Chapter 72
Preservation of Cultural and Scientific Heritage by Means of Digital Libraries

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ABSTRACT

The entire world's cultural and educational resources are being more and more produced, distributed and accessed in digital form, rather than on paper. Born-digital heritage available on-line, including electronic journals, World Wide Web pages or on-line databases, are now an integral part of the world's cultural heritage. Consequently preservation of cultural and scientific heritage has undergone substantial changes and has come across new challenges. Traditional methods for preservation have been backed by technological tools of enormous capacities, creating the impression of a constant "revolution". Most importantly, preservation has shifted from a passive stance (storage) to more active attitude (digitization, migration). However, the transition from the analogue past to the digital future is not smooth, as one would hope (or at least as libraries and their users would have hoped). The digital collection and preservation of on-line cultural and scientific assets was faced with legal instruments pertaining to "analogue age", such as the legal deposit and the traditional rules of copyright law, which in the digital age seem as inadequate tools for the effective preservation of cultural and scientific heritage and the securing of a wide access to that heritage. Recent and pending changes in the areas of legal deposit and Copyright law attempt to modernize the legislation, but as it is demonstrated, a lot more has to be done in that direction. This chapter presents an overview of the present situation, challenges and problems with a focus on European Community and International Law.

INTRODUCTION

The advent of Internet and digital technologies has undoubtedly influenced our daily lives, the way we think and act. This phenomenon influenced also the process and organization of education and research. Libraries in this new digital environment are transformed into virtual entities that can be accessed at the click of a computer mouse from one's home. Centuries of human knowledge, cultural and scientific achievements stored in libraries, archives or museums can now be widely disseminated through universal digital libraries. In this context, one can remark that in the course of the centuries, cultural and scientific heritage had never had such an optimistic view at the future. Preservation of this valuable heritage can be now achieved through new more efficient technological tools that facilitate its collection, storage and management. But how has the preservation process been transposed in this new technological environment? Is the legal background concerning libraries and the protection of cultural heritage effective enough to guarantee the safekeeping and dissemination of these valuable assets? Questions and answers surrounding these issues will be posed and partially answered in this chapter. But before that, let us define some of the basic terms being the object of this article.

Firstly, libraries are public or private institutions that maintain collections which contain a wealth of cultural material – including books, newspapers, films, photographs and maps – representing the richness of history, the cultural and linguistic diversity of one country or a whole continent (e.g. European Libraries, Asian Libraries, etc.). In their traditional form, libraries consist of a building, open to the public, in which one can have access to information usually to be found in books, newspapers or other documents. Together with modern technology, additional materials were added to the collections of libraries; to name a few: phonograph recordings, audio cassettes, microfilms, videotapes, compact discs, DVDs, etc. In addition to that, modern technology has answered to the ever-existing problem of "sensitivity" to time of certain fragile library materials, such as manuscripts and rare publications: new machines, storage devices and media permit the exact reproduction and reformatting of documents, which would otherwise be threatened with extinction.

Secondly, digital Libraries are organized collections of digital information objects made available to a user community and accessible by computers.[1] They consist of two types of information objects: (1) born-digital information objects, such as digital text or digital camera images (this is increasingly the case in the area of scientific information, where digital publications and enormous quantities of information are stored in digital repositories), (2) digital information objects produced by digitisation of a non-digital information object (such as digital copies of books and other 'physical' material from libraries and archives). From a cultural aspect, digital libraries have been seen to potentially revolutionize the traditional concept of libraries and be able to offer a wide array of cultural information objects, offering for example rare books, manuscripts, maps, photographs of cultural artefacts from across the world, some of which belong to the collections of museums or archives and which are sometimes not available to a wide public.

Lastly, cultural heritage is a widely used term that refers to all testaments of cultures, past and present. Often cultural heritage is described in UNESCO documents as "our legacy from the past, what we live with today, and what we pass on to future generations." Stricto sensu world cultural heritage is considered to contain monuments (such as architectural works, sculptures and paintings), groups of buildings or sites of outstanding universal value from the point of view of history, art or science.[2] In this context, cultural heritage consists mainly of physical or otherwise tangible attributes, while in a wider concept it contains also intangible aspects by embracing all the works and thoughts

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