

TENDENCIES IN THE INTRODUCTION OF MULTIMEDIA APPLICATIONS IN ROMANIAN LIBRARIES

drd.VOINICU Mihaela
Arges County Library ,
Victoriei Street, no.18, Pitesti
mihaelavoinicu@gmail.com

Keywords: on-line communication, electronic reference services, web 2.0,
multimedia documents, libraries

Abstract. The apparition of electronic and multimedia documents led to a change of the libraries' perspective concerning the documentary practices and recover of information. In this paper it is presented a concise emphasis on the library's evolution, seen as an info-documentary structure, and an analysis of the Romanian public libraries sites seen as a multimedia instrument. Finally the author identify and propose how can improve the usability of a site and the way of accessing the information offered by the library from a distance with the help of interactive applications. The main aim of this transformation is to change the on-line services offered by libraries into interactive services, based on a constantly active communication with the new generation of users.

INTRODUCTION

Libraries are an info-documentary structures which went, with the passing of the time, through many stages of evolution. At the same time with the apparition of digitized and multimedia documents, the info-documentary structures became more dependent on the technology, on the on-line communication and on the multimedia applications that characterize the virtual space

Resources and services in libraries

From an evolutionary point of view, libraries have covered the following steps: paper library (traditional), automated library, electronic library and digital library. The elements that have undergone transformations and have determined changes in the libraries' structure are: the documents (the support to transmit the information), the documents' processing and the modalities to retrieve and communicate the documents.

In the **traditional library** the collections are mostly printed collections which can be accurately

located in time and space. The description of documents can be made in accordance with the ISBD regulations (International Standard Bibliographic Description).

Regarding the documents' processing, in libraries there are two types of languages which permit the representation of the contents of a document, namely: systematic languages (classification) and analytical languages (indexing). The main classifying systems in a library are: The Universal Decimal Classification, The Dewey Decimal Classification, The Bliss Bibliographic Classification, The US Congress Classification, and The Cutter Classification.

The need to unbind the ordering of information, and hence the documents, from the rigidity of the hierarchical grouping of concepts has led, during the middle of 20th century, to the creation of natural-language-based information systems. In the category of these indexing languages there are: keyword lists, free descriptor lists, subject heading lists and descriptor thesaurus. In the traditional library, documents' retrieving is

made through library catalogues and specialized bibliographies.

The automated library is a traditional library that uses integrated software for the high management of its traditional functions (acquiring, processing, and circulation). Through a computerized application, all the operations that were done manually in the traditional library have been transposed into calculation systems.

Documents having an electronic support in order to transmit the information have been added to the traditional library catalogues. The description of documents has adapted to the occurrence of this new type of document, namely the electronic document, through the emergence and development of the MARC formats (Machine Readable Cataloguing). Documents' processing remained essentially the same (based on classification and indexing), but has been transposed and integrated into the new information systems, thus reducing considerably the time allotted for this operation.

Once the library software appeared, a new instrument to communicate the collections has developed: the electronic catalogue. Together with the emergence and development of the Internet, the electronic catalogue has transformed into an online catalogue.

Electronic library is no longer strictly limited in space. It is considered to be made up of several automated libraries that start functioning in a network and get its publications in an electronic format.

The documents of such libraries are all electronic documents. To describe the electronic resources they use metadata that help to identify, describe and localize the resources within the network. The models of metadata that have imposed in time are: The Dublin Core Model (contains 15 descriptive elements) and RDF (Resource Description Framework). RDF defines a mechanism that enables the description of resources, independently of the field to be used for data, without specifying semantics a priori.

Documents' processing can be done through an automated indexing. Indexing can be carried out with the help of a documentary language, necessary to normalize the terms. The automated controlled indexing, consisting of the automatic extraction of terms (from the title, metadata, abstract, first paragraphs, content or the whole text) and their confrontation with a controlled language, is a

process which is not yet incorporated in the vast majority of library software.

The desire for the exhaustive retrieving of the documents has led to the construction of Collective Catalogues which reunite and manage heterogeneous informational resources from libraries located at a distance, but which are interconnected in a network of computers. These resources include catalogues, reference data bases, deposits of electronic documents and subject-based gateways.

Bibliographies, another instrument of communication and dissemination of the fund of documents, have started to be provided through electronic reference services. These references are granted asynchronously or synchronously by e-mail, chat or instant messages.

Digital Library and Virtual Library has been often encountered in the library science literature of the past years, being used mostly to express the progress in the field. The use of these terms is often made without a rigorous delimitation of their meanings.

From the multitude of the existing definitions referring to the digital library, I have noticed the following: the digital library is defined as "a logic entity". It is the library without walls – the library doesn't collect tangible entities, that carry information, but, in exchange, it provides mediated access that lacks geographical constraints, to the information provided in the network." [1]

Although in library science works both expressions are used, namely digital library and virtual library, nowadays we can notice a more reserved use of the latter. The collections of digital libraries include documents that combine and convey a great variety of media which comprise text, graphics, sound, video image or animation, but also digital documents that cannot be represented or distributed in printed formats.

Among the advantages of enriching the fund of documents in a library that uses multimedia documents, I mention:

- increasing library's users' satisfaction by covering some additional fields and distributing the information in a format that the users like;
- increased dissemination of information due to the growing interactivity of applications;
- providing information in an approachable format also to people with disabilities (audio or video documents);

-possibility to access from the distance the library's fund of documents (web pages, information stalls, mobile communication devices).

The emergence of multimedia documents has determined new problems concerning their purchasing and storage, the access (it requires additional technical equipment), the communication (copyright and licenses) or documents' processing and retrieving.

When confronted with the complex problem of describing these documents, in order to find them easily, they have conceived and elaborated the theoretical model called FRBR (Functional Requirements for Bibliographic Records). This model allows you to identify the objects (units), their attributes, as well as the relation categories established between objects (units). FRBR permits the reflection of the conceptual structure of the information resources. The entities suggested by FRBR are gathered in 3 groups: bibliographic entities (work, expression, manifestation and item) nominative entities (those people or corporate bodies responsible for the content, production or keeping of the bibliographic entities) and subject entities (representing the subject of the works and including the concept, object, event and place) [2]

Nowadays, we can notice a new tendency referring to the description of documents, namely the free description, the use of the folksonomy instead of the established taxonomies. In the current virtual space, the sharing of information and knowledge, the collective intelligence, allows the social information transmission by catching the associations of individual concepts and their public dissemination. By adding the shared processing of documents and the collaborative editing to a FRBR description of documents, the information can be represented in a favourable way to the representation of concepts and achievement of mental associations.

The retrieving of multimedia information has raised a series of problems, especially when it comes to dynamic images and audio and video segments, because in many cases they contain relevant information that cannot be described properly in a synthetic way.

With respect to the electronic reference services, they have undergone transformations starting with the references granted on the libraries' own web pages and ending with the reference services from the virtual space Second Life.

The web sites of the Romanian Public Libraries

Romanian public libraries made their presence felt on the Internet through their own web pages.

I have studied these sites from the point of view of the *software usability*, namely from the point of view of "the ability of a software product to be understood, studied and attractive for the user when used under particular conditions". [3]

The results of this study showed that from a number of 43 sites of Romanian public libraries which were analyzed only 52% have an online catalogue, 56% offer electronic reference services and none of the Romanian public libraries has incorporated on their own web site any applications with increased interactivity, based on standards as RSS, XML, or API. [4]

In order to improve the performances of the library sites, I have identified three types of applications that can be integrated: RSS, wiki applications, and social bookmarking, which I will present from a new perspective of communication and of offering modern library services.

RSS (Really Simple Syndication) is a technology which allows continuous information, in real time, eliminating the disadvantages of the old methods of information (regular visiting of sites, newsletter subscription), such as exposure to spams or wasted time for navigation on the sites.

A RSS feed is an XML file that contains the news on the site, being updated at the same time with it. A RSS file includes the title, link, site description and the novelty items. Each item consists of the URL for the appropriate article, the title and a description. The file can be edited in any text editor. Its updating can be done manually (at a low drive site meter) or automatically through the site CMS.

Due to the fact that the subscription to such news flows is an act of personal decision, RSS feeds are at the same time a way to mediatize the web content in a nonintrusive manner for the user and a marketing instrument meant to increase the information quantity delivered by libraries. **Wiki** is a web application which allows the users to add content or keep their own successive versions, but it also allows anybody else to edit the content. The term "Wiki" refers also to the collaborative software used to create such a web site.

The library services that can be built on wiki software are various and may take many forms, leading to useful work instruments either for the librarians (internal) or for the users (external).

- bibliographical reference deposit for the frequently asked subjects (themes);
- bibliographical reference deposit for the applications requiring specialized knowledge in the field. This way, the librarians having various specializations can contribute, in time and from different physical locations, to the creation and updating of these bibliographies;
- collaborative content or knowledge deposits. The support that the external users can offer should not be neglected. Passing through a filter, the information they deliver may prove to be extremely valuable. The external users may have professional skills and knowledge in various specializations or fields, which librarians cannot gather, therefore they may add, make relevant and valuable changes or comments.

Social bookmarking represents an online modality to retain, classify, localize and share the Internet resources, according to the individual needs and interests. The activity through which users label, according to their own criteria, addresses of web sites or resource representations (in fact, any object identifiable by URL) is known as folksonomy (folk + taxonomy).

Building and coordinating such a system by a library in collaboration with its users can find several applications:

- building and completing the bibliography. Adjacently to the database obtained, we can also notice a positive result, namely that the database increases from year to year, remaining available permanently;
- research/documentation – creating and/or consulting such a database which allows the people interested in to remain permanently connected to their area of interest, but at the same time to get to know people with the same concerns – to establish new connections;
- collecting the information that refer to the users' area of interest, which can lead to an improvement of the library's acquisition policy;
- getting accustomed with new skills (content management, online communication, collaborative working) by both librarian and user;

- the users can get the content that interests them in an aggregate, assembled and structured manner and they can personalize their work environment.

An example of integration of such multimedia applications, within an info-documentary structure, is the project we have begun in The Argeş County Library, a project that aims at increasing the quantity and quality of the services delivered online. The application will consist of building a database of scientific articles, on a wiki platform. The application interface will allow the transmission of the publishing news distinctly, separately according to the subscribers' area of interest. Thus, the users, who are interested in the editorial apparitions of a certain field (electronics, medicine, physics, history, etc.) won't be overloaded with information from a different field that they may find irrelevant or unnecessary.

CONCLUSIONS

The explosive development of the documentation and information technologies constrains the info-documentary structures to develop new strategies in the field of services regarding the delivery, communication and sharing of information.

The applications mentioned in this article give libraries the possibility to create their own on-line identity and their own network of virtual users, to build interactive services and to interact and communicate virtually with the audience in an active and permanent manner.

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