

INFORMATION CULTURE – EUROPEAN PERSPECTIVES

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Abstract: In the context of information globalization, libraries must define their role in the society, namely, that of capitalizing and preserving the national intellectual heritage by organizing, processing, accessing, preserving the national documentary heritage, in various types of media. The promoted principles, the principle of freedom of information and universal access to information, preserving national intellectual heritage, preserving intellectual property rights, sharing information and documentation resources, promoting the role of libraries and librarians in society, promoting specific legislation, development of national and international working cooperation, fostering a multicultural and multilingual background information, new models of information and documentation starting from the existing advanced technologies. All these are milestones that any information structure should take into account.

Keywords: digital library, information society, digital information, digitizing

The initiative „Digital Libraries” come within the scope of the European strategy aiming to define and develop a „digital economy”, a strategy to be defined by 2010¹. This strategy includes a number of active policies with a view to stimulating the development of an information society and of the media industry in Europe that will

¹ 2010 Digital Libraries. European Commission. Information Society and Media. <http://e.europa.eu/2010>

enable to use the potential of digital technologies in the economy and society. Three priority policies are defined:

- Creating a unique information space (through the convergence of digital technologies)
- Innovating and investing in R & D (supporting trans-European research projects that would enable to integrate, at the level of small and medium institutions, the results achieved by research at EU level)
- Promoting the Inclusive European Information Society (eliminating the existing gaps between member States and the discrepancies in electronic services for citizens – e-Government principles).

The „Digital Libraries“ initiative is an integral part of the measures aiming to implement in practice the first policy, to create a unique European information space, by supporting services of digital library, creating diversified digital contents, adequate digital services, establishing a network of European digital centers (with digital information) and, last but not least, regulating intellectual property rights in the context of digital libraries.

In the context of global information, libraries have to define in a unitary way their role in society, that of capitalizing and preserving the national intellectual heritage, by organizing, processing, ensuring access and retrieval, preserving the national documentary patrimony in all media. The promoted principles are: the principle of freedom of information and of universal accessibility to information; preservation of the national intellectual heritage; respect for the intellectual property rights; sharing of information and documentation resources; promoting the role of libraries and librarians in society; promoting specific legislation; promoting professional cooperation at national and international levels; promoting a multi-cultural and multi-lingual information context, new models of information and documentation, based on the existing advanced technologies.

Digital libraries are organized collections of digital content available to the public. The documents contained in such collections may be documents on traditional support undergoing digitization in libraries or archives and documents prepared directly in electronic format.

This initiative aims at ensuring access and online use of the cultural and scientific heritage of Europe. This is a most diverse cultural and scientific patrimony, both in terms of document typology and of information support: traditional documents, on printed support (books, brochures, periodicals, musical printed publications, photos etc.), audio-visual documents (music, films), electronic documents (traditional documents transposed in electronic format, multimedia documents prepared directly in electronic format, data bases, other electronic information contents).

With a view to creating a European Digital Library the European Commission identified three lines of action:

- online access (with all that the development of the information infrastructure and communication and specific information applications involve)
- digitizing collections (transposing in digital format existing collections on traditional or analogue support, integrating them in a unitary whole, together with documents directly created in electronic format)
- preservation of the involved electronic documents and collections, in order to ensure access to information for future generations.

The arising challenges are financial, related to the high cost of digitization and of subsequent preservation; technical, related to the diversity and the dynamics of technologies involved; organizational, in connection with the need of a proper coordination at national and European levels; legal, in order to comply with ownership and dissemination rights.

Our paper does not dwell on the technical solutions required for the development of this project; however, we should mention the principle underlying the development and functioning of this information structure: a unique point of access to the European digital content. In other words, even if the digital content is located in different collections, in various data bases, a single access point will allow search in various libraries.

The „Digital Libraries“ initiative is composed of two parts or two directions of manifestation: cultural and scientific.

A concrete project, part of this initiative and which aims at valorizing the European cultural heritage is „The European Digital Library“, whose aim is to ensure multilingual access via Internet to cultural collections in Member States. The Internet Portal „European Library“ (<http://www.theeuropeanlibrary.org/portal/index.html>) provides access to a very large array of digital resources: books, serial publications, children's literature, cartographic collections, musical collections, photographs, various images, manuscripts, posters, doctors' thesis and dissertations etc.

Digitizing information resources, ensuring online access to them, their preservation for future generations, all these are actions requiring huge efforts both at national level in individual states of the European Community and at European level.

At European level, the Commission has defined a number of policies and directions for action that would improve the framework conditions for the digitization of information and documentation resources and for the preservation of the above in digital format², as well as for the co-financing of certain projects and actions.

At the level of Member States' digitization actions already exist, but the deployed efforts are unequal, random and their pace is below expectations. In most cases this is

² Commission Recommendation on the digitization and online accessibility of cultural material and digital preservation http://ec.europa.eu/information_society/newaroom/cf/itemdetail.cfm?item_id=2782

due to financial, organizational and decision-making issues. It is recommendable that Member States enhance the activity of their cultural institutions (libraries, museums, archives) and, through the coordination of National Libraries, participate to the creation of the European Digital Library. (**European Digital Library**).

Scientific and educational information is the second component of the Digital Library initiative. These types of information resources have an extremely dynamic character, due to the large number of existing publications, the huge volume of already existing digital content. The European Commission adopted on February 14th 2007 the Directive on access to scientific information in the digital era³, announcing a number of measures through which the Commission aims at improving access to technical-scientific information and preservation of those.

A number of projects financed by European funds had as their objective digitization of the European cultural heritage, with a view to creating new opportunities for science and education, ensuring the pre-conditions for economic and social development, improving accessibility to information for European citizens. There are transfrontier projects, the partners being from different member States; this way, is ensured the interaction between partners, cultural and linguistic diversity are promoted, while identifying viable models and long-and medium-term development strategies and granting online access to European digital content etc.

We would like to mention here certain projects, such as MINERVA and MinervaPlus that created a network of national structures in the EU Member States (even ministries) in charge with the definition and harmonization of digitization policies. A discussion forum was created, best practices were identified, an inventory of digital contents was made, typologies of information needs were identified etc.

Projects such as MEMORIES, EASAIER or CONTRAPUNCTUS have contributed to transpose audio resources in electronic format, facilitating access to digital music. Whole audio archives were created that have been indexed by specific methods and became accessible online. CONTRAPUNCTUS created an online library with information resources that are accessible also in Braille.

A number of projects concentrated on „online accessibility for all“; in these types of projects, the emphasis was not on the digitization of collections, but rather on the possibilities of their online valorization and exploitation. These projects developed new products and services specific to the digital context. Thus, the project BRICKS is integrating museums, libraries and other organizations (about 50) with a view to developing new value-added services. All the institutional structures gather around an open platform of multilingual digital library and share their resources through value-added products and services.

³ http://eur-lex.eu/LexUriServ/site/en/com/2007/com2007_0056en01.pdf

Local cultural institutions, such as public libraries, museums and archives, have a major contribution to the European cultural heritage. They have to be mobilized so that they could use in the most efficient way existing technologies and contribute to the creation, use and dissemination of local cultural content, providing for local information requirements and for the needs of education.

The European project CALIMERA created a huge network of professionals, researchers distributed in over 43 countries of Europe, its primary role being to make digital technology accessible to users irrespective of degree of education and age.

Another project that is part of the MINERVA initiative, known as MICHAEL, deals with multilingual services that will enable stakeholders to easier retrieve information related to cultural heritage via Internet. This was made possible through accessibility to the digital collections of libraries, archives and museums in any European country.

In order to offer support for e-learning a great number of projects were developed accordingly. Within the **eContentplus** Program a number of services were created that facilitate access to multilingual learning resources (eRMIONE), with particular emphasis on the cultural domain. It provides for students diversified content and also preparatory lectures in this field.

The EURIDICE service is in fact a specialized digital library offering over 10,000 scanned historic documents from European archives and libraries,⁴ giving support for institutions of education with unique, unpublished historic sources, through an e-learning methodology and specific technology for information retrieval, with a multilingual thesaurus and integrated platforms of information dissemination.

As we can notice, the Digital Library initiative includes a wide variety of actions to help European efforts towards developing various services within digital libraries by a better coordination of actions and by research activities that concentrate on:

- targeting services to users needs
- reducing the cost of digitization
- semantic indexation of content so that it be accessible and usable.

In the age of new information and communication technologies used in all realms of society's activities and extended to the registration, storage and dissemination of information in digital format, we should admit that information technology has transformed the world in a global village, and the changes that took place in the IT sector influenced also the information industry, so that libraries have to keep in pace with the new discoveries and to cope with the ever more specific needs of users.

List of projects⁵

⁴ www.euridice-edu.org

⁵ FP5 = Fifth Framework Programme; FP6 = Sixth Framework Programme; eTEN = eTEN Programme; eContent plus = eContentplus Programme.

Communications

Acronyms	Title of project	web address
BELIEF	Bringing Europe's Electronic Infrastructures to Expanding Frontiers (FP6)	www.beliefproject.org
BRICKS	Building Resources for Integrated Cultural Knowledge Services (FP6)	www.brickscommunity.org
CALIMERA	Cultural Applications: Local Institutions Mediating Electronic Resource Access (FP6)	www.calimera.org
CASPAR	Cultural, Artistic and Scientific Knowledge Preservation, for Access and Retrieval (FP6)	www.casparpreserves.eu
CONTRA PUNCTUS	Preservation and Unification of New and Existing Braille Music Digital Sources for a New Access Methodology (FP6)	www.punctus.org
DELOS	A Network of Excellence on Digital Libraries (FP5)	www.delos-noe.iei.pi.cnr.it
DILIGENT	A Digital Library Infrastructure on Grid Enabled Technology (FP6)	www.diligentproject.org
DPE	Digital Preservation Europe (FP6)	www.digitalpreservationeurope.eu
DRIVER	Digital Repository Infrastructure Vision for European Research (FP6)	www.sherpa.ac.uk/projects/driver.htm
EASAIER	Enabling Access to Sound Archives through Integration, Enrichment and Retrieval (FP6)	www.easajer.org
EDL	European Digital Library (eContentplus)	www.europeanlibrary.org

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eRMIONE	E-Learning Resource Management Service for Interoperability Networks in the European Cultural Heritage Domain (eTEN)	www.ermione-edu.org
EURIDICE	European Recommended Materials for Distance Learning Courses for Educators (eTEN)	www.euridice-edu.org
EURO-VO-DCA	European Virtual Observatory (FP6)	www.euro-vo.org/pub/
MEMORIES	Design of an Audio Semantic Indexation System Allowing Information Retrieval for the Access to Archive Content	www.cordis.europa.eu/ist/digicult/memories.htm
MICHAEL	Multilingual Inventory of Cultural Heritage in Europe (eTEN)	www.michael-culture.org
MINERVA& MINERVAPLUS	Ministerial Network for Valorising Activities in Digitisation (FP5/6)	www.minervaeurope.org
MultiMATCH	Multilingual/Multimedia Access to Cultural Heritage (FP6)	www.multimatch.eu
ORIEL	An Online Research Information Environment for the Life Sciences (FP6)	www.oriel.org
PrestoSpace	Preservation towards storage and access. Standardised Practices for Audio-visual Contents in Europe (FP6)	www.prestospace.org
TEL	The European Library (FP5)	www.europeanlibrary.org
TEL-ME-MOR	The European Library: Modular Extensions for Mediating Online (FP6)	www.telmemor.net
TNT	The Neanderthal Tools (FP6)	www.the-neanderthal-tools.org