

**Organisation of Intellectual's Information for Effective Retrieval****Mr. Pramod Kumar Malik**

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**Abstract**

*This paper focuses on the intellectual organization of information. It identifies intellectual and non-intellectual activities that help for an efficient information retrieval system. In the rapidly growing context of information and knowledge, efforts to obtain relevant information from various information networks become absolutely necessary. This paper sheds light on these aspects, showing measures of recovery efficiency. All these aspects are in the context of computerized systems, information networks and user point of view. Research efforts are made continuously to achieve maximum efficiency of the information retrieval system.*

**Keywords:** Organisation of Intellectuals, Effective Retrieval**Introduction**

Information and knowledge are the basic inputs for human development and socio-economic development. Intellectual organization involves the organization of thoughts and ideas by the parent of information. Over the past centuries, the information available in documentary form has increased in quantity, variety and forms. To facilitate access to them, secondary tools and techniques involving the intellectual organization of such information and knowledge are developed.

Hence the intellectual aspect and fundamental aspects of the organization are important and its implications in the information storage and retrieval system. If the concept of 'intellectual organization of information' is examined from a broader perspective, i.e. roughly from generation to final presentation of information, the attempt to organize the thoughts and ideas of generators has always been an intellectual endeavor.

There have also been intellectual efforts at each successive level, namely providing secondary services in the form of storage and retrieval equipment and the technologies involved. For example, reference interviews with users to provide the exact information sought, methods of storage, search techniques, creation of a thorough schedule of classifications, design and development of macro and micro theories, retrieval efficiency measures, evaluation of indexing systems and The final presentation of recovery results - each of these activities, in fact, constitutes intellectual effort.

With the advent of computer and communication technologies, the scope of searching different types of databases via the Internet and online databases has expanded greatly, with many new approaches to information storage and retrieval. When we speak of the intellectual organization of information, in our context, it refers to the intellectual methods by which secondary communication can be organized to provide access to the primary communication.

In the early 1960s, a series of seminars were organized by the Graduate School of Library Science, Rutgers University, New Jersey, United States, on the intellectual organization of information in terms of certain systems of classification, sequencing systems, techniques and methods, equipment and the new emerging ideas and thoughts of the time. Since then the concept of intellectual organization of information has primarily referred to the design and development of techniques and tools for information storage and retrieval systems.

Following advances in science and technology, information can be produced in the form of microfilm, audio-visual aids, agnatic tape and compact disc-read-only memory. Information technology has a tremendous impact on libraries today. The use of computers in libraries ushered in new methods of acquisition, storage and retrieval of information. Started application of library software that completes the full suite of modules for every aspect of library operation and enables handling of extremely large collections.

**Concept of Intellectual Organisation of Information**

John Ziman, a well-known distinguished physicist, describes how ‘**information**’ turns into ‘**knowledge**’. In the context of scientific research, he observes, ‘The aim of science does understand not the accumulation of data and formulae. We need to bite into whole concepts, not swallow them piecemeal. The separate pieces of information in the separate primary papers need to be joined to another, fused with one another, welded into a coherent intellectual machine, which may be used as a whole, whether for material benefit or for further scientific exploration. The work of synthesis is quite important as the analytical process of discovery and experiment.’ He mentions about three aspects of the organization of knowledge viz., in the context of Information retrieval, intellectual organization refers to the intellectual effort to organize the storage and retrieval of information and knowledge, serving users to access their required information precisely, accurately and with speed and ease. Human Intellect is the power or activity of thinking, learning, understanding, assimilating, acquiring and organizing mental constructs and recording it for communication. Indexing techniques and tools are designed to get as many relevant documents as could be obtained while searching for documents that carry the required information. This applies equally to all computerized Information retrieval systems. The effort in indexing is aimed to get a precise set of documents in a search.

**Definition of Intellectual Organisation of Information**

The power or faculty of the intellect and the mind of thinking, learning, understanding, assimilating, acquiring and organizing mental constructs and recording them in a suitable form for communication.

**Features of Organisation of Information for Accessibility of Information**

The sole purpose of the intellectual organization of information for secondary services, such as bibliographies, indexes and abstracts, is to provide relevant information to users within a time frame, with speed, accuracy and ease. Secondary services are developed to facilitate access to primary information. This should be done in such a way that there is ease of access with speed and accuracy and should accurately meet the

information needs of the users. Without this effort, access to valuable information would be more or less lost.

### **Intellectual Organisation of Information in User Services**

The primary purpose of all this intellectual organization of information and knowledge is to serve the various categories of users effectively to satisfy them in their information needs. But the effectiveness of user services depends upon our understanding of users and their information needs. Information seekers are often in a state of uncertainty or lack of clarity in their conception of their information requirements. Their expression of needs is most often not precise and they need some intellectual support in the form of some hints or cues. To prepare an effective set of cues, it is necessary to analyze their behaviour and style of searching, even if they do their searches themselves or seek the help of information officers. Interaction with users to ascertain correctly their information needs would necessitate formal or informal meetings with them.

### **Intellectual Organisation of Information and Content Analysis**

Content analysis is the effect of analyzing the record of human experience and knowledge; it is a means of studying all types of communication, its nature, its underlying meanings, its dynamic processes, and the people engaged in the act of communication. The purpose of content analysis varies depending upon the activity to which this technique is applied. It is used as a research technique in social sciences, in psychology for counseling and diagnostic studies in psychiatrics. In library and information science, content analysis is used for a number of activities such as indexing and abstracting, classification of user studies, and in the production of a number of information products and user services. It can be used for varieties of purposes, for example, in the analysis of voting pattern in elections. Analytical newspaper reports, studies by institutions who specialize in election predictions, election manifestoes and other types of analysis are often made by experts in the fields available in the form of published documents, government reports, academic publications, etc. The analysis of all these, will give a comprehensive view of the different shades of opinion and facts, which will lead to a new set of interpretations and implications. Content analysis forms the basis of such studies.

**Information Retrieval Systems in Changing Environment**

Information retrieval is the activity of obtaining information resources relevant to an information need from a collection of information resources. Searches can be based on metadata or on full-text (or other content-based) indexing. The three features of current information retrieval systems that are very conspicuously distinct are given below:

1. Information retrieval systems are increasingly computerized, although printed indexes and card catalogues in libraries still exist. But these are also switching over to computerized systems and will get fully automated in the near future.
2. Computer databases have grown phenomenally and are in all conceivable areas. Global databases/ networks in academic disciplines that include all education and research materials in almost every specialized areas, business and industry, government resources, current affairs, finance, legal matters are all burgeoning rapidly. These are accessible through Internet and on-line services through commercial information service vendors. Full texts of documents, document surrogates like indexes, abstracts, and a host of bibliographic and other forms of information are accessible to users. Digital representations of information and Multimedia technologies have given further versatility to Information retrieval systems.
3. Users also have grown with a large number of them making direct access to these databases in a variety of subjects. These users are domain experts (with or without any knowledge of using computerized databases), laypersons and information intermediaries (who have gone through systematic professional training and experience).

The key issue is that any retrieval process is very much dependent upon the indexing and storage stages. In fact these two intellectual activities determine the search strategy to a large extent to obtain optimum results. However, the nature of computerized indexes varies greatly and searchers will get successful results if they recognize some of their inherent strengths and limitations. Generally speaking however, there a number of features those are common to all information retrieval systems, including CD-ROM based systems,

the Internet, Online search services, Document management systems, and OPACs. There is a trend in using all these information networks or media by all kinds of users that include novices, domain experts who constantly use Information retrieval systems and are familiar with their facilities and functions, occasional users who may depend upon information intermediaries, and other type users who have special needs. Information managers and intermediaries, who do searches on behalf of all categories of users, are expected to be expert users of Information retrieval systems. They must work with the users, understand their specific needs and do the search in collaboration with users, reviewing the results of retrieval at every search stage to get maximum results.

### **Areas of Current Research in Information Retrieval Systems**

Active research efforts are pursued to refine or develop efficient information retrieval systems all over the world. The primary purpose of all these efforts is to get the best results for users. System developers and suppliers are striving to offer a best software package or a service. The information researcher is also equally concerned to develop the best retrieval system. The directions, these research activities are taking, may be summed up as given below:

- **Better Systems Design**

This is primarily to improve methods of matching document descriptors with query descriptors. New methods of searching, other than Boolean search logic has been a major area of further research. Optimum retrieval efficiency, providing a reasonable proportion of relevant hits, and reducing overload of irrelevant hits is another line of research. Speed of retrieval is also implied in this type of research efforts.

- **Improved Retrieval Facilities and Strategies**

Here an attempt is made to improve the efficiency and effectiveness of the system, including the characteristics of the storage requirements, the retrieval speed and the effectiveness of the system. Work in this area seeks to overcome the limitations of inverted file (a term entry system as against an item entry system) by developing fast methods of scanning the contents of database. This involves improving the

speed of searching by a set of text scanning algorithms; alternatively to seek hardware-based solutions, most of which are related to speed of text-scanning.

- **Human-Computer Interface**

This is another area of intense research. User friendly approach is focused on development of self explanatory, intermediary computer systems that would stimulate best-match searching, using knowledge-based techniques taking clue from artificial intelligence. 'The Art of Human-Computer Interface Design is an extraordinary work in the field of human-computer interaction

### **Conclusion-**

The sole purpose of intellectual organization of information of secondary services, like bibliographies, indexes and abstracts, is to provide relevant information to users, within a time frame, with speed, accuracy and ease. In this process if observation occurred, data or ideas can be formulized and instrumental extra-senses can be done. If organization or logical relation occurred, information can be formulized and systematic principles can be made. If conference and compaction this mental process occurred, subject can be formulized and fundamental principles can be made. If learning assimilation occurred, knowledge can be formulized and perception, modeling, process can be done. If judgment correlation application to contexts occurred, wisdom can be formulized and sensing the context retrieval of knowledge, appropriate decision can be done. In the age of Information Communication Technology it's really difficult to retrieve appropriate information from the vast information and here Organisation of Information plays an important role and secondary tools can be applied. Whenever you create a subject surrogate, intellectual organization plays a crucial role.

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