

Planning the digital library development between tradition and innovation

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Introduction

Libraries, archives and museums are centuries old institutions which have been committed to physical, conceptual and long term access to the artefacts of human knowledge, as books, objects, documents. These cultural institutions are now confronting with enormous challenges brought about by the shift of these artifacts from analog to digital format. It is not only a problem of dealing with technologies, or simply with a different support of information. Digital objects and resources, physical represented by digit, have different properties than information stored in stone, papyrus, paper. Since the vision of digital library, by Vannevar Bush, the functionalities requested to a digital library are more than a simple library. The new role of digital library is providing an information space which facilitates communication, resources sharing and knowledge creation

Background

We can affirm that the convergence of Archives, Libraries and Museums (ALM) is the approach which characterises the evolution of digital libraries in Europe. Digitization became a pre-requisite for closer co-operation among museums, archives and libraries, which are increasingly being treated collectively as memory and cultural institutions, thus highlighting their common functions and roles. From the user point of view, collaboration between memory institutions brings multiple benefits because it provides a holistic view of human knowledge preserved in libraries, museums and archives. However, from the theoretical point of view, the convergence of memory institutions is problematic since for historical reasons, these cultural institutions have developed different disciplines. There is the need to find a common theoretical framework, to focus on similarities between different disciplines. Manžuch, Vatanen, and Aparac-Jelusic (Manžuch, Vatanen, and Aparac-Jelusic 2005) considering the complex and multilateral nature of studies in cultural heritage, use the term of “communication of memory” for the ALM approach as a conceptual background to contextualize the development of digitization courses and integrate them into the general body of LIS knowledge:

“The communicational aspect refers to the ways memory is shared between human beings in time and space by employing 1) codes to express it (e.g. language), 2) media to transfer meanings (e.g. books, compact disks etc.) and 3) channels which are used to spread meanings (e.g. telephone, computer networks etc.). Communicational and social aspects of memory are interrelated: on one hand, the social role of memory to serve the interests of the present resulted in political, economical, cultural impacts on its communication and on the other hand codes, media and channels used to transfer meanings of memory shape its perception”.

The ALM conceptual framework is based on the traditional role of cultural and literary mediation of professionals but is also directed towards interdisciplinarity and to an extension of roles such as facilitator, educator and other socially active roles in Learning Society.

A more library-oriented approach to technological issues includes mainly aspects of information/knowledge creation, acquisition, organization, storage (technology), seeking, accessing, dissemination, use, sharing, and learning in a complete cycle. (Widén-Wulff and alii 2005). Information Management education in LIS is a field that has undergone rapid development owing to its connection to technological aspects and the emerging and growing interest in intellectual and human capital in organizations. However, the Knowledge Management initiative has drawn

attention to skills of such importance as communicative, pedagogical or facilitation skills. In doing so, of course, it has simply taken over other initiatives that have been pursued in organizations, from 'organization development', to the 'learning organization'. In this approach technology is seen as socially embedded (Audunson 2005) and the digital library can be an informal classroom for e-learning, focusing on literacy and communication.

The convergence phenomenon means that traditionally separate media such as text, image, audio, video can be now included in the same complex document.

The digital document is very complex. It can be stored at atomic scale of density or granularity. It can be linked to other documents, by the author or by the reader.

The most evident characteristics of digital collection is quickly and fast access. Search engines can immediately find information, no more bound in page, books and shelves.

Also networked information in the Internet. Overload of information.

Anne Goulding Libraries for communities

Literature stress public libraries as space. They could assist community development, symbolic value, neutral space, making connections, fair place, meeting place (fill the gap), social reading club, children activities, older persons. Conditions of building is considered very important.

Bookshop offer comfortable places. Building physically, psychological transparent. Encourage more use of public libraries, ideal store, learning center, conflict between traditional and new users, zone and area, compartentilise. Community development role, cross generation, cross communities, only providing space, very passive only buildings.

Murray Ian

Document changing impact on professionals. Ontology of document: means to communication potentially informing (somebody understand); what is information, what knowledge, what a document? Historically knowledge in documents, they are important. What librarians? Stereotyped in printed world, misconceptions, static how to convince others? All kinds formats. Document concept is changed? Useful consideration for XML, or librarians role. Tension between books and documents not knew. 1996 Schamber "document and book not sufficient for all range of texts in digital". Buckland 1997 Significance with meaning not the form, not only printed. Role of librarians? Loosjes 1964 After printing more difficult access and librarians role in facilitating. Documents have meanings in their use. Forman 2001 characteristics: materiality, credibility, social discipline, history city, practices arise develop vanish under circumstances. Kircz 1998 e-publishing can deliver chunches of information XML facilitates anatomising of information. Librarians prepared to adapt, cross techniques, as nature of documents evolve so librarians. Further research on user behaviour on documentary practices.

Newth Erik

Writers are protected from copyr but not to go to books cemetery, many books are relevant but not available. Digitisation for long term preservation, compress information. But access is limited too: registered users in library licence books not searchable from Google. Change habits of users on Web but it should be attractive. Many books as possible in XML with universal access.

Opportunities of Web: serendipity. Search inside different media: make them transparent. AS much as possible for free: opening the cemetery.

New and old role of access

2. What are digital librarian's roles?

There are contrasting opinions on this question. This lack of agreement on the role of digital librarian is related to different definitions and models of Digital Library (DL). A widespread point of view, that has been repeatedly presented by computer scientists, advocates that DL should

enable any citizen to access all human knowledge anytime and anywhere, in a friendly, multi-modal, efficient, and effective way, by overcoming barriers of distance, language, and culture, and by using multiple Internet-connected devices. With the advances in automatic classification, automatic indexing, automatic metadata extraction, and the availability of services such as support of annotations, personalization, multilinguality - just to name a few - that future seems to be rapidly approaching. In this concept of digital library, we could find it difficult to justify the need for digital librarians, since “all” information is available on line, and “all” the services are provided by clever software tools. Disintermediation, that is based on the easy access to digital resources without an intermediary, is threatening the library professionals, who need to focus on re-engineering their role. Another concept of DL is that of the Digital Library Federation (Digital library federation 1998) which defines digital libraries as institutions with specialised staff:

“Digital libraries are organisations that provide resources, including the specialized staff, to select, structure, offer intellectual access to, interpret, distribute, preserve the integrity of, and ensure the persistence over time of collections of digital works so that they are readily and economically available for use by a defined community or set of communities”.

The participants of the Workshops in Italy discussed this second DL vision: it urges an innovation of the traditional background for the digital librarian.

The value of digital libraries comes from the location, the interconnection, the archiving and preservation. Consistent and controlled exposure of the content. Collaboration with other national and global institutions increases value exposure utility. To facilitate this broader access metadata The digital library offers new quality in access. It provides new context for digital objects, digital and networked collections.

The digital library space usually consists of four areas:

- the catalog of the works, item or collection level, selected from the library or set of libraries;
- a series of index structures that describe works in greater detail than the catalog or in ways that the catalog does not permit;
- the works;
- the tools with which to use or analyse the works.

Digital libraries select, add metadata, make content available and provides access.

The catalogue is not enough to provide intellectual access. Traditional abstract, data bases detailed information in contents. Detailed information as EAD, visual resources, encoding data, dictionaries, inverted indices to full text. Sources or digitised representation of information, or licenced resources.

Conclusion

The development of digital library in all form and aspects technical, political, economic, social, amounts to nothing if it does not generate literate users. Addressing this personal value is the opportunity for those advocating and sponsoring digital libraries and for those building the required tools.

Defining the role of the digital librarian, the Workshops participants defined it as:

- a bridge between digital resources and users (the traditional role of literature mediator, but done remotely);
- an agent of innovation, of citizenship, of information literacy etc. (the concept for the digital librarian as a facilitator of learning, a mentor, as a friend of the user, as a personal trainer who guides the user);
- communication skills are important for the social role of the librarian which is still prominent, and even more so in a digital environment (the concept of a social role, for

- active citizenship and social inclusion in the Learning Society, also the collaboration needed with stakeholders);
- pedagogical skills are enforced in a digital environment (the role of educator, teaching digital librarian) – the concept of the digital library as a virtual classroom.

The facilitator and the educator roles of the digital librarian in cultural institutions have been especially stressed, in relation to cultural heritage institutions. The museums, archives and libraries (ALM) sector is of fundamental importance in helping people to study and to learn, and increasingly, the ALM sector is becoming more active in the promotion of, and assistance with learning, rather than being a somewhat more passive resource for scholars and people already educated to use. Museums, archives and libraries have always had a role in mediating between their content and their users, and communicating their content, but the tone of communication, and the manner of mediation are now changing into an educator role. The fundamental aims and objectives of Learning Society, as social inclusion, lifelong learning and access, sit perfectly within ALM sector (Parker 2003).

Concepts of Digital Libraries and Digital Documents

- System Architectures, Integration and Interoperability
- Information Organization, Search and Usage
- User Studies and System Evaluation
- Digital Preservation
- Digital Library Applications