CHAPTER 4
NEED OF USER STUDIES

4.1 Introduction:
Every human being is in need of Information which is required for growth, development and sustainability of life and this applies to industries also. Continuous development takes place based on new information provided to chemist and hence users depends upon libraries for the updated current pinpointed information. Since the world is advancing and due to enormous competition there is a need of well-developed library systems, to keep users updated about the development in their area of interest. Information regarding latest developments carried around the world have to reach to the end users for better utility and development of new products. The main purpose of libraries is to update and inform users regarding different developments to sustain in the market and remain competitive in their field. The library and information systems are changing tremendously and growing in exponential way in terms of knowledge and technology. However there is a need to assess users in respect of their need and on this basis provide them information sources for the development. This is the main reason of undertaking user studies for providing sufficient information on their needs and provide them right information in the information explosion era. The purpose of user studies is to collect the need based information sources and improve services provided through library. User studies and are now considered as information seeking behavior in which users are analyzed with different angles in terms of using information. User need's analysis can be achieved through user studies, which helps to identify users and their specific information requirements.

The way users use to search for information are changing due to transition in the publications and the major shift is due to the digital era, hence user expectations from libraries to provide effective information retrieving tools is also shifted. For researchers, scientist, chemist in industry information plays an important role in developing a knowledge base and need recent information in their field continuously. Due to changing practices information can be accessed by users directly from the sources but proper skills are required to collect and present the appropriate information. The major role of libraries and librarians is to explore the information published for users by
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acquiring and providing different library services, which helps scientist to improve their research studies and generation of new products in the competitive world.

4.2 What is User Study?

User studies are necessary in libraries to identify user expectations, user behavior and user needs. Tsakonas, G (2011) defined user studies as “User Studies are research studies focusing on the use of information sources from end users”. User studies focused on channels of information like – means (formats) networks (social, academic, work place networks) or information providing systems (IRS, DL, Web Search System, Intranet etc.) and information sources. However in users study use of information sources are considered as dependent variable while user are consider independent variable. Dependant variables are focused on usage factor, what is used? How is used? Why it is used? And Users opinion. Whereas independent variable deals with age, sex, working area, educational level, location, communities etc. (www.dbis/dlib/ionio/gr/workshop2011/presentations/Tsakonas.pdf)

User studies are of two types –

1. Usage Studies (What, Why and How much is used).
2. Behavior Studies (How and why something is used).

Usage studies are important for area of libraries and information related organization, usage studies have practical significance and they can assist in decision making. They focus on usage patterns, usage studies are conducted for cost benefit decision like subscription / operational cost, cost per user (download, view etc.) understanding users.

4.3 Why to Conduct User Studies?

User studies, use studies, information-need studies, information transfer studies, communication behavior studies, information dissemination and utilization studies, user-research, etc., are all closely related terms. The aim of user study is to help in designing, altering, evaluating and improving efficiency and effectiveness of library and information systems and their products/services in meeting their user needs. For understanding the user, many approaches (or models) have been used as conceptual frame works like different models developed by Dervin (1986), Belkin (1982) Taylor (1962) Kuhlthau (1983,1993) to identify user needs and problems. These models helped
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in identifying and improving library services for user’s and measuring satisfaction and needs. (http://core.ac.uk/download/pdf/11881510.pdf M.S. Sridhar) Rhyne, T(Ed) in her communication also discussed in detail the role of user study. The author has pointed out that “User studies are scientifically sound methods to measure the performance of library system”.

The term information seeking behavior is now used popularly for identifying how users use the information and find out his needed information from different information resources. Few scholars Wilson (1981, 1999), Norman (1988), Ellis (1989, 1993), Foster (2004) have developed models for finding out information seeking behavior.

4.4 Purpose of User Studies:

Banwell and Coulson (2004) in their communication user and user study methodology listed out the purpose of conducting user studies:

- User studies help in developing proper collection development based on user needs.
- Helps in defining users' wants, needs, contexts, motivations, expectations and tasks.
- Helps in identifying use of information sources actually used by users.
- Identifying barriers in finding information by users.
- Track the use of information services provided by libraries.
- Helps in finding out use of different information resources by the users.
- Evaluate needs of users based on SWOT

Thus the main purpose behind user survey / studies is to improve existing conditions. To find out requirement of users can be managed only through user studies, which helps in identifying users and their specific information needs. A user study supports formulating decisions helping in improving the administrative process of libraries.

The purpose behind conducting user survey is to find out type of users, their needs, finding user information behavior, evaluation of library services provided to users and adding new services if required, and identifying level of satisfaction of users based on their needs and expectations from libraries.
The purpose of user studies is to improve library need based collection and provide services to enhance usage of library and its collection. Proper collection development and user centric services can only be achieved through understanding user needs and user studies, which helps to identify users and their specific information requirements. User studies gives picture of information acquisition process and the different types of information sources and the frequency with which they are used by the users. In general, it can be said that carrying out user studies is the most effective way of determining user needs and therefore establishing the facilities to meet them properly; they also enable continuous evaluation of the system to take place.

4.5 Need for User Studies:
As long as library and information systems are required and existing, there is a need for user studies which may be beneficial for the managing effective use of collection and providing user based cost effective services (Sridhar, 1994). User studies are effective in improving library systems but user studies needs to be conducted periodically as user needs changes as per the project needs. User studies improves public relations of a library with its users.

The need for conducting user studies are (Khandare, 2013):
1) To identify the actual strengths and weaknesses of library resources and services
2) To identify the levels and kinds of user needs
3) To identify the limitations or problems in use of information resources
4) To improve the organization and planning of library services.
5) To find out the information seeking attitudes of users
6) To find out users requirement and expectations from the library, in terms of type, quality and range of services to satisfy their needs.

4.6 What to Understand about Users:
For librarians there is a need to understand the behavior of users towards information needs hence librarians conduct user surveys using different methods and try to analyze different factors which impacts on use of information. From the user’s librarian ascertain user characteristics, information needs, information behavior, attitude towards information, user’s opinion about library and evaluate users based on critical evaluation. User-studies try to find out similarities and differences among the users on
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the grounds of status, age, experience, education, specialization, field of research, discipline, etc. The terms 'requirements' the 'needs', 'wants' and 'demands' represents similar meaning and connotes needs as perceived by the users based on objectives of organization. Information-needs are categorized as 'perceived needs', 'actual or idealized needs', 'immediate needs', 'deferred needs', 'continuous needs', 'discrete needs', 'regular' and 'irregular needs' etc. (Sridhar -1994).

4.7 Methods Applied for User Studies:
Generally for identifying user needs user studies are conducted using survey methods as a main technique and questionnaire, interviews, observations, discussion or diaries, case studies, content analysis etc. are used as technique for data collection.

4.8 User and Information Needs:
Information is called as commodity, since it has an economic value. Information is basic element in development of industries. The present century is treated as an era of information revolution and libraries are also adopting these new changes and migrating towards use of electronic information sources. There are different forms of e-resources available and it’s difficult to select the relevant one. Users found difficult to manage with the information explosion and need pinpointed as well as accurate information in their field in the present era searching and gathering information has become more complex and expensive due to information explosion. The traditional services such as reference service, current awareness services and selective dissemination of information does not fulfill user needs but requires new services such as accessing e-resources, databases as well as internet resources, libraries Alerts, Digests are more in demand. The basic challenges in the library profession is to convince and convert traditional users into users of internet-based and network based resources and services to meet out their needs.

Leckie, Pettigrew and Sylvain (1996), Wilson (2000) have explained in their article regarding the user information needs and highlighted the evaluation of ISB which is essential to render library services. Information needs have been analyzed by many scholars and information requirement is different for different users and in order to
provide efficient information resources and information services one has to know user’s needs. The users can be classified as:

- Potential user - those who need information which can be provided through specific services;
- Expected user - those who are known to have the intention of using certain information services;
- Actual user - those who actually use information service regardless of the fact whether the derived advantage from such a service or not; and
- Beneficiary user - those who derive a measurable advantage from information services.

UNESCO has also categorized two types of users’ viz. Actual and Potential users. (http://www.unesco.org/webworld/ramp/html/r8722e/r8722e0l.htm).

It may be worth noting here that Ranganathan (1988) has grouped users on the basis of types of services provided:

i) Freshman, (Need information to get awareness in the area)
ii) Ordinary and General (refer to information sources without any specific need)
iii) Specialist (Expert users engaged in R & D and needs constant information support)

The services provided by special libraries focuses mainly on needs of the users. Users demand depends upon the organization requirement, technology, products etc. Librarian has to review the information needs and priorities required by the users from time to time.

The main information needs of users fall into two categories:

- The need to get specific information published in documents which have bibliographical references which are known by the users.
- The need to find out information relating to a particular technology, theory etc. or information is required to solve a particular problem, or information required
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on the latest developments in a specialized field to keep users informed and updated with information. (http://www.unesco.org/webworld/ramp/html/r8722e/r8722e0l.htm)

This clearly indicates that need for information depends upon the user requirements and demands of the users. Information needs changes from user to user in the organization and from time to time. Librarian has to identify needs and facilitate users by providing the required information.

Lancaster (1988) grouped users according to the information needs as follow:

- Need for a single document of a factual type, for example, rapid reference queries commonly handled by libraries;
- Need to consult one or more documents on a particular subject;
- Need for a comprehensive search, involving the retrieval of the maximum number of published documents on a particular subject in a given period of time.

The problems faced by Librarians are, users generally do not know their information sources and therefore do not express those needs completely. Hence in order to determine the information needs of the user it is necessary to interact with users and find out type of information required by them. In some cases users are unaware of the information sources and services available to them. If they clearly mention the requirement and if librarian is unable to find the same, it can be diverted to the clearing houses or information institutes.

Librarians are responsible for the efficiency of the system and direct users to the relevant sources of information and provide needed information through library services, as per user demands. In addition, information sources can also anticipate the requirements of users and gear itself to them; this can only be done through continuous communication, making it possible not only to establish current needs but also to design new trends which helps users to keep updated themselves with new information demands. Information service is a generic term for a library or other organization of which main role is the collection, analysis, dissemination and presentation of information. Such information may be required by the organization, or assemble on
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demand or distributed for publicity purpose. The type of services provided by libraries and information centers could be in response to some demand or may be in anticipation.

4.9 Information Seeking Behavior:
In chemical industries we can see different types of users, they may be scientist, engineers, project assistant, Managing Director, CEOs or trainees. According to their job need for the information differs such as information may be required by scientist for their ongoing research project, engineers or trainees may require information to know about any technology updating, management or marketing personnel may require market data or company related information or any new plants/factories or upcoming competitors information. It is been observed in Libraries that each user have their own ways of finding the information. They may either approach librarian for the information or can directly locate the resources or may approach clearing agents or may share the information by found by their colleagues depending upon their need. Hence there was a need felt to study the information gathering techniques used by users, how they fulfill their needs and the problems faced while searching for the information.

The information seeking behavior was studied by Bernal (1960), and author presented a paper on scientific information at Royal Society Conference. Authors, scholars and researchers from different disciplines have highlighted and opined the need for ISB studies in different fields. In today’s era of technology, information has grown tremendously and can be accessed in different form by the users. It’s a challenge for librarians to make available information to the users in different formats. Now a day’s user expects the information should be available to them on their desktop, laptop, mobile handset or through e-mail 24X7. But it’s becoming difficult for getting a pinpointed information required by the users due to big amount of information being published in print format, e-formats, databases, CD-ROMs, internet etc. Hence Librarian as well as users have a challenge of finding appropriate and authentic information. Users at first tries to get the information on-line that is through the free sources available over internet but they are not aware the available information is authentic and can be relayed on it. Because of internet sources are made freely available, users are getting confused and diverted from the right information. In such situation information seeking becomes difficult and hence its librarian's duty to know about the
information requirement and accordingly search and deliver the information to the users, this is nothing but studying of information seeking behavior of users and accordingly provide right information to the right user. In general in industries librarians have to understand information needs and ISB of users. Information seeking behavior refers to the way people search for and utilize information. It mainly focuses on methods of seeking information by user, evaluation and use of information to satisfy their needs.

Since 1940's many studies have been conducted to assess information needs and ISB of different category of users. The initial studies were focused mostly on scientists, technologists to meet their needs and later the scope of ISB expanded by covering researchers, scholars, academicians, students and faculties from various disciplines. In industry researcher, scientist, management personnel and trainees are the major users of information and library have to fulfil their needs by providing them market updates related to their products, competitors information, technology updates, upcoming projects, conferences, seminars etc.

Librarian while searching for information should focus on the Users ISB which helps in collection development in libraries as well as providing right information services to the users. The study of behavioral pattern is not easy because each users is different from each other and have different requirements. Their approach towards information seeking is different and have different ways to satisfy their information needs. Studies have been carried out by various scholars in past years to find ISB of various user groups in both print and electronic format. Information seeking studies are generally conducted to analyze the user, to understand user's psychology, attitude, subject interest, working condition, etc. User studies and ISB is therefore related with designing information system.

4.10. User Expectations from Library:

Users are important for libraries, without users information system loses its complete purpose. In a library set-up it is very important to understand who are the users and what they need and how needs can be satisfied using the library collection and services. If people are not using the library resources properly, they are not aware of the
availability of information in the library. The user is termed as user, consumer, patron, client etc. but they are synonymically used in library profession. Heidi (1999) classified the user component.

Line (1998) has defined expectations of user’s from the library and few of them are summarized as:

- Facilities required by users and long opening hours of libraries
- A variety of area for study purpose (individual space and space for group)
- A coffee shop where one can relax.
- Easy and good access to information in library with Wi-Fi environment.
- Speedy procedures for circulation
- The ability to access a variety of media from one workstation.
- An easy to use web catalogue which is easily accessible.
- Speedy access to the resources not held in the library.
- Friendly behavior of staff with users.

The expectations of users defined by Line (1998) are true in case of traditional libraries as well as technology based libraries. But apart from these expectations, few more could be added to the list after analyzing the trends as under:

a. The collection in library must be developed based on user needs and according to mission and vision of institute.
b. More information services based on print and e-resources
c. Guidance and assistance from library staff to search proper information.
d. Increased usage of e-resources and need to orient users i.e. developed information literacy among users.
e. Economical ways for collection development using different models
f. Users need pinpointed information within no time from different sources.

There is a need to design a system in libraries for developing proper collection and services to be provided to users based on their needs. It is not possible to satisfy all the users but the facilities provided can be easily made available and can be used by every user according to their own needs. In addition to this user centric services can be
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introduced using online searching of e-resources. To re-engineer the practices in libraries librarians have to observe and understand the user needs. The library can also construct a profile of its user’s interest and match it regularly against the available databases. Librarians need to listen and learn to find out the requirements of the clientele and make provision of information sources accordingly. This can be successfully achieved only if libraries measure their performances and undertake ISB studies and user studies.

4.11. User Studies and Surveys:

In the early years user studies “research was conducted which later shifted from studies of library and documentation use to user behavior or the information behavior, information seeking behavior. The term user study means a study of user’s need for information. The purpose of user study is to make an attempt to discover patterns of use and levels of awareness of users towards library services and facilities, to determine success of services and to identify what adjustments are needed in service strategy. According to Busha and Harter (1980) “User studies are often instigated as attempts to understand justify explain or expand library usage and consequently to gain more knowledge about the process of communication in so far as libraries and their clientele are concerned”. According to Kamaruddin (1992) indicated that user study is a systematic study of information requirements of users in order to facilitate exchanges between information system and users. Pao (1989) grouped user studies in three stages:

1. User oriented studies
2. System use oriented studies
3. Utility oriented studies

User oriented studies focused on characteristics of users and Pao (1989) considers points in his study are: age, educational level, task description etc. System use oriented studies drive their data from the system. The transactions between users and the system are investigated and examined like loan through ILL, number of online searchers performed. Utility oriented studies are reflected to information use and its impact. The purpose of user study is:

- To identify the needs of users
- To identify the resources and services required by users
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- To identify strength and weakness of library resources
- For collection development
- For proper collection of resources

User study is a complex process as it holds studies of information needs, information use, ISB, use of information sources and channels. Accessing information needs and ISB is the base for designing information systems and services. Information provider cannot provide information unless he knows or identifies need and expectation of users. The “Centre for Research on User studies” defines user study as a “multidisciplinary art of knowledge being the study of the behavior of users (and non-users) of information systems and services.”

Summary:
This chapter highlighted different angels of user needs which is main focus of any library and information center. Without user study users need cannot be identified and this chapter focused on the basics of need of user studies and its components. The researcher analyzed information needs of user and tried to understand the expectations of users and their needs.

References:


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