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## **Polish network of Digital Libraries - 2008**

### ***Abstract***

*The article presents the political context and the current status of digital libraries network in Poland. It demonstrates the major challenges in the various areas in which libraries operate, problems which should be discussed. It describes some important library initiatives that emerged in order to coordinate activities, and presents concrete examples (WBC, KPBC, POLONA) of the actual digital collections accessible via the Internet. The author also attempts to diagnose the situation and indicate solutions, which may bring measurable benefits to Poland and Europe.*

### **Poland's policy towards digitalization**

Poland does not pursue any policy connected with the building of digital resources, and though some elements of such a policy may be pointed out in several governmental documents [1] [2], they hardly provide a cohesive system. What is more, very little funding has been allocated. All technological initiatives focused on digital collections development in recent years, have been grass-root activities funded either by the library institutions themselves or, in very rare cases, by the EU structural funds. Their objective was to support learning and education and to close the gap between our libraries and those from the technologically more advanced countries. The gap is very large, not only considering the economic and organizational dimension, but also the level of know-how that Poland represents in terms of learned resources management or new technologies.

Institutions of culture have failed to make an impact on state cultural policy, and there is also a problem with the political and administrative system in which these institutions must operate. It is not an easy task to implement the kind of organizational and work strategies seen in more advanced countries, particularly when the role of libraries in Poland is so poorly defined. What is more, social consultations are not very efficient, whereas there is no institution that is prepared to take responsibility for strategic planning. On the other hand there are an excessive number of strategies devised within individual ministries that have all failed to provide adequately for digital libraries. It took librarians several years to convince the public administration of the importance of building digital collections. When finally the projects were launched in conjunction with the Ministry of Science and Information Technology Development, a new government was elected, which moved „information technology development” together with all the library projects to the Ministry of

Home Affairs and Administration.

Information technology development is now the area of competence of the Ministry of Home Affairs and Administration, which has no projects for libraries, and is more interested in e-administration. The Ministry of Science and Higher Education responsible for academic libraries, should concentrate on electronic journals and the building of repositories, but there is no activities there [3]. Whereas the Ministry of Culture and National Heritage, statutorily responsible for digitalization, places it in public libraries, museums and archives lying within the Ministry's area of competence. Under such a system reality and practice could only diverge with regard to administrative planning. What is needed for the building good digital libraries in Poland is cross-sectoral cooperation involving officials, librarians, archivists, museum specialists, IT engineers and publishers. Library communities have been lobbying for this for years, but all to no avail.

## **Digitalization initiatives**

### **The Digitalization Team at the Ministry of Culture and National Heritage**

Since 2005 the activity of the Ministry of Culture and National Heritage has greatly intensified. Through its Department of National Heritage, the Ministry will stimulate the creation of digital resources in Poland. On April 24, 2006 the Minister of Culture and National Heritage set up a Digitalization Team to act as its auxiliary body. The responsibilities of the Team are the:

- (1) development of a uniform digitalization strategy with regard to Poland's cultural heritage and scientific output, irrespective of legal status or place of storage,
- (2) development of uniform requirements, standards [4] for libraries, archives and museums for the digitalization process, access and digital materials storage
- (3) integration of activities launched by individual libraries, museums and archives in the area of cultural heritage digitalization.

The team has already started to work along these lines, while consulting with librarians, archivists, museum specialists and IT engineers. There is a chance that once the digitalization strategy is ready, it will be possible to talk, about cohesion with EU policy [5], and it will be easier to raise the necessary funds. Additionally, the meaning of digitalization in this document will be broader – it will be understood as the building of digital resources, also repositories and the archiving of the Internet resources from the PL domain.

### **Polish Digital Libraries Consortium 2008 (PBC)**

The second initiative that appeared in 2005 (but realized in 2008) is connected with the building digital libraries in the community of practitioners. Librarians from large research libraries who started to work on the creation of digital resources out of their own funds or EU funds made steps towards the consolidation of such activities. Ten of the largest research centers in the country, in conjunction with some public libraries, decided to cooperate within a loosely organized consortium structure.

The main objective of the consortium is to provide all interested parties with free access to the digital resources concerned with learning, education and culture by developing a network of digital libraries. The consortium, acting under the binding copyright, press and

publishing laws, wishes to pursue the following strategic goals:

- (i) coordinating domestic endeavors focused on the creation, acquisition, processing, access and archiving of digital resources;
- (ii) recommending international standards and best practices in the area of the archiving of digital resources;
- (iii) exchange know-how between specialists;
- (iv) stimulate our society to understand the philosophy of openness for building open access content;
- (v) create Polish politics for digital content preservation.

To pursue these goals the following priorities were adopted:

- (a) developing and submitting recommendations and standards indispensable for the creation of digital resources;
- (b) applying to the appropriate domestic and European institutions for funds to create digital resources;
- (c) participating in national and foreign projects;
- (d) promoting digital libraries, open access repositories at home and abroad;
- (e) organize conferences, seminars and workshops;
- (f) provides some reports about digitalization;
- (g) advice and support new members (mentoring).

The consortium is an open organization and wishes to cooperate with the The Digitalization Team at the Ministry of Culture and National Heritage, particularly in the working groups. It plans to divide the work so as to avoid the duplication of effort. One of the major objectives shall be the raising of external funds for libraries for their cooperative projects, as well as continued international cooperation.

### **Polish digital libraries – their genesis**

Digitalization and building of world digital resources began in 1990s, mainly in rich countries, determined to improve the quality of access to historical materials in writing. The first digital collections could be viewed already in 1995 (American Memory), but an entire decade was needed to implement similar solutions in Poland. The 2004-2006 period was an important time in the development of digitalization in the country, because dozen of digital libraries were established.

### **Regional digital libraries [5]:**

1. Wielkopolska Biblioteka Cyfrowa (Great Poland Digital Library)
  - o Since October 2002 WWW: <http://www.wbc.poznan.pl/>
2. Dolnośląska Biblioteka Cyfrowa (Lower Silesia Digital Library)
  - o Since November 2004 WWW: <http://www.dbc.wroc.pl/>
3. Kujawsko-Pomorska Biblioteka Cyfrowa (Kujawy-Pomerania Digital Library)

- o Since September 2005 WWW: <http://kpbc.umk.pl/>
- 4. Zielonogórska Biblioteka Cyfrowa (Zielona Góra Digital Library)
  - o Since October 2005 WWW: <http://zbc.uz.zgora.pl/>
- 5. Małopolska Biblioteka Cyfrowa (Little Poland Digital Library)
  - o Since January 2006 WWW: <http://mbc.malopolska.pl/>
- 6. Śląska Biblioteka Cyfrowa (Silesian Digital Library) Since August 2006
  - o WWW: <http://www.digitalsilesia.eu/> and <http://www.sbc.org.pl/>
- 7. Podlaska Biblioteka Cyfrowa (Podlasie Digital Library)
  - a. soon to be launched...
  - b. WWW: <http://pbc.biaman.pl/dlibra>
- 8. Jeleniogórska Biblioteka Cyfrowa (Jelenia Góra Digital Library)
  - a. Since September 2006 WWW: <http://jbc.jelenia-gora.pl/>
- 9. Podkarpacka Biblioteka Cyfrowa
  - a. Since June 2008 r. WWW: <http://www.pbc.rzeszow.pl/dlibra>

#### **Institutional digital libraries:**

1. Biblioteka Cyfrowa Politechniki Łódzkiej (Digital Library of Łódź University of Technology)
  - o Since December 2005 WWW: <http://ebipol.p.lodz.pl/>
2. Biblioteka Cyfrowa Uniwersytetu Wrocławskiego (Digital Library of the University of Wrocław)
  - o Since December 2005 WWW: <http://www.bibliotekacyfrowa.pl/>
3. Pedagogiczna Biblioteka Cyfrowa (Pedagogical Digital Library)
  - o Since May 2006 WWW: <http://www.ap.krakow.pl/dlibra/>
4. Biblioteka Cyfrowa Politechniki Warszawskiej (Digital Library of the Warsaw University of Technology)
  - o Since May 2006 WWW: <http://bcpw.bg.pw.edu.pl/>
5. Księgozbiór Wirtualny Federacji Bibliotek Kościelnych FIDES (Virtual Book Collection of the Federation of Church Libraries FIDES)
  - o Since August 2006 WWW: <http://digital.fides.org.pl/>
6. Akademicka Biblioteka Cyfrowa KRAKÓW (Academic Digital Library – Cracov)
  - o Since May 2008 WWW: <http://abc.krakow.pl/>
7. Biblioteka Cyfrowa Politechniki Krakowskiej (Digital Library of the Cracov University of Technology)
  - o Since February 2008 WWW: <http://www.biblos.pk.edu.pl/bc>

#### **Others**

1. Wirtualna Biblioteka Sieci Semantycznej Politechniki Gdańskiej (Digital Library Gdańsk University of Technology)

- o Since: 2003 WWW: <http://www.wbss.pg.gda.pl/>
- 2. Domena Internetowych Repozytoriów Wiedzy ICM – (Domain of Internet Repositories)
  - o Since: 2006 WWW: <http://dir.icm.edu.pl/>
- 3. Narodowe Archiwum Cyfrowe (NAC) – National Digital Archive
  - o Since: 2007 WWW: <http://audiovis.nac.gov.pl/>.

The earlier attempts at establishing a professional digital library lacked an efficient digital platform, consistent metadata and formats, not to mention both valuable resources and a professional interface. Having said that, volunteers are creating such collections worldwide (Projekt Guttenberg, Wikipedia). It is not guaranteed, however, that they will survive. Librarians, archivists or museum specialists must and do consider projects and processes that are completely different and are concerned with the creation of the national writing resource. First of all, the essence of building national digital resources is to ensure long-term storage and security. The appropriate state institutions that may always count on public support provide such a guarantee. It is also vital that librarians communicate with each other as to the collection content and try to agree what they should scan. The regionalization of digital libraries is a very good development for Poland – there is no duplication of effort as every region works on different items.



Figure 1. Map of Digital Libraries in Poland, [dLibra system installations]

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## Technologies

Thanks to the Poznań-based digital platform *dLibra* Polska offers a good-quality electronic product, which supports the creation of digital libraries. The Poznań Supercomputer & Network Centre has also developed a metasearch engine *DLF - Digital Libraries*



*Federation - system to gather and popularize metadata about Polish digital resources*  
<http://fbc.pionier.net.pl/owoc/register-as-provider> - that enables to search and view the collections as a whole. The company's plans for development indicate that IT engineers are interested in this topic and are observing world trends, which raises hopes that the migration of documents or emulations to more advanced software will be a seamless and professional operation. If we manage to convince the political and decision-making bodies in the country that it is worthwhile to technologically support such endeavors and solutions, there is a chance for a coordinated approach to more ambitious projects. [6] [7]

Other products of commercial companies are also of good quality, but they are very expensive, and therefore they encounter implementation problems in individual libraries or even consortia of libraries. It is likely that technologies will become cheaper and that it will be possible to consider the building of knowledge repositories operating in a slightly different way than traditional digital libraries based on digitalization of content, and not on content that is already born digital. Repositories operate on the basis of the acquisition of deposits and the self-archiving principle, which helps to eliminate the problems with the copyright law. Depositing equals consent to store and provide online access to the material entrusted to the repository. Poland does not even have a single, real contemporary knowledge repository. Many of our scientists deposit their works in foreign, English-language subject repositories. Among librarians, however, there is a dominant view that domestic repositories need to be launched and that they should acquire and store all kinds of scientific material (reports, postprints, preprints, summaries, academic textbooks, lectures, courses) in the Polish language. This is the task that Polish librarianship needs to face.

## **Practical examples**

To provide a full picture of digitalization in Poland it seems worthwhile to present practical examples of digital libraries that have been launched and may serve either as an example or a warning to those who wish to start a digital collection. The chronological list given below includes the projects that seem most important and exhibit potential for growth as they originated in institutions capable of implementing long-term plans and one divergent example that, however, was the first large-scale Polish project. There is every indication that in 2008-2009 many large Polish libraries will be involved in some kind of a scanning project. Thus the amount of resources will grow, and if libraries receive any financial support, we may soon create a considerable national resource. The list below does not comprise all the existing digital libraries in Poland, it provides only examples of such libraries.

### **Wielkopolska Biblioteka Cyfrowa WBC (Great Poland Digital Library)**

<http://www.wbc.poznan.pl> – 2002

WBC was the first digital library in Poland made according to European standards. Described as a cooperative initiative of the Poznań-based academic community, it was developed by the Poznań Foundation for Research Libraries. The project participating bodies include research and public libraries of Poznań and the Kórnik Library of the Polish Academy of Sciences, and also other regional institutions, such as archives or publishing houses. The main assumption was to provide access via the Internet to four types of resources: educational (academic textbooks, school textbooks and scientific monographs); cultural (selected literary heritage items held by Poznań-based libraries); regional

(literature on Poznań and the Great Poland region); and musical (printed music and literature of music).

WBC is based on *dLibra* software – developed and updated by a Poznań Supercomputer & Network Centre. At the beginning of 2005 it contained over 6,500 digital items of different types ranging from maps, to journals to book and printed music. In October 2006 the number of items increased to over 22,000 (today June 2008 59.449). The most comprehensive resource covers documents on Poznań and the Greater Poland region. Next to historical monographs it provides access to numerous archival documents (location acts, privileges, decrees), advertising leaflets of Poznań-based companies, exhibition catalogues, statutes of Poznań-based associations, electoral leaflets etc. The earliest material dates to the 13<sup>th</sup> century. The total number of online users from June 10, 2004 to 12 June 2008 was 6.808.943.

### **Kujawsko-Pomorska Biblioteka Cyfrowa (KPBC) (The Kujawy-Pomerania Digital Library) <http://kpbc.umk.pl/> – 2005 [8]**

KPBC is a project implemented by the University Library in Toruń as a coordinating body in conjunction with the Library of the Casimir the Great University in Bydgoszcz since 2003. It assumes also cooperation with other libraries operating under the Consortium of Research Libraries of the Kujawy and Pomerania Region. It is the first project in Poland that has been meticulously designed and is financed from the EU structural funds under the Regional Development Integrated Operational Program ZPORR. The goal of the project is to create a digital library supporting education, culture and tourism in the region. It will ensure fast access to knowledge resources and valuable literary heritage items. The KPBC resource breaks down into three big collections covering:

**regional holdings** – digital versions of books and collections: iconographic, cartographic, musical and ephemera related to the Kujawy, Pomerania, and Dobrzyński Region; also Vilniana will be placed in this collection – as resources of vital importance for the tradition and history of the Nicholaus Copernicus University in Toruń;

**didactic material** – digital copies of selected academic textbooks, monographs and scientific articles produced in the region;

**cultural heritage** – copies of the most valuable and most frequently consulted items: incunabula, rare books, manuscripts, iconographic, cartographic items and émigré collections coming from the region's libraries.

The Kujawsko-Pomorska Digital Library will serve scholars, students, pupils and all citizens of the Kujawy and Pomerania region. The institutions of higher learning in this region are interested in providing access to its own contemporary publications as fast as possible. The legal status of the publications introduced into KPBC has been settled. Access to certain items may be restricted – as requested by authors or copyright owners – to specific IP addresses or may be protected by a password. The first items with restricted access have already been published. KPBC has been built with the use of the *dLibra* software. In January 2005 KPBC contained 2, 222 digital items of various types: books, journals, maps, leaflets, catalogues, fine prints and other items. In October 2006 ca. 1,200 items were browsed and read (today June 2008 18.696). The total number of internautes who accessed the service from May 22, 2005 to June 13 was 3.701.189. [9]

**Biblioteka Cyfrowa Uniwersytetu Wrocławskiego (University of Wrocław Digital Library) <http://www.bibliotekacyfrowa.pl/dlibra> - 2006**

This was an initiative of the University Library in Wrocław, which looked to preserve and promote its rich cultural heritage resources. It enables users to view written treasures, collections of works of art and regional material in a digital format. The University of Wrocław Digital Library also uses the dLibra software. It provides access to written heritage items, educational collections and exhibitions presenting the most interesting collections chosen from the notable holdings of the University Library in Wrocław. In October 2006 the number of digital items viewed exceeded over 4,800 (today June 2008 13.826) and the total number of visitors from December 21, 2005 to June 13, 2008 counted 2.122.283.

## **Conclusion**

If we combine only some digital libraries presented on the list, then we are faced with a rich national resource counting 142,000 items (current number see <http://fbc.pionier.net.pl/owoc>), visited more than 35.000.000 times since June 2004, i.e. slightly over 7 million per year over 5 years. This figure indicates the immensity of social demand for electronic resources. Supported by better funding and dynamic promotion these figures could visibly increase, which would only have a positive impact on the dynamics and the state of research and education in Poland.

Currently, we initiate work for the Polish Digital Libraries Consortium and hope to establish working groups, which will solve problems arising. The last four years of experience show the kind of challenges to deal with allowing to examine and prioritize them according to the validity:

1. Preservation digital objects – we lack enough knowledge to this topic and plans for the future while the matter is very urgent;
2. National Data Storage – the project is ready by now, so there is much to be done in organizing and collecting substantive knowledge. The National Data Storage aims to build a system for storing data accessible through the PIONIER scientific network. This system is to guarantee reliability and security of data storage and high performance access to remote file systems. The system NDS offers the following services: backups and archiving, access to remote file systems with protocols: SCP, HTTPs i GridFTP.
3. We hardly ever make audio/video digital copies – the Ministry of Culture has some solutions in this case, which have not been consulted with librarians, yet. Our task is to assert our rights in taking part in the design of the project.
4. Copyrights and acquiring works for publication - we need to change the provisions of Polish law to help us in digitalizing itself and distribute digital works at the beginning with orphaned and out-of-print works.
5. We start this year with Creative Commons licences – we have to implement it in all open access libraries.
6. We do not have a common keyword thesaurus – must be multilingual.



7. We do not digitalize museum items and archive materials – our role is to support museums and archives in this matter.
8. Google scans our national resources - What can we do about that fact? Do we have to conclude an agreement with Google to exchange the files or do we have to scan them independently according to our principles?
9. Improve coordination of digitalization – it is still weak. We will have to find technical and organizational solutions.
10. Poor awareness of the Polish community (especially scientific ones) – the importance of creating electronic resources and making them available on the web. We should promote our ideas in all kinds of media.
11. Lack of model open access repositories in Poland with module of self-archiving.

In the European context a Polish network of digital libraries fits well in all the activities recommended not only by the European Commission, but the most important institutions involved in the processes of building digital content. We try to watch from the beginning of what is happening in this field and participate in the different European projects. We implement accepted standards and best practices recommended by international organizations, organize conferences and educate librarians. We prepared and promote our resources so that they can be switched to European collections without troubles. We have similar questions to our colleagues from Europe, so we try to work with them and solve problems together. Our asset is the good cooperation within the framework of a national network. These organizational arrangements we can recommend as a model to other countries in Europe.

## Bibliography

1. *Narodowa Strategia Spójności 2007-2013 [National Cohesion Strategy 2007-2013]*, [access date: June 10, 2008]. Ministerstwo Rozwoju Regionalnego, Warszawa 2006. Website at: <http://www.fundusze-strukturalne.gov.pl/NSS>.
2. *Narodowa Strategia Kultury 2007-2013 [National Strategy for Culture 2007-2013]*, MKiDN, Warszawa 2006. Website at: [www.mk.gov.pl/docs/Narodowa\\_Strategia\\_Rozwoju\\_Kultury.pdf](http://www.mk.gov.pl/docs/Narodowa_Strategia_Rozwoju_Kultury.pdf).
3. *Krajowy Program Ramowy [National Framework Program]*. access date: May 20, 2008]. Ministerstwo Nauki i Szkolnictwa Wyższego, Warszawa 2006. Website at: [http://www.nauka.gov.pl/mn/\\_gALLERY/15/20/15203/Krajowy\\_Program\\_Ramowy.pdf](http://www.nauka.gov.pl/mn/_gALLERY/15/20/15203/Krajowy_Program_Ramowy.pdf).
4. Bednarek-Michalska Bożena, Kujawsko Pomorska Biblioteka Cyfrowa a standardy, in: Biuletyn EBIB [electronic copy] 4/2006 (74). Warsaw : Stowarzyszenie Bibliotekarzy Polskich KWE, 2006. - [access date: June 20, 2008]. Website at: <http://www.ebib.info/2006/74/michalska.php>.
5. *i2010 - A European Information Society for growth and employment*, [access date: June 20, 2008]. Bruxelles 2006. Website at: [http://ec.europa.eu/information\\_society/eeurope/i2010/index\\_en.htm](http://ec.europa.eu/information_society/eeurope/i2010/index_en.htm).
6. *dLibra installations*, [access date: June 20 2008]. Poznań PCSS 2006. Website at: [http://dlibra.psnc.pl/index.php?option=com\\_content&task=view&id=12&Itemid=27](http://dlibra.psnc.pl/index.php?option=com_content&task=view&id=12&Itemid=27).
7. Cezary Mazurek, Tomasz Parkoła, Marcin Werla – „Distributed Digital Libraries Platform in the PIONIER Network” 10<sup>th</sup> European Conference on Research and Advanced Technology for Digital Libraries ECDL 2006, 17-22.09.2006, Alicante,

Spain. Proceedings: LNCS 4172, pp. 488 - 491, Springer-Verlag Berlin Heidelberg 2006. ISBN 3-540-44636-2.

8. Bednarek-Michalska Bożena, Digital Libraries in Poland. Status in 2006. Preprint in Kujawsko-Pomorska Digital Library. [access date: June 10, 2008]. Toruń 2006. Website at: <http://kpsc.umk.pl/dlibra/docmetadata?id=29921&from=&dirids=1>.
9. Bednarek-Michalska Bożena, Kujawsko-Pomorska Digital Library (KPBC – kpsc.umk.pl): the pragmatics of creating a digital library. Preprint in Kujawsko-Pomorska Digital Library. [access date: June 10, 2008]. Toruń 2007. Unpublished results <http://kpsc.umk.pl/dlibra/docmetadata?id=29919&from=&dirids=1>.

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