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Electronic Consortium of Libraries: a biliographical cooperation scheme

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Abstract

Automated cataloguing at the National Library of Brazil started in 1982 on a joint venture of cooperative cataloging at national level and developed on the 90's with the larger use of Internet and changes of format and software to provide Internet access to on line catalogs. In consequence, major changes were made from 1997 on to operate with new software entirely on line with full Internet for remote users' access and intranet for cataloguing. The launching, in 1998, of a Web site with one million records including current national bibliography linked to images and sounds; legal deposits records and ISBN registration, as well as full text classical Brazilian literature has created impact on users. In 1999 registers of copyright records were also made available at the Web, and today encompass 200.000 registers.

Several thematic sites are developed to catter to cultural awareness aiming at targeting social, economical and cultural aspects of the different history and life of all states showing the cultural diversity of the South and the North of the country.

1. Beginnings of automation to on-line access

The premise that the digital era is affecting every job and every core of our daily life and forces changes in the environment need to be understood accepted and addressed. The rising use of information technology in libraries reflects itself in the new profile of professionals, as well as users and creates new goals for libraries. This trend if not accepted and absorbed in the work performed internally at libraries and reflected in the services and products offered to their clientele, will result in libraries lagging behind and having to face dissatisfied users. With this objective in mind and in order to face this new trend it was necessary to prepare an analysis of efforts undertaken at the National Library on previous years and analyze the situation in 1997with changes of leadership,

It became clear that many efforts had been made but, basically, the automated cataloging started in 1982 had continued and the joint venture of cooperative cataloging at national level among university libraries with a central computer union catalog handled by the Fundação Getulio Vargas, a private institution, based on an existence network called Bibliodata was still operational.
Lack of evaluation of its drawbacks and the total dependency of the National Library to the card and creation of manual and automated catalogs, which appeared only in CD-ROM, also became evident.

Even though new software entitled OrtoDocs, developed in Brazil, was acquired back in 1994 it had not been implemented successfully up to 1997. It was decided to implement it to its full usefulness and MARC format was adopted and all previous software and format in use were replaced by this new format and platform. These actions were possible with the conversion of the existing databases to MARC format, which permitted access to international databases with copy cataloging for current and retrospective collections.
These changes made it possible to apply, in 1998, the OrtoDocs Web Pack to 19 databases of books, rare books, manuscripts, sound, serial, cartographic and visual materials totaling 600.000 records made available at the National Library Web site which was specially launched in 1998.
A retrospective conversion project treated 400.000 manual card catalog of monographs and cataloging backlog which became updated in 2003.
Further developments brought links between bibliographical records and digital objects, which was the starting point of a virtual library.
All cataloging processing is WEB based thus permitting a very large flexibility. The on line catalogs running on Intranet connects nowadays 60 cataloging workstations operating and updating its data on real time.

2. Standardization and national cooperation

It is evident that standards are essential if the goal is to make the maximum use of resources of each library and to expand its use outside of national boundaries, as well as to cooperate in international networks that can mutually benefit all libraries involved in cataloging resource sharing. The international services available, and its growth in recent years, have shown the path to this cooperation, which reduces costs and

diminishes the time consumed in cataloging tasks with the new trend of using the information technology available and the information highway and consequent globalization of the world's knowledge. With this perspective in mind adaptations were made to ensure that this path could be followed.

It is important to note that an evaluation of the technical processing tools to be utilized showed that the features of the adopted software permit a very large possibility of expansion to import and export files using ISO-2709 and ANSI Z39.2 standards as a core for cooperation.

It also manages MARC21 Format for bibliographic, authority, and holdings records of all types of material such as monographs, serials, sound, video, scores, maps, iconography, archives and manuscripts recording. On the other hand, the online cataloging module has MARC Editor as a tool to edit records easily. Among other facilities it includes, fields and sub fields description and links with MARC21 code tables and authority databases maximizing the cataloguing process. Other important feature is that it allows download and copy cataloging from the database of books and multimedia objects association such as sounds recordings, video, pictures, texts and URLs.

Among the responsibilities of the National Library it is that to determine the official forms of personal and institutional names and subject headings and to create the pertinent authority files to be used for cataloguing purposes at national level and to create the pertinent registers and maintain it updated. These files are established to maintain a unique entry for personal and institutional events, geographic names, uniform serial titles and subject headings which are established in accordance with AACR2 cataloguing rules and MARC21 authority format.

At present, the author's database has 150.000 entries with automatic linkage to the online cataloguing process, but it still remains around 50.000 manual cards not yet transferred into the system. The subject headings are established in accordance also with MARC21 authority format and it contains 120.000 entries including main terms and cross references and through tags 7XX a link is made to authorized Library of Congress terms, officially translated into Portuguese, during the process of copy cataloguing.
IFLA has evaluated these databases as very good WEB authority index in its examination of National Bibliographies for the Cataloging committee.
By the same procedure the National Library uses Z39.50 to access and download records of the Library of Congress through a ongoing working exchange program.
These databases are used national wide and help the automatic cataloging from participating libraries of the cooperative cataloguing scheme through the Electronic Consortium of Libraries.
Both databases of subject headings records and Authority file of persons are available to the electronic network through special login in and password .
These on-line files and all others catalogs on line can be downloaded from MARC21,ISO 2709, ANSI, XML accessing with combination according with the software and platform in use by the participating library.

3. Virtual Library

The first initiatives for the building up of a digital collection started in 1995 with isolated projects such as the Digitizing Maps and Photographs as well as musical scores. These projects aimed at making it available in the Web these collections without the concern of digital preservation or the establishment of standards for the capture and treatment of digital archives.

Beginning with 2001 new projects were started which contemplated the establishment of standards for the work from the selection to the capture and access of material in the Web. These projects were in the fields of : *Historical Cartography ; United States and Brazil: Expanding Frontiers, Comparing Cultures* ; ss) , *Accessible Library ; Slavery in Brazil* . These projects were financed and made in coolaboration with outside institutions and with funds allocated within each project it was possible to install a Digitizing Laboratory and to start appliying norms following the international patterns to capture and preserve digital collections.

Besides the definition of patterns and standards for capture, naming, quality control, compacting and storage of the different types of archives it was also defined the kind of metadata to be used with for descriptive, structure, administrative and long term presevation.

Establishment of scripts for Metadata based on Dublin Core Scheme were made and metadata identification is, at present, with a routinally flow . The scripts cover all kinds of material and will be available in a metadata database with a gateway to link with the bibliographical record and digital object.

The Brazilian National Library core of metadata can be expressed using the XML schema language of the World Wide Web Consortium which is intended to carry selected data from existing MARC 21 records as well as to enable the creation of original resource description records. It was based on Dublin Core and on "Metadata Object Description Schema" (MODS) of the Library of Congress.

The Digitizing Laboratory has a network of MacIntosh which operates scanners (Power Phase and Zeutschel) for microfilm, and photo negatives - Kodak) books and large format material (Power Phase) and latelly a digital back for photos (Imacon with Hasselblad camera).

 The virtual library catalogs make it possible to obtain copies of images, photos ,maps etc, as well as digital files with image and full text . The Web site offers current national bibliography linked to images and sound with around one million artifacts, legal deposit registration for editors to check if itens were received and ISBN database with the numbers assigned to books already printed. It is intended to make it available on WEB site the online database of the ISBN atributed to allow checking by editors, authors and users, at large.

Another feature is the 200 full text classical Brazilian literature and digitized rare books full texts that are made available for consultation or downloading.

Another feature is the availability, on request, of microfilmed articles of newspapers included in the 5.700 serials database. Users can identify the availability of a microfilm version and send in request form for copies, either on paper format, CD-ROM or digital archive.
The digitization process started in 1999 which applied solely to microfilms and films because of restrictions of equipment available and now have expanded to different supports such as paper, of small and large formats of books, maps etc.

Several links offer interesting search engines to users like the biographical information on authority name files with image and links with background information on authors that have personal Web sites.
Some of the digitized full text classical literature are linked to the bibliographical records, to author's biography and to relevant images and microfilm records. Non-commercial music scores can be played out of the MIDI register and sound track is available on traditionally popular music of Brazil.

It is hoped to digitize the major part of the historical collection even though the aspects of preservation and restauration of ancient brittle paper is a major concern not solved since it will be an extensive operation in view of the large quantity of material in this condition. So the selection is being made through thematic topics which allows for a research into the collections and selection of the more pertinent material to create specialized CD-ROM and WEB sites which respond to specific needs of research or communities of researchers.

4. Copyright registers, ISBN and Legal Deposit

Other interesting feature of the information available at the Web site is its links with records of author's copyright which includes 200.000 copyright itens already bestowed on authors which now incorporates those registered before 1995 when the automated process was launched. Even though these previous 100,00 were incorporated in the online database it still needs some revision of its data for quality control.The database grows at the rate of 3.000 monthly with a 30% of refusals of requests. This information complements other also available such as the ISBN and legal deposit.

5. Electronic Consortium of Libraries : a goal of resource sharing of biblioghraphical records and virtual collections

The National Library has a two fold mission since besides catering to researchers it also deals with libraries individually through it's outreach program for the Public Libraries System and Universities. It targets training on preservation, and basic library services for outside libraries and rural areas, and provides technical assistance through an Electronic Consortium of Libraries launched in 1999 which links public and universities libraries to the cooperative schema of the National Library of automated cataloging and digital archives.

The sophisticated system described previouslly of copy cataloging and downloading of records by members permit libraries of the Consortium to cooperate and download full bibliographical records and multimedia, free of charge, from the online RedeMarc which represents the current national bibliography, prepared by the National Library.

This process helps libraries to create their own database of books received at their library with considerable reduction of costs by resource sharing within this electronic consortium.

They can access around 650.000 books and other information units totalling one million records on-line at the Web site. Public libraries and federal universities have free access and private universities have to contribute with a fee for the use of this service.

This process is essential for research and its disponibility accelerates enormously the cataloging process of the participating libraries and secures a more consistent and liable database with high quality content for individual users without the need to go extensive on research to identify authorship and identification.

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