

# Democratization and Commercialization of Knowledge: The World Digital Library and its Assessment

Democratización y comercialización del conocimiento:  
la biblioteca digital y su evaluación

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## Abstract

This article will focus on the World Digital Library and its functions. First, there will be an overview of media technology. The differences in principles between libraries and private organizations will be illustrated in addition to drawing a conclusion upon the assessment of the World Digital Library and the future of digitization.

**Keywords:** Democratization, Library, Commercialization of Knowledge, Digital Media.

## Resumen

Este artículo se concentra en el asunto de la biblioteca digital mundial y sus funciones. En primer lugar, se lleva a cabo una revisión sobre los medios digitales. Seguidamente se miran las diferencias en principios entre las bibliotecas y las organizaciones privadas, que se ilustrarán, adicionalmente, para delinear la evaluación de la biblioteca digital mundial y el futuro de la digitalización.

**Palabras clave:** democratización, biblioteca, comercialización del conocimiento, medios digitales.

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## Introduction

**T**he need for preserving written material arose even before the Sumerians gathered, classified, and stored all writings in special areas, probably before the beginning of the third millennium BC. By noticing a memory tracked back in the beginning of the world, one preserves vivid the reflection of what has long gone and participates in a creative action, which remains active as long as a text - in any form - can be seen, deciphered and read.

Many libraries, which existed years ago, held inside their walls the memory of the world. Some of the materials were preserved until today, but most of the knowledge will never be delivered to us. Alberto Manguel (1997) said that: “the dust which covers these ruins is infinitely much more ancient than books, although books include it”. The main objective of all libraries has always been to gather all knowledge, past and present, and, at the same time, make it available to the users.

The basic differences between a traditional and a digital environment nowadays are obvious. In a traditional library there is a physical hierarchy; materials are classified in different ways by the cataloguing system. On the other hand, in a digital library every item is transformed into a machine-readable form. In both cases, the user has the possibility of retrieving the items, but only due to digitization it is feasible to go through the content without having to visit the actual building.

It is a fact that full texts of every subject are already uploaded on the World Wide Web; most organizations and institutions have their own website and Online Public Access Catalogue (OPAC).<sup>1</sup> Globalization could be considered as a motivation for the creation of a universal environment that will contain all information in combination with the needs of every society in order to maintain its cultural heritage.

According to historian Roger Chartier, the dream of a universal library is met through electronic technology the moment that all texts, regardless of their form (i.e. manuscripts, printed editions,

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<sup>1</sup> OPAC: also known as Internet Public Access Catalogue (IPAC).

etc.), are digitally converted. In that way, all knowledge inherited to humankind would become universally available through a network, where the material will be stored. Then, all users connected to that network would access all information, no matter what the physical location of the documents might be. Chartier mentioned that:

...the library of the future is inscribed where all texts can be summoned, assembled, and read: on a screen. In the universe of remote communications made possible by computerized texts and electronic diffusion, texts are no longer prisoners of their original physical material existence... The opposition long held to be insurmountable between the closed world of any finite collection, no matter what its size, and the infinite universe of all texts ever written is thus theoretically annihilated. (Chartier, 1994)

The world changes fast, and new initiatives are being introduced every day. Social and technological developments gave a new form in the concept of libraries, which still do not have a final character. In order to understand these changes, one must comprehend the purposes leading to them. As Manuel Castells stated: “technology does not determine society: it *is* society. Society shapes technology according to the needs, values, and interests of people who use the technology” (Castells, 2001, p. 3).

This article will focus on the World Digital Library and its functions. First, there will be an overview of media technology. The differences in principles between libraries and private organizations will be illustrated, in addition to drawing a conclusion upon the assessment of the World Digital Library and the future of digitization.

## Of Media Technology and Other Demons

“Rapidly, we approach the final phase of the extensions of man—the technological simulation of consciousness, when the creative process of knowing will be collectively and corporately extended to the whole of human society, much as we have already extended our senses and our nerves by the various media” (McLuhan, 1964, p. 4). One cannot deny that “the aspiration of our time for wholeness, empathy and depth of awareness is a natural adjunct of electric technology” (McLuhan, 1964, p. 5). This has a direct

effect on the way society perceives any *message* deriving from any *medium*. However, it must be stated that the result of the exertion of communicating ideas in society is always a product new in content.

There are many definitions about *what* technology is; Alan Kay said that it “is anything invented after we were born”; Danny Hillis stated that it “is anything that doesn’t work yet”, and Kevin Kelly gives a broader and more optimistic definition: “anything useful invented by a mind”. The journey is long and, between 1829, when the first modern term appeared, until 1952, when it started being used, humans came up with more complicated terms, such as: “Digital technology [...] had not one but many characteristics. It would ‘move us from the world of scarcity’, ‘enable us to call up programmes and services on demand at a moment of our choosing’, and offer interactivity” (Briggs & Burke, 2006, p. 265).

Although technological innovations are presented continuously, it is amazing that all connections are linking to one machine, a universal machine running uninterrupted, and at the same time an oxymoron that people confront anything new with distrust. One must bear in mind that one medium does not necessarily replace another, in the same way television did not replace the radio. However, what will be the impact of all these in relation to libraries? In one hand there is the great expectation of collecting all knowledge in one place, but, on the other, “the constant expansion of information has overwhelmed our capacity to contain it” (Kelly, 2006).

Furthermore, all great institutions that already digitizing their material –because it is not an activity that has an end– like the European Library, Europeana, and, in a global scale, the World Digital Library - there are also other organizations, like Google, involved in this effort to *provide all works of human-kind*. However, will these works be provided to all the people in the world? This is another contradiction of the aspects of technology in the way it is perceived by the ones responsible. A universal library has a democratic character because its main purpose is *to offer every book to every person*, but the point of view must be defined.

There is the scope of libraries, which is to give unlimited and free of charge access to the *world's memories*. The European Library's vision is the "provision of equal access to promote world-wide understanding of the richness and diversity of European learning and culture" and its mission "to open up the universe of knowledge, information and cultures of all Europe's national libraries" (The European Library, 2011). It offers a free service and access to 48 national libraries, in 35 languages and both in digital and bibliographical resources.

Europeana was founded by the European Commission to "promote and support the creation of a European digital library, as a strategic goal within the European Information Society i2010 Initiative,<sup>2</sup> which aims to foster growth and jobs in the information society and media industries". The mission of the Commission "is to make European information resources easier to use in an online environment" with a promise "to built on Europe's rich heritage, combining multicultural and multilingual environments with technological advances and new business models" (Escande, 2009, p. 2).

One the other hand there is Google, a commercial enterprise that has as a purpose to gain a profit out of it. Google announced in December 2004 that it will digitally scan the books of five major libraries and make their contents available through simple search. Kevin Kelly (2006) marked that:

Turning inked letters into electronic dots that can be read on a screen is simply the first essential step in creating this new library. The real magic will come in the second act, as each word in each book is cross-linked, clustered, cited, extracted, indexed, analyzed, annotated, remixed, reassembled and woven deeper into the culture than even before. In the new world of books, every bit informs another; every page reads all the other pages.

This is a more complicated procedure than it seems, as has already been mentioned above in the definition of digital technology.

<sup>2</sup> European Information Society i2010 Initiative: "was the EU policy framework for the information society and media. It promoted the positive contribution that information and communication technologies (ICT) can make to the economy, society and personal quality of life."

American linguist Geoffrey Nunberg (2009) draws a very good argument in his article “Google’s Book Search: A Disaster for Scholars”. He identified the monopoly that Google initiates by digitizing all books, since scanning is and will be an expensive, labor-intensive project. Google does not care about metadata in the same scale that libraries do. Although inserting sufficient information in a digital object is vital not only for research, but effects interconnections between all objects, their excuse is that “the whos, whats, wheres, and whens are provided by a library catalog” (Nunberg, 2009). However, libraries and publishers cannot be blamed for Google’s mistakes.

One example is mistakes in classification. The standards used for the categorization are drawn from the Book Industry Standards and Communication Codes, which indicate a simple division for shelving books and not classify them. Libraries have the best known categorization schemes. Library catalogues express “a high-order categorized view of the world, and all those cataloguing systems contain all kinds of odd mappings between categories and the world they describe” (Shirky, 2005). Google, though, created a commercial directory based on the user’s search without any care for the link structure, which is more complex. By searching, the query needs to be answered at the exact moment it is being submitted. Libraries create an environment where those responsible already organized knowledge for the users to browse. Nunberg (2009) said that:

Google’s greater achievement as a Web search engine was to demonstrate how easy it could be to locate useful information without attending to metadata or resorting to Yahoo-like schemes of classification. But books aren’t simply vehicles for communicating information, and managing a vast library collection requires different skills, approaches, and data than those that enabled Google to dominate Web searching.

These skills, approaches, and data that the World Digital Library introduces, will be presented below.

## The World Digital Library

The World Digital Library (WDL) was inaugurated on April 21<sup>st</sup>, 2009 by UNESCO. The proposal of the creation of a digital environment which will contain the world's cultural achievements came up in 2005, when librarian James H. Billington introduced the idea during a speech to the U.S. National Commission for UNESCO. Its mission is “to make available, free of charge and in multilingual format, significant primary materials from countries and cultures around the world”.

A year later, an Express Meeting was convened by UNESCO and the Library of Congress for a further discussion of the main problems that needed to be overcome. During this meeting the following things were noticed: there was little cultural content digitized in many countries, developing countries lacked the capacity to digitize and display their treasures, the existing web sites were difficult to use and at the same time not appealing, and multilingual access was not developed.

The main goal, as mentioned above, was to preserve all the valuable archive holdings and library collections from all over the world and thus ensure their wide dissemination. The basic characteristics of the WDL are the following four main objectives:

1. The promotion of both international and intellectual understanding.
2. The expansion of the volume and variety of the cultural content on the World Wide Web.
3. The provision of resources to educators, scholars and general audiences.
4. The narrowing of the digital division within and between countries.

Most significant are the initiatives developed for the creation of this digital environment. Considering all the problems mentioned referring to the current —at the time— situation of the digital libraries, questions had to be answered and solutions had to be given. How would it be possible to create connection between items that belong to different organizations and institutions? How

could the research be improved? Why are the selected items important and what is their form? Which tools must be used, developed and why? How would WDL preserve its sustainability and growth?

The initiatives of the WDL are five: consistent metadata, description, multilingualism, digital library technical development and collaborative network. By using *consistent metadata*, every single item is described with a consistent set of bibliographic information referring to each possible research topic, according to the type of material. Therefore, it is feasible to explore the site and other search engines as well. *Description* helps users to understand and learn about an item on the site. Specialists give a full description about the materials displayed in the WDL, so no matter what the educational level is, anyone could find out information about other cultures. *Multilingualism* is probably one of the most important matters that should be taken carefully under consideration. Forty nine institutions are currently listed as partners<sup>3</sup>. The metadata, the navigation system and any supporting content are translated into seven languages, which are the official languages of the United Nations (Arabic, Chinese, English, French, Russian, Spanish, and Portuguese because it is widely spread). However, there are items that are not in any of these languages and presented in their original. *Digital Library Technical Development* has to do with cataloguing techniques in this multilingual environment. There were two basic developments; the first was about a new cataloguing application in order to support the metadata requirements, and the second one about the

<sup>3</sup> Bibliotheca Alexandrina, Brown University Library, Center for the Study of the History of Mexico CARSO, Central Library, Qatar Foundation, Columbus Memorial Library, Organization of American States, International Federation of Library Associations and Institutions (IFLA), Iraqi National Library and Archives, John Carter Brown Library, King Abdullah University of Science and Technology, Library of Congress, Mamma Haidara Commemorative Library, National Archives and Records Administration, National Central Library, National Diet Library, National Library and Archives of Egypt, National Institute of Anthropology and History INAH, National Library of Brazil, National Library of China, National Library of France, National Library of Israel, National Library of Russia, National Library of Serbia, National Library of Sweden, National Library of Uganda, Royal Netherlands Institute of Southeast Asian and the Caribbean Studies KITLV, Russian State Library, St. Mark Coptic Library, Tetouan-Asmir Association, United Nations Educational, Scientific and Cultural Organization (UNESCO), University Library in Bratislava, University of Pretoria Library, Wellcome Library, Yale University Library, Yeltsin Presidential Library.

interface featuring the site in an appealing way for the users to visit. Another initiation in this field was the creation of a *centralized tool with a translation memory*. This application preserves the translation of a text if it is already been done once. Finally, the *collaborative network* is the form that the WDL has; the wide expansion towards technology, transfer, accessibility, but also vivid participation of users, institutions, and organizations.

The digital walls of this library contain various types of materials: manuscripts, maps, rare books, musical scores, recordings, films, prints, photographs and architectural drawings. The Library of Congress is responsible for maintaining this website. Cataloguing and translation, among other functions, should keep improving in the future. Most of the digitization standards are established from the Library of Congress as well, with input of the WDL's partners and working groups. The classification was made according to established rules within any of the widely used national and international cataloguing systems which produce bibliographic data. The system used is Dewey's Decimal Classification (DDC) because its structure is appropriate for the complexity of the item's subject, gathered from a multiplicity of cultures of so many countries. It is also internationally used, and it is more convenient for the collection of the records from different kinds of institutions.

These materials can be browsed by place, time, topic, type of item and contributing institution, or can be located by an open-ended search in several languages. In each division there are multiple choices, but browsing also depends on which page of the site the user is. In the homepage there is a map of the world with links of the continents and the number of items each one has. Some of the items listed in the collection of the WDL include a curator video which helps the user to understand what the material is about. The video is available as a text as well, next to the video's screen. Above the text there is the name of the speaker, institution, and subject.

The time table below begins in 8000 b. C. and ends in the present (2010 a. D.). Users have the possibility of scrolling down the timeline according to their research. Then, the number of items automatically changes in the map. Additionally, links or a search

box are available for research. They both have different layouts, either as a list in alphabetical order with a gallery or as a listed view of the items and with narrowed results on the left, or through hyperlinks on the map which open in a different page or by clicking on the picture and then being chosen. The last option is browsing by institution.

The classification of the topic search is divided by Dewey's ten major categories: Philosophy and Psychology, Religion, Social Sciences, Languages, Natural Sciences and Mathematics, Technology, the Arts, Fine and Decorative Arts, Literature and Rhetoric, and History and Geography. Finally, the type of items is divided in: books, journals, manuscripts, maps, motion pictures, prints, photographs and sound recordings.

## Conclusion

In the book *A Social History of the Media* there is a statement about globalization that cannot be overseen: "Globalization may make it easier for people to encounter new cultures, but it makes the journey less worthwhile as individual cultures become more and more like each other" (Briggs & Burke, 2007, p. 257). It is a fact that, without the existence of any borders and, considering the structure of the society nowadays, transmission of information is instant all over the world. In this era of explosion of information it is difficult to identify where one culture ends and another one begins. That does not necessarily mean that each country's unique characteristics are fading away.

The mission of the WDL is clear and will have impact, not only in the discovery of new technological initiatives in the future, but also in the preservation of all historical and cultural heritages. Now the term of globalization gets another meaning and as the Japanese scholar Yoneji Masuda (cited by Briggs and Burke, 2007, p. 234) said: "Information has no natural boundaries. When global information space is formed, world-wide communications activities among citizens will cross all national boundaries". In other words, it is *the spirit of a New Renaissance*.

Therefore, it is not only important to protect the material but also to respect and preserve cultural heritage, which is part of

every country's civilization and history. As we transfer books, magazines, maps and paintings into a digital form, thus giving the possibility for everyone to access the material through the computer, we must consider that, by creating a digital library or museum including all the facilities, we manage to connect people with the world's treasures through a network, making the first step to establish the existence of the institute by imputing the data and metadata into the computer and therefore passing the information over to the users, and then bringing together those who are interested, wherever they are, or even motivating them to visit the actual facilities, if possible.

In an interview for a Greek newspaper,<sup>4</sup> Robert Darton was asked to give his opinion about today's mass digital libraries, like Google Book Search. In a simple translation the message is the following:

The profit from these digital libraries is enormous. In the case of Google, the idea is fascinating and it contributes in the democratization of knowledge. Every school that was isolated and didn't have any libraries before will all of a sudden have access to millions of publications. It is impressive. My concern is that at the same time we commercialize knowledge because Google aims to gain some profit from this activity. And the danger is that this merchandise will be in the hands of a monopoly of a very powerful company, without any serious competitors. We should take measures to remove this risk. I am responsible for initiating the inauguration of a National Digital Library in the US, which could be international if we connect it with the European and other libraries. Google's digitized material could be the beginning of this kind of library; cooperation is not impossible, but Google doesn't seem to consider granting the digitized material to a library which can preserve it and contribute it to the world for free.

In the fields of information transmission, digitization, education, and technology, leads societies to a different future with every step forward. This future cannot be deciphered or understood at once. The challenge is for better ways and tools to be introduced in order to narrow down the uncertainties of the future.

<sup>4</sup> The interview entitled "The Death of the Book is Yet to Come" was given to Lamprini Kouzeli for the Greek newspaper "Vima", in April 11<sup>th</sup>, 2010.

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