

AN OVERVIEW OF INFORMATION RETRIEVAL SKILL AMONG PROFESSIONAL STUDENTS

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ABSTRACT

Information and Communication Technology (ICT) is pushing human limits in various aspects and areas of work. After the big bang of Internet technology and with its wide penetration across the world, many academic libraries are transitioning from conventional print materials to electronic resources. This transcendence, places a huge demand for ICT skill acquisitions among the students and other academicians. Since this knowledge of ICT skills helps them to retrieve effective and accurate information which complements their academic success, the present article gives an overview on some of the components and challenges involved in the process of information seeking behavior and information retrieval.

Keywords: Information & Communication Technology (ICT), Information Seeking Behavior, Information Retrieval.

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INFORMATION RETRIEVAL SKILLS

Information and communication technology is pervasive in every area of human activities. It has become a potent force in the transformation of social, economic, and political life, globally. It affects the way we think, live, communicate and share information. Information professionals in academic libraries are regarded as the gatekeepers of knowledge. In most cases, they are expected to impart information literacy skills to library users' community especially the faculty members who basically are researchers. Their information delivery capacity is the function of availability of the resources and their competence in the use of the resources even now that many libraries are currently experiencing a transition from print to electronic collections. As the provision of access to electronic information is becoming increasingly popular in academic libraries, it is necessary to have a better understanding of the information retrieval skills of information professionals and their use of e-resources. Electronic resources utilised by the information professionals in Academic Libraries include the paper less – based electronic information formats like CD-ROM, the Internet, and all web –based resources which offer a variety of reference and literary sources. These electronic resources provide off-line and online access to information, by CD-ROM databases, Internet, as well as online databases. Examples are: CD ROM databases, OPAC, E-JOURNALS, E-BOOKS, OARE, EBSCOHOST, JSTOR, DOAJ, AJOL, etc. Generally, these resources can be accessed on the World Wide Web, over the library network and from stand alone term.

Information retrieval skills are crucial for retrieving information in this era of technology that most of the information needed for research can be retrieved from electronic sources. However, students' efforts to complement their work with electronic resources may be limited due to lack of skills. Therefore knowledge of skills is necessary to selectively retrieve accurate, relevant and up-to-date information stored in documents instead of all the information that may not be relevant for their academic work. Skills acquisition is in fact, very crucial to the use of electronic resources because information in electronic forms can only be used if students possess the skill to retrieve the exact information needed for learning and research.

Produced by Gatsby Science Enhancement Programme, the resources in this section help students to develop their skills of information retrieval. Activities relate to five aspects of information retrieval:

- Methods of information storage and retrieval
- The Library (including classification)
- Reference books
- Scientific journals
- The internet and evaluating websites

The materials for this skill area include eleven activities which contain students' stimulus materials as well as teacher guidance. The activities look at:

- Saving and finding information
- Using the library
- Finding information in books
- Choosing the right book
- Navigating a reference book
- Editing a scientific book
- Advertising a scientific journal
- Locating articles in e-journals
- Finding answers on the web
- Evaluating websites

New knowledge is most often produced by combining information from different sources. To produce knowledge, therefore, requires information retrieval skills. An information retrieval skill is defined as the ability to find information in such a way that non-relevant data (noise) are excluded while relevant information is found. Today new information is mostly produced by researchers and journalists. The major difference between these two information providing groups is the amount of time available to them for producing new information. While the researcher might have three years or more to write a doctoral dissertation, journalists, on the other hand, have on average between three hours and one week to draw up an article. The researcher, therefore, might be satisfied with the retrieval of references, while the journalist usually will require full-text documents or facts. **Nicholas and**

Martin [. . . are very much in the forefront of the information technology revolution. Any changes in their information needs and information seeking behaviour could provide an early warning sign for other information communities,...' This is one of the main reasons why this article will focus on newspaper journalists and their information needs. In terms of information retrieval journalists in general have two options: searching for information themselves or asking an intermediary (Librarian) to do the search. Applying the latter option, they must be able to express their information need in such a way that the intermediary can develop a search profile from the information need statements. Having retrieved some documents, the journalist or the intermediary has to decide on which of the retrieved documents are relevant to the information need.

Science (LIS) consider the situation in which a user has information need as an Anomalous State of Knowledge (ASK): the user does not really know what he wants in order to satisfy his information need. The user has an information need because he does not feel that he knows all he needs to know about the subject. Many researchers of LIS think that the judgment of relevance necessitates knowledge about the subject of the information need. This has led some researchers to point out that '. . . it may be possible that the user is distinctly unqualified to judge relevance on the articles he has retrieved [**Evidence-Based Medicine Working Group. 1992**]'.

That information retrieval is a complicated process is reflected by the entire discussion of the concept of relevance and the discussion of user information need within the subject of LIS.

Improvements in the performance of information retrieval (IR) systems as presently designed seem to be limited to only marginal gains in terms of complete recall and precision or complete user satisfaction (**see, e.g. Robertson and Sparck Jones**). In these two papers (Part II: Results of a design study, to appear in *Journal of Documentation*, vol. 38 no. 3) we report on a design study² for an experimental IR system based on radically different hypotheses than those underlying present systems, which we think may allow the design of IR systems which produce significantly better performance than currently offered.

Electronic resources are the bedrock of provision of accurate and timely information for better educational outcomes. They aid in the retrieval of huge amount of information for teaching, learning and research. Owing to information explosion and the emergence of new technologies, information needed by students are now, majorly found in electronic resources in university libraries, Information communication technology centres and computer laboratories. These technologies have brought an alternative to facilitate access to scholarly information from around the world which enhances learning. In this era of competitive research and knowledge acquisition, university students now patronise their university libraries to retrieve accurate and current information from electronic resources available in all subjects. However, the optimal use of electronic resources by students may depend on their information retrieval skills.

Occupational applications of information retrieval

- Art galleries
- E-learning
- Electronic publishing
- Libraries
- Museums
- News Agency
- Office files
- Knowledge management
- Records management
- Print and Electronic
- Web-site Development
- internet and intranets

1. INFORMATION RETRIEVAL SKILLS NEEDS

Information systems are a hot new career path that can reflect some of the biggest earnings potential on the job market today. However, this isn't exactly breaking news. In order to make you more attractive to prospective employers, it's important that you learn a certain skill set. Here are five skills we need to succeed in the field of information systems

1.1 EVOLVING INFORMATION RETRIEVAL

This contribution presents an overview of the evolution of the retrieval systems implemented in libraries to bring users to relevant information sources. Complexity is increasing and moreover several additional computer-based tools are proposed that may add some value.

1.2 RETRIEVAL TOOLS

To offer the contents (collections, databases) mentioned above to users, many computer-based tools related to information retrieval can be installed, including the following

- A central core library catalogue, implemented in the WWW with web technology
- A WWW site of the library, which offers links to sources and services
- Search Engines that cover selected WWW sites and their contents (pages)
- A system to search through a local document repository
- A system for federated searching (= meta-searching=) one-stop-searching) through several databases with one search query in one search action
- A system that generates links from some available starting point to further information sources and services that are appropriate in the context of the particular library and user; building blocks for such a system include Open URL, plus a local library knowledge database about available electronic information sources and services, plus some link generator computer software (*see for instance Nieuwenhuysen et al., 2005*)
- Some electronic resources management system to support acquisitions as well as the library knowledge database needed for the link generator

1.3 EXISTING RESEARCH ON WEB USE FOR INFORMATION RETRIEVAL

Scholars from many fields have explored how people use the World Wide Web for information retrieval. Advertising and marketing specialists often refer to users as "consumers" emphasizing their particular interest in people's online actions, namely their shopping behavior (*Jarvenpaa, Sirrka and Todd 1996, Bell and Tang 1998*). These studies often analyze users' behavior on only one particular site as opposed to exploring users' overall online behavior. Moreover, their sole interest is in how people decide to make online purchases, what influences these decisions, and how much shopping people engage in.

1.4 ELECTRONIC RESOURCES:

"Electronic resource" is defined as any work encoded and made available for access through the use of a computer. It includes data available by (1) remote access and (2) direct access (fixed media). In other words: Remote access (electronic resources) refers to the use of electronic resources via computer.

An electronic resource is defined as a resource which require computer access or any electronic product that delivers a collection of data, be it text referring to full text bases, electronic journals, image collections, other multimedia products and numerical, graphical or time based, as a commercially available title that has been published with an aim to being marketed. These may be delivered on CD ROM, on tape, via internet and so on.

1.5 TYPE OF E-RESOURCES

- E-Books
- E-Journals
- E-Zine
- E-Thesis and Dissertation (ETD)
- E-News Papers
- E-Reference books
- CD-ROMs
- Data bases

1.6. PURPOSE OF E- RESOURCES

- Main purpose of electronic resources is providing current information.
- Update information is necessary for research work.

- Through electronic resources users are able to access latest information.
- Save the time of user and staff
- Solve the space problem in library
- Easy to use and disseminate

1.7 NEED OF ELECTRONIC RESOURCES

Electronic resources have great potential and bright future to attract users. It combines all the benefits of the multimedia, digital coding and Internet. It enable user to carry everywhere and can be read on all types of computers including handled device.

- E- Resources can be downloaded instantly.
- Users can read an e- resource any time
- Due to portability, e-resources can be taken any where on portable computer.
- E- resources provide facility to hold and turn pages easily
- Physically disabled users can hear audible E- resources

1.8 STRUCTURE OF E-RESOURCES

- HTML Format
- PDF Format
- TIFF
- Plucker Format
- CHM Format
- PostScript Format
- Desktop Author Format
- Rich Text Format etc

1.9 FEATURES OF E-RESOURCES

- Text can be searched, except when represented in the form of images;
- Hundreds or thousands may be carried together on one device. Approximately 500 average e-books can be stored in one CD;
- Type size and type face may be adjusted
- E- Resources can be used with text-to-speech software;
- Distributed at low cost;
- Distributed instantly, allowing readers to begin reading at once, without the need to visit a bookstore.

CONCLUSION

The information needs and information-seeking behaviour with regard to library resources, use of computers and the internet and use of other sources of information have become transparent. The training areas they need to learn more about were identified. The state government, college management, faculty members, and library staff of professional colleges should work together to plan and execute a plan of action so as to improve the ICT skills of the students and better their information-seeking behavior.

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