



RETRIEVING INFORMATION IN PHARMACEUTICAL LIBRARIES: AN OVERVIEW.

Pratibha Gokhale¹ and H. A. Biradar²

¹Retd.-Head of DLIS and I/C Librarian, University of Mumbai, Kalina, Vidyanagari, Santacruz(E), Mumbai.

²Research Scholar, DLIS, University of Mumbai, Kalina, Vidyanagari, Santacruz(E), Mumbai.



1. ABSTRACT

The volume of information created, generated, and stored is immense. It requires adequate knowledge of information retrieval methods. Otherwise, the process of retrieval is tedious and time consuming. This paper provides an overview of different information resources in pharmaceutical Industrial Libraries, the problems in retrieval and suggests some steps to improve.

KEYWORDS: Retrieving Information, Pharmaceutical Libraries, tedious and time consuming.

2. INTRODUCTION :

User is the key person in any information system, as all of information revolution & problems of information explosion are centered around the user & his convenience. The basic saying in business is "know thy customer." In Library & Information centre environment this axiom is yet to take a firm root, although a considerable progress has been made over the years. A library can achieve its goals more effectively, if it designs its resources & services based on the results of in-depth study of its users at its institutional level. This is apt in view of its limited funds to achieve its set goals.

In a library or information centre environment, the users are the last link or the recipients of the information in the communication cycle. There are number of terms used as synonyms to user such as patron, reader, member, customer, etc. The user is an important component in an information system. This vital fact was not recognized for a long time by our information managers.

Users & Information Use: Today information users live in a complex environment. The major environment factors are following:

Increasing uncertainty of users information needs

1. There is vast quantity of information gathered as well as pouring into system which have their own ways of presentation.
2. The mechanics of matching information needs with information sources have been increasingly made efficient : such mechanisms are sophisticated & complex
3. There is a need for training the users of information with respect to the ways in which information needs are expressed, new methods of searching & manipulating with the mechanisms of information retrieval.
4. Concepts of User Friendliness, User Assistance, and Information Literacy have been developed. Several devices & courses seek a methodology for productive approach for information gathering & self-education

3. INFORMATION RETRIEVAL SYSTEM:

According to Spack and Willet (1997), the term Information Retrieval System was coined in 1952 and gain popularity in research communities from 1961. At that time, Information Retrieval's organizing function was seen as a major advance in libraries that were no longer just store house of books, but as places where information was catalogued and indexed. The concept of Information Retrieval presupposes that there are some documents or records containing information that have been organised in an order suitable for early retrieval. The retrieval dimension is further referred to as Information Access, Information Seeking and Information Searching. These terms can be considered as synonymous for retrieval. However each of them does have its different orientation with regards to different implications. The term Information Access emphasizes on the aspect of getting or obtaining information. In contrast, the focus of Information Seeking is placed on the user who is actively involved in the process. As Information Searching, the centre of attention appears to be on how to look for information.

4. DEFINITIONS:

An Information Retrieval System is designed to retrieve the documents or information required by the user community. It should make the right information available to right user. Thus Information Retrieval System aims at collecting and organising information in one or more subject areas in order to provide it to the user as soon as it is asked for.

Lancaster (1968) comments in Choudhary (1999) that Information Retrieval System does not inform (i.e. Change the knowledge of the user on the subject of his enquiry; it merely informs him of the existence or non-existence and whereabouts of documents relating to his request.

5. IMPORTANCE:

The phenomenal growth of the Pharmaceutical Industry into a billion dollar business has been both the cause and effect of the research which has been carried on, not only on the industry's laboratories, but also in information centres. In this highly competitive field where the miracle of the drug, or the use of current literature and most up to date sources of information has become of prime importance.

On the other hand, the volume of literature has increased to such an extent that it is a growing problem for pharmaceutical information professionals to keep up with the pace of publication and to filter out those items which are of great of importance to organization.

For Centuries libraries have been organising reading materials on shelves for easy access. However systematic methods that have been widely adopted for the organization of the library materials and their records for use by readers came into being a little more than a century.

Today's Information Professionals should know and be conversant with the traditional information retrieval tools and methods like classification, cataloguing and vocabulary control as well as traditional manual indexing systems. This is because these traditional methods show the process of evolution of information retrieval and most importantly, many recent developments in information retrieval in web and digital library environments have their roots in these traditional tools and methods.

Different measures are currently taken for informing about various materials accessible through a given digital or hybrid library.

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 identified.

- i. In house Information Retrieval
- ii. Online Information Retrieval

i. In-House Information Retrieval Systems are setup by a particular library or information centre mainly to serve the users of within the organization. For example an in-house database is the library catalogue. i.e. Online Public Access Catalogue (OPAC) which provides access to users to library materials, through this users will be able to check the availability of the item required.

ii. Online Information Retrieval Systems have been designed for accessing to remote databases to a variety of users. Such services are available mostly on commercial basis and a number of vendors that handle this sort of service.

6. INFORMATION SOURCES IN PHARMACEUTICAL INDUSTRIAL INFORMATION RESOURCE CENTRES.

Pharmaceutical Scientists have a constant need for reliable and current information and in the modern world information is everywhere. It is presented on the television and radio, sent from computer to computer over the internet, and passed from person to person using telephones and fax machines. The great challenge is sorting out the current information from the dated, the reliable from the questionable, and the actual from the imagined. The Scientists must be able to find and identify different types of information in a variety of formats and media. Some of them are available in the following formats

1. Printed Sources are most widely used sources but due to the advent of electronic information sources the usage of it has been reduced significantly. The most frequently used print sources are

i. Text Books are usually thought of as being written for students, but they can also serve as a state of the art summaries for a particular area. In medicine, certain textbooks are held in such high regard that editions continue to be produced long after the original authors are gone.

Remington: The Science and Practice of Pharmacy (ARGennaroed.)

Goodman and Gillman's The Pharmacologic Basis of Therapeutics (Hardman J G ,and Limbird L Leds, NewYork McGraw Hill). Text books can serve as an introduction to the new area.

ii. Pharmacopoeias The USP/NF (United States Pharmacopoeia/National Formulary) has been published as one volume since 1980. now its publishing in three volumes with supplemented by two supplements. After the USP/NF the best known pharmacopoeia is the British Pharmacopoeia authorized by the government of Great Britain. The European Pharmacopoeia, published by the Council of Europe. Martindale: The extra pharmacopoeia, despite its title is not a pharmacopoeia but rather a drug compendium and will be described as Foreign Drug Compendia.

2. Electronic Sources The rapid growth of new technologies has changed the communication process between people and reduced the cost of communication for individuals. Electronic information sources can be seen as the most recent development in information technology and it is one of the most powerful tools ever invented in human history. In modern era it has created the way the people communicate with each other and the way the information is accessed. It has rapidly become an established medium of communication and connects people across the globe, removing geographic boundaries and simplifying access to information. The electronic sources of information are becoming more and more important for the user community in accessing information at the right time and in the right form. The use of information in an electronic environment becomes more pronounced when information becomes more readily available in electronic formats. This would result in an increase use of CD-ROMS, Online databases, and the Internet. Below are the some of the sources which are frequently accessed in electronic format in pharmaceutical Industry

I. Online Databases Online databases because their convenience and ubiquity are now the first choice to consult for locating pharmaceutical literature. Of the hundreds of databases available few of them are of particular interest to pharmaceutical scientists

MEDLINE (<http://www.nlm.nih.gov/bsd/pmresources.html>)

EMBASE (<http://www.embase.com/home>),

Chemical Abstracts (<http://www.cas.org/>),

REAXYS (<http://www.reaxys.com>),

Thomson Pharma, (<http://www.thomson-pharma.com>)

Integrity (<https://integrity.thomson-pharma.com>)

STN (<https://stnweb.cas.org/>),

Scifinder (scifinder.cas.org) et.al.

7. PROBLEMS IN RETRIEVING THE INFORMATION SOURCES

- i. Lack of information about how to use the electronic information resources
 - ii. Lack of time to acquire skills needed to use electronic information resources.
 - iii. Many a times publisher's website reflects the message that the website is in maintenance.
 - iv. Even some times the file does not open properly reflecting the message that there was an error opening document. The file is damaged and could not be repaired.
 - v. If the subscription period is over & renewal is not done then the access is completely denied including for earlier issues.
 - vi. If the archival access is needed then separate subscription price has to be paid yearly
 - vii. For accessing each electronic source signing of agreement is compulsory which is unjustified if the downloaded data needs to be deleted.
- Therefore the real challenge lies in creating the awareness about the information sources for effective retrieval.

8. CONCLUSION:

With these trends it is clear that the use of electronic information sources expected to increase in future. In this connection library authority, may take initiatives to improve the information searching on electronic resources among users. These initiatives can be in terms of formal and informal information literacy programmes specific to searching information sources on the web. Information professionals should take initiatives to prepare a list of e-resources and their techniques for retrieving relevant information. Orientation programmes, User Education programs for training in searching should be conducted for the use of resources. The abovementioned points has been expanded in brief below. They are as follows.

1. **Preparing a list of e-resources:** The information Professional should prepare a list of subscribed as well as free e-resources available in the subject and should forward to all the scientists in the organisation once in quarterly which will help in creating awareness and keeping them abreast of available resources in the subject.
2. **Orientation Programmes:** All the organizations would invite the new joiners through one day orientation programmes, including introduction to all the departments, functional roles of departments, organizational achievements and goals. This can be carried out by virtual tour involving power point slides in that information professional should describe briefly about library website, library catalogue etc. and this activity can also be completed by actual visit to the library.
3. **User Education Programmes:** The information Professional should conduct training programmes on searching techniques about the database by inviting the technical person of that database. So that users should get the proper training about the searching features, and they would become aware of the database and what it contains.

There is also a need to establish independent information system for better utilization of resources.

9. REFERENCES:

1. Daemrich, Arthur. and Bowden, Mary.Ellen.(2005). A Rising Drug Industry. Chemical and Engineering News.84(25),P-1-3.
2. Devarajan, C(1999). Users' approach to Information in Libraries. EssEss Publications, New Delhi.
3. DIALOG Corp(2010). DIALOG launches Proquest Dialog. Advanced Technology Libraries.39 (9),P-1-11.
4. Ditchfield, Philip.J.(2008). The updated Pharmaceutical Model License for E-journals : A Continuing collaboration between publishers and the pharmaceutical industry. Serials. 21(1),P-25-29..
5. Emanuel, Anthony.D.(1998). Pharma web-pharmaceutical information on internet. Pharmaceutical Science and Technology Today,1P-2-4.
6. Emanuel, Anthony.D (1995). The Internet: Connecting and Searching for Information. Pharm.J,25(4),P-58-59.
7. Emmerich, Christiane.(2009). Comparing first level patent data with value –added patent information : A case study in the pharmaceutical field. World Patent Information,31(2),P-117-122.

8. Fierro, Lesley.(et.al.).(2009).Historical Perspective of technologies used in Medical Communications, past Present, and Future. *Drug information Journal*,43(6),P-705-712.
- 9.Folb,Barbara.L.(2011).Clinical and Academic use of electronic and print books : the Health Sciences Library System e-book study at the University of Pittsburgh. *J Medical Library Association*,99(3),P-218-228.
- 10.Gaze,Andrew.(et.al.)(2008).Mega mergers : A systematic approach to the integration of two medical information departments. *Drug information Journal*,42(2), P- 183-191.
- 11.Jange, Suresh.and Sami, Lalitha.K.(2009).Challenges and opportunities : A trend report of internet users at National Institutes of Technology in India. *SRELS Journal of Information Management*,46(4),P-391-402.
- 12.Kacherki, Umeshreddy and Thombare, Mahesh.J (2010).Print Vs e-journal and information seeking patterns of users : A case study of SPJIMR. *DESIDOC J Library & Information Technology*, 30(1),P-22-25.
- 13.Kuzma,Joanne (2011).Web vulnerability study of online pharmacy sites. *Information for Health & Social Care*,36(1),P-20-34.
- 14.Magnier-Watanabe,Remy (2011).The Role of a strong Corporate Mission for Knowledge Management. *J Information Knowledge Management*,10(2),P-109-122.
- 15.Masami,Hamada. (2008).Thesaurus for Medical and Health Related Terms and it's application for indexing.51(9),P-642-652.
- 16.Nallo,Di.(2008). Insights into the issues facing pharmaceutical companies for information provision : A report on the P-D-R special meeting, La Grande Motte,28-29 February 2008.*Interlending and Document Supply*,36(3),P-158-161.
- 17.Natarajan, K (et.al.)(2010).Use and user perception of electronic resources in AnnamalaiUniversity : A case study.57(3),P-59-64.
- 18.Nielsen.Henning.P. and Vogt ,Sven-Olaf.(2010). What Phamaceutical Libraries really want? *Learned Publishing*, 23(1),P-53-58.
- 19.Nishikawa,Takaya.(2009) Series : Footsteps of information retrieval service pioneers(13): A case report of Ringdoc(Pharmaceutical Information Service), the history of Japan user council of Ringdoc. *J information Science & Technology Association*,59(4),P-187-192.
- 20.Obst, O.(1998).Use of Internet sources by German Medical Professionals. *Bulletin of Medical Library Association*,86(4),P-528-533.
- 21.Patil, D.B. and Parameshwar,S.(2009).Use of electronic resources by the faculty members & research scholars in Gulbarga University, Gulbarga : A Survey. *SRELSJ of Information Management*,46(1),P-51-60.
- 22.Perry,T. and Perry, L.A.(1998). Internet use by university students : An interdisciplinary study on three campuses. *Internet Research: Electronic Networking Applications*,8(2),P-136-141.
- 23.Sujatha, H R and Mudhal, Mahesh.V.(2009).Evaluation of electronic information services in the Fisheries College Libraries in South India : A study. *SRELSJ Information Management*,46(3);P-277-282.
- 24.SurendraBabu,K. and Sarada, B and Ramaiah, C.K.(2010).Use of Internet resources in the S V University. *Digital Library*,30(1),P-26-31.
- 25.Stojadinovic,Tatjana.(2010). E-business in the regulation of Medicines in Serbia. *Drug Information Journal*,44(2),P-177-187.
- 26.Velterop,Jan.(2010).Nanopublications The Future of Coping with Information Overload. *LOGOS.The Journal of the World Book Community*,21(3-4),P-119-122
27. Karen Markey, Drabenstott.(2004).Information Retrieval Systems for End Users: Primetime Players That Just Don't Make the Grade. *Journal of Education for Library and Information Science*,45(2),p-173-177.
- 28.Chowdhury, G.G.(2010).Introduction to modern information retrieval.3rdEd.London : Facet Publishing.
- 29.Chu,Heiting.(2009).Information Representation and Retrieval in the digital age.1stEd.New Delhi : EssEss Publications.
30. Bloomer, Gertrude.(1956).Library Resources of the Pharmaceutical Industry.*Advances in Chemistry Series-American Chemical Society*,p-47-49.
- 31.Brown, Horace.D.(1984).Information Requirments for Chemists in the Pharmaceutical Industry. *J ChemInf Comput Sci*, 24,P-155-158.

32. Onwuchekwa, Edeama.O. and Jegede, Olumakinde Richard.(2011).Information Retrieval Methods in Libraries and information Centres.African Research Reviews,5(6),p-108-120.
33. Gokhale, Pratibha.A and Kannan,Sudha.(2012). Retrieving patents : An overview for Pharmaceutical Industry.DESIDOC Journal of Library and Information Technology,32(3),p-220-227.



Pratibha Gokhale

Retd.-Head of DLIS and I/C Librarian, University of Mumbai, Kalina , Vidyanagari, Santacruz(E), Mumbai.



H. A. Biradar

Research Scholar, DLIS, University of Mumbai , Kalina, Vidyanagari , Santacruz(E), Mumbai.