4.1 Introduction

User studies are one of the most important and useful areas of research in library and information science. These studies form a large body of literature in the discipline. The present study recounts the evolution of user studies by exploring the related key concepts of the field, but user studies/ surveys on law library users are very rare in India. On the other hand, enormous studies have been undertaken in the western countries and their number is constantly increasing.

Libraries have been collecting traditionally various kinds of sources and holding them ready for use by the users. Due to an exponential growth of knowledge, there have been complexities in the information generation, handling and use. The impact of ICT (Information and communication technology), web technology and database technology have compelled the libraries to use these technologies effectively to provide services to the users. With the growing number of e-sources, it has become essential for the law library and information professionals to play the critical and exhibit the professional skills and techniques. In order to maximize the impact of law library services and the maximum use of their resources and services, it is essential on the part of Library and Information professionals to know about the users and their needs. The only they can deliver is
the need based information services. The user characteristics are an important component of the user studies. The user characteristics are innumerable and could be clustered in different groups in various ways.

4.2 Concept of User Studies

In order to improve the existing system of library and its services, the library administrators should modify or develop the libraries in accordance with the users’ needs and interest. This is by undertaking the user studies and collecting opinion of the users in the form of feedback. The user feedbacks provide platform for the assessment of the quality of library and quality of the services and their extent of utility. Hence, as the user plays a pivotal role in the improvement of the library system, it is necessary to know the user psychological behaviours such as their information needs, the way of gathering information, the extent of use of library resources, the problems facing while using existing resources and their expectations from the system. Thus, the concept of user studies developed and over the period of time it is inevitable to conduct the user studies periodically to improve and develop the library as a system.

"User studies look for similarities and differences among the users in terms of their backgrounds like status, age, experience, education, specialization, field of research, etc when the analysis is at the organization level (against individual level) they look for differences in nature of organizations and at the same time users were also grouped as theoreticians or fundamental research workers, practitioners, etc.” (Sridhar, 2002).
4.2.1 S.R. Ranganathan’s Five Laws of Library Science and User Studies

In fact the concept of ‘User Study’ prevail in the five laws of Library Science of S.R. Ranganathan. Let us see how they depict it by asking questions while assessing the users;

- Books are for use -
  Are library’s certain services available for use

- Every user his/her book-
  Whether the information desired by you is available in the library

- Every book its user-
  Whether the existing services used by you

- Save the time of user-
  Whether the services/information reaches on time

- A library is a growing organism-
  Whether the collection/services is/are adequate

Hence the history of user studies have roots in Ranganathan’s five laws of library science, 1931.

4.3 Meaning and Definition

As the words depict, it is a study focused on the users to understand directly or indirectly their needs, difficulties, behavior and use pattern of the library and its services as a whole. “The term ‘user study’ is preferred to ‘library surveys’ because the studies of information need or information use behavior focus upon a wider range of information sources and channels rather than on simply libraries. A user study comprises the study of people’s need for, and use of information. A user
study may be defined as systematic study of information requirements of users in order to facilitate a meaningful exchange between information systems and users” (Kawatra, 1997).

The term Use: “The ‘use’ is what an individual actually uses. A ‘use’ may be a satisfied demand, or it may be the result of browsing or a chance. Individuals can only use what is available. ‘Use’ is therefore, heavily dependent on the provision and availability of library and Information services. A user usually represents a need of some kind. But need is independent of use” (Sridhar, 1989, P11).

4.3.1 Information

“The information may be reasonably considered a primitive concept, as are energy, electricity, distance, power, and work. One understands each of them intuitively, but there are no adequate definitions for them. Their lack of precise definition has not prevented men and women from studying their properties, behaviours, and interrelationships within systems and organizations” (Pao, 1989)

Belkin is “not concerned with definitions of information, but rather with concepts of information. The distinction is that a definition presumably says what a phenomenon defined is, whereas a concept is always of looking at, or interpreting the phenomenon. By accepting the idea of a concept, one becomes free to look for a useful concept rather than a universally true definition of information” (Belkin, 1978). “While information needs may be influenced by factors relating to the individual as above, there are also other more general characteristics of
information needs that enter into the equation. Two examples of these general factors are frequency and complexity” (Bresnick, 1988).

4.3.2 Information Need

The “information need” is another term that has been discussed and approached from many different perspectives. Much of the discussion has been orientated towards the clarification of other related concepts such as “wants”, “requests”, “demands”, and so on.

“Information need is a term closely related to the concept of information seeking behaviour. A user recognising an information need, articulates it into a question, or, request which is conveyed through formal or/and informal channels of communication and information systems, in order to receive a response (verbal written, visual) which will satisfy that need. The decisions concerning which communication channels and information systems will be used, as well as in which way and how they constitute the information seeking behaviour of a user. Due to the existence of many internal factors that are concerned with the individual user, the examination of the information seeking behavior becomes very difficult and complicated” (Siatri, 1999).

Leuplot pointed out that the information requirements are more or less adequate reflection of the information need and the need to satisfy it. “Information needs and information requirements are mutually interdependent and the requirement is the reflection of the objectively existing information need. Further the relation between information need and information requirement is to be seen
in the light of the fact for satisfying the information needs. It is necessary to meet the information requirements corresponding to that information need” (Leuplot, 1983).

For McGarry need is the basic concept of information studies but it is difficult to define it precisely and accurately. However, it implies lack of something which, if given would enhance our welfare or make easier the attainment of whatever objectives we may have in mind. “The concept needs can be known through the various terms such as want (a state or fact of being without or having an insufficient, absence or deficiency of necessities), desire (an unsatisfied longing or craving), demand (to require, asking for what is due or asking for something), and requirement (a need, a thing needed, necessary condition)”.

Atkin has beautifully defined the term “information need” that “a function of extrinsic uncertainty produced by a perceived discrepancy between the individual’s current level of certainty about important environmental objects and a criterion state that he seeks to achieve”.

### 4.3.3 Information Seeking Behaviour

“Information seeking is a human process that requires adaptive and reflective control over the afferent and efferent actions of the information seeker. Information seeking behavior (ISB) resulted from the recognition of some needs, perceived by the user, who as a consequence makes demand upon on formal system such as libraries and information centres, or some other person in order to satisfy the perceived information need. The information seeking behavior
essentially refers to locate discrete knowledge elements. It is concerned with the interactive utilization of the three basic resources namely, people, information and system. Further in order, to satisfy the information needs, the user actively undergoes the information seeking process. The attempt of the user in obtaining the needed information results from the recognition of some needs, perceived by the user" (Singh & Satija, 2006).

4.4 Purpose of User Study

The purpose of user studies is primarily to identify the users’ perceptions of library resources. Occasionally, they conduct surveys to compare themselves with other institutions. To mention following are the few factors to assess:

• Patterns, frequency, ease, and success of use
• User needs, expectations, perspectives, priorities, and preferences for library collections, services, and systems
• User satisfaction with library tools, library collections, services, staff, and Web sites
• Service quality
• Shifts in user attitude and opinion
• Relevance of collections or services to the curriculum

4.5 Types of User Studies

User Studies can be classified broadly as two categories;

1. User Centered Studies
2. System Centered Studies.
In both kinds of studies, the target group for the collection of data is the user only. User centered studies are designed to assess the user by types of users, needs, behaviours, problems faced by them etc. the main purpose is to understand the users whereas in System centered studies, the information is gathered from the users to know the loopholes, advantages of the services offered by the system. The main purpose of the system centered study is to improve and develop the system as a whole. In other words, first one is to know the user later one is to know the system.

4.6 Models

Wilson defines a model as “A model may be described as a framework for thinking about a problem and may evolve into a statement of the relationships among theoretical propositions. Most models in the general field of information seeking behaviour are of the former variety: they are statements, often in the form of diagrams that attempt to describe an information-seeking activity, the causes and consequences of that activity, or the relationships among stages in information-seeking behavior”. Rarely do such models advance to the stage of specifying relationships among theoretical propositions: rather, they are at a pre-theoretical stage, but may suggest relationships that might be fruitful to explore or test.

The models that have been developed to date by information behavior researchers are not necessarily applicable to all user groups. Research seems to indicate that various factors influence specific information needs and information seeking behaviour that are often context-specific, such as, the users’ work role.
Some models comprehensively study users from information behaviour, information-seeking and information needs perspectives whereas other models only focus on aspects of information retrieval. Furthermore, a model intended for a study of information behaviour should allow for a description and explanation of user behaviour and should focus on the user.

4.6.1 Wilson's First 1981 model of information behaviour

Wilson labels his models 'information behaviour models' to distinguish them from the 'information search models' as they are understood by information retrieval researchers. These models are more concerned with user behaviour surrounding the actual initiation of information-seeking and have a broader
perspective of the information search than the use of computer-based information retrieval systems. The aim of Wilson’s 1981 model was to outline the various areas covered by what he proposed as ‘information-seeking behaviour’ as an alternative to ‘information needs’.

Wilson’s first 1981 model suggests that information seeking behavior arises as a consequence of a need perceived by an information user. In order to satisfy that need, the user then makes demands upon formal or informal information sources or systems. These demands for information result in success or failure in finding relevant information. The successful retrieval of information results in user satisfaction while failure would result in non-satisfaction and require the user to adapt his search using a different information system.

Wilson’s first 1981 model shows that part of information seeking behaviour may involve other people through information exchange. The information perceived as useful may also be passed on to other people as well as by the person seeking the information a threefold view of information-seeking. Although Wilson’s model only draws attention to gaps in research it continues to serve as a framework in present research with as much validity as at the time of its conception.

4.6.2 Wilson 1996 model of information behavior

Wilson made major revisions to his 1981 model of information behaviour, in his 1996 model. He drew upon research from a variety of fields other than Information Science. These fields include decision-making theory, psychology, innovation, and health communication and consumer research. The model pictures
the cycle of information activities, from the rise of the information need (context of information need) to the phase when information is being used (information processing and use).

The basic framework of Wilson's 1981 model remains in the 1996 model. The 'intervening variables' (as illustrated in the third group of concepts in figure) now represent the information-seeking barriers, that is psychological, demographic, role-related or interpersonal, environmental and source characteristics.

The 1996 model now also identifies 'information-seeking behaviour' (in the fifth group of concepts in the figure), namely passive attention, passive search, active search and ongoing search. The suggestion is that the impact of the intervening variables may support and prevent information use while information-seeking behaviour consists of more types of information-seeking behaviour than identified in the 1981 model. If information needs are to be satisfied, 'information processing and use' becomes an essential part of the feedback loop shown at the bottom of the model.

The 1996 model also presents three relevant theoretical ideas as activating mechanisms to explain user behaviour. In the second and fourth group of concepts in figure these mechanisms are represented as and the stress/coping, risk/reward, social learning theory and 'self-efficacy'. The activating mechanisms are psychological factors which are explained by these different theories and which prompt the user to proceed with the information seeking process.

4.6.3 Stage process version of Ellis' (1994) behavioural framework

Ellis first described his model of information-seeking behaviour in 1984 and has since then developed the model in information-seeking studies of various groups of researchers, including engineers. Ellis derived eight generic characteristics of the information-seeking patterns of social scientists. Ellis later extended this work to physicists, chemists and engineers. The figure given below is a stage process version of Ellis’ model.
A stage process version of Ellis's behavioural framework

The eight characteristics of Ellis' model of information-seeking behavior represents the types of activities, rather than the stages that the users of information systems might want to accomplish through the systems and do not directly provide any design specifications for the systems. These are starting or surveying; browsing, chaining, monitoring, differentiating, extracting, filtering or verifying and ending.

**Starting:** Starting activity is characteristic of the initial search for information and involves identifying the initial materials to search through and select starting points for the search.

**Browsing:** Browsing involves a semi-directed searching in an area of potential interest as a monitoring activity going through the scanning of journals and tables of contents etc, to find the something of particular interest.

**Chaining:** Chaining is when the information seeker follows the chains of citations or other forms of referential connection between materials to identify new sources of information. Chaining can be forwarded where the user is looking for new
sources that refer to the initial source or follows footnotes and citations in an information source.

**Differentiating:** Differentiating is characterized by activities in which the user ranks the information sources based on their relevance and value to his or her information need.

**Monitoring:** Monitoring is similar to searching for the information for current awareness purposes where the user maintains an awareness of developments in his field of interest through the monitoring of particular sources.

**Filtering:** Filtering involves the use of certain criteria or mechanisms when searching for information to make the information as relevant and precise as possible, mainly through computerized literature searches.

**Extracting:** The user systematically works through a particular source to locate material of interest in the extracting mode. This implies the selective identification of relevant material in an information source and represents a major feature of the information-seeking patterns of many researchers.

**Ending:** Ending involves “tying up the loose ends” through a final search.

### 4.6.4 Kuhlthau’s (1993) information search process model

Kuhlthau’s information search process (ISP) model focuses on the affective and cognitive aspects of the information search process. According to Pettigrew, Fidel and Bruce her study is “a landmark study” which sets the scene for researchers “within the cognitive framework.” Fidel maintains that”the study is one
of the best examples of holistic research in which three realms were incorporated: the affective (feelings), the cognitive (thoughts) and the physical (actions) that are common to each stage of the information search process.” The model has also been employed in a number of later empirical studies, most of them dealing with relevance criteria or web information retrieval.

**Kuhlthau’s (1993) information search process model**

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Initiations</th>
<th>Selection</th>
<th>Exploration</th>
<th>Search</th>
<th>Information Search</th>
<th>Starting</th>
<th>Formulation</th>
<th>Collection</th>
<th>Closure</th>
<th>Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feelings</td>
<td>Uncertainty</td>
<td>Optimism</td>
<td>Confusion</td>
<td>Clarity</td>
<td>Sense of Relief</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction or dissatisfaction</td>
<td>Frustration</td>
<td></td>
<td></td>
<td>direction/</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thoughts</td>
<td>Ambiguity</td>
<td>Specificity</td>
<td></td>
<td></td>
<td>Increase interest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Action</td>
<td>Seeking relevant information</td>
<td>Seeking pertinent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Kuhlthau C.C., 1993.

The different stages identified by Kuhlthau in the Information Search Process model are task initiation, topic selection, exploration, search formulation, information collection, search closure, and starting writing.

**Initiation:** The user becomes aware of an information need. Uncertainty and apprehension are the common feelings at this stage.

**Selection:** The user identifies and selects the general topic for seeking information. The user experiences a brief sense of optimism and a readiness to begin the search.
Exploration: This stage involves the seeking and investigation of information on the general topic. Feelings of uncertainty, confusion and doubt frequently increase during this stage.

Search Formulation: The user is now able to structure the problem which needs to be solved. Feelings of uncertainty diminish as user confidence increases.

Collection: Pertinent information for the focused topic is gathered. Uncertainty subsides as the user’s interest and involvement in the project deepens.

Search Closure: The search is completed. This enables the user to put the information to use and report on his or her findings.

4.7 Conclusion

The information seeking behavior basically refers to the strategies and measures undertaken to locate the distinct knowledge essentials. The information use studies over the years have attempted to make clear the information use phenomenon, to understand information use behavior and improve information use by manipulating necessary conditions. The information seeking behavior results from the recognition of some need experienced by the user. Over the years there has been a change in the understanding of the information use behavior. Many studies in the past have stressed on the psychological aspect of the information seeking behavior. The user’s information behavior is reflected in his affiliation to the information providing system such as library and its various products and services.
References


