

ORGANISATION AND RETRIEVAL OF INFORMATION AND INFORMATION RESOURCES

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Abstract

The paper examined the concept and relevance of information to human endeavours and the need to retrieve it for any purpose. Information sources, resources including databases and formats were highlighted followed by strategies for retrieving information especially from e-databases. It concludes that in order to ensure full access and utilisation of information for any purpose, there is the need for availability of viable retrieval device and knowledge on how they can be manipulated to secure the need information.

Introduction

Information can be conceived as anything that adds to our existing knowledge, ideas, skills and experiences positively or negatively that enables us to take decisions or react to situations immediately or later at an

appropriate period of time. It can also be conceived as the by-product of our conscious and unconscious actions and inactions that adds to our existing knowledge, ideas, skills and experiences that enable us respond to a given stimuli instantaneously or at a later period of time as a form of reaction or decision taken or to be taken.

The conceptions of information presupposed that it is a strategic resource and tool that all living beings, regardless of category; communities, societies and nations need to have , access and utilise at all times to survive, develop and advance in any type of endeavour. However, to some extent, it could be said that all information are relevant and irrelevant, useful and useless at the same time; depending on the circumstance in question. The extent of the relevance and usefulness of a piece of information therefore is contingent upon why and when it was sought for. In reality and in practical terms, the retrieval, access and use of one type of information, especially when accessed and utilised successfully or not, often lead to the need to retrieve/search for another one for use again and again without an end. Hence the cyclical and chain nature as well as the dynamics of information (Mohammed: 2009).

Organisation of Information and Information resources

The need for organisation of information and information resources stem from the need to ease the retrieval of needed information from a mass of them for access and use. This is necessary as they are contained in different types of resources, either in printed and non printed formats without limitation to location, source and time. Information resources and sources of all types, shapes and categories are therefore acquired, processed

and carefully stored for use in libraries, information centres, repositories, archives and databases or as personal collections for use at all times

The organisation of information and information resources as well as sources starts with the decision on what to acquire for use, how much is available for the acquisition of such information resource and source, the extent of its relevance and usefulness to the existing and future needs, and the format and type of information resources and source to be acquired. The responses to these basic questions lead to the decision on the selection and processing of the information resources and sources which include the choice of cataloguing rule and system, type of catalogue, style of bibliographic citation, classification scheme, the shelving arrangement, and retrieval device to employ for easy access to the collections. Essentially, the basic objective of any type of information organization should be centred on ease of retrieval/search and access.

To some extent, it could be argued that there is no limitation as to the way information, a set of it or rather an information resource and source should be arranged/organised. Information, information resources and sources can be organised/arranged by:

- Author, Editor, Compiler or Composer;
- Title of the information or document;
- Subject of the information or document;
- Year of publication, presentation or generation;
- Place of publication, presentation or submission;
- Publisher, printer or writer;
- Size of the information or document;
- Year of purchase, acquisition, or generation;
- Category or type of user;

- Format of information resource or source;
- Nature of information, information resource or source;
- Type of information or information resource/source;
- Source of information or information resource/source;
- Convenience of retrieval by the proprietor/owner and user; etc.

The above type of organization and arrangement of information and information resources and sources presupposed that in reality there could not be fast rule as to the way and manner information or rather an information resource should be organized. What is most important is the convenience of retrieval for access and use by the stakeholders in information management and use.

However, from the modern perspectives, information and information documents can be organized conventionally or unconventionally. Information and information resource is said to be organized conventionally when it is arranged according to a given principle acceptable globally especially using such standards as AACR2, MARC21, List of Subject Headings and Classification Schemes. These types of arrangements are normally found in formal institutional libraries, information centre, archives and repositories.

On the other hand, information or information resource is said to be unconventionally organized/arranged when it based on personal will of the individual owner/proprietor perhaps dictate by mere need for convenience without regard to global norms and standards. Such arrangements are usually found in community, family or private collections and libraries at homes, workplaces and places of warship. Thus, whichever style, method or procedure of information organization adopted, it is important to take

cognizance of the convenience of retrieval, interoperability of the system and the potentials of globalisation of access to needed information.

Information Retrieval

Basically, information retrieval can be referred to as any type or form of activity carried out consciously and or unconsciously to access any given needed information. It can also be referred to as information search. Information is searched for not only because they are relevant and useful, but because they may not be easily located among the available ones at hand r there is lack of awareness about their location, existence and availability anywhere. Essentially, any type or form of information searched/retrieved serve to identify, trace, confirm, discover, establish, justify, institute, organize, introduce, inform, investigate, or even clarify issues, ideas or notions conceived to be associated with what is being searched for with the view to taking appropriate and informal or formal decision about it.

The retrieval devices useful for retrieving/searching for information or rather, information resources and sources include library catalogues of all types including online catalogues, indexes, abstracts, bibliographies, references at the end of books and published/printed papers as well as 'see' and 'see' also references, Internet search engines such as Yahoo, Google, etc. Regardless of which type of retrieval device in use , their basic functions is to facilitate easy location, identification, trace and access to needed information, information resource and source through the provision of vital data about them such as:

- The name of the author/editor/compiler;
- The title of the document;
- The edition of the book;

- The year of publication/presentation;
- The place of publication/presentation;
- The publisher;
- The location of the document on the shelf or in a network environment or Union Catalogue)
- The site of the document in Internet/database environment; etc

Commenting on the relevance of library catalogue as a retrieval device, Pandey (2000) observed that library catalogue is primarily a 'finding list' which is so constructed to identify, trace and locate a book and other graphic materials in the library. By means of various kinds of recorded entries, it communicates information about the materials of the library sufficient enough to locate and identify the bibliographical features of the books, etc for the purposes of selection for study and research.

Information Formats

Apparently, no individual has the sole monopoly of knowledge, ideas, and experiences. Hence, the need for an information seeker to seek for the use all relevant information resources and sources irrespective of their nature, source and location to facilitate their access and use so as to achieve the desired goals and aspirations. Information resources and sources needed by all and sundry for any purpose especially in contemporary world and particularly in academic environments could be grouped into two major formats: printed and non-printed formats.

- The **printed formats** of information resources and sources are the printed books, journals and other types of periodicals, and manuscripts.

- The **non-printed formats** of information resources and sources include all types of audio-visual collections in plates, slides, discs, cassettes, etc as well as electronic documents and databases in CDs, DVDs, Computer systems/file, communication gadgets/facilities and the Internet/Internet.

Information Sources

There is no limitation as to the source of information to be used to retrieve/search for the information needed or found to be relevant and useful to the information seeker. The choice of which type of information source to use to retrieve/search for information will largely depend upon ease of access to the source, the relevance and diversity of the content and the level of currency of the information contained therein. Some of the basic information sources include:

1. **Mass Media** which provide which provides printed and electronic information especially on current affairs, feature articles and documentaries on specific themes and issues. They also carry ideas and opinions of people on topical issues and events.
2. **The Library** which houses an organized variety of collections of information resources and sources in both printed and non-printed formats covering the areas of interest of the target clientele.
3. **Archival collections** of the strategic information about the operations, services and management of the organisation or establishment.

4. **Digital and Conventional Institutional Repositories** which normally contain vital information on academic and other strategic activities of the institutions especially research proposals and reports, seminar/workshop proceedings, etc.
5. **The Internet**, seen as a network of computer networks and indeed as Virtual Library, has variety of e-databanks and e-databases with unlimited information resources and sources. It provides variety of services on all imaginable areas of interest ranging from academic to non-academics including news and current affairs, sports and tourism, etc.
- 6 **Internet Databases** are structured collection of records or data with no limitation to the location/site, format, nature and source of the information. Essentially, a database could be said to be a collection of organised information or data in a regular structure. This implies that a set of information, data or literature on a given theme, issue, or subject area can be conceived to be a database.
- 7 **A computer database** can be said to be an electronic set of data, information, record or literature housed in computer system, in computer network or in a computer readable format usually organised, stored and accessed using computer application software.

Forms of Databases

Databases can be in form of:

1. **References, citations or bibliographies** that point to the sources where users can access the required information. Examples are bibliographic databases such as library catalogues, indexes and abstracts.
2. **Sources of full text** which usually contain the actual data or content required by users. Examples are journal publications, textbooks, encyclopedias, etc.
3. **Directory sources** which provide access to relevant information such names, addresses, and other data on given institutions, products, companies, etc. Examples are Yellow Pages, Television directory, etc.
4. **Hybrid databases** which contents are usually a mixture of full text and citations. They are not easily categorized as one type of database. Examples are Dialog, Westlaw, Financial Records, etc.
5. A majority of the databases are accessed online using a given password and username on subscription. They usually provide not only the titles and abstracts of the literature listed, but their full texts to ensure proper utilization.

Some Common Databases

Some of the common databases found useful for use for academic and other purposes include:

1. Oxford Online Journals (<http://www3.ovp.co.uk/>)
2. African Journals Online (<http://www.ajol.info/>)
3. HighWire (<http://highwire.stanford.edu/lists/devecon.dtl>)
4. Directory of Open Access Journals, DOAJ (<http://www.doaj.org/>)

5. E-Journals.Org (<http://www/e-journals.org>)
6. EbscoHost Research Databases (<http://web.ebscohost.com>)
7. HINARI (<http://extranet.who.int/hinari/en/journals.php>)
8. Google Scholar (www.scholar.google.com)
9. Public Library of Science
(<http://www.publiclibraryofscience.org>)
10. FreeMedicalJournals.com
(<http://www.freemedicaljournals.com>)

A typical electronic database could contain up to 500,000 or more list of published books and journals in a single or different subject areas from different publishers. Hence the need to be trained and or educated on how to search/retrieve, download, print any needed information or perform any other necessary functions or operations with the database with the view to accessing the information sought for.

Database Information Retrieval/Search Methods

Unlike the Internet search, database searches and search strategies, whether online or off-line, differ from one to the other and each requires some set of procedures or strategies. Most databases can be searched through basic information search/retrieval strategy or advanced information search/retrieval strategy.

(A) Basic Information Search/Retrieval

Basic information search/retrieval allows one to choose the databases of choice from a drop-down-list, choose the field to search and type in the search in the available dialog window.

Basic information search/retrieval strategy

- Select databases to search from the home page drop-down-list.
- Select fields where search terms could be found
- Type in search commands
- Click on the search button.

(B) Advanced Information Search/Retrieval

Advanced information search/retrieval allows search for specific items in the databases especially using *limiters* and *expanders*.

Advanced information search/retrieval strategy

From the search window,

- Click keyword or subject search on the toolbar
- Click **advanced** button
- In the 'find' data entry field enter the first keyword/subject and press **TAB**
- Select the field to be searched and press **TAB**
- Select the Boolean operator to be used to continue the text term and press **TAB**
- Repeat steps 1-5 until all terms have been entered/accepted
- Apply any limiters or expanders.
- Click the **search** button to begin the search.

LIMITERS AND EXPANDERS

➤ The **Limiters** are restrictions or limitations imposed on the set of records to be retrieved as search criteria. It could be by:

- Year of publication
- Name of publisher
- Name of Author, Title or subject
- Material type such as journals, full text, Abstracts, books, CDs, DVD, etc.
- Language of Communication.
- Location of the items.

What is therefore required is to click on limit search tool, complete the limit criteria and click the search button so as to display all the search items in the database by the specified limit criteria.

➤ The **Expander** allows for search of related words and search within full text articles. For instance, in order to expand search for related words, the expander “also search for related words” is entered, E.g. Boat-Boat Engine, Ship, Canoe.

Other Information Search /Retrieval Techniques

Other information search tools/techniques for databases include:

1. **Boolean Search** which defines the logical relationships between terms in a search using the search operations ‘AND/+, OR, NOT/’.
2. **The Wild Card** represented by a question mark (?) to enter the desired search terms and replace each unknown character with a ‘?’ to find all citations of that word the ‘?’ replaced by a letter. Example: Me? T to get Meat, Meet, Met.

3. **Truncation** represented by an asterisk (*) so as to find all other forms of the word being searched. Example: Manager* to give Manager, Management, Managing, or Managerial.

CONCLUDING REMARKS

By and large, it could be said that our existence, survival and advancements as individuals, society, community, nations or institutions and our consequent actions or inaction in form of decisions taken to respond to the stimuli around us in a by product of the information we retrieved from wherever for access and use consciously or unconsciously. Although the mass media, library, institutional repositories, archives and indeed the Internet have become veritable sources for retrieving relevant and useful information needed for successful human endeavours and other academic activities, databases especially the e-databases are equally essential complements to the other known information resources and sources we need to rely upon for vital information we may need at all times. This is due to their contents as collections of variety of e-information resources and sources in different subject areas, formats and locations for easy access order to ensure full access and utilisation of information, there is the *need* to ensure the availability of a viable retrieval device and also the acquisition of at least the basic knowledge of how they can be manipulated effectively and efficiently in order to secure the needed information.

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