Purdue University
Purdue e-Pubs

Proceedings of the IATUL Conferences   2011 IATUL Proceedings

Open Access to Knowledge in the Modern University: Ukrainian situation

Tetyana Yaroshenko
National University of Kyiv-Mohyla Academy

OPEN ACCESS: UKRAINIAN LANDSCAPE

Tetyana Yaroshenko, PhD
National University of Kyiv Mohyla Academy, Ukraine
yaroshenko@ukma.kiev.ua

Abstract

Open Access (OA) to scientific information is not only desireable, but also is the predictable way to successive development of scientific communication. The model of Open Archive seems the best to deal with the organization of Ukrainian scientific information resources, in particular, publications of research output. Ukraine is an important producer of scientific data. There are 351 universities and 119 research institutes of the Academy of Science in Ukraine. The approximate number of those employed in science is 179 thousand people, including 84,400 Doctors of Science. More than 1,500 academic journals and other scientific serials are published in Ukraine. But the impact of Ukrainian research is low at the world. The OA model (both "gold" and "green") can become an outlet for this information blockade in Ukraine. There were 27 institutional repositories created in Ukraine in the last 3 or 4 years with total number of digital documents deposited standing at about 57,000 already, and virtually all academic journals are available through OA now also. Different examples of Ukrainian IRs and OA journals presented. Information about lobbying OA at the state and institutional levels. Open Access to Knowledge Statement (2009). ELibUkrOA – multi-university project-development. Still low participation by Ukrainian universities in the OA movement brought about by inability and difficulty in comprehending the entire conceptualisation and importance of Open Access for modern university.

Keywords: Open Access, institutional repository, digital scholarship, university, Ukraine

The World Wide Web has enabled researchers to make their research results available to anyone, anywhere, at any time. This is known as Open Access (OA). In the 9 years since the launch of the Budapest Open Access Initiative in February 2002, one of the most outstanding developments in the scholarly communications landscape has been the increase of interest in open access. For some time, librarians at institutions of higher education around the world have been leading the effort to improve the system of scholarly publishing by advocating for open access. They are educating faculty authors on intellectual property rights and negotiating with publishers for more library-friendly subscription models.

One of the major barriers for scholars and researchers in universities is the lack of access to the current literature in their subject, much of which may be published in journals that have high annual subscription rates and thus are too expensive for many libraries. E.g., an average Ukrainian university has access to fewer than 20-50 print foreign journals. The open access movement addresses this barrier by arguing for the "free availability of literature 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"[i].

Today's research and scholarship are data- and information-intensive, distributed, interdisciplinary, and collaborative. Open access (in the form of both self-archiving and open access journals) is regularly discussed and debated at an institutional-level, within research-funding bodies, nationally, and internationally. The debate has moved out of the library and publisher communities to take a more central place in discussions on the 'knowledge economy', return on investment in research, and the nature of e-science. We have seen an increasing acknowledgement of the relationship between investment in Research and Development, access to knowledge, technology transfer, and wealth creation. Open Access to scientific information is not only desirable, but also is the inevitable way to subsequent development of scientific communication.

Open Access is of special importance for Universities, as Open Access means that research has much more impact than before, and universities and research institutions benefit from the cumulative effect of their authors' increased impact. Every university that produces research should have a publishing strategy. Those familiar with Open Access understand the benefits that flow from providing enhanced access to scholarly journal articles. They also understand that a well-designed institutional research access policy can bring scholarly outputs to the attention of new audiences around the world without disrupting any of the foundations of scholarly communication – such as peer review, academic freedom, or the sustainability of scholarly societies and their publications. However, many faculty members and administrators are still unfamiliar with the specifics of Open Access. Timely, accurate information about the motivations and mechanics of an open-access policy and how it would operate in connection with faculty publishing practices is of crucial importance to anyone about to embark on this path.

Understanding the significance of the Open Access is important for Ukraine. The model of OA seems to be greatest to deal with the organization of domestic scientific information resources, in particular, research output. Ukraine is an important producer of scientific data: there are 904 higher educational establishments, including 351 Universities, 119 research institutes of the Academy of Science of Ukraine. The approximate number of those employed in science is 179 thousand , including 84,400 Doctors of Science. More than 1,500 academic journals and other scientific serials are published in Ukraine, containing more than 170,000articles each year. But the circulation of these print journals rarely exceed 150-200 copies, and mechanisms of their distribution are unfathomable and perplexing. 90 per cent of these publications are only in Ukrainian and they do not even have abstracts in English. Only 15 academic journals of Ukraine have an impact factor and are included in international systems, such as ISI/Thompson with only 40 in Scopus. That is why all of the scientific achievements of Ukraine are available to rest of the world at an annual rate of about 1500-2000 articles, and that is why citation index scores for Ukrainian scholars are so low.

Therefore, the projects of Open Access can become an outlet in this almost complete information blockade for Ukraine. We have achieved a lot by lobbying OA in Ukraine. Mainly, at the national level: The Parliament of Ukraine (Verkhovna Rada) in 2007 proposed-multi-institutional-mandate (Law of Ukraine "On the principles of Developing Information Society in Ukraine in 2007-2015") where mentioned: open access to research outputs created with the funding from the state budget of Ukraine[ii] OA is supported by professional communities also. More than 150 Ukrainian University librarians endorsed the Open Access to Knowledge statement on May 21, 2009 at the International conference in Sevastopol. This mandate is similar to others in the world of OA[iii] :

"We support open access to knowledge and strategies on developing open institutional repositories and open access journals published by the Universities....We ask the government to support open access to research information especially when the research is funded from the state budget of Ukraine, as well as to support open access to research data and cultural heritage. We ask the researchers to support open access and self-archive research papers, reports, dissertations, educational materials, etc., in open institutional repositories and publish articles in open access journals. We ask the researchers to retain copyright. We ask the Universities and research institutions to implement open access policies and strategies, provide open access to the full-text peer-reviews research outputs produced by the faculty and staff....We ask to launch and develop open institutional repositories and open access journals.. We ask the academic journal publishers … to allow self-archiving of the postprints, request only the rights needed to publish an article, cancel or shorten the embargo periods and provide the published versions of the articles to the relevant open institutional repositories. We ask the university libraries to promote open access to research information among the research community, faculty and individual researchers. To launch and develop open institutional repositories to provide open access to the research materials and to raise the University profile, provide long-term preservation for the research publications. Repositories should follow DRIVER and other relevant recommendations, be OAI-PNH compliant and interoperable to allow the best possible global searching facilities." Open access to research information was included in the Olvia Declaration of the Universities in Ukraine: Academic Freedom, University Autonomy, Science and Education for Sustainable Development endorsed by 26 rectors at Olvia Forum 2009 (June, 12, 2009).

27 Intuitional Repositories have already been created in Ukraine within the last 3-4 years, including 22 at Universities. According to the January 2011 top-rated repositories [iv], among the leaders the following ones (the first column describes the repositories' rank among 1184 world repositories:

406	Kharkov National Academy of Municipal Economy Repository
421	Zhytomyr State University Library
630	Institute of Biology of Southern Seas E-Repository
642	Electronic Kharkiv National University Institutional Repository
726	National Academy of Sciences of Ukraine Institute of Software Systems ePrints
758	Electronic Kyiv-Mohyla Academy Institutional Repository
882	Electronic Archive Ternopil State Ivan Puluj Technical University
1066	Odessa I.I.Mechnikov National University Repository

Among the most active Universities of Ukraine, which create the projects of open access, National University "Kyiv-Mohyla Academy", where you may find in the open access both scientific serials, "Scientific Papers of NaUKMA" and "Magisterium", and the open electronic archive which has been created, eKMAIR[v] . There is an International repository, CEEMaR (Central and Eastern European Marine Repository)[vi] from the Institute of Biology of the Southern Seas (IBSS), which is a thematic digital repository covering marine, brackish and freshwater environments and providing access to papers produced by the staff of the ECET institutes in Bulgaria, Poland, Russia and Ukraine.

The open access policy adopted by Ternopil State Ivan Pul'uj Technical University[vii] (TSTU) mandates that all published journal articles and conference papers be deposited in the Electronic Archive of TSTU (ELARTU), if there are no legal objections by publishers. ELARTU also encourages and fully supports self-archiving of other research output produced by scientists and students of the university as well as other members of the scientific community. A similar mandate is in effect at Kharkiv National University. Unfortunately other universities implement such mandates less actively and only as voluntary (researchers make their work open access in the institutional repository, only recommendation).

The majority of deposits in Ukrainian repositories are scientific articles. There are also, however, significant numbers of dissertations, monographs, textbooks, educational materials, students' papers, images, presentations, datasets   etc. Kharkiv National Academy of Municipal Economy[viii], for example, integrates its repository to a MOODLE learning management system platform, that is why here there are lots of education materials, textbooks, even students outputs, images, etc. It is also the biggest repository with more than 20 thousand deposits .

 Ukrainian harvester[ix] started 2 years ago (as a Zhytomyr Ivan Franko State University initiative and there are more than 57 thousand Ukrainian scientific publications in OA now. The most dimensioned project of the OA in Ukraine is "The Scientific Periodicals of Ukraine"[x] portal, which was launched in 2009 by the Vernadsky National Library of Ukraine. A special mandate of the National Academy of Science of Ukraine expects journals to provide the Vernadsky Library e-versions of each issue and that the library will post it on its website for free and provides open access to it. Accordingly, by the end of March 2011, 1596 journals, most with 2 years back files, were posted at the portal. The access model is negotiated with intellectual property owners, in particular the embargo period may last from 6 months to two years. But the embargo period is established for 23 journals only. The usage statistics of the portal 300-400 thousand downloads

daily! 17 titles of the Ukrainian OA journals are already incorporated in the Directory of Open Access Journals (DOAJ) as well.

The ELibUkr (Electronic Library of Ukraine: Knowledge Canters in Universities of Ukraine) project was established in 2008 at the initiative of Kyiv Mohyla Foundation, an American charitable foundation that supports the development of higher education in Ukraine, with the collaboration of 3 Ukrainian universities: National University of Kyiv Mohyla Academy, Yuriy Fedkovych Chernivtsi National University, and V.Karazin National Kharkiv University, and Northwestern University (US). Financial support is made available from the U.S. Agency for International Development (USAID) Mission to Ukraine, the Kyiv-Mohyla Foundation of America and the university participants of the ELibUkr Project, along with individual grants to subscribe to some specific resources. The consortium' project already includes 15 universities from Ukraine. The project 's core tasks are:
- access to global scientific resources (53 data bases were licensed for 2 years);
- recourses single access portal was created[xi]. There is also a recourses management centre – A-Z list (CUFTS FOSS). The portal anticipates remote access for registered users, using of Shibboleth and Easy Proxy).
- access to OA scientific recourses, the selected and organized (106 OA data bases);
More than 124,000 students and 12,000 faculty members uploaded almost 200,000 articles from different e-recourses last year. More than 600 trainings and information literacy instruction sessions were organized during this time also.

A second, but not less significant, part of ELibUkr is to ensure the widest possible dissemination of Ukrainian research output. That is why we stimulate each university – consortium participants to create and develop Institutional Repositories (7 have been created in the last two years). We also understand that the process of creating repositories in each Ukrainian university will take longer and because of that the Multiuniversity Open Archive - ELibUkr-OA[xii] was created in 2010 as an ELibUkr' project initiative. The purpose of this project is to provide access for scholars at Ukrainian universities or other academic institutions, which don't yet support their own IR. ELibUkrOA has a deposit service and a redirect service.. Now about 567 deposits from 52 scholars of 30 scientific institutions are already in this repository. Usage statistics for the last 6 months are 25,448.

The general view for OA in Ukraine is, of course, positive. The first repositories were created only 3-4 years ago. Now they number 27. This is strong growth. The total number of documents in all repositories of Ukraine, however, is about57 000, which is an average of only 2111 documents in each. Daily average deposit is disappointingly low. The main reasons for this are
- lack of administration support,
- researchers' unawareness of the benefits of OA, especially OA repositories,
- the effort, required to deposit, and
- the possibility that some faculty are already self-archiving on their own, or to departmental website, and do not see the advantage in depositing into a repository.
- a lack of qualitative indicators of informatization of the universities;
- For the majority of Ukrainian scholars, computers are still mainly typing machines and tools of reading–writing e-mails
- a lack of technical capacities in the universities.
- Badly implemented policies of IR creation,
- unclear motives and mechanisms for consortium scientists to self-archive their own publications,
- no policy for intellectual property rights.

So, despite some clear successes we need to point out the currently low activity of Ukrainian universities in the OA movement and the difficulty in understanding the total concept and importance of Open Access for all contemporary universities. We are certain that OA is essential, important and real for our country. Librarians of Ukraine, as well as librarians all over the world, play an important and active role in creating a new world informational infrastructure – a knowledge society where OA is a main underpinning.

References

i Budapest Open Access Initiative [Electronic resource] – Mode of access: http://www.soros.org/openaccess . – Title from the screen

ii On the Basic Principles for the Development of an Information-Oriented Society in Ukraine for 2007–2015 : Law of Ukraine of 09.01.2007 № 537-V [Electronic resource] : Annotation / Yaroslav the Wise Institute of Legal Information // Laws of Ukraine : Web-site / Verkhovna Rada of Ukraine. – Electronic data. – [Kyiv, 2007]. – Mode of access: http://zakon1.rada.gov.ua/cgi-bin/laws/anot.cgi?nreg=537-16 . – Title from the screen.

iii Ukraine is implementing its 2007 OA mandate [Electronic resource] // Open Access News : News from the open access movement : [RSS feed] / Peter Suber. – Electronic data. – [Richmond, Indiana]. – 2009. – June, 07. – Mode of access: http://www.earlham.edu/~peters/fos/2009/06/ukraine-is-implementing-its-2007-oa.html . – Title from the screen.

iv .Ranking Web of World repositories [Electronic resource] : Web-site. – Electronic data. – [Madrid, Spain], 2004-2011.– Mode of access: http://repositories.webometrics.info/index.html . – Title from the screen.

v eKMAIR = Electronic Kyiv-Mohyla Academy Institutional Repository [Electronic resource] / [NaUKMA]. – Electronic data. – [Kyiv, 2006-2011]. – Mode of access: http://www.ekmair.ukma.kiev.ua/ . – Title from the screen.

vi CEEMAR [Electronic resource] – Mode of access: http://www.ceemar.org/. – Title from the screen.

vii ELARTU [Electronic resource]: DSpace at Ternopil State Ivan Puluj Technical University / Ternopil State Ivan Puluj Technical University. – Electronic data. – [Ternopil, 2002-2011]. – Mode of access: http://dspace.tstu.edu.ua/ . – Title from the screen.

viii KNAME Digital Repository [Electronic resource] / Kharkiv National Academy of Municipal Economy]. – Electronic data. – [Kharkiv, 2006-2011]. – Mode of access: - http://eprints.kname.edu.ua/ . – Title from the screen.

ix Simple Search Metadata (SSM): in Open Ukraine Archives [Electronic resource] : [nationwide collection of portal and search metadata] / [Institute of Software Systems NAS Ukraine, Zhytomyr Ivan Franko State University]. – Electronic data and program. – [Kyiv ; Zhytomyr, 2011]. – Mode of access: http://www.oai.org.ua/ . – Title from the screen.

x The Scientific Periodicals of Ukraine [Electronic resource] : Web-portal / Vernadsky National Library of Ukraine // Vernadsky National Library of Ukraine : Web-site. – Electronic data and program. – [Kyiv, 1997-2011]. – Mode of access: http://www.nbuv.gov.ua/portal/ . – Title from the screen.

xi ELibUkr [Electronic resource] : Web-portal / – Electronic data. – Mode of access: http://www.elibukr.org. - Title from the screen.

xii ELibUkrOA [Electronic resource]: DSpace at ELibUkr. – Mode of access: http://oa.elibukr.org . – Title from the screen.