A EUROPEAN CO-OPERATION FOR LEGAL AND ORGANISATIONAL ASPECTS ON ART AND CULTURE ON-LINE ACCESS

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Topics: *Image Databases & content based retrieval, Art & Culture on the Web*

Abstract

The CHANCE Project (Cultural Heritage Access through Networked serviCes for Edutainment market), a TenTelecom project, aims at establishing a European-wide service for on-line access to cultural data repositories. The proposed service intends to offer a uniform content base to multimedia applications and defining as preliminary results in building a service based on a uniform data structure and the highest level of normalisation of the information. The service is foreseen to be delivered by mixed bodies made up of European Public Authorities, who are entrusted with the management of Cultural Heritage, and private institutions, who will ensure the commercial exploitation of the service. The innovative service provides the CHANCE primary target users (educational, edutainment and tourism market segments), with special tools to customise the information.

The definition of a general framework for the legal and organisational aspect is one of the main objectives of CHANCE and the aim of this presentation. This article depicts the analysis of the basic problems relating to the diffusion and interchange of cultural heritage data through Internet. Therefore after offering a short overview of the current situation, the previous experiences and efforts focusing on the above-mentioned problems are presented. The article deals with legal issues including IPR and service provision proposed within the CHANCE project. The suggested solution aims at preventing illegal use of content by defining some basic rules related to IPR, Privacy and Protection in order to regulate the access to cultural contents. The second part of the article focuses on the organisational aspect, and proposes an attempt to open the way for a building consensus in applying common cataloguing rules among the CHANCE consortium member countries.

Special thanks to Ministero dei Beni Culturali- Istituto Centrale per il Catalogo e l Documentazione (ICCD) for its help and contribution to the realisation of the present article.

1. INTRODUCTION

The aim to establish a strong European leadership in the Cultural Heritage exploitation needs a deep analysis of **legal situation**, **standardisation procedures** and **data representation**. The

goal of this paper faces these problems and finds out a proposal solution in the specific field of **on-line access** of Cultural Heritage Objects.

The use of the new Internet and Web technologies in the Cultural Heritage Context allows edutainment-oriented users to access never-accessed-before cultural contents. Many European Cultural Institutions have produced in past years an huge amount of information, collecting texts, images in raster and vector format and other ancillary multimedia objects (audio, video) related to the cultural heritage, taking great care of the high level of data and their formal and substantial correctness. The network access to this "high quality" content is conditioned by the solution of problems inherent the management of Intellectual Property Rights (IPR), the safeguard of privacy of the owners of the objects and of the user, the security and preservation of cultural heritage.

Building a general consensus and an international co-operation is one of the prominent aspects of the problem. In the CHANCE European Project a specific Work Package and big effort has been dedicated to reach this goal. A dedicated Web Site area, strong exchange of documentation and co-operative working have been used in order to create an international framework to stress the situation and to advance in finding out common results and international consensus.

2. THE BACKGROUND: THE USE OF INTERNET AND MULTIMEDIA INTO THE CULTURAL HERITAGE CONTEXT

The interconnection of existing national/regional resources will increase Europe's cultural and scientific heritage on global networks, today not sufficiently accessible and visible. There is a need for a minimum level of unified access to key European resources, including search and retrieval tools covering catalogues and inventories, as it it's been pointed out in a recent EU Commission action to create a co-ordination mechanism for digitisation programmes across Member States[1].

The exploitation of Cultural Heritage has been addressed in EU Policies as a stimulating and key factor for many reasons. First of all the aim to establish a strong European leadership in a strategic sector, second the possibilities to exploit and develop many potential markets, and finally the possibility to offer a uniform content base to multimedia applications and tools to be used primarily in the educational, edutainment, and tourist market segments.

In particular various national and international museums organisations are working in these fields and with the advent and the entrenchment of the Internet, several initiatives have been launched, within national and the international environment, and seen to the implementation of prototypal solutions for the network connection of distributed data banks. It is not enough for the catalogues of cultural institutions to be visible within the network. What is required is the creation of services ensuring a timely and homogeneous access to all the available data. It is absolutely necessary to spare network users the trouble to connect from time to time to all the sites, learn their individual query syntax and structural data semantics.

The basic previous experiences in this field could be classified in three different categories: International Initiatives, European Projects, and International Standard.

The **International Initiatives** are word-wide projects with the aim to develop general standard by the set-up of different working groups. Some of these are: *Memorandum of Understanding on Multimedia Access to European Cultural Heritage*[2] (the first attempt to establish a common approach to the possibilities offered by the new technologies for the European museum community as a whole), MEDICI Framework (Multimedia for EDucation and employment through Integrated Cultural Initiatives, a framework of co-operation established and supervised by the European

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[1] Objective 3(d) of the eEurope 2002 Action Plan is to stimulate European content in global networks in order fully to exploit the opportunities created by the advent of the digital technologies. Within that objective there is a specific action for Member States and the Commission jointly to create a co-ordination mechanism for digitisation programmes across Member States.

On 4 April 2001, representatives and experts from Member States met at Lund in Sweden to discuss the issues involved and to make recommendations for actions supporting co-ordination and digitalisation activities that would be sustainable over time. The key issues are collected in a paper called Lund Principles, followed by an Action Plan of initiatives and co-ordinating groups composed by representative of each Member State in several fields. http://www.cordis.lu/ist/ka3/digicult/en/eeurope.htm

[2] The MoU is a joint initiative launched in 1997 by the European Commission's Directorate General XIII, within the context of the ACTS Programme (Advanced Communications Technology and Services), and Commission Directorate General X

Commission) and EVA (Electronic Imaging & the Visual Arts: these acts constitute a cross-sectoral, multi-disciplinary, local & global set of events about new technologies in the cultural sector)

During the last years a lot of **European project** in these themes have been funded by different programme: some of these are: TEN Telecom Projects, as MOSAIC and VAN EYCK, ESPRIT project as IMPRIMATUR, TELEMATICS Project, as AQUARELLE.

Moreover in the field of cultural heritage international bodies and organisations such as ICOM/CIMI/Dublin Core, CIDOC, the Getty information Institute, the Museum Documentation Association, have proposed **International Standard** and guidelines to help museums in the design of their information system. Hence the museums have been the first institutions to arise the necessity for sharable standard procedures allowing data exchange.

3. ON-LINE ACCESS TO CULTURAL HERITAGE DATA: LEGAL ASPECTS

The goal of setting-up an on-line exchange of cultural heritage data and the realisation of a database protected by a copyright bring up several levels of **juridical interests** not yet solved:

- *IPR*. Networked multimedia systems have known rapid development and expansion. Every day more and more information is transmitted through digital public networks. However, authors, publishers, and providers of multimedia data are reluctant to grant the distribution of their documents in public networked environments. The ease of intercepting, copying and redistributing electronic data in their exact original form encourages copyright violation. These aspects appear even more complex when dealing with the creation of multimedia objects, composed of video, still image, text and audio sub-objects, where different copyright, protection and authorisation definitions on each component needs an articulate management of the author's rights. In some cases it is not clear who are the holders of the moral and patrimonial rights, both of the contained work and the container work, and how relations of economic exploitation must be regulated among these subjects. It is crucial, then, for the future development of networked multimedia systems that robust methods are developed in order to protect the intellectual property rights of data owners.

- *Privacy infringement*. Directive 95/46/EC, on the protection of individuals with regard to the processing of personal data and on the free movement of such data, protects the fundamental rights and freedoms of natural persons, and in particular the right to privacy with respect to the processing of personal data. The data stored in national catalogues of cultural heritage could refer not only to artistic goods but also to everything including any reference to the culture and history of a Country as the goods of public property (Government, Regions, or local authorities) and the ecclesiastic or private properties. The realisation of the CHANCE system implies the information diffusion through electronic media. As a consequence this issue leads to the need of protecting the personal data adopting security measures to guarantee the integrity and the confidentiality of the processed data.

- *Data protection*: The open architecture of "information superhighways" has limited possibilities of controlling the data flow. The security of information is an essential condition not only of all commercial applications (false information provokes deception in the purchasing process of goods and services and is a source of contractual liabilities) but also of privacy and of intellectual property. In other words security expresses the delicate balance between the need to communicate[3], on one hand, and the safeguard of the confidentiality and intellectual property of the information communicated, on the other. Given the variety of contents, database cannot always entirely be accessible to all the final users: the institution that spreads out the data

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[3] Art. 27 of the Universal Declaration of Human Rights, approved by the General Assembly of the United Nations on 10 December 1948, decrees the right of each individual to:

participate in the cultural life of the community,

enjoy the arts,

take part in scientific progress

benefit from the results deriving from such progress;

relating to a cultural asset can be the same that has to guarantee its protection and therefore has to act without causing damages to that asset. In some cases it is necessary to assess the opportunity to make visible the location of the assets to an enlarged group of users with the risk to compromise their protection and security. This is a controversial matter, since someone asserts that the visibility of an asset fosters its protection and after all, it is important to warrant the authorities that protect the asset to have a particular option for the enlarged visibility of its location. The information and image exchange of an asset can help in preventing robbery and illegal traffics of works of art.

Each member state, organising a European market for the circulation of new multimedia products and services, must allow high legal *protection of intellectual property* as well as permitting considerable investments in activities of creation and innovation. The challenge of new technology in the information society consists in guaranteeing the right to communicate to the public, including the right to make available protected works and materials without impairing *copyright*, the *privacy* and the *protection* of cultural heritage.

Beyond the national law of every country, as modified by international Conventions and UE directives[4], a supranational law on IPR, Protection, and Privacy does not exist.

The new millennium will be dominated by the "Multimedia Revolution", through the development of new digital technology in the information sector as well as in telecommunications. For this reason this century has been described as the Age of Information or rather the Age of Communication. From one hand this age is witness of a convergence and an integration of the areas of communication, entertainment and information, and from the other it is characterised by the more and more user awareness of his active-interactive role in the new reality of interactive multimedia.

The above-described situation is the subject of legal research. The **Bangemann Report** and the North American project named "**National Information Infrastructure**" tend to highlight the objectives, which shall be regulated by the legislature related to the development and the promotion of Internet.

Information and communication technologies play an important role in the development of economic competitiveness and in economic expansion[5]. In particular the development of information technology produces a dual effect: the European industry develops its own competitiveness as user of information infrastructures and services and the European information industry offers to operators, producers and service workers new job opportunities.

The Decision of the Council, n.98/253/CE[6] adopts a long term community programme to encourage the realisation of the "Information Society in Europe. The user, enterprise and public organisation need to have available all the necessary information, the need, within the European Union, of awareness of the potentiality of the "Information Society" as well as of its risks, the opportunity for Europe to improve its visibility "within the context of the global dimension of the Information Society", the complementary character and the synergetic action of the various sectors.

The Decision of the Council[7], n.99/168/CE adopts a specific programme of research, technological development and demonstration called "The friendly use Information Society" (1998-2002)" and represents the scientific objectives for the development of the Information Society:

Since these problems exist on a world-wide scale, obviously the aim is to realise a "Global Information Infrastructure": with the collaboration of both public and private organisations whose

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[4] Directive 2000/29/EC on the harmonisation of some aspects of copyright and related rights in the information society focuses on the following main problems:

the need to set up compatible systems;

the need to resolve the safety problems of the information systems.

[5] Article 2, Resolution of the Council of Europe n.95/C 341/03 of 27 November 1995 "Industrial Aspects for the European Union in the ambit of the creation of the information society ".

[6] 30 March 1998,

[7] 25 January 1999

target is to create new economic and industrial development hinged onto this great multimedia potential. The primary aims are:

- the construction of those infrastructures necessary for the forming of a global information society (Information Technology);
- the creation, simplification and unification of global regulations.

As a consequence, in order to take account of the problems, which emerge within the CHANCE project, the primary objectives for the participants are:

- to guarantee the <u>right of information</u> related to the cultural patrimony in digital format,
- to prevent <u>illicit processing</u> of the information supplied.

4. STANDARDISATION ASPECTS

In all the previous experiences of collaboration managed at European level emerges the fundamental requirement to establish a standardised content and rules shared in different countries to organise the archives of cultural heritage. Uniformed standard procedures aimed at promoting information exchange amongst systems have been elaborated from international structures like CIDOC (International Committee for Documentation), CIMI (Computer Interchange of museum Information), ICOM (International Council of Museum), MDA (Museum Documentation Association) and ISO (International Standard Organisation).

An important stage acquired from the most recent projects financed by European Union is to understand the inefficacy on imposing some authority standards, which are difficult to apply to the situation of different countries. In fact, in each national reality, the tendency is not to renounce to the own acquired cataloguing methodology, more or less decoded, planning an abstract international agreement. For this reason it appears very important to underline the very pragmatic point of view analysed within the Chance project. Without the ambition of establishing new standards, this project, in view of past experiences, asks for "**consensus**" starting from the already existing situation in cataloguing matter.

It is a matter of fact that a centralised homogeneous cataloguing method favours the computerisation process of different archives in one coherent system, simplifying the management and promoting the cultural heritage. The main difference in cataloguing systems consists on the typologies of cataloguing cards thought in relation with the nature of the object to catalogue; the more typologies of cataloguing cards are expected, the higher is the degree of deepening according to which the single object is defined. Big disparities of typologies are closely linked to cultural realities of different Countries. Italian cataloguing method provided by Ministero dei Beni Culturali- Istituto Centrale per il Catalogo e l Documentazione (ICCD) counts 14 typologies of cataloguing cards, while other Countries foresee less. This is because the ICCD system finds its deep motivation to know and protect a huge number of cultural assets mostly spread out the territory and only for a small part kept in museums.

However cataloguing methods are so different for their cataloguing card typology and depth of analysis, they do not constitute an impossible obstacle to the objective prefixed in CHANCE project, which is to obtain a European system of on line access to the archives of cultural heritage. This project, in fact, does not claim to uniform from the top the different cataloguing methods, but, on the contrary, to experiment, from the bottom, a kind of prototype founded on information interchange. Therefore the interoperability has been recognised as the key allowing to build a relation net between the data banks geographically distributed on the territory. This choice of maximum freedom left to the different realities can warrant to the Chance project that open characteristic necessary to bring new countries into the project itself, in the next future. The success of the project will be measured also with this progressive growth of consensus among different countries. To obtain the dialogue among different data banks the compared analysis of cataloguing cards adopted in cultural heritage informative systems of those countries involved in Chance project has been necessary. This approach of study brought to some conclusions.

First of all, there is a substantial homogeneity concerning the data structure (categories used in describing objects to be catalogued), not compromised by the different finalities of cataloguing

action of the different Countries. In other words, the necessary and sufficient number of information to properly describe any cultural "object" with its characteristic is similar everywhere. In fact, facing different examination levels, the same basic descriptive data (material, dimensions, support, execution techniques), historical data (executor, date, historical-critics data) and administrative issues (collocation, inventory number, estimation), has been given. Therefore from studying the cataloguing cards from different countries emerged the uselessness to elaborate an abstract cataloguing model as well as to impose a system already in use in a single country. On the contrary it appears much more efficacious to keep the different data structure, concentrating the efforts in favouring the communication among the different informative systems.

According to a very pragmatic point of view, in the building of Chance prototype, it is of fundamental importance to take cognisance of the different proposals suggested by the countries, in order to organise a differentiated on-line access system to the cultural heritage archives. This will permit to give a wide range of information measured on different requirements, to satisfy both interests of experts and non.

Concerning the compared analysis of data content (rules to warrant an homogeneous and common grammar and syntax in cataloguing cards) adopted in those countries involved in the project, a spontaneous levelling to the ISO 8879 directive established in 1986 (Standard Generalised Mark-up Language SGML) has been found. The levelling of different national informative system to the ISO rules is due to the demand of conforming to international rules.

A generalised adhesion has been found also concerning the information structure from the science of information point of view; by the mark-up standard XML (extensible mark-up language) which, providing a facility to define tags and their structural relationship, allows richly structured documents to be used over the web.

Concerning bibliographic description standards, the international system generally adopted is ISBD (International Standard Bibliographic Description) which is the most suitable and widespread formal standard specification currently available for bibliographic description. It provides the cataloguing rules giving details of textual and other content -based material, including modern and ancient printed books, serial publications, cartographic material, printed music and audio-visual material.

Concerning archives description standards the international system ISAD(G) (International Standards of Archival Description), a formal standard issued by ICA (International Council of Archives) is generally adopted.

This tendency to accept established international rules by different Institutions excludes the complex problem of data Value (terminological standardisation). In this case each country tends to elaborate specific terminological instruments for its individual cataloguing system, thereby the international exchange of information becomes very difficult.

As a starting point to deal with the terminological problem, in the experimental and pragmatic approach foreseen by Chance project, a survey of the linguistic instruments in use at national and international level was carried out. At an international level it is clearly emerged that the widespread and accepted use of instruments of linguistic normalisation - i.e., the iconography classification system ICONCLASS - can transform these in spontaneous and sharable standards.

At National level the linguistic instruments in use are sub-divisible in three typologies: term lists, classification system and thesauri. From this analysis, many extreme diverse and isolated national realities come out. Most of all remains isolated because of the lack of attempts to translating. Other elements, which cause difficulty, are the terminological particularities characterising typologies of objects related to single realities. For these reasons the purpose of Chance project is not to develop an ambitious program of vocabulary standardisation, but to create a pragmatic instrument of multilingual research. This instrument, operating at international level, as been identified as the indispensable method to solve the information research problem in a huge amount of data. Closely connected to this terminological matter is the adoption of metadata, which technically permits to solve the research problem, essentially identifiable in the process of matching between query words and words present in different data banks. Given its complexity, the terminological problem has been the major obstacle to lot of contemporary and past European projects. "Acquarelle"

project is significant, in this way, for supporting the researches towards data bank of different countries, developing multilingual terminological sources. For this aim the vocabularies of several local databases are loaded and in sequence organised as linked thesauri (authorities) .

The choice to use the thesaurus instrument has been rather difficult to apply. In particular because the standardised terminological resources already available have been overestimated, and, in general, for the complexity of translating. In fact the attempts concerning thesauri translation, collide, inevitably, with the problem of the "alignment" of different languages. Other problems are the high costs and the time factor, which is very long because experts in each field have to be consulted. Overall the adoption of thesaurus, even if it is an optimal instruments for linguistic organisation, allowing an efficient research, it reveals itself to be very complicated.

Therefore, in accordance with the recommendations of "Memorandum of Understanding of Multimedia Access to European Cultural Heritage" and of EMII, the tendency is to discourage the development of new thesauri and favour, on the contrary, the development of vocabularies based on the relation of equivalent terms. The terminological problem is the real knot of the Chance project. Therefore the choice among different linguistic instruments, to be confronted in WP4, will be of strategic importance in gaining good results for the project.

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