CHAPTER 3

INFORMATION SEEKING BEHAVIOUR: AN OVERVIEW

3.1 INTRODUCTION

Information is power. It is a vital source for human beings for living a prosperous life on the earth. Information is all around and is utilized in all walks of life right from purchasing a pin to writing a research article by the human beings irrespective of caste, creed, gender, rich, poor, educated and uneducated. Thus the information helps against social imbalance. It is the supreme asset than all other movable and immovable asset that the people hold on earth. In the contemporary world people are valued as rich and poor not because of their assets; but they are valued as information rich and information poor. The information rich people are those who are highly skilled in identifying their information needs and apply seeking behaviours so as to access the information from both online and traditional resources successfully and satisfying their information needs. The information poor people are lacking in their skills in getting their information needs be satisfied.

3.2 INFORMATION – DEFINITIONAL ANALYSIS

According to Webster’s dictionary the word information is derived from Latin word ‘informatio’ which is derived from the verb ‘informare’, which means ‘to give form to mind’, ‘instruct’ and ‘teach’.
The following definitions apply in this study are either defined operationally or adapted from established definitions from authoritative sources.

3.2.1 Information

In the literature, Information Science, there are many definitions available with different approaches to information. A few of them are given below:

The widely known Information Theory of Shannon and Weaver (1949) defined the term information as ‘information is stimulus that reduces uncertainty and a purely quantitative measure of communicative exchanges’.

Chen and Hernon (1982) defined information as “all knowledge, ideas, facts, data and imaginative works of mind which are communicated formally and/or informally in any format”.

Bateson (1972) who had been in the process of finding a mathematical definition for information for two decades defined it as “any difference that makes a difference to a conscious human mind”.

Miller (1968) defines information as “any stimuli we recognize in our environment”.

3.2.2 Information Need

According to Grunig (1989) human need is defined as an ‘inner motivational state that brings about thought and action”. The definition was subsequently expanded as ‘inner states’ may include, for example, wanting, believing, doubting, fearing or expectations (Liebnau and Backhouse 1990)
Information needs emphasize the requirement of the identification of the right need. Information need affects the information seeking behavior and the entire information seeking process depends on the rightly determined information need. Lack in determining the right information need will create a perplexed state which will lead to ineffectiveness in getting the need to be satisfied.

Taylor (1968) introduced the concept of information need as a Personal, Psychological, sometimes in expressible, Vague and Unconscious conditions.

Wilson (1981) stated the view that information need motivates. Information behaviour is an embedded assumption of the user oriented paradigm which focuses upon what people think, do and feel when they seek and use information.

“Information need is described as an anomalous state of knowledge” (Belkin et al 1982.)

According to Dervin (1983) information need implies “a state that arises within a person, suggesting some kind of a gap that requires filling. When applied to the word information, as in information need, what is suggested is a gap that can be filled by something that the needing person calls “information”.

3.2.3 Information Seeking

Wilson (2000) defines information seeking as ‘the purposive seeking for information as a consequence of a need to satisfy some goal.'
Marchionini (1995) has given a definition from the point of view of problem oriented approach, which describes it ‘as a process in which humans purposefully engage in order to change their state of knowledge’ and which is ‘closely related to learning and problem solving’. A more restrictive definition was offered by Johnson (1997). According to him information seeking can be defined as “purposive acquisition of information from selected information careers”

3.2.4 Information Seeking Behaviour

Information seeking behavior is the application of attitudes through set of actions in order to achieve desired information need. When attitudes and actions are collaborated the performance emerges. Based on the level of performance, the satisfaction level of the acquired information is determined.

Wilson (1999) defines the term information seeking behaviour as ‘the totality of human behaviour in relation to sources and channels of information, including both active and passive information seeking and information use. Thus it includes face-to-face communication with others, as well as the passive reception of information as in, for example watching television advertisements without any intention to act on the information given.

Case (2002) defined information behaviour as “Information behaviour encompasses information seeking as well as the totality of other unintentional or passive behaviours (such as glimpsing or encountering information) as well as purposive behaviour that do not involve seeking such as avoiding information”

A study of University College London (2008) for Joint Information Systems Committee, on information behaviour of the researcher of the future
in the Google Generation detailed six different characteristics of online information seeking behavior:

- horizontal information seekers
- navigation
- viewers
- squirreling behavior
- diverse information seekers
- Checking information seekers.

3.3 INFORMATION SEEKING BEHAVIOUR: A BRIEF HISTORY

The emergence of the concept of information seeking behaviour can be understood by knowing the origin of User Studies, since the user studies cover users’ characters, needs, and dependency and satisfaction level by nature. According to Wilson (1994) the term ‘User studies’ covers a wide range of research areas in Information Science and which can be expanded to include parts of Computer Science, Communication Studies and other fields. Its associated terms are information seeking behavior and information needs. These terms have diverse range of problem areas such as Bibliometrics, User Education, studies of Reading and Readership and Information Retrieval Design and Evaluation. At the initial stage, Ayres and McKinnie (1916) have conducted a library survey, which is the first trace of study in this direction. Later, the study of McDiarmid’s (1940) ‘Library survey’ referred to various kinds of surveys. These library surveys were focusing on how people used libraries to satisfy their needs. The Conference of Royal Society of Information (1948) changed the path of the studies from library survey to user studies. Another Conference at international level was conducted by the
National Academy of Sciences, Washington on Scientific Information (1959) focused on information needs of scientists and from there on a large number of studies on information seeking behavior of people belonging to a particular discipline were found to had been conducted.

In India, the user studies were highlighted by Ranganathan (1970) through his “Annotation on ‘User's Survey’". Later, studies in this direction were carried out by Panwar and Vyas (1976).

3.4 MODELS OF INFORMATION SEEKING BEHAVIOUR

Models are developed to represent and to have clear understanding on specific problems where theories are not sufficient. Models lead to the development of formal theories. Models exclusively make the content of the concept that they deal more tangible through illustrations in the form of diagram, chart, map, table, graph etc.

Reynolds (1971) defines a model as “by illustrating casual process, models make it easier to see if hypothesis are consistent with what we observe in real life”.

3.4.1 The Wilson Model (1981)

The Wilson model (1981) says that information need perceived by an information seeker gives way for information seeking behavior to occur. In order to satisfy the information need, the user demand for formal and informal information sources and systems. The demands lead him for either success or failure in getting required information. On success, the user gets his need be fully or partially be satisfied. On failure, the user restarts his search process. It was also explained that information seeking behaviour may involve other people through information exchange by means of passing the useful
information to them as well as using the information by the seekers themselves.

![Wilson Model (1981)]

**Figure 3.1 Wilson Model (1981)**

Limitation of this kind of model is that it provides no suggestion of contributory issues in information behaviour and as a result, it does not directly suggest hypotheses to be tested.

### 3.4.2 The Wilson Model (1996)

Wilson’s second model (1996) is complex and features the following:

It deals with the aspects as to why some seek more prompt information than others, reason for the more usage of resources from a particular source than others and ambiguous status among people in pursuance of a goal successfully based on the perception on their own efficacy. Features of the model are Activating Mechanisms for seeking
information which are affected by the Intervening variables of six types: Psychological aspects, Demographic background, Role related to social aspects, Environmental variable and Characteristics of role. This model recognizes search behaviours: Passive attention, Passive search, Active search and ongoing search. The term in the model ‘information processing and use’ implied that the information is evaluated to know its effectiveness on satisfying the need.

![The Wilson Model (1996)](image)

**Figure 3.2 The Wilson Model (1996)**

### 3.4.3 Kirkelas’s Model of Information Seeking

The Krikelas model (1983) is an early model and was cited widely. The model contains thirteen components. It is a general model that is applicable to ordinary life. In the model the twin actions namely information gathering and information giving are given at the top. The information gathering process is carried out based on the deferred needs which are kindled by an event or environment of the person who seeks information. The model shows that the gathered information is directed to memory or personal files.
Figure 3.3 Krikelas’s Model of Information Seeking

The other kind of action termed as ‘information giving’ which is carried out based on the immediate needs for which the information seeker assumed to select either internal or external source of preference. When the internal source leads to memory and personal files, the external source makes it to direct (interpersonal) contact and recorded material (literature).

One appealing aspect of the Krikelas’s model is its simplicity. The model is a simple; one dimensional flowchart in which all of the arrows travel in one direction and no one part of the process encompasses another (Case 2002).
3.4.4 Johnson’s Model

There are seven factors under three headings given in the Johnson’s model (1987). The fundamental process flows from left to right. The four factors under the heading antecedents are grouped under two subheadings which are termed as background factor and personal relevance. The background factor includes the factors of demographics and personal experience and the personal relevance factor includes salience and beliefs. The second heading Information carrier factors include characteristics and Utilities of the information channels selected and used by the seekers. The last heading is information seeking actions.

![Figure 3.4 Johnson’s Model (1987)](image)
3.4.5 Kuhlthau Model

The Kuhlthau Model (1992) is explained as follows

**Initiation**

When a person comes to know the lack of knowledge or understanding, uncertainty is felt. Thoughts would be vague and action for seeking information would be initiated.

**Selection**

In this stage the uncertainty on the area, topic or problem is got cleared and the person with a brief optimism get readies for exploration of the information.

**Exploration**

While exploring for information people will get doubt on the consistency of the information, confused on the compatibility and get frustrated in the process.
**Formulation**

In this stage the person gets focused perception which leads to clarity and the process of seeking for information gets continued.

**Collection**

The process of information seeking, senses the right direction, information related to the focused perspective is gathered and it minimizes the ambiguity of the information.

**Presentation**

After the completion of the search the seeker gets new knowledge which the person can present to others and put the knowledge to use.

**Assessment**

When the information seeker attains the required knowledge, seeker gets a sense of accomplishment and the self awareness increases.

### 3.4.6 Leckie’s Model of Information Seeking of Professionals

The Leckie’s model (1996) concentrates on professionals such as engineers, doctors and lawyers. This model features six factors connected by arrows flowing down from the top. When five factors are unidirectional one factor is bidirectional. According to this model the factor ‘work role’ enables ‘tasks’ to perform. The performance of the tasks creates information need. The model shows information seeking behaviour as a bidirectional arrow labeled as ‘information is sought’. The factor termed as ‘outcomes’ is the end result which connects the factors ‘source of information’, ‘awareness of information’ and ‘information is sought’ through feedback arrows.
3.5 THEORIES IN INFORMATION SEEKING BEHAVIOUR

There are many theories in the context of information seeking behaviour have been developed. A few of them are given below.

3.5.1 Zipf’s Principles of Least Effort

The Principle of Least Effort was proposed in 1949 by Harvard linguist George Kingsley Zipf in ‘Human Behavior and the Principle of Least Effort.’ According to Zipf (1949) each individual will adopt a course of action that will involve the expenditure of the probable least average of his work, in other words the least effort.
It can further be explained that an entity, organization, or system puts an effort either to make itself suitable for the emerging requirements of the environment or to change the environment in which it exists. For any of the above efforts the entity, organization, or system prefers an easier way of approach and cost.

With respect to information seeking, the principle of least effort postulates that the information seeker chooses a course of action that will involve most convenient search method for information seeking. The user will apply the searching tools that are most familiar and easy to use so as to find results. This happens in spite of the user having proficiency in technical searching.

Since libraries are user centric entities, the principles of least effort becomes important in planning the library system and conducting research in modern library concepts.

### 3.5.2 Uses and Gratifications Theory

The Uses and Gratifications theory has been developed by Katz, Blumler and Gurevitch (1974). The concept has come into existence during 1940 with the researches on the children’s use of comics. This theory is concerned with social and psychological needs and the behaviour of the people to media.

According to Elihu Katz, Jay Blumler, Mickael Gurevitch (1974), the paradigm of uses and Gratifications is ‘the social and psychological origins of needs which generate expectations of mass media or other sources, which lead to differential patterns of media exposure (or engagement in other activities), resulting in need gratifications and other consequences, perhaps mostly unintended ones.'
3.5.3 Sense Making Theory

The sense-making theory within the context of information science was developed by Brenda Dervin (1992). Though the process of sense-making was termed in different names by different disciplines for centuries, the term has been manifested in the fields of Human-computer interaction, organizational studies and information science.

According to Dervin the sense making methodology was described as theory for methodology that builds a bridge between substantive theory and metatheory. The concept was also explained as an active two-way process of fitting data into a frame (mental model) and fitting a frame around the data. Neither data nor frame comes first; data evoke frames and frames select and connect data. When there is no adequate fit, the data may be reconsidered or an existing frame may be revised.

3.6 CONCLUSION

The micro and macro level researches are continued to progress on all disciplines that cause emergence of new concepts or subject areas. Birth of Mechatronics, Bioinformatics, Nanotechnology etc., is a few among the examples in this line. These new sectors attract many people to work or to consume the outputs or initiate research within. This situation creates necessity for understanding the users’ information needs and information seeking behaviour. This phenomenon becomes instrumental for the conduct of continual research in the area of information seeking behaviour and thereby gives way for the emergence of new models, concepts and theories.