

The role of Lviv Polytechnic National University Scientific Library in the development of Open Scholarly Communication in Ukraine

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Introduction

"Free access to information is an important part of research in today's global world. It is essential for the further development of science, education and society, Ukraine's integration into the global academic community"

Ol'viys'ka Charter, Ukraine, 2009

The library as a social institution plays an important role in the formation of the intellectual potential of a society, and therefore it must respond to all changes in a country. When democratization and national rebirth are taking place, the rule of law is established and new libraries and information technologies begin to develop.

Providing citizens with free and equal rights of access to information is essential for the system of self-government. People must have access to all information, ideas and points of view. A precondition for a free society is an informed and enlightened citizenry. Freedom of expression is essential for a free society and provides a check against possible government corruption and excess. Ukraine, on its 20th year of independence, is trying to implement social and economic reforms and develop a competitive information society.

Ukraine:

- Neighbors (border countries) – Poland, Slovakia, Hungary, Romania, Moldova, Russia, Belarus
- Population – 46 million people
- Universities – 351
- PhD's – 84 400
- Scientific Journals – 2000+
- 170 000 scientific publications per year

Open Access in Ukraine. Ukrainian open archives

There are more than 18 institutional repositories, 14 open journals and the national Harvester into Open Access in Ukraine.

On May 21, 2009 more than 150 Ukrainian university librarians endorsed "Open access to knowledge" statement at the International conference "Libraries of the higher education institutions" in the context of higher education modernisation that took place in Sevastopol, Ukraine.

You can see the geographical position of institutional repositories in Ukraine on the map below.

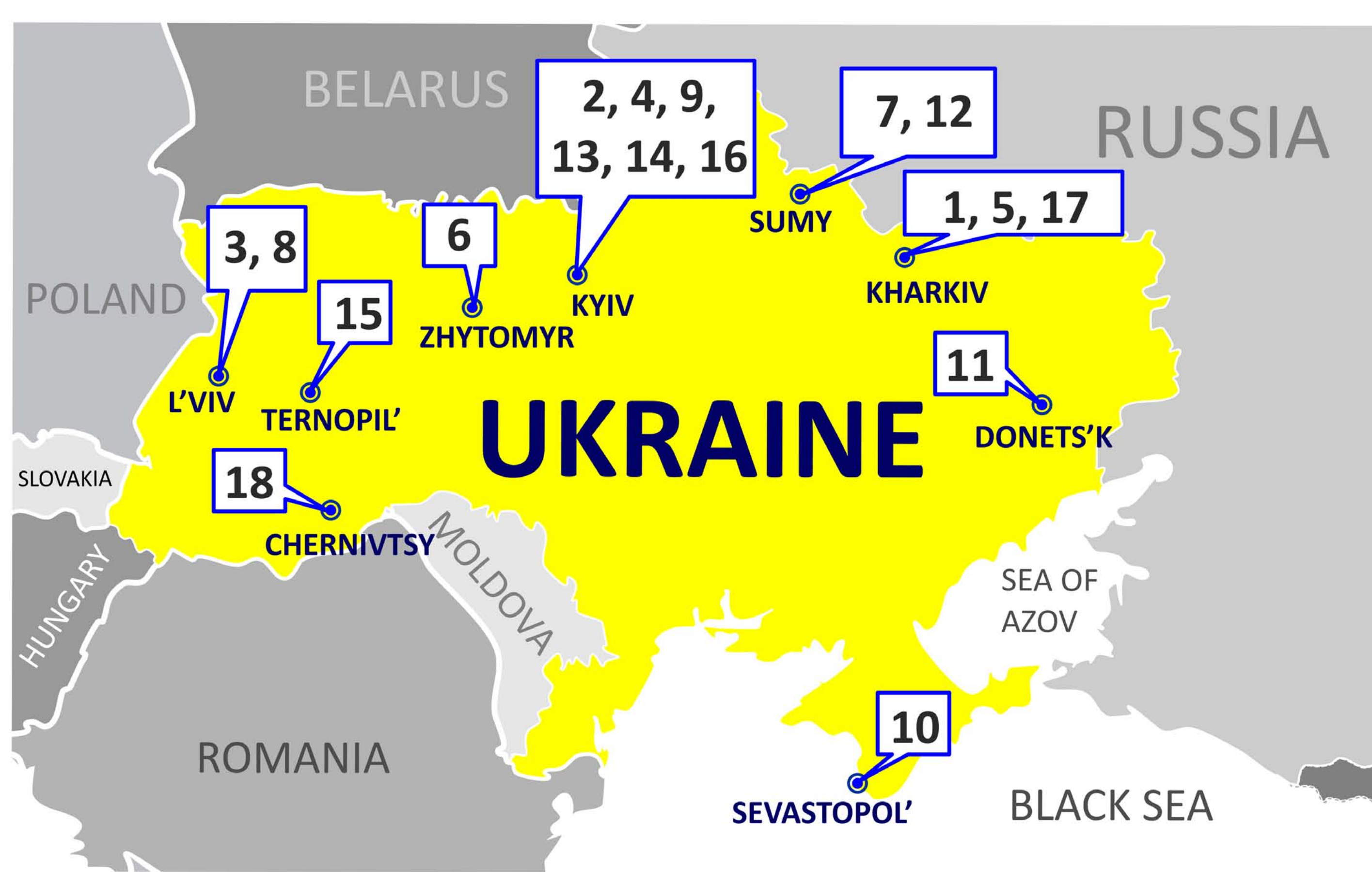


Fig.1 Repositories from table 1

The Table 1 provides a list of repositories names sorted by the total number of stored items.

№	Archive Name	№	Archive Name
1	Kharkiv national academy of municipal economy	10	Institute of Biology of the Southern Seas
2	Vernadsky National Library of Ukraine	11	Electronic Archive of Donetsk National Technical University
3	Lviv Polytechnic National University Institutional Repository	12	Ukrainian Institutional Repository of Electronic Ukrainian Academy of Banking of the National Bank
4	Electronic Kyiv-Mohyla Academy Institutional Repository	13	Electronic Library of Ukraine Open Archive (ELib/Ukr-OA)
5	Electronic Archive V.N. Karazin	14	Institute of Software Systems National Academy of Sciences of Ukraine
6	Zhytomyr State University Library	15	Electronic archive of Ternopol State Ivan Pulyk Technical University
7	Electronic Institutional Repository of Sumy State University	16	Scientific Library of National Technical University of Ukraine "Kyiv Polytechnic Institute"
8	Centre for the Anthropos	17	Electronic Archive of Kharkov National University of Radioelectronics
9	Digital repository of European rarities	18	Academic Research Repository at the ChNU

Table 1. List of repositories

Figure 2 shows a comparative description of repositories by the following criteria – number of items in the archive, number of full-text documents indexed in *google.com* and the number of full-text documents indexed in *scholar.google.com*.

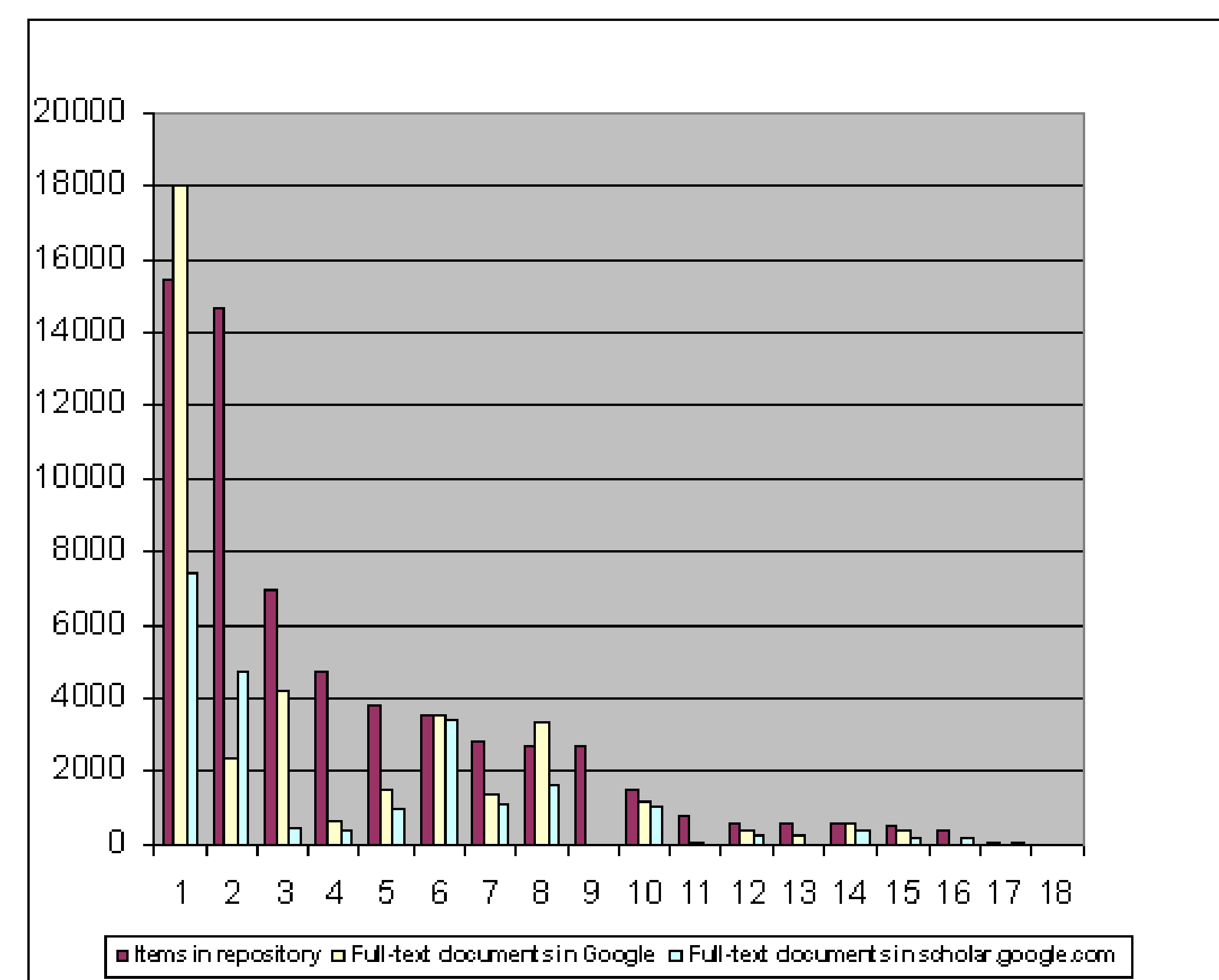


Fig.2. Comparison of repositories

The repository of Lviv Polytechnic National University ranks third among all repositories of Ukraine or second among repositories of university libraries as shown in figure 2.

Open Access in Ukraine. Open Journals in Ukraine.

The table 2 and chart 3 below provides a list of open journals names sorted by the number of issues.

№	Journal name	№	Journal name
1	Fizika Nizkikh Temperatur	8	Ukrains'kij Himioterapevtychnij Zhurnal
2	Biopolymers and Cells	9	Gender Studies
3	Journal of Physical Studies	10	Vestnik Zoologii
4	Functional materials	11	Journal of Nuclear Physics and Atomic Energy
5	Ukrainian Journal of Physical Optics	12	Morphology
6	Condensed Matter Physics	13	Ukrainica Bioorganica Acta
7	Journal of Mathematical Physics, Analysis, Geometry (MAG)	14	Symmetry, integrability and geometry: methods and applications

Table 2. Major Ukrainian scientific journals

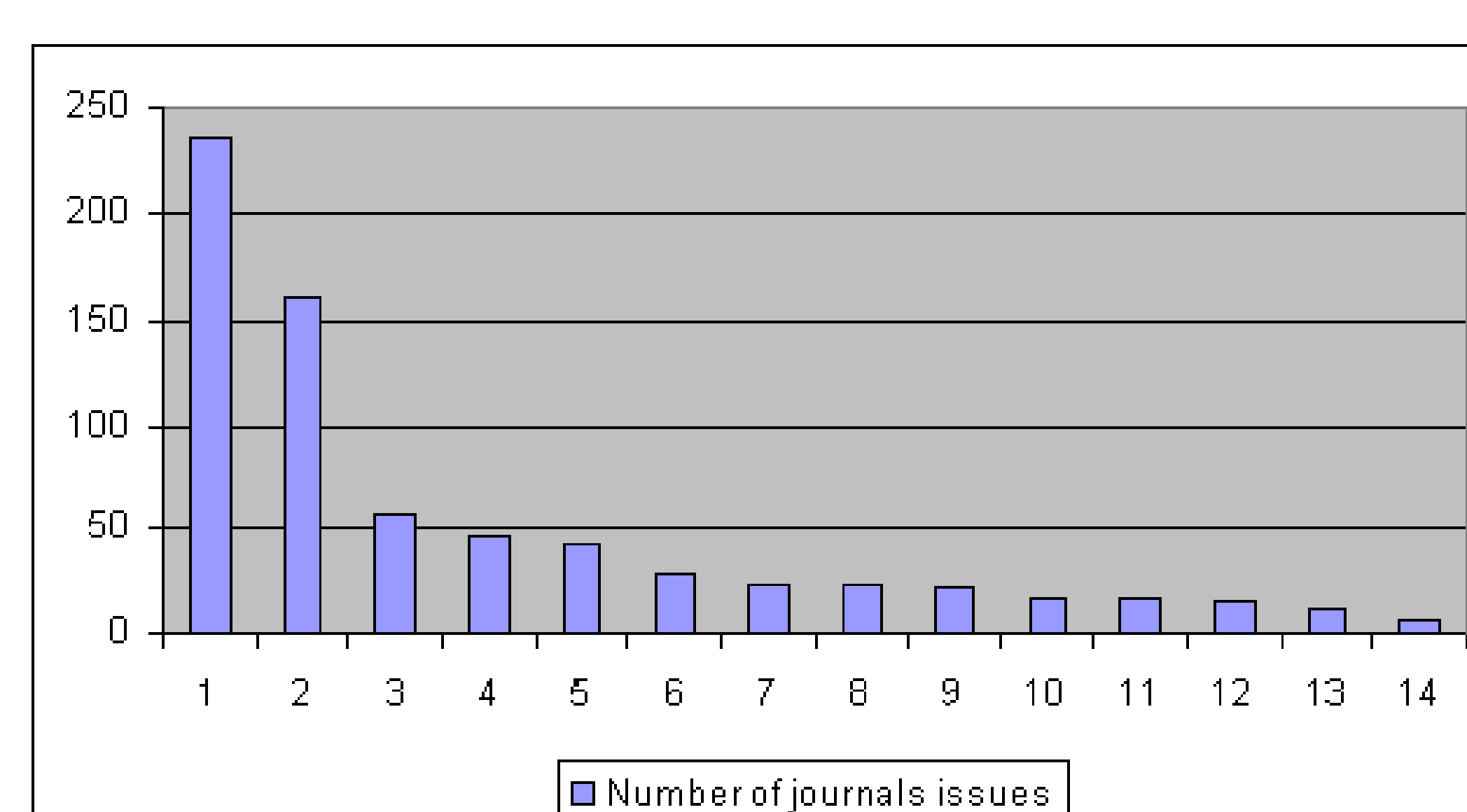


Fig.3. Comparison of issues numbers for major Ukrainian journals

Lviv Polytechnic National University Institutional Repository

Lviv Polytechnic National University – founded in 1844 – is the largest university in Western Ukraine. LPNU consists of 15 institutes and 103 academic departments, has about 31000 students, and over 2000 teaching staff members.

University Library (Scientific Library) of Lviv Polytechnic National University is one of the largest and oldest university libraries in Ukraine(it was founded in 1844). The library has about 1 million 810 thousands books and magazines, more than half of the funds is scientific literature. Today the library serves more than 28 000 visitors.



Lviv Polytechnic National University



Scientific Library

"Lviv Polytechnic National University Institutional Repository" (<http://ena.lp.edu.ua>) – institutional repository of Lviv Polytechnic National University was created on **15 May 2010**.

Currently repository contains more than **7000** items. You can see cumulative growth of items in the repository on the figure 5 below

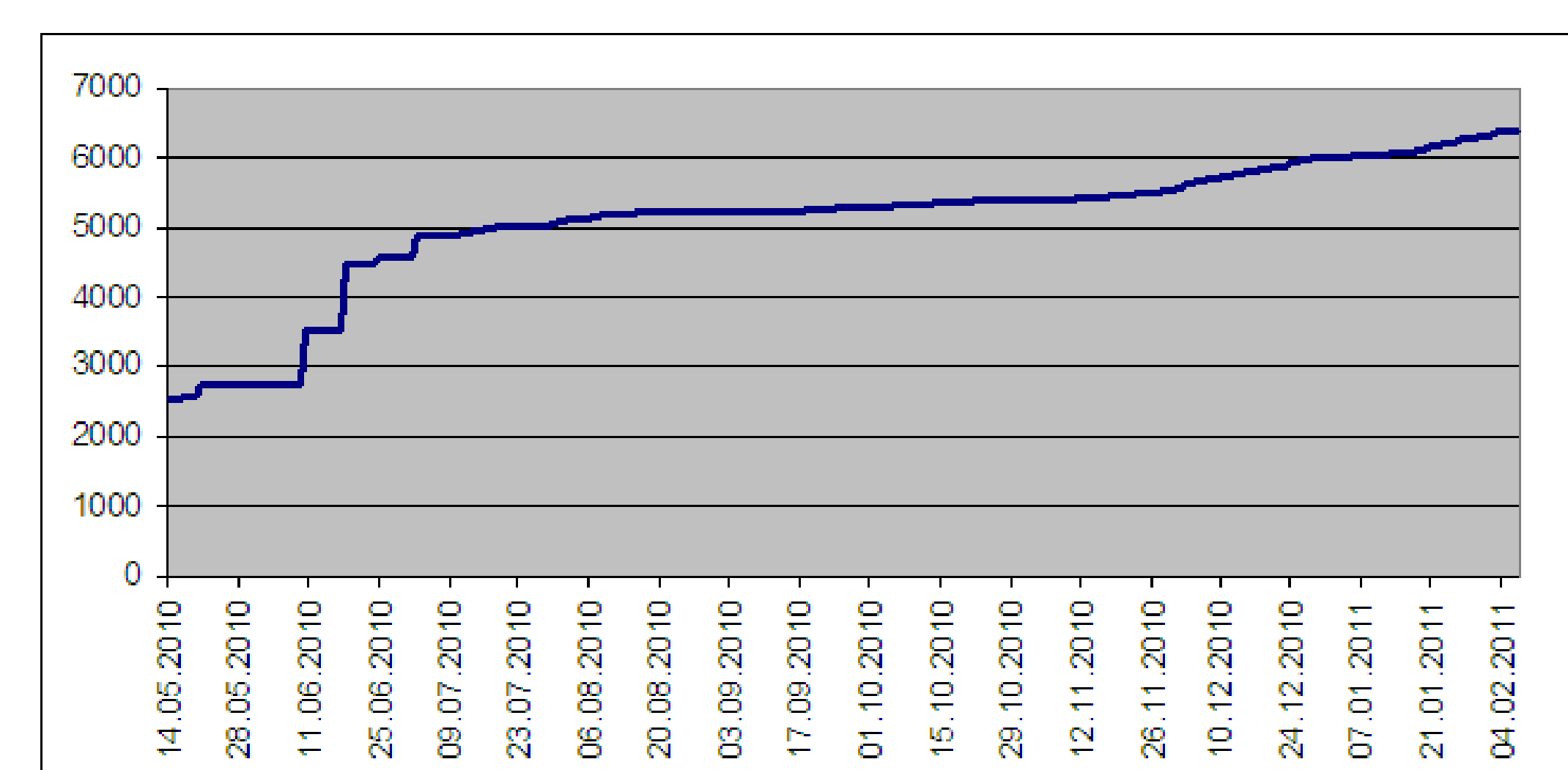


Fig.5. The dynamics of LPNU archive growth

The next figure shows the structure of the repository.

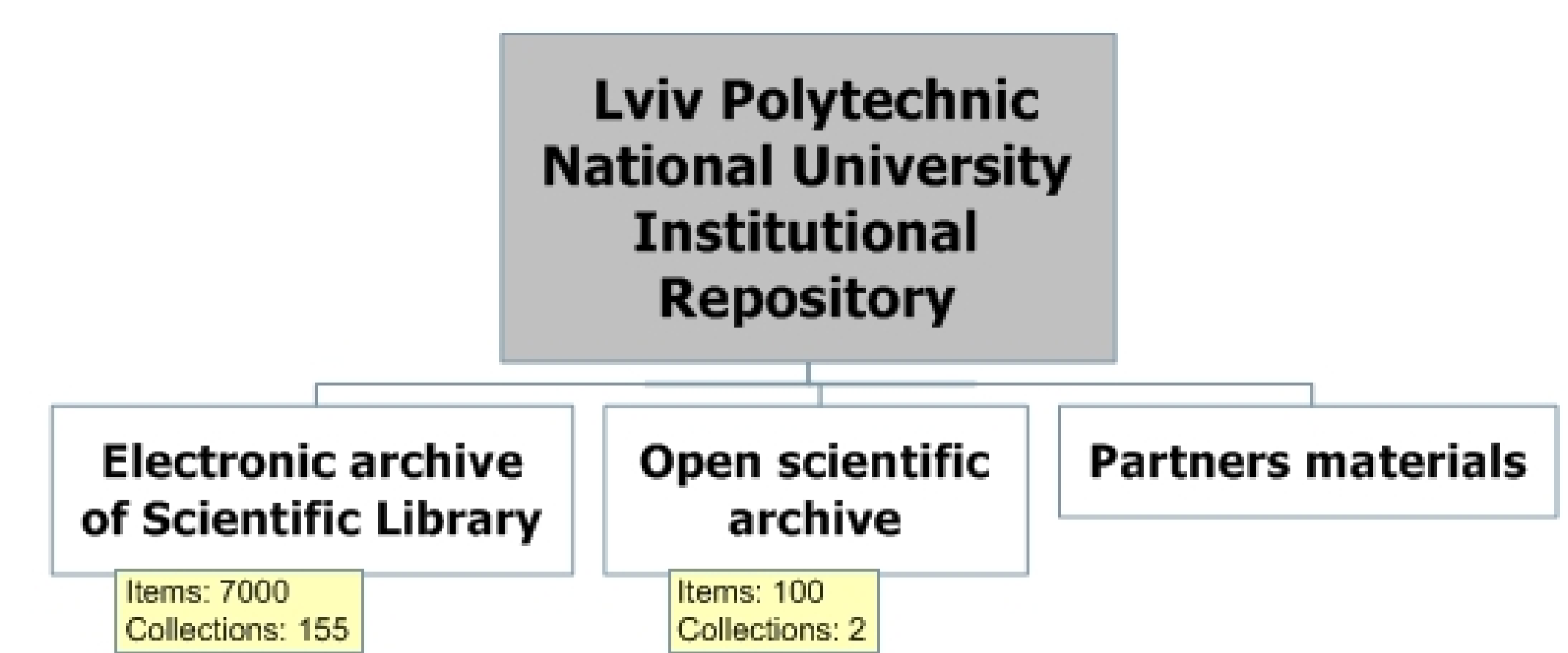


Fig.6. The structure of the repository

Community "Electronic archive of Scientific Library" contains materials published at Lviv Polytechnic, including journals and conference proceedings.

Community "Open scientific archive" was established for the purpose of publishing of research materials by register users.

Community "Partners materials" includes scientific materials from Scientific Library partners.

The scope of documents archive covers different fields of scientific activity. As seen from the figure 7 the main field is technical sciences (**69%**).

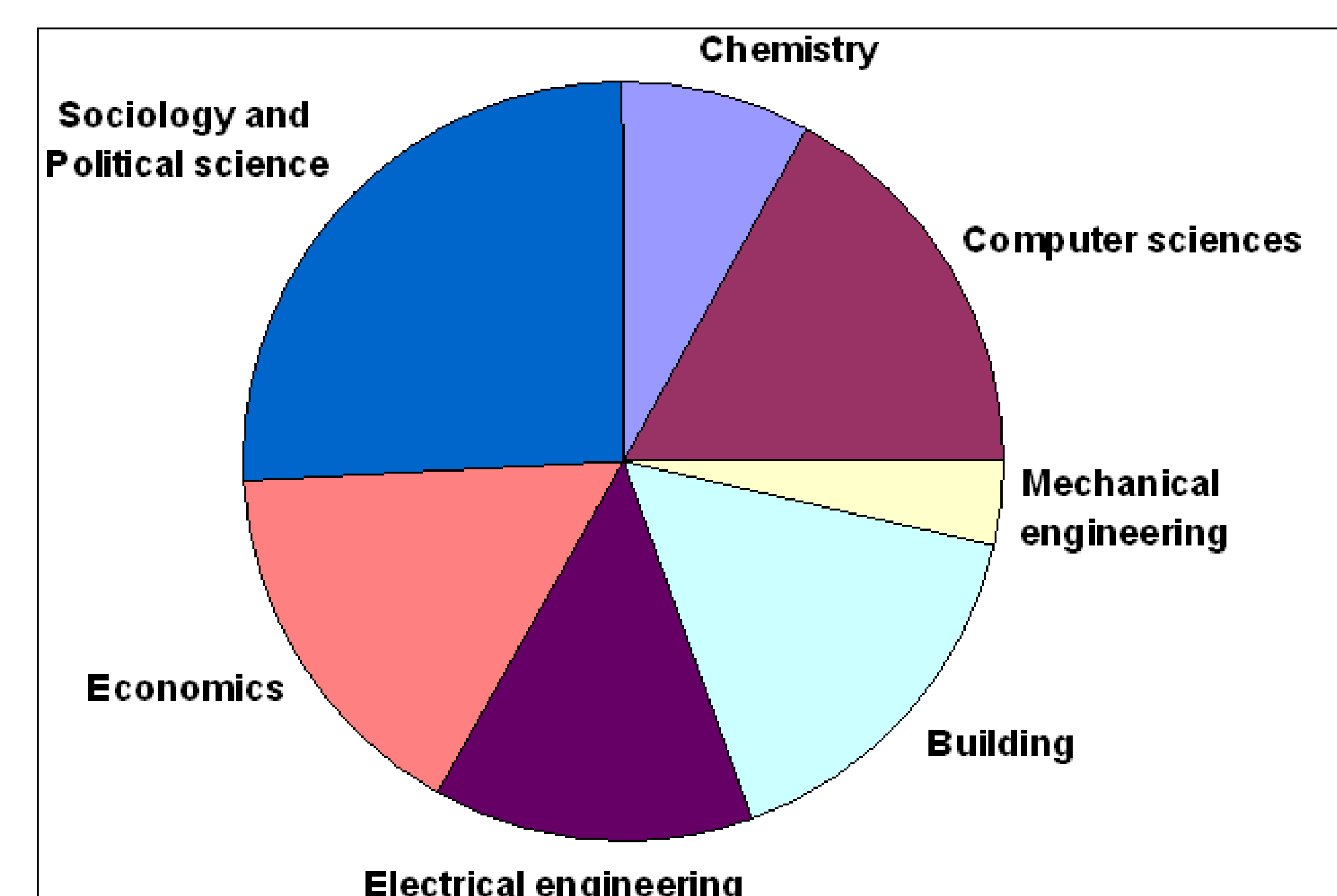


Fig.7. Fields of scientific activity in archive

Since its creation in 2010 the web-site of Electronic archive had more than 207 000 page views and more than 21 000 visits from 53 countries.

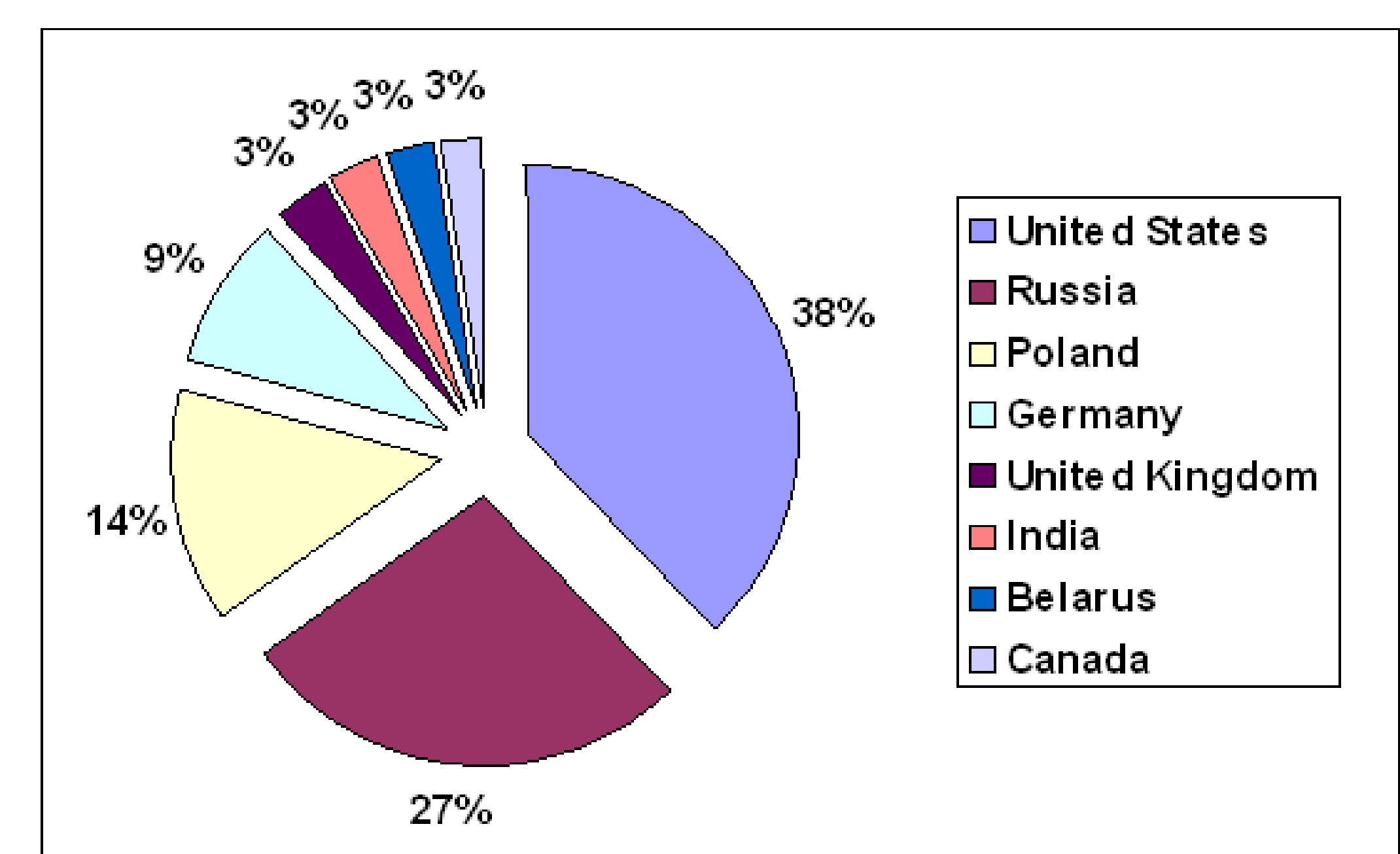


Fig.8. Distribution of visitors by countries excluding Ukraine

Our archive includes near 90 polish scientific papers, and near 80 russian.

Problems that we face and need to overcome:

- lack of foreign language abstracts in submitted papers;
- limited functionality of software;
- weak academic interest in submitting papers to the open repositories and open journals;
- lack of adequate government support of Open Access.

Conclusions. Why are we on this conference?

- We want to exchange ideas and experiences to facilitate support and development of open repositories in Ukraine;
- We want to talk about implementation of social Web 2.0 services in Ukraine;
- We want to replicate the experience of other libraries and build a common infrastructure;
- We want to keep abreast of recent developments in library science;
- We want to organize cooperation with other libraries in order to disseminate scientific information;
- We want to promote scientific research papers of the Lviv Polytechnic National University outside Ukraine;
- We want to improve the librarian skillset.