



# Use of knowledge Organization Tools for Information Processing, in Library Complex of NIMS University, Jaipur, India

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## Abstract:

This article work titled “use of knowledge organization tools for information processing, in library complex of NIMS University Jaipur”. The study is to find out the use of knowledge organization tools in libraries. To achieve the objectives of the study, three (3) research questions were raised for the study. Survey research was adopted for the study whereby, randomly sampled were used for the study. The study found out that, access to current or up to date materials was the purpose for using these tools, and access to wider range of information. The study finds out that these tools are access through (internet, manual, membership) free, borrow, fee and registered. Whereby, most of these tools are moderately free in terms of internet while few can only be accessible through registered. The study revealed that lack of I.C.T knowledge to effectively utilize the tools is the major factor that hinders access to KOT, and limited access to the tools hindered them from accessing these tools. This study recommends that If social media should be introduced i.e with it you can communicate with your partner in case of any problem while using these tools and focus should be made to develop knowledge organization tools and practices that may facilitate instant packaging and repackaging of information content giving due credit to authorship and respect to copyright laws.

**Keywords:** Information, Organization tools, Knowledge, Processing

## I. INTRODUCTION

All the knowledge organization tools developed till date attempt to organize the universe of knowledge based on the fundamental subjects or subject groups. The core objective of knowledge organization tools is to provide immediate and precise information to users as per their information requirements. Due to the influence of changing socio-political and economic situations, there is a marked change in the information needs of people in the 21<sup>st</sup> century. In today's context people want to have value added and customized information that would help in problem solving and creative thinking. On one hand, there is change in the information requirements on the other hand rapid growth in scientific knowledge in the past few decades and emergence of the Internet and World Wide Web as major repositories of knowledge and information. Because of these factors the knowledge organization tools developed based on the fundamental subjects are unable to satisfy the information requirements of the 21<sup>st</sup> century thus compelling information professionals all over the world to find solutions to the problem of information storage and retrieval. Before setting ourselves to develop alternatives to conventional knowledge organization tools, one should understand some of the fundamental issues like origins of knowledge, its purpose and functions, influence of socio-economic and cultural factors on knowledge growth, characteristics and role of digital technologies, media and environments on form and format in which information is stored, and study the limitations of subject-based knowledge organization tools, initiatives undertaken to improve the efficiency of existing tools and need for alternative approaches. Knowledge management is the process of capturing, distributing, and effectively using knowledge. The term knowledge

organization (KO) designates a field of study related to Library and Information Science (LIS). In this meaning, KO is about activities such as document description, indexing and classification performed in libraries, databases, archives etc. These activities are done by librarians, archivists, subject specialists as well as by computer algorithm.

## Statement of the Problem

Knowledge organization tools has therefore, expended suddenly and shapely beyond the tray. The dramatic increase in the amount of information to be process and disseminate coupled with the dramatic decrease in the time allowable for processing and disseminating of the information caused a vast concentration of effort and attention of the humble practice of knowledge organization. This effort came from libraries and publisher, government and industry especially from professional groups. Since library staff in higher institution tends to initiates new knowledge organization tools as a result of processing existing knowledge, there is need for a systematic structure to help in using KO tools in processing information and collaborate effectively. Due to the influence of changing socio-political and economic situations, there is a marked change in the information needs of people in the 21<sup>st</sup> century. In today's context people want to have value added and customized information that would help in problem solving and creative thinking. On the other hand, there is rapid growth in scientific knowledge in the past few decades, and Internet and the World Wide Web are emerging as major repositories of knowledge and information. Traditional, knowledge organization tools are unable to cope up with the information demands of the knowledge society thus influencing information professionals all over the world to design and develop effective and efficient knowledge

organization tools to meet the information requirements of the 21<sup>st</sup> century. This has brought out the inability of knowledge organization tools not only in organizing the knowledge but also in retrieving the information as per the changing information needs. Thus, the research is meant to find out Knowledge organization tools for information processing in NIMS University central library complex.

## II. RESEARCH QUESTIONS

1. How knowledge organization tools are accessible in library complex of NIMS University Jaipur, India.?
2. To what extent do knowledge organization tools satisfy staff in the library complex of NIMS University, Jaipur, India.?
3. What are the challenges faced when using knowledge organization tools in NIMS University, Jaipur, India.?

### Objectives of the Study

1. To find out knowledge organization tools accessible in library complex of NIMS University, Jaipur, India.
2. To ascertain the extent at which knowledge organization tools satisfied staff.
3. To discover the challenges faced when using knowledge organization tools in library complex of NIMS University, Jaipur, India.

### Significance of the Study

Efficient and effective tools to organize external knowledge are very important because they are the interfaces between external knowledge and the internal knowledge that resides in the human mind. Knowledge is dynamic in nature, purpose of knowledge organization tools is to serve the information requirements of the contemporary times, and to develop knowledge organization tools based on 'human needs' as this approach has in-built capabilities to serve the information needs of 21<sup>st</sup> century libraries.

### Scope and Limitations of the Study

This study covers the idea of discovering the vital use of knowledge organization tools for information processing in libraries complex of NIMS University Jaipur, India and its updates in the 21<sup>st</sup> century in meeting the demands for information and knowledge transfer.

## III. REVIEW OF RELATED LITERATURE

Knowledge organization tools developed with this approach proved successful till the time books were devoted to describe a single topic or a single subject etc. But changing social conditions which triggered the growth of inter disciplinary topics during the industrial age and topics discussing different socio-political and economic perspectives, and points of views as in the information age. Knowledge organization, at least as it is practiced inside the domain of library and information science, has been largely (up to now) the province of the construction of tools for the processing, storage and retrieval of documentary entities. Again, there are now indications that catalogs containing bibliographic records for similar collections of materials exhibit similar characteristics. Potter (1980), McCallum & Godwin (1981), Papakhian (1985), and Fuller

(1989) all discovered similar proportions of single-occurrence name headings in research library catalogs. However, when analyzing how a KOS might be used with a particular digital library, it is essential to thoroughly understand the environment of the user. One must look not only at the needs for organizing the digital library materials but also at possible links between content within and outside the digital library walls. Once the user's needs have been analyzed, it is necessary to locate KOSs to meet the need. There are several ways to identify KOSs that may be of interest. Many users are already aware of KOSs on the Web within their discipline. Developers may also turn to directories, librarians in the field, and reference sources, or they may perform a general search of the Internet. If the system is available on the Web, it is possible to consider linking to the KOS as an external system. This architecture requires a script or some search query to locate the resource. One must then launch a query against the resource to obtain the piece of information that will serve as the key between the two files. This key could be a universal resource locator (URL) or input to another search query. A query may be necessary if the KOS is stored in a database. The benefit of linking to a remote resource is that the resource will always be up-to-date. The maintenance of the KOS is in the hands of the owner, not the digital librarian. It may also be more apparent to users that the KOS is not owned by the digital library. Alternatively, the KOS may be obtained from the owner and loaded locally. In many cases, this requires licensing that may not be required when the KOS is accessed remotely, because a copy of the whole resource is being provided to the digital library. Loading a KOS locally also requires that one consider issues such as maintenance, local system administration, and disk storage. If the KOS uses special software, such as a database management system, loading the KOS locally will require a copy of that software, which may require additional purchase or licensing. Other considerations are the need for firewalls and interface design. Since many digital library systems are being built as extensions or applications of existing integrated library systems (ILS), it is important to consider how the KOSs will integrate with the library system. Unfortunately, many ILS vendors have not considered links to external files or databases in their system designs. In some cases, the vendor may require that the information be stored in the proprietary format of the ILS. Vendors should be encouraged to support relatively open architectures and to consider the extension of traditional library systems to support broader digital library functionality. For a digital library, an outdated KOS can be more of a hindrance than a benefit. Maintenance, both of content and of the system, should be considered when planning a KOS. This is particularly important if the digital library is to be self-supporting or revenue generate. All the knowledge organization tools developed till date attempt to organize the universe of knowledge based on the fundamental subjects or subject groups. The core objective of knowledge organization tools is to provide immediate and precise information to users as per their information requirements. Due to the influence of changing socio-political and economic situations, there is a marked change in the information needs of people in the 21<sup>st</sup> century. In today's context people want to have value added and customized information that would help in problem solving and creative thinking and change in the information requirements. Because of these factors the knowledge organization tools developed based on the fundamental subjects are unable to

satisfy the information requirements of the 21<sup>st</sup> century thus compelling information professionals all over the world to find solutions to the problem of information storage and retrieval. There are two parts to establishing the link between the digital library and the KOS. The first step is to review any metadata related to the digital library resource. Do the metadata carry the term (such as SIC code, artist's name, place name, geographic coordinates) that is needed to make the link? If this information is included, the level at which the metadata are assigned should be reviewed. If the metadata indicate the subject matter of the specific resource in which the user will be interested, the metadata can be used to make the links. The second step of the linking activity is to make the connection to the KOS. The methods for doing this vary, depending on whether the system is being loaded locally or is referenced remotely. If the system is loaded locally, it is possible to perform a significant amount of processing to match the two files, assuming that computer resources of this type are available to the digital library organization. If the system is only available remotely over the Web, the interaction will require knowledge of scripting and various Web-based access techniques. The evolution of computer networks has stressed the need for data and information interoperability, i. e., for having data and information assets reusable across distributed and heterogeneous systems. According to Amit Sheth (Sheth, 1999), we are now in the third generation of interoperable systems where the concerns are mostly focused on information and knowledge, emphasizing semantic interoperability at a level higher than that of previous developments. Not only ontologies have emerged "from academic obscurity into mainstream business and practice on the Web", as noted by McGuinness (McGuinness, 2001), but also the Web environment has raised the importance and value of existing KO tools, such as classifications, thesauri, taxonomies, subject-heading systems etc

#### IV. RESEARCH METHOD

The method adopted for this study is the survey method. This involves gathering information concerning the use of knowledge organization tools for information processing, with particular focus on NIMS University library complex.”

##### Population of the Study

Harfer (1998) asserts that the population of the study refers to the group of people to be considered statistically in this study. The groups of persons that will be considered statistically are library staff of NIMS University central library complex. Which comprises academic staff, senior staff and junior staff. About seven are academic staff (librarian) (7) and eleven (11) are senior staff; while others (junior staff) are sixteen (16) in number.

**Table.1. NIMS university central Library Complex Staff**

Category of Staff	Frequency	Percentage (%)
Academic staff	7	20.1%
Senior staff	11	32.4%
Junior staff	16	47.0%
Total	34	100%

#### Sampling Technique

The sampling technique adopted is random sampling. Which according to Baba, (2005) viewed that “Random sampling is that method used in drawing a sample of a population whereby each of the member of population has an equal chance of being selected. So therefore, the concept ‘random’ will be employed as an attempt to overcome difficulties.

There are about thirty-four (34) library staffs (Librarian) in NIMS University. A sample of about 34 will be drawn from (34) library staff (Librarian) to carry out the study. So therefore, about 34 questionnaires will be used for all.

#### Instruments for Data Collection

For each study work to be carried out, data must be collected and analyzed, which are relevant to the work. Therefore, telephone interview method was adopted is convenient and cost effective and questionnaire, which attempted to find answers to the four research questions

#### Procedure for Data Collection

The instrument used in collecting data for the study was ‘questionnaire and its comprises a total of three questions covering areas and each question consist of different items. The questionnaires used is a close-ended; this type of questionnaire calls for short check mark responses known as restricted or close-ended type whereby one marks the answer provided either ‘Yes’ or ‘No’. The closed-ended one is easy to fill out, but take a little time and keep respondents on the subject, it relatively objective and fairly easy to tabulate when analyzed

#### Data presentation and data analysis

**Table .2. Purpose of using Knowledge Organization Tools**

Reponses	Frequency	Percentage
To ease the use of information	3	8.8%
Record purpose	5	14.8%
Organizing record/information	4	11.7%
Managing of knowledge	6	17.6%
Convenience	-	-
To reduce the work, load	10	29.5%
Educational purpose	1	2.9%
To sort out information/or source for data	2	5.9%
All of the above	3	8.8%
Total	34	100%

The above table shows that 3 respondents representing (8.8%) indicate that those tools were used in order to ease the use of information, 5 (14.8%) respondents said that knowledge organization tools were used for record purpose, 4 respondents representing (11.7%) selected organizing record/information, 6 respondents representing (17.6%) selected managing of knowledge, 10 respondents representing (29.5%) believed that these tools were used to reduce the work load. However, 1 respondents representing (2.9%) indicate educational purpose, 2 (5.9%) felt that these tools were used to sort out information/or

source for data while 3 respondents admit that all these tools served virtually all the purpose listed in the above table.

**Table.3. Challenges encountered while using knowledge organization tools**

Problems Encountered	Frequency	Percentage
Inadequate of I.C.T knowledge to effectively utilize the tools	3	8.8%
Limited access to the tools	5	14.8%
Inadequate facilities	-	-
Not user friendly	4	11.7%
Poor Facilities	-	-
Power outage	-	-
Lack of Interest	2	5.9%
Network Problem	3	8.8%
Technical know-how	5	14.8%
Lack of Orientation	7	20.5%
Too complex to process information resources	2	5.9%
Administrative challenges	3	8.8%
Total	34	100%

Table 1.2 above shows that 3 respondents representing (8.8%) indicated that lack of I.C.T knowledge to effectively utilize the tools is their major challenges, 5 respondents representing (14.8%) said most of them complained that the problem they encountered was as a result of limited access to the tools, However, No respondents indicates inadequate facilities as problem encountered, 4 respondents representing (11.7%) choose Not user friendly as there major problem, No respondents complained about Poor Facilities, No respondents selected Power outage, 2 respondents representing (5.9%) tick lack of Interest, 3 respondents representing (8.8%) admit that Network Problem is another challenges faced when using these tools, 5 respondents representing (14.8%) choose Technical know-how. However, 7 respondents representing (20.5%) said lack of proper orientation is their major problem, 2 respondents representing (5.9%) assumed that too complex to process information resources is their problem, while 3 respondents representing (5.9%) specify that, they problem encountered was administrative challenges.

**Table.4. Factors needed to improve the use of knowledge organization tools**

Response	Frequency	Percentage
Librarians support to users	3	8.8%
Motivation of users	2	5.9%
General orientation	6	17.6%
Creating awareness about the existence of the tools	5	14.8%
Provision of I.C.T facilities	6	17.6%
Organizing training programs	7	20.5%
Provide adequate funding to purchase modern tools	5	14.8%
Total	34	100%

In spite lack of I.C.T knowledge to effectively utilize the tools, too complex to use and limited access to the tools as major

hindering factor, to access knowledge organization tools as observed in table 1.3 shows that, 3 (8.8%) of the respondents suggested that librarians support to users is necessary so as to improve the use of these tools, 6 respondents representing (17.6%) indicate that general orientation of how to use these tools should be initiated, 2 respondents representing (5.9%) selected Motivation of users, 5 (14.8%) of the respondents are of the view that creating awareness about the existence of these tool could help to improve effective use of knowledge organization tools. However, 6 (17.6%) said provision of I.C.T facilities, while 7 (20.5%) selected organizing training programs, 5 (14.8%) are of the view that, providing adequate funding to purchase modern tools is another way of improving these tools in any given library.

## V. SUMMARY OF MAJOR FINDINGS

The study revealed that, 34 questionnaires were distributed to library staff in NIMS Central I Library but only 33 were returned, 12 questionnaires were administered to school of Humanities Library staff but 11 questionnaires administered were returned and duly completed. The study found out that, access to current or up to date materials was the purpose for using these tools, and access to wider range of information. While few respondents feel, those responses are not good enough to motivate them to these tools. The study revealed that, 3 indicate that those tools were used in order to ease the use of information, 5 respondents said that knowledge organization tools were used for record purpose, 4 respondents selected organizing record/information, 6 respondents selected managing of knowledge, 10 respondents believed that these tools were used to reduce the work load. However, 1 respondents indicate educational purpose, 2 respondents felt that these tools were used to sort out information/or source for data while 3 respondents admit that all these tools served virtually all the purpose listed in the above table. The study finds out that these tools are access through (internet, manual, membership) free, borrow, fee and registered. Whereby, most of these tools are moderately free in terms of internet while few can only be accessible through registered. It is an indication that all knowledge organization tools may not be only registered but rather it is mostly free, borrowed or by subscribing before it can be accessed. As illustrated in table 1.3 below, it explains some of the problems or reasons hindering the use and access of knowledge organization tools for information processing in NIMS University Jaipur library complex. And also, it gives an insight on the strategies to be adopted in order to improve access and utilization of these tools in the library. The study revealed that lack of I.C.T knowledge to effectively utilize the tools is the major factor that hinders access to KOT, and limited access to the tools hindered them from accessing these tools, while few admit that Network Problem is a problem that hinder he/she from accessing these tools, The study shows that, 4 (4%) of the respondents suggested that librarians support to users is necessary so as to improve the use of these tools, 24 (24%) indicate that general orientation of how to use these tools should be initiated, 2 (2%) selected Motivation of users, 14 (14%) of the respondents are of the view that creating awareness about the existence of these tool could help to improve effective use of knowledge organization tools. However, 18 (18%) said provision of I.C.T facilities, while 22 (22%) selected organizing training programs, 16 (16%) are of the view that, providing

adequate funding to purchase modern tools is another way of improving these tools in any given library.

## VI. CONCLUSION

Knowledge organization, at least as it is practiced inside the domain of library and information science, has been largely (up to now) the province of the construction of tools for the storage and retrieval of documentary entities. This study analyses the current state of knowledge organization (KO) tools and focusing on the strengths and weaknesses of their electronic handling and exploitation in the Web environment. This highlights the lack of common methods and standards to support the current needs of cross-domain and multi-system usability of KO data.

These have already raised methods and tools that are not only more aligned with Web technology but also deal with matters and content that are very close to those of knowledge organization. From the findings of this study, the researchers felt it save to conclude that the university so far not addressed those challenges on how information processing could easily be used. The lack of orientation, too complex to process information resources, limited access to these tools, technical know-how to effectively utilize the tools, and network problem have been identified as the major problems while using knowledge organization tools in library complex of NIMS University Jaipur. Conversely, quick intervention and motivation those challenges. However, if the problems observed are positively addressed. It will go a long way in improving the use of knowledge organization tools in all libraries within the NIMS University, Jaipur.

## VII. RECOMMENDATIONS

Results obtained from this study are quite encouraging, having carried out this study, it is necessary to make useful recommendations according to the finding of the study.

1. Focus should be made to develop knowledge organization tools and practices that may facilitate instant packaging and repackaging of information content giving due credit to authorship and respect to copyright laws. More so, efforts should be made for standardization of such tools and practices at the international level in the interest of information processing global information communication.
2. The parent organization should ensure that all infrastructure needed to support the KO tools are maintained regularly as at when due.
3. The tools in all libraries must be 100% current and relevant to the dictate of the educational trust of the institution it is meant to serve so as to meet the user's information needs.
4. The library should also embark on an aggressive user education so that users can access information through those retrieval tools without stress.
5. Social media should be introduced i.e with it you can communicate with your partner in case of any problem while using these tools.

6. Finally, the results of this study, will go a long way in helping other library and the school authority to be aware of the problems facing the library so as to come to their way out

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