

Use of Online Information Resources for Knowledge Organisation in Library and Information Centres: A Case Study of CUSAT

Archana S.N. and P.K. Padmakumar

Central Library, CUSAT, Cochin-682 022, Kerala
E-mail: niharikamanakkil@gmail.com; pappan_tvm@yahoo.com

ABSTRACT

The paper discusses the use of online information resources for organising knowledge in library and information centres in Cochin University of Science and Technology (CUSAT). The paper discusses the status and extent of automation in CUSAT library. The use of different online resources and the purposes for which these resources are being used, is explained in detail. Structured interview method was applied for collecting data. It was observed that 67 per cent users consult online resources for assisting knowledge organisation. Library of Congress catalogue is the widely used (100 per cent) online resource followed by OPAC of CUSAT and catalogue of British Library. The main purposes for using these resources are class number building and subject indexing.

Keywords: Knowledge organisation, online catalogues, WEBOPACs, subject indexing, classification, networked information sources, library automation

1. INTRODUCTION

The changing nature of research, both interdisciplinary and multidisciplinary, has resulted in the literature output complex in terms of form and subject content. This has created greater challenges for library and information professionals in organising knowledge in library and information centres. This situation warrants the use of dynamic online information tools for knowledge organisation (KO), since the static nature of the conventional tools for KO fall short to accomplish the task. In this paper, authors have attempted to find out how the library professionals in Cochin University of Science and Technology (CUSAT) use online information resources for organising knowledge in their libraries and information centres.

2. KNOWLEDGE ORGANISATION IN LIBRARIES

To the library and information professionals, KO is a specific purpose-oriented activity. The purpose being, to organise the documents/information in a collection or their surrogates in a database, assist users in browsing, formulating search expressions, presenting information services and products to users in forms and formats convenient for them to use. Essentially, KO is an

intellectual process of organising information and/or information sources to provide access, facilitating appropriate information retrieval and dissemination¹.

By the end of the 19th century, formal systems to organise knowledge, embodied in documents of library collections, started emerging. Various schemes of classification like Library of Congress Classification and Subject Heading, Melvil Dewey's Decimal Classification (DDC), the Universal Decimal Classification (UDC), Ranganathan's Colon Classification (CC), etc. came out in the following decades and took the leading roles of organising knowledge in library and information centres.

The term "Knowledge Organisation" seems to be established around 1900 by people like Charles A. Cutter, W. C. Berwick Sayers and Ernest Cushington Richardson².

2.1 Definitions

"Knowledge organisation encompasses every type and method of indexing, abstracting, cataloguing, classification, records management, bibliography and the creation of textual or bibliographic databases for information retrieval"³. In the context of the present study, KO is defined as all activities involved in

organising the documents in the library, i.e., classifying, cataloguing and indexing, and creating metadata of documents.

2.2 Tools for Knowledge Organisation and Networked Environment

From the definitions above, it is clear that the tools for KO are the classification schemes, cataloguing codes, the subject heading lists and thesauri. Different classification schemes like DDC, UDC and CC are commonly used for the purpose and most of the present day libraries follow AACR II for cataloguing. Advances in Information and Communication Technologies (ICTs) enhanced the sharing and access of such tools.

2.3 Online Resources for Knowledge Organisation

Many of tools discussed above are now available online as free or on a subscription mode. Besides, the catalogues of many of the leading (both national and international) libraries are now online. Library professionals now-a-days depend on such sources frequently for assisting their job of KO. Easy access, currency and authenticity are the main factors that prompt the librarians to consult such resources. Another factor is the challenge faced by librarians in processing books dealing with interdisciplinary and multidisciplinary concepts. Since the revisions of the existing classification schemes are not in pace with the rapidly developing Universe of Knowledge, fixing a location to a document for a newer subject is really difficult.

3. ABOUT CUSAT

Cochin University of Science and Technology was established in 1971 by the Government of Kerala with the specific purpose of “development of higher education with particular emphasis on postgraduate studies and research in applied science, technology, industry and commerce”⁴. At present there are 26 departments functioning under nine faculties in CUSAT. All the departments and schools inside the CUSAT campus are interconnected via the Campus-wide-network (CWN) with Internet facility of 10 Mbps speed.

3.1 The CUSAT Library System

3.1.1 The Central Library

The Cochin University Library was established in 1975 as the central agency for meeting the information requirements of the academic community of CUSAT⁵. The library LAN has become a part of the CWN, thereby making it possible for the academics of all the

departments to access information from their location itself. The central library is fully automated using ADLIB software package. The library also provides facilities for WEBOPAC, online reservations, fine calculations, and digital reference service. The library has a collection of 1 Lakh documents. It uses UDC scheme for classification of documents and follow AACR II for cataloguing. It has a separate division for technical processing manned by five professional staff including an Assistant Librarian, Junior Librarian, and three Professional Assistants.

3.1.2 The Department Libraries

All the departments of the University are offering postgraduate, research and post-doctoral programmes. Twenty department libraries are functioning under the nine faculties, and catering to the needs of all 26 departments. These department libraries are equipped with latest ICT facilities and have high-speed Internet connectivity of 10 Mbps. The collection of these libraries ranges from 1500 to 34000 books and other documents. About 99 per cent of the library professionals are postgraduates or with higher academic qualifications and are capable of handling the libraries in this changing environment of ICT revolution. Most of them have got training in different library automation software packages and digital library software (both proprietary and Open Source Software).

3.2 The WEBOPAC of CUSAT Library System

The website of CUSAT library provides global access to its OPAC. The WEBOPAC is a union catalogue of all the department libraries and the central library. Website also has simple and advanced search facilities. Searches can be made using truncation and Boolean operators. List of author names and list of subjects can be accessed for each entry term. Catalogue has been displayed in AACR II format and the status of the book and its location can be accessed. Links to subject headings and personal names have also been provided in the detailed presentation of the catalogue.

4. OBJECTIVES OF THE STUDY

- ✘ To identify the status and level of automation of CUSAT library system.
- ✘ To enumerate the library automation software used in the CUSAT library system.
- ✘ To identify whether any online resource is being used by the CUSAT library community for supporting their work of KO.

- ✂ If yes, identify the frequently and widely consulted resources.
- ✂ To enumerate the purposes for which these resources are being consulted.

5. METHODOLOGY

The study was conducted by structured interviews. The interviews of all the department librarians as well as the library professionals working in the technical division of the library were taken. The collected data was then analysed using Microsoft Excel.

6. ANALYSIS AND INTERPRETATION

6.1 Automation of CUSAT Libraries

Among the 21 libraries (university library+20 department libraries), about 80 per cent are automated. Table 1 shows the status of automation of CUSAT libraries. Different types of software used for automation and the extent of automation are discussed in the following sections.

Table1. Automation of CUSAT libraries

Automated	No. of libraries	Percentage
Yes	17	81
No	4	19
Total	21	100

6.1.1 Library Automation Software Packages Used in the CUSAT Libraries

CUSAT libraries have used both proprietary software as well as open source software (OSS) for library automation (Fig. 1). The University library used ADLIB software package for all the in-house operations. Recent developments in OSS has encouraged the professionals to harness the free availability and user support of OSS and a greater half of the libraries have used KOHA for

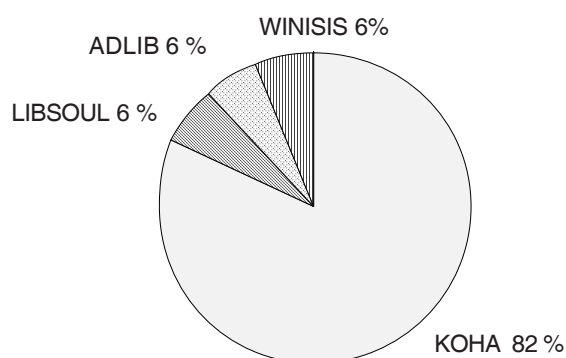


Figure 1. Library automation software used in CUSAT.

library automation. Winisis and Libsoul were the other software packages used in the library system.

6.1.2 Extent of Automation of CUSAT Libraries

In CUSAT, the automation of departmental libraries is mainly confined to the automation of the catalogue. A complete automation of the in-house operations is adopted only in the central library. Apart from catalogue, some of the departmental libraries have automated their circulation and acquisition works too.

6.2 Knowledge Organisation Tools used in CUSAT Libraries

6.2.1 Classification Schemes

Figure 2 shows the different classification schemes, i.e., UDC (Standard Edition), different editions of DDC, CC (6th Edition) are the schemes of classification used in CUSAT libraries.

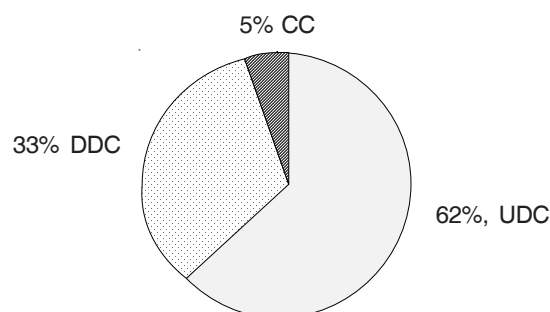


Figure 2. Classification schemes used in CUSAT.

6.2.2 Cataloguing

Irrespective of the schemes of classification used, all the libraries in CUSAT use AACR II standard for cataloguing.

6.3 Use of Online Resources for Supporting Knowledge Organisation

Table 2 shows that a very good number of departmental libraries consult the above mentioned online resources for the purpose of organising knowledge.

Table 2. Use of online resources for KO in CUSAT

Consult online resource	No. of respondents	Percentage
Yes	14	67
No	7	33
Total	21	100

6.4 Different Online Resources Consulted by the CUSAT Library Professionals

The web OPACs of Library of Congress, British Library, Cochin University Library and OCLC WORLDCAT are the main online resources consulted by the professionals (Fig. 3). The advanced search facility with Boolean operators, downloading of MARC tags, quick response to search queries, etc. of these OPACs are found useful by the librarians. Other online resources consulted include e-mail user group of web Dewey, web OPACs of libraries using UDC accessible through the website of UDC consortium, web OPACs of different institutions like IITs, IIMs, etc.

In addition to these resources Google and Wikipedia are also being consulted for getting a clear understanding of the different concepts, which in turn helps the professionals to identify the basic class and assign index terms.

6.5 Purposes for which the Online Resources are Consulted

The professionals in the CUSAT library consult the online resources for one or more of the following purposes (Fig. 4).

6.5.1 Building Class Numbers

Besides different classification schemes for constructing class numbers, various other online resources are also being consulted for easing the number building work. Depending on the classification schemes the libraries use these resources for (i) Identifying the basic class: CUSAT libraries that are using UDC scheme for classification consult the online resources like LC catalogue, BL catalogue, etc. and (ii) Finding readymade Class Numbers: Libraries using DDC 22nd edition consult LC catalogue for getting readymade

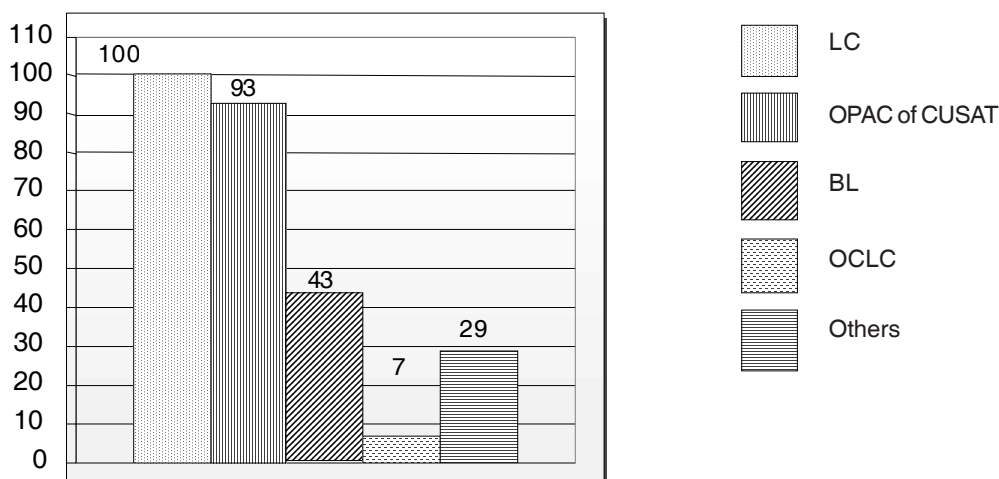


Figure 3. Different Online Resources consulted by CUSAT library professionals.

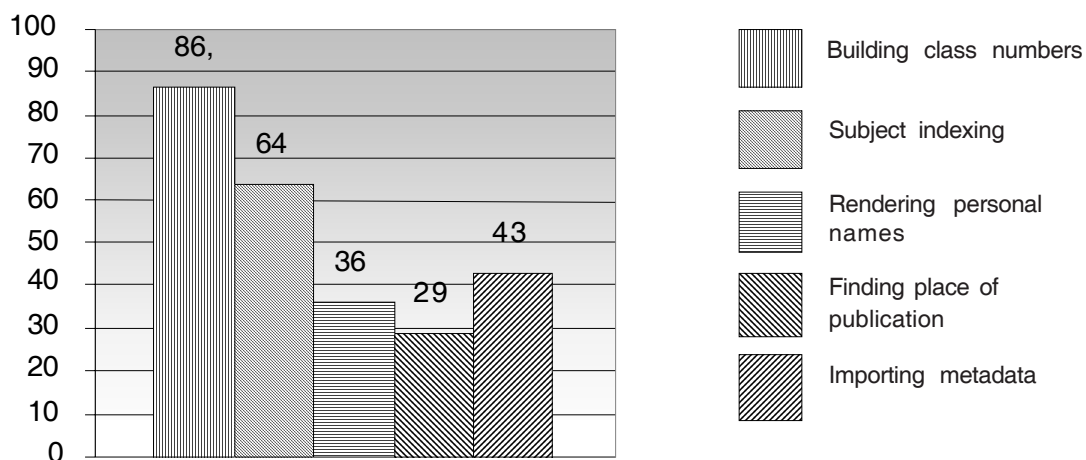


Figure 4. Different purposes for which online resources are consulted.

class numbers. Libraries following other editions of DDC also use LC catalogue for getting readymade class numbers in certain cases. Libraries using UDC scheme consult the CUSAT library OPAC for getting readymade class numbers. On the whole, for the purpose of building class numbers 86 per cent of the CUSAT libraries use the online resources.

6.5.2 Subject Indexing

Subject indexing is also an intellectual work and need utmost care in each step of assigning keywords for a document. Standard thesauri and Subject Heading Lists are consulted for this purpose. The dynamic and in-built thesaurus of the CUSAT library database is another source, which provides the list of previously indexed terms. In certain cases these sources may not be adequate and the professionals need to depend on other online resources. For this purpose, 64 per cent of the libraries consult online resources.

6.5.3 Rendering of Personal Names

In certain cases the personal names provided by the title page of the book may differ from that on the cover page. The professionals pose some doubt in rendering the entry element of certain foreign personal names like French, Chinese, etc. as well as Muslim personal names. The CIP data in the verso of title page is much useful for clarifying this. But all the books may not provide CIP data and hence the librarians consult online resources to serve the purpose. For rendering of personal names 36 per cent of libraries consult online resources.

6.5.4 Place of Publication

In certain instances online resources are also consulted for finding out the place of publication of documents. For this purpose 29 per cent of libraries consult the online resources.

6.5.5 Importing Metadata

Libraries using KOHA software for automation have the facility to upload metadata from other sources. Librarians find this feature very useful since it saves a lot of time and also avoid mistakes to a great extent. After uploading the MARC tags, necessary editions (class numbers, item numbers, etc) are done. Forty-three per cent of libraries consult online resources for importing and uploading metadata to their system.

7. FINDINGS

The findings and inferences of the study are enumerated below:

- ✘ Most of the CUSAT libraries are automated and using Koha.
- ✘ UDC is the widely used classification scheme in CUSAT library system, followed by DDC and CC. All the libraries in CUSAT use AACR II for cataloguing.
- ✘ Almost all the libraries use one or more online resources for easing their work of KO.
- ✘ Catalogues of Library of Congress is the most widely (100 per cent) consulted online resource. This is followed by OPAC of the University Library of CUSAT. British Library catalogue and OCLC WORLDCAT are the other resources being consulted.
- ✘ Construction of class number is the prime purpose for this consultation, followed by subject indexing. CUSAT libraries consult these resources also for the purpose of rendering personal names and finding the place of publication.
- ✘ In addition Google and Wikipedia are also being consulted at CUSAT for the purpose of getting a clear understanding of the concepts discussed in the documents.
- ✘ Professionals in CUSAT do not consult any particular online thesaurus or subject heading lists for assisting their work.

8. CONCLUSION

Knowledge organisation/technical information organisation in libraries has become a challenging job due to the proliferation of documents dealing with interdisciplinary and multidisciplinary subjects. In many cases, the conventional tools for KO available in the libraries do not serve the purpose and librarians need to depend on other sources for completing their work. Advances in technology have changed the face and pace of present-day libraries and its information work.

The ever increasing complexity of documents and higher user expectations, demand high quality information work in library and information centers. Knowledge organisation being an integral part of information work, the library professionals have to equip themselves to cope up with the ever changing situation. As far as CUSAT is concerned, it has a highly qualified, trained and dynamic group of professionals who are capable to harness information from every source available to ease their routine work, especially the technical work.

REFERENCES

1. Seetharama, S. Knowledge organisation systems over time. *In* Knowledge Organisation. Information Systems and Other Essays: Professor A. Neelameghan Festschrift, edited by K.S. Raghavan & K.N. Prasad. Ess Ess Publications, New Delhi, 2006. pp. 29-40.
2. Hjørland, Birger. Lifeboat for knowledge organisation, 2007. http://www.db.dk/bh/lifeboat_ko/CONCEPTS/knowledge_organization.htm (accessed on 05 April 2010).
3. Anderson, J.D. Organisation of knowledge. *In* International encyclopedia of information and library science, edited by John Feather & Paul Sturges. Routledge, London, 1996. pp. 336-53.
4. <http://www.cusat.ac.in> (accessed on 5 April 2010).
5. <http://library.cusat.ac.in> (accessed on 5 April 2010).

About the Authors



Ms Archana S.N. is currently working as Junior Librarian in the Central Library, Cochin University of Science and Technology (CUSAT). She has 11 years of professional experience in various libraries including the British Council Library, Trivandrum and Kannur University. She is pursuing PhD programme at CUSAT, and published research papers in peer-reviewed journals and conference volumes. Her areas of interest are: Electronic and web-based library services, open source software for library management, knowledge management, resource sharing, etc.



Mr Padmakumar P.K. is currently working as Junior Librarian in the Department of Hindi, CUSAT. He has 14 years of professional experience in various libraries including medical and media libraries. His areas of interest are: Cognitive aspects of information, social informatics, human-computer interaction, etc.