

Maria Śliwińska

Międzynarodowe Centrum

Zarządzania Informacją

ICIMSS, Toruń, PL

Maria.Sliwinskiak@icimss.edu.pl

VIRTUAL COLLECTIONS OF CULTURAL INSTITUTIONS

Abstract: This paper presents actions undertaken by the cultural heritage institutions in Europe in order to improve access to information for all from anywhere at any time. The actions include virtual catalogues and bibliographies created by individual libraries, archives or museums as well as local and national initiatives. Special attention is devoted to a couple of international initiatives supported by the European Commission. Among them are MICHAEL – multilingual inventory of cultural heritage in Europe, and EUROPEANA – European Digital Library.

Keywords: cultural heritage, collections, inventories, virtual catalogues, virtual collections

1. Cultural institutions

There are three types of cultural heritage institutions collecting materials that are available for collective use of the communities they serve. These institutions, called also the memory institutions, include libraries, archives and museums.

For ages libraries have collected published or unpublished materials that serve as one of the most important channels of communication between people, and as a source of knowledge. The oldest discovered library of Assyrian king Assurbanipal from Nineveh (VII BC) included 28 000 clay tablets whilst the biggest and the most famous from that time, the Alexandrian Library collection, was estimated to have about half a million papyrus scrolls [8]. Among the resources collected by contemporary libraries there are books, journals, maps, notes, manuscripts, and even some objects to mention just the most popular. All these materials are goods purchased on the market for an individual price or donated in order to be offered for free use to society. In this way many libraries around the world have become owners of properties worth billions of dollars. The largest in the world, the Library of Congress with over 138 million books, recordings, photographs, maps and manuscripts, serves more than 1.4 million on-site visitors per year, and has recorded nearly 93 million visits and 614 million page-views on the Library's Website in 2007 [13]. Even much smaller

Polish libraries also offer millions of books, manuscripts and other materials to users. One of the biggest, Warsaw University Library with its 47 departmental libraries, in the same year reports about 783 505 on-site visitors and 1 071 067 visits on the Library Website [18].

Archives as memory institutions have different priorities, as they were established to protect documents purposely created in a limited number of copies. Unique archival materials are valuable for researchers and educators as a source of information about history, economy, law, etc. The first archival materials were kept by libraries together with books. In Poland the first law concerning the obligation of securing archival books of properties dates back to 1423 [5]. Archive creation as a type of modern institution is connected with the French Revolution, in which private and public archives were seized, and as a result a state decree of 1794 made it mandatory to centralize all these archives as the collections of the *Archives nationales* [4].

Museums, similarly to archives, were connected with libraries, and quite frequently in the name of such an institution a museum was a dominant part. In general, museums collect objects that are exhibited to the public. The majority of museums offer entrance to the exhibitions for fee, whilst access to the materials from the stores is restricted to research only.

2. Cultural institutions going online

In the information era online access to information and to the digital collections from the cultural heritage institutions such as archives, libraries and museum have become more and more important.

Cultural heritage institutions are aware of the fact that there is a rapidly growing number of people interested in obtaining direct access to information that is important for research or other activities, including leisure and self-development. Moreover, there are a growing number of people interested in obtaining access to information from their homes or offices instead of visiting real libraries and archives, quite often located at distant places. A decade ago when looking for information they had to travel to check if, and where, there were materials they were looking for. The majority of information about the collections available online is coming from the libraries which were the first memory institutions to start work on electronic catalogue preparation. It could happen because of visionary and dedicated people. One of the first visions of the virtual library was presented by George Wells, the author of *The War of the Worlds*. In his short essay *World Brain* he described the world library available for researchers, and all library users who could obtain all publications from the world to their homes on micro copies [20]. But the most important step towards virtual libraries available online was made in the sixties of the last century by

Licklider when working for ARPA (American Advanced Research Projects Agency for defence). He noticed that computers have great potential, can work simultaneously on a number of tasks, and can be used not only for complicated calculation purposes but also for communication. His book *Libraries of the Future* was instrumental for inclusion libraries into the network [14].

Libraries started with experiments on building electronic catalogues and it took them quite a lot of time to achieve the goal, as there were many problems that had to be solved by the computer experts and computer industry. The first dedicated software and hardware for library catalogues was quite primitive and complicated to use. However when the transformation started, work with a few libraries was successful and improved software and hardware has been implemented at the majority of big research libraries, who started to offer information about books and journals available on-line to the users. As none of the libraries in world can offer all publications, the next step in improved services to users there were central catalogues. Among them the most attractive ones are central and shared national catalogues. Although libraries are non-profit institutions which offer the majority of their services for free, the catalogue records in electronic format became the goods that, after being created by one institution, could be sold many times to other libraries, so they could save money on employment of fewer cataloguers. The best known in this area was the OCLC (Online Computer Library Center) created in 1967 as a non-profit computer library service and research organization specialized in cataloguing. At present the OCLC claims to be dedicated to the public purposes of furthering access to the world's information and reducing the rate of rise of library costs. More than 69,000 libraries in 112 countries and territories around the world use OCLC services to locate, acquire, catalogue, lend and preserve library materials [2].

After overcoming the first difficulties in virtual catalogue creation, more visionary plans have been presented for libraries of the future. The most popular in predicting a world of virtual libraries was Wilf Lancaster, the director of the National Library of Medicine in Bethesda, whose statement about *paperless libraries* has been the main point of discussions by librarians for many years [12]. However there is still a long way to reach the goal.

In Poland, after the first experiments in the eighties of the last century, more visible work started a decade later, when Polish libraries obtained a number of grants from the Mellon Foundation and the European Commission for library systems implementation. The work progressed well as libraries decided to join forces and helped each other in sharing experience. They formed consortia to learn and work together on systems implementation. The three most popular systems purchased were American systems VTLS, Horizon, and the Israeli system ALEPH. Libraries formed the coalitions for each group. However implementation of the library system was only one goal. The most important

was an opportunity to share results of the work, i.e. the catalogue records that became possible after the computerization of libraries. To do so, libraries created the central national catalogue NUKAT, which provides opportunities to copy the records already created by the other libraries, and even more importantly, to offer a single point of access to a user. This is in line with what other countries do. The Polish national catalogue NUKAT is available online at the address <http://www.nukat.edu.pl/>. At present (August 25, 2008) it includes over one million catalogue records (1 128 942) created by 85 libraries. In addition the users have access to the diffuse catalogue KARO <http://karo.umk.pl/Karo/> that allows for searching in a similar number of library catalogues in one search from one access point. Although the work is progressing slowly, because of the scarce resources available for that work, these opportunities are appreciated by the users.

Another group of memory institutions with resources important for research are archives. Archives have a more difficult situation because they can't share the work in cataloguing resources, since archival materials are unique. But what they learnt is a need to offer their users databases also available on-line to help them in locating archival materials. Modern archive organization is connected with the French Revolution. Independent archives of each country cooperated quite often with the libraries. Computerization at archives started later than at the libraries because archives could not benefit as much as libraries from sharing the records, which were unique. In England, one of the most advanced countries in this field, work on archive computerization began in 1995 and included the English counties with the North, East and West ridings of Yorkshire. The project was run in association with the Borthwick Institute of Historical Research, University of York. Together they worked out a methodology and developed a prototype, and presently offer access through a common portal <http://www.nationalarchives.gov.uk/default.htm> [9].

Polish archives have even more modest funds for creating virtual collections, as they were not so lucky to obtain significant grants for computerization. In spite of that they also created a couple of common databases, such as SEZAM where one can search for materials from Polish archives, and IZA which is an inventory of archival fonds from 81 State Archives and local branches, PRADZIAD – The Programme for the Registration of Records from Parish and Public (civil) Registers, and ELA – the Registers of Population in Archival Materials. Recently the Head Office of the State Archives decided to join a couple of the databases into one integrated system of archival information ZOSIA [10].

Museums are institutions which are mostly interested in real visits of tourists who pay for tickets. They offer them a limited number of objects on permanent or special exhibitions. The majority of the objects are hidden in storage, and only from time to time these objects are put on the exhibitions

available for the public. In spite of that quite many museums have objections in making their resources available online. Computerization of museums started relatively early with an offering of Dr. Jack Heller from New York University where in 1965 the Institute for Computer Research in the Humanities (ICRH) was established. He started with development of automation tools for NYU's library and completed the first electronic indices of the well-known bibliographies such as Répertoire International de Littérature Musicale (RILM) and the Revista Filología Española. In 1966 he offered an automation service to the Metropolitan Museum of Art in New York. He started experiments with analyzing porcelain in the museum collection to help Carl C. Dauterman with research [15]. As a result of this work in 1967, directors from fifteen New York area museums formed a coalition that helped transform information about museum objects into a virtual data base. It was a very successful work, which is continuing and developing up to today with an impressive portal. In the recent Strategic Plan for 2007-2010 the Museum Computer Network decided to intensify activities, to improve communication between members, and to expand cooperation not only with museum professionals but also with librarians, archivists, lawyers, and educators. They focus on the problem of *how* it could best serve their users [16].

Bibliographic information and catalogues, however important and valuable, only make learning possible if the materials needed are available at the cooperating institutions. And one should be aware that the available online information includes only about 20% of materials available at the participating institutions. It is also worth remembering that the majority of cultural heritage institutions are not included in the network.

3. Digital collections at the cultural institutions

Bibliographic information, however valuable, is always only a first step toward access to the full text of documents and their trusted electronic copies. Such work is even more expensive and is in constant development. In all cultural heritage institutions in the world we can imagine that there are a couple of billion of digitised materials. In the biggest initiatives alone, such as the Library of Congress, the number of digitised copies in the American Memory program is estimated at about nine million [3]. However, many of the early digitised materials will probably have to be digitised again because of the poor quality technology from the first initiatives or because of differences in the accepted standards. Also, existing digitised materials include many duplicates because many institutions decided to digitise the most attractive publications from their stocks without checking if such a copy had been already made by other institutions.

In Poland digitization work is progressing very slowly in comparison with other countries. Polish libraries offer access to about a hundred and fifty thousand (150.000) digitised library documents available at the database created by the Federation of Digital Libraries [7].

The reason for such slow progress is that there are scarce resources for digitization and that the legal problems with IPR (Intellectual Property Rights) are still not solved. As a result the number of virtually available collections is much smaller than expected and many old publications without IPR problems are not the most important for the users. Among virtual collections we can find only a small number of new publications that authors accepted for virtual access.

Similarly, archival materials and museum objects are available online. Unfortunately, although at those institutions IPR is only a marginal problem, there are even less materials virtually available than offered by the libraries. The first Polish virtual archival and museum objects were made available in Polska.pl portal at the address <http://dziedzictwo.polska.pl/>. The small number of electronic copies from those institutions is due not only to financial problems. Apart from modest financial resources, archives and museums have too little qualified staff for such work, and it will take more time to improve the situation. But the situation is slowly but surely progressing, especially for archives, where on 8th March 2008 the Minister of Culture issued an act of creation of the National Digital Archives. For that purpose the Archives of Audio-Visual Records, founded in 1955, has been transformed into the National Digital Archives [1].

4. Access to virtual collections on the European level

Cultural institutions working on their transformation into modern, available online institutions realized that cooperation helps in such work, and would result in significantly improved product offerings to the users. In times of globalization and commercialization non-profit institutions also learn that the price of their products such as catalogues or bibliographic records or digitised copies of publications can be much lower when coordination and cooperation with other institutions takes place.

Cooperation on national and local levels has been already mentioned. It was sometimes a very spontaneous action of library, archive or museum staff, sometimes started as planned national strategies. But as virtual reality doesn't have borders, such action has been undertaken on an international scale as well. Many initiatives of the European Parliament, and the European Commission could be cited here, but for the purpose of this article just two initiatives will be described.

The first one is the MICHAEL project funded by the eTEN program of the European Commission [11]. This project started in 2004 with three French partners, the Italian Ministry of Culture, and the MLA (Museum Library and Archives) from the United Kingdom. Then eleven other European countries joined the second stage of the project in June 2006. Among the partners were the Czech Republic, Finland, Germany, Greece, Hungary, Malta, the Netherlands, Poland, Portugal, Spain and Sweden. Later on also Bulgaria, Flanders (Belgium), Estonia and Hungary joined the project. In June 2007 the MICHAEL Culture AISBL was founded to continue to maintain and develop the MICHAEL European service. The main goal of this project is to offer simple and quick access to the rich variety of digital collections from museums, libraries and archives in all European countries through one portal. In the created portal one can find information on a collection level with links to the cooperating institutions, the owners of single copies of documents, publications and objects held at their stocks. The European portal harvests information from the cooperating national portals of the countries listed above.

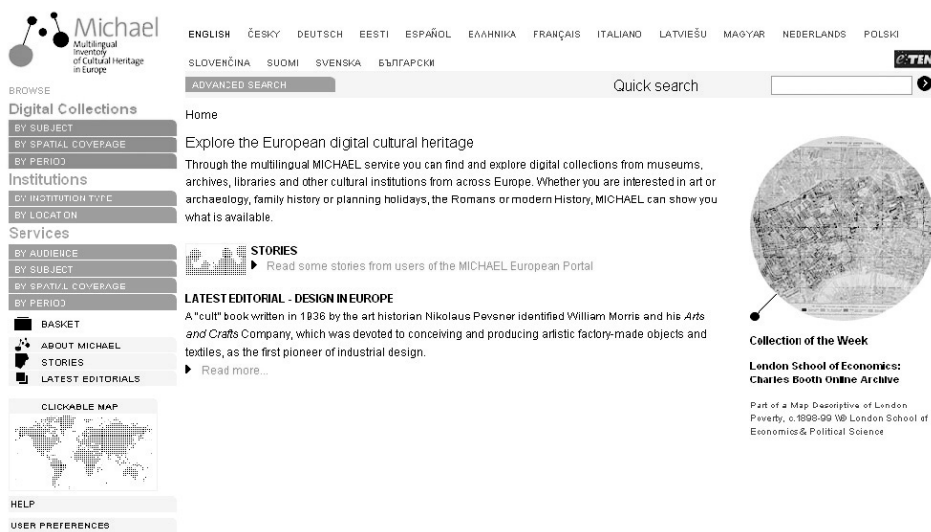


Figure 1. MICHAEL European portal

In Poland the MICHAEL project partner is the Ministry of Interior and Administration (MSWiA) as the ministry responsible for the computerization of the country, and supervising the Polish Internet Library. In the IKONKA programme the MSWiA equipped Polish public libraries with the computers and access to Internet. Responsible for the work in the MICHAEL project is the International Center for Information Management Systems and Services (ICIMSS) which cooperates closely with the MSWiA and the European

partners. To conduct work in the most efficient way ICIMSS invited representatives from the Head Office of State Archives, Poznań Foundation of Scientific Libraries, and the Archaeological Museum in Warsaw that in collaboration with all memory institutions have been searching for the collections that could be registered in the MICHAEL database. As there is still a small number of available digital collections, an additional goal of the MICHAEL project is to contribute to the strategy of digitization of cooperating institutions in such a way as to make available online to the users the most attractive resources that will not be duplicated but complementary to the existing resources. Information about the project and access to the collections is available from the MICHAEL project website <http://www.michael-culture.pl/>. Access to the collection is organized as in all countries by the subject, names, historical period, and institution. Work is progressing slowly but the institutions who were persuaded to join the action found this initiative very interesting and important, and are willing to continue cooperation. It is worth mentioning that even more institutions expressed their interest in further cooperation.

Michael Polska
Europejski Portal Kultury

Znajdź kolekcje

Start

- Wyszukiwanie zaawansowane
- Znajdź sławną osobę
- Znajdź sławne miejsce
- Znajdź sławne wydarzenie
- Znajdź sławny obiekt

Kolekcje cyfrowe

- Według tematu
- Według miejsca
- Według czasu
- Według typu

Instytucje

- Według typu instytucji

Serwisy

- Według odbiorcy

Witamy na stronie projektu MICHAEL-POLSKA.

Celem projektu jest przygotowanie przejrzystego katalogu dostępnego online, pozwalającego na szybkie wyszukiwanie i przeglądanie dokumentów cyfrowych zebranych w polskich muzeach, bibliotekach i archiwach. Katalog zawiera opisy kolekcji cyfrowych i powiązanych z nimi serwisów oraz produktów multimedialnych (takich jak serwisy internetowe, elektroniczne materiały do nauki i zasoby płyt CD). Dzięki MICHAEL-POLSKA znajdziesz odpowiednie zasoby oraz dowiesz się jak uzyskać do nich dostęp niezależnie od tego, czy interesują Cię sztuki piękne, historia średniowieczna, czy dzieje najnowsze. Gromadzimy także opisy kolekcji dotyczących poszczególnych regionów oraz kolekcji udostępnionych cyfrowo przez lokalne instytucje kultury.

MICHAEL-POLSKA jest narodowym serwisem europejskiego projektu MICHAEL.

Przydatne łącza

MSWA

STOWARZYSZENIE ICIMSS

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Figure 2. MICHAEL Polish portal

The value of the MICHAEL portal is that registration of materials is on the collection level, not at the single document level. A real benefit for the user is identification of collections from different types of cultural heritage institutions such as archives, libraries, museums and other organizations in one portal. It is also important that all national data can be found on the European level with one search only, and national culture can be compared with the cultures of other countries. It is also important that our culture gets broad promotion through this portal for free.



Figure 3. EUROPEANA portal <http://www.europeana.eu/>

However important the MICHAEL portal is, there is no limit in improvement of access to virtual collections. Therefore, the MICHAEL Multilingual Inventory of Collections will be included into EUROPEANA – the initiative for a European Digital Library supported also by the European Commission. EUROPEANA will offer a prototype website giving users direct access at the beginning to some two million digital objects from archives, museum and libraries, including film material, photos, paintings, sounds, maps, manuscripts, books, newspapers and archival papers. The prototype will be launched in November 2008 by Viviane Reding, European Commissioner for Information Society and Media. EUROPEANA materials from across Europe will be searchable in a single sweep. EUROPEANA will make new links

between cultural objects and reunite material that may have been dispersed for centuries.

Such interoperability is an important goal for Europe's heritage institutions in order to remain relevant to coming generations. The organization of EUROPEANA is designed to promote knowledge transfer and cement links between the domains.

5. Access for fee or free?

Cultural heritage institutions working from the beginning on creating the Information Society were compared to canaries in the mines. Their role was to become aware of possible dangers [17]. Even though significant work had been done in the field of online communication, their work is not seen as a priority by the financial system. On the other hand cultural heritage institutions, as non-profit organizations, have a mission to change people and serve society for free [6, 19]. The majority of them are not skilled in obtaining grants for additional activities, and therefore progress in making cultural heritage treasures available online as virtual collections is slow.

A special problem is that not too many people are aware of the trusted materials already available virtually because these are not visible through the most popular browsers. These browsers deliver quick information on any topic, but the majority of the sources listed are rubbish. It must be repeated that there is no free lunch, and if something comes for free it will not always be of the highest quality. However, in the cultural heritage sector there is also a mission of sharing culture among the citizens who would not be willing to pay for this if choosing between lazy leisure or demanding and tiring learning for self-development.

A special topic for discussion is a situation of the libraries: these offer the most recent publications, and have to pay for purchasing these goods from the publisher. It is worthwhile to consider virtual culture also as the goods on the market which have their market price [18]. This topic, however, is a complicated issue outside the focus of this article.

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