

# Information retrieval techniques used by the Midnapore College (Autonomous) library users: a study

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## Abstract

This paper aims to present the results of a survey conducted to determine the information retrieval techniques used by the teachers and students of Midnapore College library. The paper examines the result from a questionnaire-based survey conducted at the library. 100 samples of the questionnaire were distributed randomly between the staff and students of the college out of which 93 completed and received for analysis. The study reveals that a significant number of users search information regarding the library material through OPAC despite encountering problems. Lack of basic skills among users was found to be the major reason for not utilizing full features of OPAC, improper query formulation and non use of search operators while surf the web. It is suggested that library should organize quality instruction programmes to improve knowledge and skills of the users.

*Keywords: Information Retrieval, OPAC, Online information retrieval.*

## Introduction

We are living in the age of atomic power, space science and in the area of gigantic computers. Information is needed each and every aspect of our daily life and the need of various types of information are always in an increasing mode. Exponential growth of literature, library automation and new media of communication are the main forces which brought a change in the outlook of librarians, documentalists and information officers and more so in the users of information. Information is available in the library in different formats - print, non-print and electronic, in different categories - primary, secondary and tertiary and in different channels - formal and informal. The need of information differs from person to person depending upon his purpose in relation to his study, education, stage of his work, general interest, and amount of information already available to him and so on. To satisfy these tremendous information hungers steadily, a massive development of communication system has occurred. To know the exact technique(s) used by the users, libraries, information centres or information scientists have carried out user studies. This paper aims to identify the information searching or retrieving techniques used by the library users of the Midnapore College, West Bengal.

## Objectives

Information searching technique is different for different groups depending on their knowledge and efficiency. The objectives of the study are as follows:

- To ascertain the information searching or retrieving technique used by the users at all levels.
- To investigate the awareness and use of information retrieval systems, document retrieved and its relevance to information need.
- To investigate the challenges of information retrieval among users and future expectation of information retrieving skills by users.
- To explore the impact of information technology on access to information.
- To suggest the solutions to the library authorities to overcome the problems.

### **Midnapore College**

Midnapore College now one of the premier educational institutions of West Bengal, emerged triumphantly from its incipient stages of a private school in 1834 and Zilla School in 1840 to the burgeoning stage of a Degree College in 1873 under the affiliation of Calcutta University. After independence Midnapore College became Government Sponsored College in 1956. In 1985 the affiliation of the college changed from Calcutta University to Vidyasagar University. The College has re-accredited by NAAC in 2012 with Grade – A and CGPA – 3.58 (4-point scale) and got Autonomous status from the session 2014-2015. At present the college is imparting honours education in 22 subjects and post graduate education in 6 subjects.

### **Midnapore College Library**

The Library of Midnapore College is fully classified and automated. It is an invaluable resource for students, researchers and faculties of Arts and Sciences, both undergraduates & Postgraduates. The library has over the years built a robust collection of over 61,000 books, more than 500 bound volumes of journals, 16 print journals, online journals, magazines, CDs, and news papers. The library, spread over 12000 sq. ft., also provides access to the digital resources through its subscription to various databases. The library has set up network to provide various course related information to the users. The key features of the library are:

- Extensive resources of reading material
- Resource Learning Centre comprises Reading Room, Digital Library and Seminar Hall
- Computers for OPAC search
- Broadband connection
- DELNET Databases
- Subscribe NLIST for E-journals
- E-library with LAN and Internet facility
- CDs & DVDs
- Library Automation through LIBSYS Software.

### **Digital Library**

The college has a separate section for Digital Library and 16 networked computers are available there. In this section, faculty members and students can access online journals and avail internet facilities. They can refer e-Books and e-Journals and download the reading materials and

can also send or receive e-mail. Multimedia facilities are also available in the Digital Library. Lectures in Video Format of eminent professors are also available. The Library offers access to online e-journals, e-books, e-database and e-lecture videos with useful links. User can freely access the Full Text or Abstracts in a flexible and easy manner to use for their day to day study.

### **Information retrieval**

An information system deals with many problems and thus must answer any request for information and must find just the right information in response to a request. Matching available information with information needed is the task of information storage and retrieval component of an information system. 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 quality of retrieval depends on indexing query formulation and comparison or match. All of these functions depend on the indexing languages. And the thesaurus is the bridge between the information seeking language and indexing language. An information retrieval process begins when a user enters a query into the system. Queries are formal statements of information needs, for example search strings in web search engines. In information retrieval a query does not uniquely identify a single object in the collection. Instead, several objects may match the query, perhaps with different degrees of relevancy. An object is an entity that is represented by information in a database. User queries are matched against the database information. Depending on the application the data objects may be, for example, text documents, images, audio, mind maps or videos. Often the documents themselves are not kept or stored directly in the IR system, but are instead represented in the system by document surrogates or metadata.

Most IR systems compute a numeric score on how well each object in the database matches the query, and rank the objects according to this value. The top ranking objects are then shown to the user. The process may then be iterated if the user wishes to refine the query.

The information retrieval system serves as a bridge between the world of creators or generation of information and the users of that information. Two broad categories of information retrieval have been identified:

- In-house Information retrieval
- Online Information retrieval

In-house Information retrieval systems are set up by a particular library or information centre to serve mainly the users within the organization. An example of an in-house database is the library catalogue. Online public access catalogue (OPAC) provides facilities for library users to carry out online catalogue searches, and then check the availability of the item required.

By online information retrieval systems, we mean those that have been designed to provide access to remote databases to a variety of users. Such services are available mostly on commercial basis, and there are a number of vendors that handle this sort of service.

Writers in times past have suggested that an effective and reliable information retrieval system must have provision for:

- Prompt dissemination of information
- Filtering of information
- The right amount of information at the right time

- Browsing,
- Getting information in an economical way
- Current literature
- Interpersonal communication and
- Personal help.

## **Methodology**

There are various methods or techniques used in social surveys. The present study used mainly structured questionnaire method for survey work. Inherent limitations of the method have overcome through interview method. Informal conversations with the respondents were also done to obtain the unrevealed information, which was not come out through questionnaire and interviews.

## **Data Collection**

For the purpose of study a sample survey was made. 100 questionnaires were distributed among 20 teachers and 80 students. Teachers have been selected from each discipline by stratified random sampling method. In case of students a sample of 4 persons of which 2 male and 2 female has been drawn from each discipline using same method. By this way, out of 100 questionnaires 93 questionnaires were received back from the respondents. The overall response rate is 93%. The collected data was further supplemented and sharpened by discussion with the users.

## **Organisations, Analysis and Interpretation of Data**

All the collected data are analysed and organised in a systematic manner. The data also interpreted to utilize the clues and inherent facts to arrive at a conclusion of generalization.

## **Findings**

The major findings that are generated from this study:

1. Majority of the teachers choose their books through OPAC (83%) and browsing books on shelves (90%), but most of the students choose their books through either book catalogue (70%) or the help of friends (38%) or consulting staff (30%). Only 45% students use library OPAC.
2. Most of the teachers search their required book through author's name and subject (75%) and through only subject (25%). Students search their book by key words (30%) or by author's name (15%). Most of the respondents are satisfied while using OPAC.
3. Teachers responses that they are not facing any problem, but students responses that they are facing problems due to lack of knowledge, confuse to use and lack of assistance from library staff.
4. 100% teachers and 87% students use web for documents or information. Respondents surf web either at home and/or Library and/or Cyber café and/or by Cell phone. They surf daily and spent 1-2 hour for the purpose.

5. The main purposes of use of the Internet are email (92%), document downloading (69.3%), educational information (66.4%), entertainment (44.5%) and news (35.8%). 73.3% teachers search journal article through Internet but percentage is very low in case of students (only 19.6%).
6. Majority of the respondents (81%) are aware about search engines and they use search engine for information searching as it is time saving.
7. Normally more than one search term have been used by the respondent. A very few number of teachers (17%) have use operator to formulate their queries. No student have use operator to formulate their queries.
8. It is seen that a minimum number of respondents have any idea about operators. Most used operator by the teachers is 'AND' (95%). Respondents think that the spelling suggestion supplied by search engines is useful.
9. Majority of the respondents (78%) search for all documents containing a specific term or concept and 22% search for specific document.
10. 55% respondents look on the next pages after searching and 45% not look on the next pages after searching. Only 27% change the words in query while searching.
11. Most of the respondents (96%) think that most often get too many hits while searching and most of the hits are irrelevant. It is the cause of improper query formulation and non use of search operators.
12. Majority of the respondents (92%) think that the search engine's response time is short, but getting relevant information is time consuming. 95% respondents navigate on the Internet by clicking on hyperlinks for information.
13. No one took help any IR tools to formulate search queries.
14. No one took help from library personnel for searching the online resources.
15. The study reveals that library users are not aware of the information retrieval systems.

## **Suggestions**

The following are recommendations observed from the study for the improvement of library services:

1. To increase the usage of library materials promotional measure should be initiated by the library.
2. OPAC of the library should be installed in maximum number of terminals and proper guidance should be made for its use.
3. Information literacy programme must be taken periodically. Special emphasis should be given on information searching, search query formulation, use of search operators, and different techniques to narrow down the search results.

4. To be ensure that information retrieval skills training are pitched at a level which is appropriate to the individual needs of the student.
5. Library orientation programme must be taken at the time of issuing library card to the users.
6. Meeting with library users should be arranged on a regular basis to get feedback.
7. For betterment of library services appropriate in service training to the library personnel should be allowed from time to time.

## **Conclusion**

Today most information is available. The information environment is very complex. Now information is available in the different web pages. Yet, the reader does not always find the information he/she needs. To find information, a reader uses either a search engine or the reader browses through metadata. The main difference between search engines and metadata lies in the quality of the links. A search engine offers a lot of results, yet quite a few of the results refer to unusable information. Metadata cover only a small part of the available information yet the links refer to very useful information. Appropriate use of search techniques can help the user to get required information pin-pointedly, exhaustively, timely and economically.

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