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21ST CENTURY CATALOGUING MODULE

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Abstract

21st Century Integrated Library Management Systems (ILMS) contains different functions and facilities by way of various types of modules in the housekeeping operations part. Cataloguing module is one of the important modules of the ILMS. Exploring of various cataloguing modules in the ILMS is main intention of the present work. The study is based on the analysis of various primary sources and own thought of content. This paper finds out several sub-modules considering multiple options and operations part through which bibliographic information of the library collection is recorded on regular basis. This paper suggests that cataloguing modules are very much relevant and must be incorporated into an ILMS at the present perspectives.

Keywords: Library automation, cataloguing modules, MARC, FRBR, ILMS

1. Introduction

Integrated library automation software is an essential tool for any type of library. We know that an integrated library management system contains different types of modules which are very much related with the different library functions and activities related with the different departments of the library management system. Out of these different modules of an integrated library management system the cataloguing module is an important module which helps to record the Bibliography description of the different types of collections available in the library as we know catalogue is the mirror of the self of any library. In modern days cataloguing modules must have some

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important elements which relate to the different types of functions and activities of the catalogue in the department. The major role of the catalogue in the department is to organise and describe the information resources and various information settings. We may also consider the modern days cataloguing modules or systems as 21st century cataloguing module in our discussion here. The following outline are the important part of a modern catalogue which covers major part of the automation of the catalogue in department:

2. Essential Elements of a 21st-Century Cataloguing Module

A. Theoretical perspectives

Metadata principles are essential guidelines that oversee the development, management, and utilization of metadata, ensuring its efficiency in organizing, describing, and enabling access to information.

Considering the different purpose is the kind of metadata should be used. It is also important to use the kind of matter according to the types of documents to be incorporated in the library management system. here the library management system considers depending on the type and nature of document to be recorded and the services of the library itself. if it is a digital library application then it is very much related to the digital library application software such as Dspace etc.

And if it is an integrated library management system such as KOHA ILMS, EGRANTHALAYA, etc. and other software. If it is a digital library software then Dublin core battery is very much related with this type of application and if it is an integrated library management system then MARC 21 is very much related with this system.

In addition to MARC and Dublin Core metadata schema there is another modern concept called MODS, which stands for Metadata Object Description Schema. It is a bibliographic metadata standard created and managed by the Library of Congress. This schema, based on XML, is crafted to describe various types of resources, including books, articles, maps, multimedia, and digital content. It is frequently utilized in digital libraries, repositories, and cataloging systems due to its readability by both humans and machines.

B. Data Models

i. ISBD: First basic re-examination of cataloguing theory and practice on international level had been started by International Federation of Library Associations and Institutions (IFLA) in 1961 at International Conference on Cataloguing Principles (ICP) which is known as Paris Principal. The second outcome was in full swing at the International Meeting of Cataloguing Experts which was held in 1969 in Copenhagen with the agreement of a decision to launch international standards for the structure and content of bibliographic descriptions and it helps to produce the first of the standards named International Standard Bibliographic Descrip-

tion for Monographic Publications published in 1971. Later years various types of international Cataloguing codes were revised and produced.

The International Standard Bibliographic Description (ISBD) provides a set of guidelines for creating bibliographic descriptions of resources, ensuring they are understandable and interchangeable across different languages and cataloguing systems. ISBD establishes a consistent framework for describing books, serials, maps, digital resources, and other materials, promoting uniformity in library catalogues and bibliographic records. It is the first data models generally used to record the bibliographic description and still in use in many libraries.

ii. FRBR: Financial stresses have encouraged the libraries to attempt to make simpler the cataloguing process and to do more and more nominal level cataloguing in order to keep speed with the constant growth of publishing amount produced. On the other side growing requirement to get used to with the cataloguing codes and exercises to accommodate change which are coming from the emergence of new types of information resources such as electronic publishing and the introduction of networked access to different types of information resources. At the same time a wide range of user expectations, reeds and requirements are also identified particularly the way of information services and the media, tools and technologies through which the services to be provided and also through which they want to access those information sources.

To compete with these changes the next Seminar has come into effect in 1990 at Stockholm on Bibliographic Records which was sponsored by the IFLA Universal Bibliographic Control and International MARC (UBCIM) Programme and the IFLA Division of Bibliographic Control. Apart from the other discussions it was also documented that in this perspective the feasibility of shared or cataloguing programs at national and international level that an approved benchmark or standard for a “basic” or “core” level record are required to be formed. Nine resolutions were taken at the Stockholm Seminar of which one is directly related to the FRBR (Functional Requirements for Bibliographic Control). And it may be called that, that Seminar was the one which started the ground work for the development of FRBR that come into effect in the year 1988.

FRBRs are defined in relation to

the following generic tasks that are performed by users when searching and making use of national bibliographies and library catalogues:

- Using the data to find materials that correspond to the user's stated search criteria (e.g., in the context of a search for all documents on a given subject, or a search for a recording issued under a particular title);
- Using the data retrieved to identify an entity (e.g., to confirm that the document described in a record corresponds to the document sought by the user, or to distinguish between two texts or recordings that have the same title);
- Using the data to select an entity that is appropriate to the user's needs (e.g., to select a text in a language the user understands, or to choose a version of a 8 computer program that is compatible with the hardware and operating system available to the user);
- Using the data in order to acquire or obtain access to the entity described (e.g., to place a purchase order for a publication, to submit a request for the loan of a copy of a book in a library's collection, or to access online an electronic document stored on a remote computer).
- FRBR embodies the Functional Requirements for Bibliographic Records, a conceptual framework developed by the International Federation of Library Associations and Institutions (IFLA). This model provides a structure for understanding and organizing bibliographic information in libraries, archives, and diverse information systems. It is the most versatile and enumerated data model which fits with the almost all type of information sources as per present perspectives.
- BIBFRAME: The Bibliographic Framework, launched by the Library of Congress, is designed to replace the traditional MARC (Machine-Readable Cataloguing) standards used in library cataloguing. Its goal is to update and enhance bibliographic descriptions by employing Linked Data principles, enabling more effective integration of library data with the broader web. With the help of this data model particularly all types of web resources are recorded or incorporated into the library management system as well as digital library management systems. It also helps to improve as well as increase the total library resources and serves in a better way through out the network environment.
- Interoperability: Interoperability in cataloguing data models refers to the ability of diverse systems, organizations, or data repositories to work together seamlessly, facilitating the efficient exchange and utilization of information de-

spite differences in their underlying structures, formats, or technologies. Within the realms of library science, archives, museums, and digital repositories, interoperability ensures that metadata and cataloguing records can be exchanged, understood, and used across various platforms.

C. Cataloguing Standards

i. Resource Description and Access (RDA): It is the current international standard which is replacing AACR2 and it also focuses on the user-centric cataloguing. RDA is a comprehensive set of guidelines and instructions designed for cataloguing and generating metadata in libraries, archives, and diverse cultural institutions. Its purpose is to facilitate the discovery and retrieval of information resources across various formats and media. While RDA builds upon the principles of previous cataloguing standards, especially the Anglo-American Cataloguing Rules, 2nd Edition (AACR2), it is specifically adapted for the digital and interconnected information landscape.

ii. Subject Headings and Classification: These are also important standards to be followed at the time of preparation of Cataloguing of library materials. It helps to organize library collections according to the subjects on the shelves so that all the documents on particular subjects must be available at the same place. There are different type of subject headings such as Library of Congress Subject Headings (LCSH), Sears List of Subject Headings, etc. Dewey Decimal Classification (DDC) Scheme, Library of Congress Classification (LCC), Universal Decimal Classification (UDC), Colon Classification, etc. are the examples

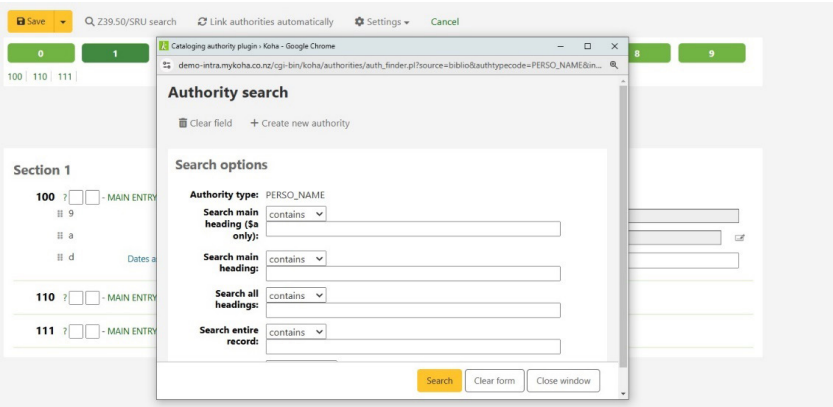

Figure 1: Authority Search in KOHA ILMS

of classification schemes.

iii. Authority Control: it is also an important standard and must be maintained by the libraries. It is a tool helps to prepare cataloguing in an organized way. Authority Control is generally maintained in names, subjects, and titles, etc. It is help in authenticated search or retrieval by the users.

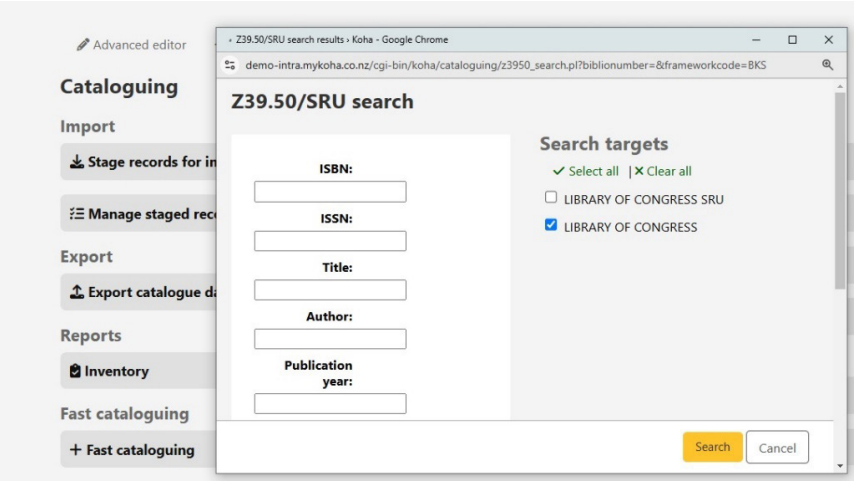

Figure 2: Z39.50 Protocol in KOHA ILMS

iv. Z39.50 Protocol: The Z39.50 protocol is an international standard crafted for searching and obtaining data from remote databases. It is widely employed in library systems, archives, and information services. This protocol allows applications to interact and exchange information, irrespective of the diverse hardware and software systems they use. It helps the cataloguing activities easier and time saving.

Cataloguing in Practice

a. Import / Export Facilities: a modern cataloguing software must have the facilities of import as well as export the bibliographic details through international standards form the outside server as well from the in-house servers to make easy, time saving and authenticate organization of the sources of

information. This facility facilitates to incorporate the external servers of the mainly different Z39.50 protocol supported servers to snatch the same type of data related with the library who are recording the bibliographic date into their library databases. To provide the export facilities the library management system must be able to generate the supported format of the files like

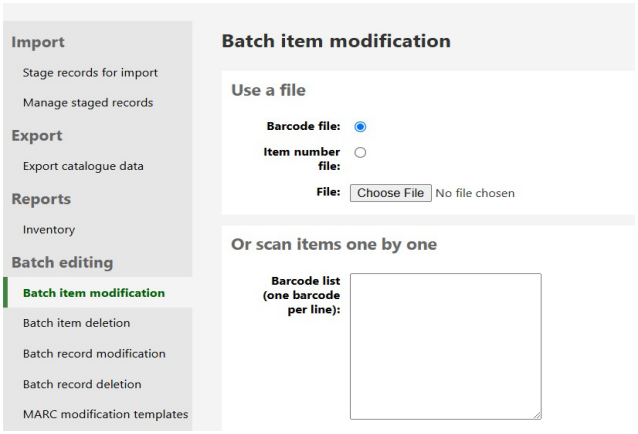

Figure 3: Batch item modification options in KOHA ILMS

text, csv, MARC, XML etc. to share its resources to the outside library who wants to collect the necessary data.

b. Editing Cataloguing Record: there must have some options to edit the bibliographic record of the information sources already entered into the library automation software. In addition to that batch editing option is an additional feature may be incorporated to edit bulk records at a time to make

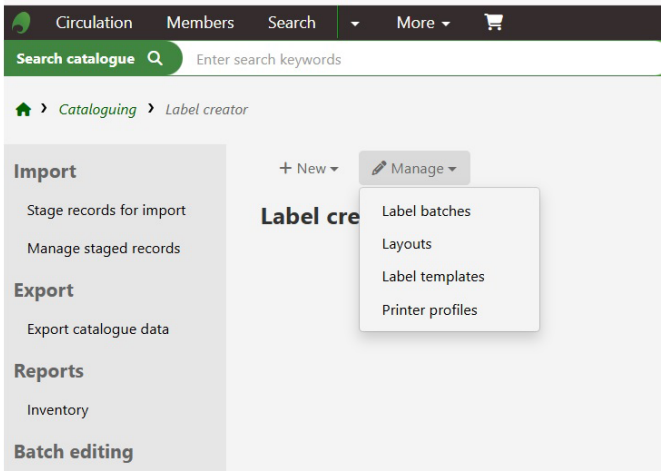

Figure 4: Barcode / Spine Label Generation window in KOHA ILMS

the task easier.

c. Barcode / Spine Label Creation: we know that the barcode helps to smooth circulation functionalities, stock verification processes, etc. and the Spile label helps to organize library materials on the shelf and findings of the same as per requirements. The modern cataloguing module must has the facilities to generate Barcode Label or Spine Label against all the recorded data of the sources of information of the library.

d. In addition to the above many other options must be there in a present-day cataloguing module such as different types of report generation facilities as per requirements, configuration of various functions and activities, etc.

3. CONCILIATIONS

We should keep in mind that a modern cataloguing module must be able to function through network environment with multiuser accessible facilities and having different related standards and framework incorporated with it. It must have some advanced level tools and techniques to control and supervise all the function and activities. It must be fitted with the linked data environment having capabilities of recording as well as maintaining of necessary linked data to enrich the collections of the library. It should be able to cope up with each and every challenge related with its functionalities. It also has the capabilities to organized traditional as well as multimedia-based information resources with Artificial Intelligence based control and supervision.

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