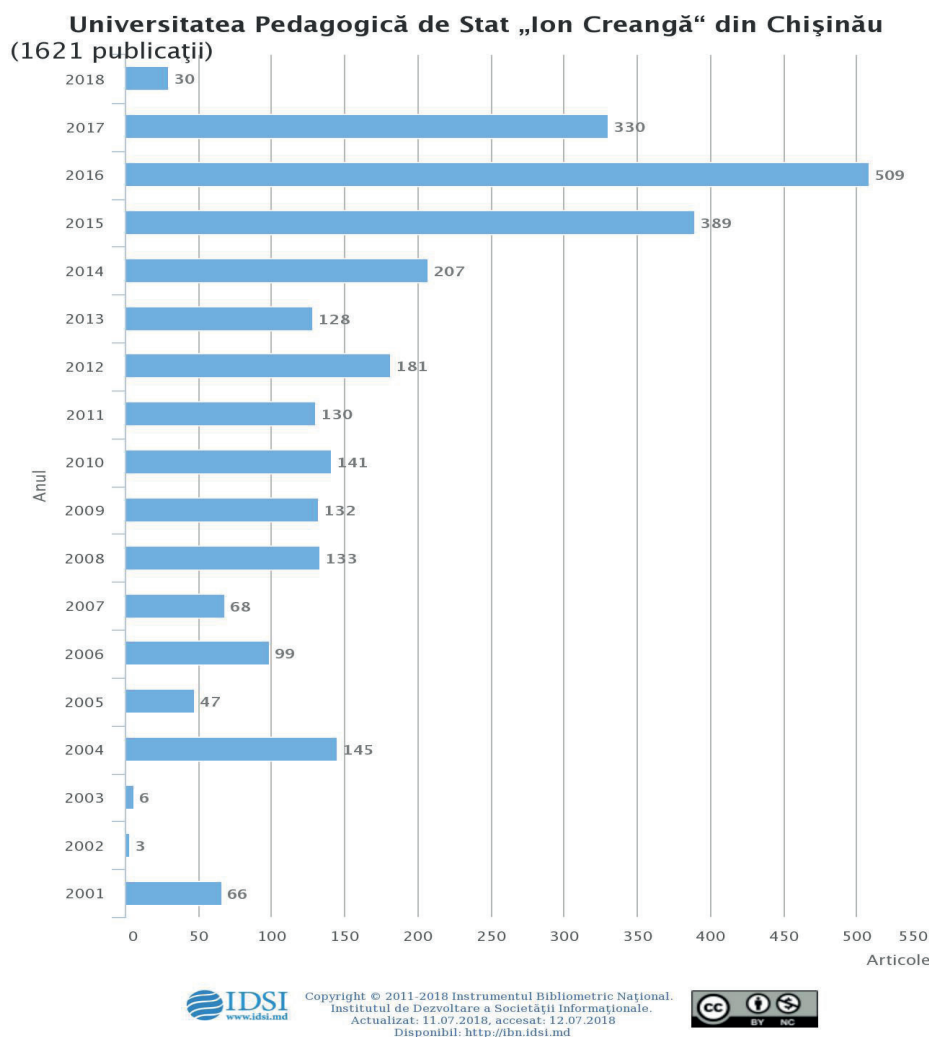


Fig. 2 List of publications SPU - 468. Downloads – 646. Views – 89428.
Source: Instrumentul Bibliometric Național of IDSİ [8].

As you can see from the charts above, with the appearance and development of the university repository, as the number of articles increases, the number of downloads increases. And, no less important, this applies not only to recently published materials, but every year the number of downloads, including previously placed documents, increases. It is obvious that if the author had no publications in the open access services, its visibility as a scientific researcher was zero. But with the increase in the number of materials published by the scientific library in DIR SPU "Ion Creangă", the author's visibility as a researcher is also growing.



Fig. 3 DIR Statistics on the most accessed materials.

Reasons for setting up repositories vary, and a range of projected benefits has been suggested in the literature. These include benefits to the researcher, to the institution, and to individual disciplines. Academic libraries also benefit from being involved in institutional repository initiatives, and there are implications for scholarly communication overall. The primary reasons used to persuade academics of the benefits of placing their output in an institutional repository is exposure—that by having their research and publications openly available on the Web, not just in fee-based databases, scholarly journals, or books, their work is likely to be used and cited more. As a result, their reputation and visibility will be enhanced over the long term, due to the recognition they gain from this. “While academics, and the rewards systems within which they operate, focus on the principles of *registration* (identifying the ‘owner’ of the intellectual property) and *certification* (establishing the quality of the research) as the most important elements of the scholarly communication model, those creating institutional repositories are focused on *awareness* (making the research available to others), and *archiving* (long-term preservation to make the results available to future researchers)” [9].

Publication of scientific works in repositories serves not only as a link between science and society; not only helps to increase the visibility of a researcher, but it is also an instrument of communication of the scientific world. If we want to move towards lifelong learning, to build a democratic society, we need to have as many scientific publications in the Open Access as possible, to develop our institutional repository.

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